COOPERATIVE MARKETING OF FARM FOREST PRODUCTS AND ESTABLISHMENT OF SUSTAINED YIELD MANAGEMENT WITHIN A WORKING CIRCLE

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COOPERATIVE MARKETING AS IT RELATES TO AMERICAN AGRICULTURE AND THE FOREST INDUSTRY

Agricultural products.

The cooperative marketing and producing of products sold and bought on fully half of our 6,000,000 individual farms had its beginning about a century ago. For 1937-38 the Farm Credit Administration reports that there were 16,000 marketing and purchasing associations with a membership of 2,400,000 doing a gross business of $2,400,000,000.

One hundred and ninety-five associations reported sales of more than $1,000,000 each, and 36 associations made sales in excess of $10,000,000 each. If all types of farmer-owned and farmer-controlled mutual companies are included, there are more than 15,000 of these companies.

Farmers sell cooperatively such as cotton, dairy products, fruits, vegetables, grains, livestock, poultry products, tobacco, wool and other farm products. They purchase cooperatively all kinds of farm supplies and equipment.

[1] Cooperative Marketing of Agricultural Products, Farm Credit Administration.


COOPERATIVE MARKETING OF FARM FOREST PRODUCTS
AND
ESTABLISHMENT OF SUSTAINED YIELD MANAGEMENT
WITHIN A WORKING CIRCLE

CHAPTER I

Scope of Cooperative Marketing as it Relates to American Agriculture and the \textsuperscript{st} Humble Industry

Agricultural Products:

The cooperative marketing and purchasing of products sold and bought on fully half of our 6,800,000 individual farms had its beginning about a century ago.\(^1\) For 1937-38 the Farm Credit Administration reports that there were 10,900 marketing and purchasing associations with a membership of 3,400,000 doing a gross business of $2,400,000,000.\(^2\)

Two hundred and ninety-five associations reported sales of more than $1,000,000 each, and 34 associations made sales in excess of $10,000,000 each.\(^3\) If all types of farmer-owned and farmer-controlled mutual companies are included, there are more than 15,000 of these companies.

Farmers sell cooperatively cotton, dairy products, fruits, vegetables, grains, livestock, poultry products, tobacco, wool and other farm products. They purchase cooperatively all kinds of farm supplies and equipment.

\(^1\) Cooperative Marketing of Agricultural Products, Farm Credit Administration.

\(^2\) Statistics of Farmers' Marketing and Purchasing Cooperatives, 1937-38 Marketing Season.

\(^3\) A Statistical Handbook of Farmers' Cooperative Credit Administration.
In the West, where irrigation is necessary, the farmers have developed their own cooperative irrigation associations. Thousands of farmers protect life and property through their own cooperative insurance companies. Telephones and electricity for light and power are installed in farm homes through cooperative effort. They borrow and save money through cooperative banking agencies.

Cooperative Marketing of Forest Products:

The American farmer by trial and error has established a vast cooperative business. In spite of the gradual and sound development in the cooperative marketing and purchasing of products on the farm, little progress has been made in the cooperative marketing of farm forest products. A few cooperatives have departments for handling timber products. The California Fruit Growers' Exchange supplies its members with shuck for boxes through the Fruit Growers' Supply Company, which carries on extensive lumber operations. During 1938, citrus growers used 4,851 cars of shuck. A cooperative in the State of Wisconsin sold about $35,000 worth of forest products for its members in 1938. In the State of Maine a group of farmers operate a cooperative sawmill. Although there is record of an agricultural cooperative enterprise which operated a sawmill in the Middle West in 1844, and which lasted for six years, there are today comparatively few such mills throughout the country that are owned and operated by farmers. It was not until after the World War that the cooperative marketing of forest products
became prevalent in the northern European Countries.

In this country, the subject is not mentioned in the professional Journals of the Society of American Foresters until 1912, when F. F. Moon, former Dean of the New York State College of Forestry, suggests that the cooperative marketing of forest products would be an aid to private forest owners. F. W. Besley, State Forester of Maryland, mentions the subject again in 1919 in an article entitled, "Marketing of Timber from Farm Woodlands." In 1929, W. R. Mattoon, United States Forest Service, brings the subject up again in an article entitled, "Managing Farm Woodlands." In an article on forestry in England by Moore, that appears in a 1932 Journal, he suggests cooperative marketing as a way to market forest products from small units in that country. In 1930, Shepard presents an essay, "Cooperative Control." This article deals with the broader aspects of the forestry problem:

"The first step in the solution now proposed, therefore, demands the creation of specific instrumentalities for cooperative control of forest exploitation and over-production, and the financial strengthening of the forest industries."

In a 1934 Journal, in an article by Rathbun and Stevens, there was a preliminary statement to the effect that Governor Roosevelt, in receiving foresters from the New York and New England Sections of the Society of American Foresters at his estate during September, 1931, suggested the possibility of cooperative effort whereby a group of small
forest owners might pool their interests by cooperative methods.

The subject of cooperative marketing of forest products appears again in a 1936 Journal, when Barraclough and Herr present an article entitled, "Forest Products, Association Incorporated." Since then, the problem has, from time to time, been discussed in the Journal.

In a bulletin, published in 1937 by the Northeastern Forest Experiment Station in cooperation with the New York State College of Forestry, entitled, "Centralized Management and Utilization Adapted to Farm Woodlands in the Northeast," the cooperative marketing of farm forest products is discussed at some length.

One of the first bulletins on the subject of cooperative marketing of forest products was published by the United States Department of Agriculture. The author A. F. Hawes, then Extension Specialist in Forestry, now the State Forester of Connecticut, titled the bulletin "Cooperative Marketing of Woodland Products." The following statement is made concerning the problem of woodland management and the marketing of farm woodland products:

"In the United States the tendency in the past has been to develop wood-using industries as temporary affairs entirely apart from the community life. Forest resources have been exploited on such a large scale that imported labor has been required to supplement the local labor. The result is that after a few years' operations the timber resources are gone, and there is no profitable winter work for the farmers. This has been one of the important causes for the abandonment of farms and whole communities in the less favorable agricultural regions."
It is not claimed that cooperative marketing associations alone will rectify all the mistakes of the past, but it is believed that they may be a great service in building up permanent wood-using industries near the base of supplies, and in developing more prosperous rural communities."

At the present time there are at least six known forest products marketing cooperatives operating with the purpose of stabilizing the market for farm forest products, and, at the same time, having the objective of bringing about the Sustained yield management on farm woodlands within areas served by the cooperatives. These cooperatives are as follows: - The Forest Products Association, Incorporated, organized in November, 1935, located at Groveton, New Hampshire, and serving farm woodland owners in Coos County, New Hampshire and Essex County, Vermont. Otsego Forest Products Cooperative Association, Incorporated, organized in December, 1935, located at Cooperstown, New York, and serving farm woodland owners in Otsego County. The West Virginia Forest Products Association was organized during 1937, and is serving the farm woodland owners in an area around Terra Alta, Preston County, West Virginia. The Tioga Woodland Owners Cooperative Association, Incorporated, organized during 1938, is serving the farm woodland owners in Tioga County, New York. During February 1939, the Hills Forest Products Association, Hills Wisconsin was incorporated. In September 1939, a similar Forest products Cooperative was organized at Frog Creek Wisconsin. Others are in the process of being organized.
The Public Attitude Toward Timber Production.

The slow progress in the field of cooperative marketing of farm forest products, as compared with other agricultural products, is in line with the general public attitude toward the conservation of timber resources. Because of the abundance of virgin timber which still exists on the West Coast, timber continues to be regarded somewhat as a resource to be mined, instead of as a crop which should be grown and managed. Until fairly recently, farmers and timber owners had the opportunity to migrate to new frontiers where soils were fertile, and the timber resources abundant and cheap. In the agricultural development of a new country the settlers in the timber regions were confronted with the problem of destroying forests, in order to make room for the production of agricultural crops. With this background woodland owners have naturally placed little importance on the necessity of sustained yield management of forest resources. Agricultural workers employed to advise farmers, seldom are trained to recognize the importance of growing and marketing forest products as a part of the farm business.

As the crest of the lumber industry advanced from the East to the West, the thickly populated centers of the East have become more and more dependent upon the timber supplies of the West Coast. Today New England people import 55.4 percent of the lumber used in that section. The geographical shift in lumber production within the United States is best shown in the following table.
### TABLE I

Percentage of Lumber Produced in the United States in Sections, 1850-1937 (1)

<table>
<thead>
<tr>
<th>Section</th>
<th>1850</th>
<th>1870</th>
<th>1880</th>
<th>1899</th>
<th>1909</th>
<th>1919</th>
<th>1929</th>
<th>1936</th>
<th>1937</th>
</tr>
</thead>
<tbody>
<tr>
<td>Northeastern</td>
<td>54.8</td>
<td>37.6</td>
<td>25.8</td>
<td>16.3</td>
<td>11.7</td>
<td>7.5</td>
<td>3.3</td>
<td>3.6</td>
<td>3.6</td>
</tr>
<tr>
<td>Central</td>
<td>18.6</td>
<td>20.0</td>
<td>18.4</td>
<td>16.1</td>
<td>12.3</td>
<td>8.7</td>
<td>6.4</td>
<td>5.2</td>
<td>5.0</td>
</tr>
<tr>
<td>Southern</td>
<td>13.6</td>
<td>9.4</td>
<td>13.8</td>
<td>31.7</td>
<td>44.9</td>
<td>46.6</td>
<td>41.9</td>
<td>39.1</td>
<td>39.6</td>
</tr>
<tr>
<td>Lake States</td>
<td>6.3</td>
<td>24.4</td>
<td>34.7</td>
<td>24.9</td>
<td>12.3</td>
<td>7.8</td>
<td>4.8</td>
<td>3.8</td>
<td>3.9</td>
</tr>
<tr>
<td>Western</td>
<td>5.9</td>
<td>4.9</td>
<td>4.5</td>
<td>9.9</td>
<td>18.4</td>
<td>29.2</td>
<td>43.4</td>
<td>48.1</td>
<td>47.7</td>
</tr>
<tr>
<td>All Other</td>
<td>.8</td>
<td>3.5</td>
<td>2.8</td>
<td>1.1</td>
<td>.4</td>
<td>.2</td>
<td>.2</td>
<td>.2</td>
<td>.2</td>
</tr>
</tbody>
</table>


The peak of the per capita consumption of lumber was reached in 1904, when it was 504 board feet. In 1937 per capita consumption of lumber was 186 board feet. The drop in the per capita consumption is used in advancing the claim that the exploitation of our timber resources does not confront the nation with a serious problem. It is believed that, provided timber growth is afforded reasonable fire protection, the existing virgin timber supplies, along with new timber growth on cut-over areas, can be balanced with our future timber needs without the effort and expense of building up our depleted timber supplies. Some are even concerned as to what uses can be made of the bulk of the timber resources in the future other than for water-shed protection and recreational uses.

Shepard, in an article entitled, "Is Silviculture
Possible in America," which appeared in the December, 1930 issue of the Journal of Forestry, reasons as follows concerning the drop in the per capita consumption of lumber:

"Many of the recent discussions of the decline in lumber consumption have got the cause and effect transposed, in that they assert that declining consumption makes the practice of forestry impossible, and in fact, throws doubt on the importance of forests as a source of timber. -------- It is not true that the lack of forestry is due to the declining demand for lumber. On the contrary, the declining demand for lumber is primarily due to the lack of forestry."

**TABLE II**

Lumber Consumption by Regions (1)

<table>
<thead>
<tr>
<th>Region</th>
<th>1926</th>
<th>1930</th>
<th>1934</th>
<th>1936</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Million $%$ of</td>
<td>Million $%$ of</td>
<td>Million $%$ of</td>
<td>Million $%$ of</td>
</tr>
<tr>
<td></td>
<td>Ft. Total</td>
<td>Ft. Total</td>
<td>Ft. Total</td>
<td>Ft. Total</td>
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<tr>
<td>Northeast</td>
<td>9891</td>
<td>26.0</td>
<td>5997</td>
<td>25.7</td>
</tr>
<tr>
<td>Lake</td>
<td>3721</td>
<td>9.8</td>
<td>2086</td>
<td>8.9</td>
</tr>
<tr>
<td>Central</td>
<td>7980</td>
<td>20.9</td>
<td>4480</td>
<td>19.2</td>
</tr>
<tr>
<td>Prairie</td>
<td>1573</td>
<td>4.1</td>
<td>1305</td>
<td>5.6</td>
</tr>
<tr>
<td>So. Atlantic</td>
<td>1741</td>
<td>4.6</td>
<td>976</td>
<td>4.1</td>
</tr>
<tr>
<td>North. Pacific</td>
<td>2673</td>
<td>7.0</td>
<td>2165</td>
<td>9.3</td>
</tr>
<tr>
<td>No. Rocky Mt.</td>
<td>467</td>
<td>1.2</td>
<td>357</td>
<td>1.5</td>
</tr>
<tr>
<td>So. Rocky Mt.</td>
<td>620</td>
<td>1.6</td>
<td>561</td>
<td>2.4</td>
</tr>
<tr>
<td>South</td>
<td>5846</td>
<td>15.3</td>
<td>2978</td>
<td>12.8</td>
</tr>
<tr>
<td>South Pacific</td>
<td>3607</td>
<td>9.5</td>
<td>2447</td>
<td>10.5</td>
</tr>
<tr>
<td>Total</td>
<td>38119</td>
<td>100.0</td>
<td>23343</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Lumber Production by Regions

<table>
<thead>
<tr>
<th></th>
<th>1926</th>
<th>1930</th>
<th>1934</th>
<th>1936</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Million % of Ft. Total</td>
<td>Million % of Ft. Total</td>
<td>Million % of Ft. Total</td>
<td>Million % of Ft. Total</td>
</tr>
<tr>
<td>Northeast</td>
<td>1409</td>
<td>995</td>
<td>698</td>
<td>880</td>
</tr>
<tr>
<td>Lake</td>
<td>2047</td>
<td>1326</td>
<td>596</td>
<td>938</td>
</tr>
<tr>
<td>Central</td>
<td>1987</td>
<td>1367</td>
<td>909</td>
<td>1258</td>
</tr>
<tr>
<td>Prairie</td>
<td>63</td>
<td>73</td>
<td>39</td>
<td>46</td>
</tr>
<tr>
<td>So. Atlantic</td>
<td>2568</td>
<td>2018</td>
<td>1319</td>
<td>2001</td>
</tr>
<tr>
<td>South</td>
<td>13003</td>
<td>8140</td>
<td>4592</td>
<td>7527</td>
</tr>
<tr>
<td>No. Pacific</td>
<td>12001</td>
<td>9156</td>
<td>5444</td>
<td>8650</td>
</tr>
<tr>
<td>So. Pacific</td>
<td>2188</td>
<td>1514</td>
<td>1015</td>
<td>1648</td>
</tr>
<tr>
<td>No. Rocky Mt.</td>
<td>1326</td>
<td>1137</td>
<td>629</td>
<td>1019</td>
</tr>
<tr>
<td>So. Rocky Mt.</td>
<td>344</td>
<td>325</td>
<td>253</td>
<td>388</td>
</tr>
<tr>
<td>Total</td>
<td>36936</td>
<td>26051</td>
<td>15494</td>
<td>24355</td>
</tr>
</tbody>
</table>

As available timber supplies for a region become depleted, and the quality progressively poorer, local wood-using industries and lumber yards using native lumber become fewer, the farmers and other woodland owners find it increasingly difficult to market their available merchantable timber. On the basis of over 600 million feet of white pine logs secured in New England in 1939 by the Northeastern Timber Salvage Administration, less than 10 per cent of the logs graded common and better.

In the Northeast, the farmer is often confronted with the problem of owning large acreages of woodlands that gradually yield less and less revenue. If the timber resources
on the farm woodlands are to be developed to a point where available forest products will warrant the establishment of permanent wood-using industries, and be able to supply the lumber yards with suitable local lumber, the necessary action must be taken to build up the timber resources on farm woodlands and on other private holdings. In order to interest woodland owners in the problem of sustained yield management, the solution must be sufficiently practical to encourage the majority to attack the problem on their own woodlands.

Eventually, if there is to be wide-spread woodland management, the public regulation of private woodlands will be necessary. Public regulation, however, will be ineffective unless a substantial number of woodland owners are convinced as to the importance and the practicability of building up the timber resources on their own lands. If this support of woodland owners is to be saved, there should be offered an orderly plan for the marketing of farm woodland products, coupled with an intensive educational program of sustained yield management.

In recommending a program of marketing and sustained yield management to farm woodland owners in any area, it is important to know the degree of depletion of the farm woodlands. Such knowledge will help determine the intensity and the type of forest marketing program that can be developed. After the kind of forest marketing program suitable for an area has been determined, the details of the program must be developed. If it involves only a working arrangement between the woodland
owners and the wood-using industries in a region, a satisfactory program of action agreeable to all parties should be developed. In working out an agreement between the woodland owners and the wood-using industries, it is important to focus attention on the long-time objective of building up the timber resources as well as on agreeing upon the immediate problems of prices, grades, quality, and quantity of forest products to be marketed. In some areas, it may be desirable for the farmers to market their forest products cooperatively.

If a forest product's association is to be organized, it is important to have an understanding of cooperative marketing problems. The successes and failures experienced in agricultural cooperative marketing should be carefully analyzed by any group of farmers interested in organizing a forest product's cooperative.

If the objective in a region is to build up the forest resources along with a program of improved marketing of forest products, organized marketing must be very closely allied with the scientific management of farm woodlands. Finally, any program of marketing and sustained yield management must be practical, if the woodland owners are to participate freely in the program. Unless they can realize some immediate return for their labor, directed towards sustained yield management of woodlands so as to meet future needs, there is little likelihood that they will have an active interest in the project. The purpose of this study is to obtain some understanding of the problems related to the orderly marketing
of farm woodland products, and also to determine the feasibility of correlating sustained yield management of farm woodlands with such a program.
CHAPTER II

IMPORTANCE OF PROGRAM OF FOREST PRODUCTS MARKETING IF FARMERS ARE TO BE ENCOURAGED TO REHABILITATE THEIR WOODLANDS

DEGREE OF DEPLETION OF FARM WOODLANDS IN ANY AREA IMPORTANT IN DETERMINING THE INTENSITY AND KIND OF FOREST MARKETING PROGRAM.

The greater the degree of depletion of the timber resources on the farm woodlands in any area, the more difficult it becomes to justify an organized marketing program. Depletion of timber resources leads to the liquidation of the wood-using industries of an area, until a point is reached where only scattered portable mill operators spasmodically continue to manufacture poorly sawed lumber from poor quality logs. The problem in determining whether an organized forest marketing program for an area is justified, depends largely upon the available merchantable timber, the character and amounts of growing stock to meet future needs, available markets, and finally, the attitude and interest of the people.

The Worcester County Land-use Study (1)

One of the objectives of the unified Agricultural Land-use Study for Worcester County is to attempt to get at the problem of woodland management as it relates to land use. At present, the per acre volume of wood on the average farm woodland is approximately 1,000 cubic feet of mediocre quality young growing stock, suitable for the most part only for fuel.

(1) Land-use Planning Project, Worcester County, Massachusetts.
The bulk of the stands are even-aged, and are cut every 40 years or oftener. Each new crop of hardwood becomes progressively poorer in quality. If the woodland owners would attempt to build up the growing stock on their lands, they could harvest annually for the next twenty-five years, less than 20 cubic feet per acre of the poorer grades of wood, leaving the good growth for the future crop. The value of farm woodland products cut annually in Worcester County amounts to $663,398. (1) It is questionable whether a sufficient number of farm woodland owners over a contiguous area in the county could be persuaded to support a forest products marketing cooperative, coupled with a program of sustained yield management, so as to increase the income from the sale of cordwood and of other low-grade products to a point where the interested farmers would be justified in sponsoring such an effort. What little lumber might be handled by the cooperative would be of such poor quality that it would be difficult to interest the lumber industry, which can obtain, from other regions, reasonably priced quality, well manufactured lumber.

(Possible Forest Cooperative Marketing Project for the Town of Hardwick.)

In the Town of Hardwick, there is a small agricultural purchasing cooperative, through which the farmers might market cordwood advantageously to nearby urban centers. An

(1) 1930 Federal Census.
association dependent largely upon cordwood for its financial existence would be competing with individual cordwood operators in a restricted and disorganized market. Roughly, an association handling only forest products, in order to support an office, a manager, office and field assistants, and to meet miscellaneous expenses without subsidization, needs to carry on sufficient business to allow at least $5,000 for operating expenses. Thus, if the association deducted 5% from the gross business, a $100,000 turn-over would be necessary. With an increased volume in business of a cooperative under efficient management, the per cent deducted for over-head should be proportionately less. During the year 1936 (1) the ratio of expenses to sales averaged 7.3 per cent for the entire group of agricultural cooperatives. If an association handling forest products acts as a bargaining agency and does no processing, the operating expenses should be low, since the membership will insist that a minimum amount be held back for over-head.

The gross business should be sufficient so that not more than five to eight per cent needs to be deducted to care for operating expenses and the carrying charges of a forest product's association. If the cooperative has borrowed funds upon which they are committed to pay interest and to amortize the loan, the operating expenses will be proportionally greater. Naturally a cooperative can be

(1) A Statistical Handbook of Farmers' Cooperatives, Farm Credit Administration.
operated at less cost if some form of subsidy is provided. While such an arrangement may be desirable in starting a forest products cooperative, the project, to be successful, will sooner or later need to be self-supporting. The following minimum budget necessary to operate a cooperative dependent entirely upon forest products, is suggested:

Manager's salary, minimum ................................... $2,000
Clerk ............................................................... 500
Travel ............................................................... 500

Additional Help:

Field man (per diem) ........................................... 1,000
Scaling, marking, etc. ........................................... 500
Office -- lights, telephone, miscellaneous ................. 500

Reserve, surplus, interest

Dependent upon structure of association stock -- 1,000
non-stock -- etc.

Total .......................... $5,500

If six per cent is deducted from the gross business in an association with a $5,500 budget, the cooperative would need to gross at least $91,000 annually. Of the six cooperative associations dependent upon forest products for an income, only one has carried on sufficient business in any one year, to earn enough so as to meet operating expenses. This one cooperative had an income of $141,564.24 for the fiscal year 1938-39.

If an existing agricultural cooperative, such as the one already operating at Hardwick, could work out a plan whereby forest products can be marketed for the members, the project
could be handled on a substantially smaller budget. It is evident that a forest products association must fit into the normal marketing scheme and not be superimposed upon existing marketing procedure. If the latter situation exists, the association could never expect the cooperation of the farmers, the industry or the consumers.

Other Areas where Cooperative Effort—The Marketing of Forest Products Might be Possible.

Before the hurricane of September 21, 1938, there were in the county restricted areas such as Petersham and vicinity, where small groups of farmers and other woodland owners might have improved upon the existing marketing facilities for disposing of their cordwood and a limited quantity of timber by marketing through an informal cooperative organization, or some existing agricultural cooperative.

Where a permanent wood-using industry is in operation, there is a possibility of working out some form of cooperative agreement between the industry and the farm woodland owners within the working circle. Because of the depleted condition of the woodlands in the country, there are few such establishments. In the northern part there is a cooperage plant that purchases pine logs locally. Perhaps the farm woodland owners could work out a satisfactory arrangement with this industry whereby the owners would be paid a premium if they (the owners) cut their timber according to recommended forestry practices. Certainly if the industry expects to sustain itself in its present location by the use of locally grown timber, it will be forced to adopt some such policy.
On the basis of available data and the observations made in the field, it would appear that there is not sufficient growing stock of suitable timber in the county which can be harvested on the basis of sustained yield management, to warrant any wide-spread program of organized marketing of forest products. Yet it has been estimated that if a way can be found to encourage farmers to build up their timber resources, the good growing lands in the county would support approximately a capital volume of about 12,000 board feet per acre, based on an 80-year rotation of good quality timber and would yield annually approximately 275 board feet per acre.

The following table, prepared for the land-use program in Worcester County is a comparison between present and future areas and volumes for 42 farms in the town of Hardwick. The volumes given in the tables exceed the volume found on the farm woodlands in the southern part of the county while in the northern half, the volume of growth on the farm woodlands would be greater.
![Table III](1)

**Present and Potential Production on Hardwick Farm Woodlands**

<table>
<thead>
<tr>
<th>Land-use Class</th>
<th>Acres</th>
<th>Per Acre</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Better Hardwoods</td>
<td>871.7</td>
<td>880.8</td>
<td>767,858</td>
</tr>
<tr>
<td>Softwood-better</td>
<td>212.7</td>
<td>1243.7</td>
<td>264,552</td>
</tr>
<tr>
<td>Hardwoods</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Softwood</td>
<td>228.6</td>
<td>1802.5</td>
<td>412,056</td>
</tr>
<tr>
<td>Inferior Hardwood</td>
<td>210.4</td>
<td>512.8</td>
<td>120,552</td>
</tr>
<tr>
<td>Softwood-inferior</td>
<td>100.8</td>
<td>667.1</td>
<td>67,250</td>
</tr>
<tr>
<td>Hardwood</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Indeterminate</td>
<td>3.1</td>
<td>-----</td>
<td>-----</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>1627.3</td>
<td>-----</td>
<td>1,632,238</td>
</tr>
</tbody>
</table>

**Future**

<table>
<thead>
<tr>
<th>Land-use Class</th>
<th>Acres</th>
<th>Per Acre</th>
<th>Total</th>
<th>Rotation Age</th>
</tr>
</thead>
<tbody>
<tr>
<td>Better Hardwoods</td>
<td>984.1</td>
<td>2195</td>
<td>2,160,100</td>
<td>80 years</td>
</tr>
<tr>
<td>Softwood-better</td>
<td>298.8</td>
<td>2897</td>
<td>865,624</td>
<td>80 &quot;</td>
</tr>
<tr>
<td>Hardwoods</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Softwood</td>
<td>570.9</td>
<td>4000</td>
<td>2,283,600</td>
<td>70 &quot;</td>
</tr>
<tr>
<td>Inferior Hardwood</td>
<td>43.8</td>
<td>1200</td>
<td>52,560</td>
<td>40 &quot;</td>
</tr>
<tr>
<td>Softwood-inferior</td>
<td>------</td>
<td>------</td>
<td>-------</td>
<td></td>
</tr>
<tr>
<td>Hardwood</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Indeterminate</td>
<td>3.1</td>
<td>2195</td>
<td>----</td>
<td>80 &quot;</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>1900.7</td>
<td>--------</td>
<td>5,361,884</td>
<td></td>
</tr>
</tbody>
</table>

(1) Table prepared by Cline, Munster, Worcester County Land-Use Study.
While it is possible within the next 40 years or so to increase the cubic volume of growth on 42 farms as shown in the table from 1,632,238 cubic feet to 5,361,884 cubic feet by silvicultural treatment, the questions arise whether it is practical and desirable, and, if the job should be done, what is the best procedure to adopt?

Public Assistance to Encourage Woodland Management on Private Lands.

It is generally recognized that the woodland owner cannot afford to build up the timber resources on his woodlands after they have been badly depleted unless he is materially encouraged through some form of public subsidy. However, farmers who have woodlands which are reasonably stocked with varying age classes of timber, are in a position to manage their woodlands properly as a part of their farm business. Farmers, other woodland owners, and lumbermen often argue that there is little need for building up the timber resources in an area since sufficient quantities of timber can be imported from regions where it has not been depleted, and, furthermore, there is more than enough available locally to supply the demand.

While it is now possible to supply sufficient timber to meet the needs of the people in areas where the forests have been exploited, depleted woodland areas do not create local industry nor employ idle hands. Extensive areas of cutover timber lands prevent a stabilized local economy. Also, if no attempt is made to build up the timber resources in a region, the problem arises as to the future ownership of
woodland. An intensive educational program coupled with a program of better marketing, a reasonable method of taxing growing timber, and a small subsidy for good forestry practices as now allowed under the Agricultural Conservation program, should go a long ways in persuading farmers to apply good forestry practices in the management of their woodlands.

Along with a comprehensive program for getting forestry practiced on farm woodlands, there should be adopted an adequate program that will bring about good management practices on thousands of acres of woodlands. Extensive woodland areas, such as in the New England states, upon which the resources have been badly depleted are a definite hindrance to the development of sound agriculture.

While large areas of poor producing and exploited woodlands may logically go into public ownership, the shift will be slow, and the extent of public ownership must be limited if serious social consequences are to be avoided. A number of solutions to the problem of building up depleted timber resources on private holdings through public subsidy has been suggested.

A program of leasing woodlands by the government from individual owners with the purpose of building up the resources thereon has been suggested as a solution applicable to the problem. While the proposal appears to get around the difficulty of cost that retards the individual from undertaking a program of forest restoration on depleted areas, there are many objections, such as centralized control, administrative difficulties, the loss of interest of the
owner in the management of his woodlands, and the failure to reach basic difficulties.

It has also been suggested that the public might gradually take over the depleted woodlands within a region and undertake the job of growing a new timber crop. As the timber on such holdings reaches merchantability, it is proposed that the government should not dispose of its timber holdings, but instead should sell stumpage, thus giving the public control over the cutting practices.

There is increasing sentiment favoring regulatory legislation requiring that woodland owners be obliged to manage their timber lands so as to sustain suitable timber growth.

While it is generally recognized that more drastic measures are necessary in order to bring about eventually sustained yield management on depleted woodlands, it must be recognized that programs requiring close cooperation of the individual and of the state need to be accompanied by a program of intensive education. As woodland owners become interested in the better management of their woodlands, as a result of educational effort, they will in time insist upon more favorable forestry legislation, such as tax reform, and even forest regulation, and will demand that the public assume greater responsibility in building up timber resources on private holdings. Regulatory measures applicable to woodlands can be made simple and decentralized. In states where the necessary enabling legislation has been approved, it is possible to develop a program of local regulation within
the confines of a soil conservation district, as provided for under the provisions of the Soil Conservation Act. If the educational program is well done, and the desired results are accomplished within a county or working circle, the depleted growing stock will eventually have reached a point where organized marketing becomes feasible.
CHAPTER III

GENERAL CONSIDERATION OF FARM FORESTRY MARKETING PROGRAMS

Since an organized forest marketing program may not result in the betterment of the market for the farm woodland owners, it is important to make a careful analysis of the problem before a project is undertaken. It may be found in the light of facts brought out in a survey, that a contemplated marketing program is inadvisable.

In any area where the woodland owners may be interested in starting an organized marketing program, it is important to know by species and age classes, the approximate volume of merchantable and unmerchantable growing stock on the farm woodlands of the area. The present annual growth should be determined along with an estimate of the future annual growth, on the assumption that the woodlands are to be managed on the basis of sustained yield. If the individual woodland owners are to be encouraged to practice forestry, type maps and management plans for the individual farm holdings are desirable, although this phase of the project is not necessary until after the marketing program gets under way.

Beside information of present yield and potential production under good forest management, the possible markets for forest products need to be carefully analyzed. What are the kinds and amounts of forest products purchased within the area? Are the wood-using industries that purchase forest products in the working circle dependent upon their timber supply locally, or is much of the material imported? Is the annual output of forest products more than the annual
growth? What is the present purchase policy of the industry in the area? Will an organized marketing program be a means of increasing the farmer's income, or will such a program decrease his income because of additional costs that it entails?

Last, but most important, what is the attitude of the farm woodland owners and of the industry toward an organized marketing program? Even though a program might be fully justified, if a sufficient number of farmers and the industry are unwilling to support a revised program of marketing, little progress can be made until there is a better understanding of the objectives.

It is possible that if wood-using industries could be persuaded to take leadership in cooperating with the woodland owners from whom they purchase forest products in a program of marketing and of woodland management, on a basis mutually satisfactory to all interests, there would be less need for farm woodland owners to organize for the purpose of marketing their forest products. However, the general practices followed by the industry in the purchase of forest products from farm woodlands has generally led to dissatisfaction on the part of the woodland owners and to the depletion of the resources accessible to the industry. Even if industry were to assume the responsibility of encouraging good woodland management and pay fair and uniform prices for forest products when dealing with the small woodland owners, the cooperative marketing association would still have an important place as a bargaining agency that would serve both parties advantageously.
(1) The Division of State and Private Forestry of the United States Forest Service lists the following favorable and unfavorable points to be considered in establishing a sustained yield management project for farm woodlands in any area.

**Favorable**

- Taxes usually are of minor importance, as the main burden usually falls on other property, such as agricultural land and buildings.
- Accessibility of tracts.
- Woodland is extremely important as source for winter employment for owner and hired help.
- Partial cutting is financially practicable.
- If owner is a farmer he readily understands the principles of raising a "crop" as applied to forest land.

**Unfavorable**

- No accurate figure on volume of timber owned, hence owner is at mercy of stumpage buyer.
- Markets are limited due to unfamiliarity of owner with utilization of species.
- Inexperience in woods work often results in poorly manufactured products.
- No knowledge of the principles of forestry.
- Volume sold from individual tracts so small as to be relatively unimportant as a market factor. Products consequently bring unsatisfactory prices.

---

(1) Sustained Yield Management Projects, January 31, 1939—Francis S. Fuller, United States Forest Service.
The kind of forest marketing program suitable for a working circle that will aid in stimulating sustained yield management on farm woodlands is dependent upon the existing markets, the conditions of the growth, and the attitude of the owners. Forestry made its start in this country at the turn of the century. Its progress, measured in terms of the increase in number of professional foresters who generally are looked upon to bring about the practice of forestry in the woods, has been rapid. Starting with less than a dozen foresters five decades ago, there are today over 5000 professional foresters working in the many fields of forestry. Aside from teaching and research, most of the foresters are employed in the administration of public forest lands, which have increased from a few thousand acres forty years ago, to a total public ownership of 120,788,000 acres of commercial forest area. While progress has been comparatively rapid in the acquisition and the development of public forest lands, little or no advance has been made in forestry as it relates to private lands. Within recent years a rather comprehensive forest fire protection system has been developed for all woodland areas.
### TABLE IV
Ownership of Commercial Forest Areas of the United States

All Areas. (1)

<table>
<thead>
<tr>
<th>Region</th>
<th>All Areas</th>
<th>National Forest</th>
<th>Indian Reservation</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Thousands of Acres</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Northeastern</td>
<td>59,376</td>
<td>1,307</td>
<td>---</td>
<td>222</td>
</tr>
<tr>
<td>Central</td>
<td>29,231</td>
<td>1,329</td>
<td>---</td>
<td>111</td>
</tr>
<tr>
<td>Lake</td>
<td>52,395</td>
<td>5,522</td>
<td>771</td>
<td>525</td>
</tr>
<tr>
<td></td>
<td>141,002</td>
<td>8,158</td>
<td>771</td>
<td>858</td>
</tr>
<tr>
<td>South Coastal Plain</td>
<td>62,534</td>
<td>2,296</td>
<td>---</td>
<td>584</td>
</tr>
<tr>
<td>Piedmont</td>
<td>49,372</td>
<td>1,799</td>
<td>---</td>
<td>502</td>
</tr>
<tr>
<td>Mountain</td>
<td>38,408</td>
<td>3,861</td>
<td>43</td>
<td>308</td>
</tr>
<tr>
<td>Delta</td>
<td>12,324</td>
<td>14</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Pine-Hdwd.West</td>
<td>39,893</td>
<td>3,388</td>
<td>1</td>
<td>111</td>
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<tr>
<td></td>
<td>202,531</td>
<td>11,358</td>
<td>44</td>
<td>1,506</td>
</tr>
<tr>
<td>Pacific Northwest</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>West Coast</td>
<td>25,790</td>
<td>7,329</td>
<td>220</td>
<td>2,339</td>
</tr>
<tr>
<td>Interior</td>
<td>48,052</td>
<td>27,506</td>
<td>3,180</td>
<td>1,504</td>
</tr>
<tr>
<td></td>
<td>73,842</td>
<td>34,835</td>
<td>5,402</td>
<td>3,843</td>
</tr>
<tr>
<td>California</td>
<td>13,655</td>
<td>6,696</td>
<td>115</td>
<td>---</td>
</tr>
<tr>
<td>S. Rocky Mts.</td>
<td>30,653</td>
<td>20,418</td>
<td>2,052</td>
<td>2,650</td>
</tr>
<tr>
<td>Plains</td>
<td>14</td>
<td>14</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Total--U.S.</td>
<td>461,697</td>
<td>81,479</td>
<td>6,384</td>
<td>8,857</td>
</tr>
</tbody>
</table>

(1) Lumber Industry Facts 1939
### TABLE IV (cont.)

Ownership of Commercial Forest Areas of the United States

All Areas (1)

<table>
<thead>
<tr>
<th>Region</th>
<th>State, County &amp; Municipal</th>
<th>Farm Woodlands</th>
<th>Industrial and other</th>
<th>Private Thousands of Acres</th>
</tr>
</thead>
<tbody>
<tr>
<td>Northeastern</td>
<td>3,443</td>
<td>17,083</td>
<td>37,271</td>
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<tr>
<td>Central</td>
<td>250</td>
<td>20,364</td>
<td>7,177</td>
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<tr>
<td>Lake</td>
<td>14,039</td>
<td>15,060</td>
<td>16,478</td>
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</tr>
<tr>
<td></td>
<td>17,782</td>
<td>52,507</td>
<td>80,826</td>
<td></td>
</tr>
<tr>
<td>South</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coastal Plain</td>
<td>641</td>
<td>18,673</td>
<td>40,339</td>
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</tr>
<tr>
<td>Piedmont</td>
<td>791</td>
<td>31,059</td>
<td>15,221</td>
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<tr>
<td>Mountain</td>
<td>133</td>
<td>18,805</td>
<td>15,258</td>
<td></td>
</tr>
<tr>
<td>Delta</td>
<td>105</td>
<td>3,596</td>
<td>8,609</td>
<td></td>
</tr>
<tr>
<td>Pine-Hdwd. West Total</td>
<td>26</td>
<td>11,483</td>
<td>24,884</td>
<td>104,311</td>
</tr>
<tr>
<td>Total</td>
<td>1,696</td>
<td>83,616</td>
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</tbody>
</table>

**Pacific Northwest**

<table>
<thead>
<tr>
<th>Region</th>
<th>State, County &amp; Municipal</th>
<th>Farm Woodlands</th>
<th>Industrial and other</th>
<th>Private Thousands of Acres</th>
</tr>
</thead>
<tbody>
<tr>
<td>West Coast</td>
<td>1,653</td>
<td>1,549</td>
<td>12,650</td>
<td></td>
</tr>
<tr>
<td>Interior</td>
<td>2,400</td>
<td>27,668</td>
<td>12,792</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>4,053</td>
<td>2,267</td>
<td>25,442</td>
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<tr>
<td>California</td>
<td>45</td>
<td>326</td>
<td>6,473</td>
<td></td>
</tr>
<tr>
<td>S. Rocky Mts.</td>
<td>492</td>
<td>96</td>
<td>4,945</td>
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</tr>
<tr>
<td>Plains</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total--U. S.</td>
<td>24,068</td>
<td>138,812</td>
<td>202,097</td>
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</tr>
</tbody>
</table>

(1) Lumber Industry Facts 1939
In a few instances, lumber companies, where they control extensive holdings, have started to place their lands under sustained yield management. Much of the interest started as a result of the Conservation clause that was included in the Lumber Code under the N. R. A. in 1934.

The State Extension Foresters, and recently foresters in the Division of State and Private Forestry, United States Forest Service, and foresters in the Soil Conservation Service have worked with farm woodland owners in an effort to have the owners build up the timber resources. While foresters have changed the general attitude of woodland owners toward conservation—from a disregard of the problem to one of interest—the tangible results measured in terms of forestry practiced in the woods are few. A letter was sent in (March, 1939) to all extension and state foresters in the United States. In it they were asked to report cases in their respective states where there may be formal or informal arrangements between farmers, small woodland owners, and wood-using industries in a working circle or area, for the purpose of establishing satisfactory prices and of bringing about good forest management on the woodlands in the area. They were also asked to report "Any developments and information on the cooperative marketing of forest products."

In the majority of the states, the extension or state forester, or both answered the letter. The comments made by the foresters in the various states are as follows:
ALABAMA

"-------- I regret to state that as yet I know of no cases where there exist formal or informal arrangements between farmers and small woodland owners and woodusing industries in a working circle or area, for the purpose of cooperatively marketing farm forest products."

"I am, however, interested in progress made along this line, for there is definite need in Alabama, as elsewhere, that farmers be assisted with measuring and marketing farm timber products cooperatively."

ARKANSAS

"I take pleasure in furnishing the following information. The Ozark Lumber Company of Prescott, Arkansas, is now purchasing stumpage from timberland owners under a verbal management agreement, whereby the Company makes a management plan and marks the timber for the landowner, paying a good stumpage price, and in return having a verbal option on any future stumpage sales or eventual purchase of the timber land, depending upon the wishes of the owner. The Ozark Lumber Company has some six to eight thousand cases of small ownerships under the above arrangement."

"Similar policy is pursued by the Ozark Badger Lumber Company of Wilmar; the Fordyce Lumber Company, and several other lumber companies are paying a premium on pine timber cut selectively by small owners. This policy is pursued by the Union Saw Mill Company and the Crossett Lumber Company."

CALIFORNIA

"-------- we are still in the pioneer stages, and any kind of care of farm woodlands is just beginning to be thought of. In many places, owners of good, second-growth pine stands are clear-cutting them for fuel wood."

"A few are giving some thought to the matter, and the Soil Conservation Service has a number of good management demonstrations started within their project area --------."

COLORADO

"Our forestry work has to do with the development of protection plantings on farms for wind and erosion control, rather than woodlot management."

CONNECTICUT

"-------- prior to the hurricane we had some work started in western Connecticut, looking to the formation of
a sustained yield unit. The last report, 10,000 acres had been surveyed. I don't believe we had in mind any local wood-using industry, other than a small handle factory whose requirement of native wood is rather limited. Rather, it was our idea to attempt to find markets for material that might be cut as it became available--

**FLORIDA**

"Replying to your letter asking for examples of arrangements, formal or informal, between farmers or timberland owners and woodusing industries for the purposes of establishing satisfactory prices and to bring about good forest management. We know of no definite plans along these lines in Florida."

**IDAHO**

"There are no projects of the type which you describe in this state."

**ILLINOIS**

"----- we do not have any cooperative agencies, either for the marketing or management of farm woodlands, in this state."

**INDIANA**

"The bulletin on the Dubois County timber survey is the only thing we have that bears upon the problem."

**IOWA**

"We have no cases to report where arrangements are made between farmers and woodusing industries for the purpose of establishing a satisfactory price, but plans are being laid for a cooperative in southeastern Iowa."----

**KANSAS**

"-----we haven't any cooperatives for marketing wood products in this state. There is need for such an organization, particularly for marketing fence posts."

**MAINE**

A cooperative sawmill owned by a group of farmers. No attempt to bring about forest management as a part of the project.
MARYLAND

"I have never heard of an instance in Maryland where there is any working agreement between woodland owners and woodusing industries for the purpose of establishing a satisfactory price. One pulp company contracts with farmers for wood, but the mill sets the price on the basis of the price their competitors are paying."

"The Maryland Sustained Yield Project has not reached the point where we have taken up a discussion of prices of timber with the industries."

MASSACHUSETTS

"There are a few stationary sawmill men who are interested in assisting farmers and small woodland owners to manage their woodlands for sustained yield. These cases might be described as informal arrangements rather than any previous formal arrangements having been made between the two."

MICHIGAN

"I do not know of any such marketing organization in the state. In the upper peninsula a few of the Finnish cooperatives handle forest products for their members, but forest management is not attempted."

MINNESOTA

"I do not know of any agreement between farmers, small woodland owners and woodusing industries in regard to establishing prices for his forest products."

"A Sustained Yield Management circle has been worked out with the International Falls Pulpwood Paper Company at International Falls, but that is more or less on a private forest scale, in conjunction with state and federal forest services."

MISSISSIPPI

"For the past several months, we have been working to develop cooperative marketing of forest products and in establishing a long-time contract between the farmer and the industry looking to the improvement of forestry practices and better prices. One company, in an effort to build up a permanent supply of wood immediate tributary to its plant, has made forest planting stock to nearby farmers free of charge."
NEW HAMPSHIRE

"Forest Products Association, Incorporated, Coos County."

NEW JERSEY

"I do not know of one case in New Jersey where there is a formal or informal arrangement between woodland owners and woodusing industries for the purpose of establishing better marketing practices and prices."

NEW YORK

"Otsego County Forest Products Cooperative, Inc. Tiogo Woodland Owners' Cooperative Association, Inc."

NORTH CAROLINA

"We have no examples, either formal or informal, that we would be justified in calling attention to, due to the fact that no management plans are involved in such arrangements."

NORTH DAKOTA

"Forestry does not go beyond the development of shelter belts and wind-breaks."

OKLAHOMA

"There are no cooperative arrangements such as you describe in Oklahoma, to our knowledge."

SOUTH CAROLINA

"We have nothing in this state on cooperative marketing of forest products, or formal or informal arrangements between woodlot owners and industry for marketing purposes."

TENNESSEE

"As far as I know, there are no such arrangements in effect."

UTAH

"There are no arrangements between farmers and small woodland owners and woodusing industries for the purpose of establishing satisfactory prices on the woodlands in such areas."
VERMONT

"I know of no Sustained Yield Management Unit." (The Forest Products Association, Incorporated, goes into Essex County, Vermont.)

VIRGINIA

"So far as I know there is no group of farmers or other timberland owners that are marketing their timber on a cooperative basis.

"The time may not be very far distant when a cooperative farm forest products marketing association may become a reality in Virginia."

The following statement was received from a representative of the Chesapeake Corporation at West Point, Virginia.

"We have been engaged for several years in carrying on an educational program with forest land owners in the nearby counties, seeking an improved cutting practice whereby such trees of pine may be left and also the undersized trees, those under 8 inches in diameter may be left."

"We maintain a forest nursery and planting stock is sold to farmers at $1.50 per thousand."

"While not every piece of land that is being cut over for pulpwood represents the ideal in forest management, there is much evidence throughout the countryside of the effectiveness of our program."

WASHINGTON

"There is nothing to report from this state since there is no cooperative marketing of farm forest products."

WEST VIRGINIA

West Virginia Forest Products Association.

The West Virginia pulp and paper company of Covington Virginia makes the following statement:

"For many years, we have been making suggestions to the people from whom we buy wood, and we never suggest anything unless we are sure that it will be beneficial to the man who is putting up the money, or the labor, or the timber."
The following two letters that have been sent to the woodland owners served by the West Virginia Pulp and Paper Company are typical of the letters sent out periodically by the company:

A TIMELY SUGGESTION FOR WOOD PRODUCERS

"Dry winds in the past 5 or 6 weeks have brought a considerable danger of fire in the woods. The leaves have been ruffled up and dried out so that they will burn freely on warm or windy days. Already there have been several large fires. Some of them have not been so disastrous as they would be with the sap up, but as you know, the sap is rising now. Any fires after this are likely to be very harmful."

"Considering the stake you have, not only in wood that may be on the ground, but also growing for future crops, would it not be wise not only to be very careful with fires, but also to give up smoking in the woods until the leaves have come out, or until there have been heavy soaking rains?"

"As you know, at this time of year, the effect of a heavy rain may be lost within a few days, when the wind is stirring and it may be that the ground is dry enough now so that the effect of the rain is more short-lived than ordinarily."

"We are mentioning this situation with the feeling that all of us depend a good deal for our well being on the future production of the forest. In view of the fact that almost all of the fires are caused by carelessness, or bad intent, will it not be worth while for all to make a special effort in the next three or four weeks to keep fires from starting?"

"If you do not already know where and how to get in touch with the nearest FOREST RANGER or FIRE WARDEN, why not find out at once so that in case of necessity, a fire can be reported with the least possible delay? Work by a few people at the start of a fire may be more effective than the efforts of a large crew two or three hours later."

YEAR-ROUND INCOME FROM WOOD

"More and more people each year are cutting their pulpwood with a view to the future. They are leaving a good growing stock of thrifty, fast-growing trees, and not trying to cut every little pole that would have a few sticks of wood. Not many straight trees under 8 inches in diameter are being cut in this section except in places that need thinning."
"As graded roads reach farther and farther into the hills, more and more owners are able to haul from woods to mills in the winter months. You can haul almost anywhere during much of the year, and that is the time to haul from soft places, or over springy ground. Wood on solid ground, or near solid roads, might well be saved for winter hauling."

"Many people are saving some kinds of timber for draw-knife peeling in the winter. Timber that is on a ridge road is best for winter hauling."

"There will always be times when even the best of roads should be spared, and pulpwood haulers have generally recognized that it is against their own interest, as well as against the public interest, to try to haul on soft roads. But there are long spells in most winters when most of the roads are dry and hard."

"Saving some wood now for winter hauling and saving some timber for winter peeling and hauling, need not hurt the roads, and may help spread employment and income over the dull months."

WISCONSIN

Some cooperative marketing of forest products by Finnish people, who operate general purpose cooperatives, so-called.

WYOMING

"Work is principally that of planting trees."

The following states made no reply to the letter:
Arizona; Delaware; Georgia; Kentucky; Louisiana; Missouri; Montana; Nebraska; New Mexico; Ohio; Texas; South Dakota; Oregon; Pennsylvania; Rhode Island.

It is apparent that only a few of the woodusing industries have made an effort to enlist the support of farmers and small woodland owners in building up their forest resources so that the industry can sustain itself in the locality where it is established. One of the important factors that probably has deterred cooperation of
this nature, is the general policy followed in the purchase of forest products by the industry. A great many of the woodusing industries let out the buying of wood to local contractors, who find it advantageous to purchase and cut all standing timber regardless of size at the lowest possible prices without regard for future considerations. Often farmers and small woodland owners, because of their ignorance in the matter relating to markets for forest products, have sold their timber at unreasonable prices. On the other hand, the farm woodland owners have not hesitated to take advantage of the industry in the sale of their forest products when the opportunity has presented itself.

Socially minded leaders of the forest products industry could perform a real public service aside from aiding their own cause by working out cooperative arrangements with farmers and other small land owners, that would provide satisfactory markets for farm forest products and would encourage the building up of the forest resources on the farm woodlands. A few of the woodusing industries in the States of Arkansas and Virginia have made a start in the right direction. Any arrangements of this nature need to come about as a result of mutual understanding by all parties concerned.

Some of the points that must be considered are fair stumpage and log prices based on satisfactory grades and log rules, agreement as to the amount of purchase of forest products from areas in proper relation to the annual growth, and a fair apportionment of the cut among the woodland owners.
These points should be supported by a long-time marketing agreement that is mutually acceptable to the industry and to the farmers. In such an agreement the industry should agree to accept forest products taken from farm woodlands only when cut according to recommended forestry practices. The industry also should agree to establish each year for farm products a fair market price acceptable to both parties. In return, the farm woodland owners would grant an exclusive market to the woodusing industry for the forest products available on their woodlands, exclusive of fuel wood and of timber for home use. An agreement of this nature between the industry and the farm woodland owner could be broken by either party upon sufficient notice, but provision should be made for mediation by a local forestry committee, selected by local people in a manner to allow for free and democratic action. In case of disagreement in the local committee, final appeal should be possible to a public official, such as the State Forester.
CHAPTER IV

COOPERATIVE HANDLING OF AGRICULTURAL PRODUCTS

The experience gained in the cooperative marketing of agricultural products can generally be applied in the cooperative marketing of forest products. A successful association must be managed along the lines of sound business principles that exist within the bounds of our competitive system. True cooperatives, based on the Rochdale principles, are organized so as to secure the greatest degree of democratic control and to develop a system of business carried on for the benefit of those whose labor and productive effort sustains the cooperative. Each person has, without proxy privileges, only one vote on matters that may come before the membership for decision, or in the election of a board of directors who determine the business policy of the cooperative. Dividends paid on invested capital are limited. All net earnings, after paying running expenses, and setting aside sufficient funds for capital reserve and for the retirement of loans, are prorated among the members on the basis of their participation in the organization. The membership is usually limited to those who participate in the business of the cooperative. There are many gradations from these principles, and often many so-called cooperatives are not true cooperatives, when judged on the general principles just outlined.

The federal government, in loaning money to a cooperative, sets up the following requirements in the provision of the Farm Credit Act of 1933, as amended (12 U.S.D. 114 Lj).
"As used in this Act the term 'Cooperative Association' means any association in which farmers act together in processing, preparing for market, handling, and for marketing the farm products of persons so engaged, and also means any association in which farmers act together in purchasing, testing, grading, processing, distributing, and for furnishing farm supplies and for farm business services; provided, however, that such associations are operated for the mutual benefit of the members thereof as such producers or purchasers, and conform to one or both of the following requirements:

First, that no member of the association is allowed more than one vote because of the amount of stock or membership capital he may own therein.

Second, that the association does not pay dividends on stock or membership capital in excess of 8 per centum per annum.

And in any case of the following:

Third, that the association shall not deal in farm products, farm supplies, and farm business services, with or for non-members in an amount greater in value than the total amount of such business transacted by it with or for members."

Kinds of Cooperatives

There are many variations in the financial structure of cooperatives. Where a certain procedure in financing has been successful with one cooperative, it has failed with another. Although failures are common, the percentage is no greater than in private business.

Agricultural cooperatives in the United States are classified according to basis of voting and according to legal status in the following table:

TABLE V

<table>
<thead>
<tr>
<th>Associations Classified According to Basis of Voting (1)</th>
<th>Number of Association</th>
<th>Per-cent of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basis of Voting</td>
<td></td>
<td></td>
</tr>
<tr>
<td>One member - one vote</td>
<td>9,219</td>
<td>86</td>
</tr>
<tr>
<td>Stock, or other forms of equity</td>
<td>1,335</td>
<td>12</td>
</tr>
<tr>
<td>Patronage</td>
<td>125</td>
<td>1</td>
</tr>
<tr>
<td>Other and unknown</td>
<td>73</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>10,752</td>
<td>100</td>
</tr>
</tbody>
</table>

(1) A Statistical Handbook of Farmers' Cooperatives, Farm Credit Administration.
TABLE VI

Classification of Associations According to Legal Status (1)

<table>
<thead>
<tr>
<th>Law Under Which Incorporated</th>
<th>Number of Associations</th>
<th>Percent of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cooperative Stock</td>
<td>5908</td>
<td>55</td>
</tr>
<tr>
<td>Cooperative Non-Stock</td>
<td>2375</td>
<td>22</td>
</tr>
<tr>
<td>General Corporation</td>
<td>1392</td>
<td>13</td>
</tr>
<tr>
<td>Not Incorporated</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>1077</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>10752</td>
<td>100</td>
</tr>
</tbody>
</table>

(1) A Statistical Handbook of Farmers' Cooperatives, Farm Credit Administration.

If the problems that have confronted the agricultural cooperatives during the last hundred years are understood, it will be possible to avoid many of those difficulties when a program of cooperative marketing of forest products is undertaken. Cooperation in agriculture has three major aspects:

(1) Selling growers products. This frequently includes the preparing, processing, and the transporting of the products to market.

(2) The purchasing of the supplies and services needed in agricultural production and marketing.

(3) Business Services associations which provide electricity, irrigation, insurance and other services for members. There is a fourth, consumer cooperatives, which is allied rather closely with purchasing cooperatives. Cooperative purchasing has reference to supplies and goods purchased by farmers to be used in production, such as feed,
fertilizer, machinery, etc., while consumer purchases have reference to clothing, food, etc., as used and consumed by the individual.

Conditions that Lead to Cooperative Organization

When farmers decide to organize a cooperative for the purpose of marketing their products, or of purchasing their supplies, or of acquiring a service by cooperative action, they are generally not satisfied with the prices received for products, or with the prices they pay for materials, or with the cost of the services they demand. Often where business services are demanded by farmers, it is a case of securing, for the first time, services by cooperative effort. In the case of marketing cooperatives, farmers are sometimes stimulated to organize a cooperative based on the theory that they can control prices by controlling the market. Associations organized in the early twenties under the leadership of the government in an effort to stabilize prices for agricultural products, attempted to control the prices, but experience has shown that the monopolistic control of a market is difficult to manage. A cooperative usually starts with the agitation of one, or of a few, individuals who center the farmer's attention upon some defect in the existing marketing system. Usually farmers join a cooperative with little or no knowledge of the principles of cooperative marketing, but they soon decide whether or not they have entered upon a sound business venture, although they may not comprehend the objectives and the workings of the cooperative. Any group of farm producers interested in organizing a
cooperative for the more orderly marketing of products should carefully consider the following points:

Need for a cooperative.

Potential membership and volume.

Market outlets.

Needed facilities.

Required capital and its probable sources.

Estimated operating costs.

Understanding of the entire program proposed for marketing products cooperatively.

**Economic Need for a Cooperative.**

The foundation upon which any cooperative rests is the economic need for it as a business enterprise, and without such a need, members will derive little or no benefit from it. Many of the failures of cooperative enterprises have resulted from lack of a thorough understanding that an association is primarily a business enterprise and should be regarded as such. If the problems of organization and management of a cooperative are carefully studied before it is organized, perhaps fewer associations would be incorporated, but there would be fewer failures. The following table shows the volume of business carried on by farmers buying and selling cooperatives for the marketing season, 1934-35. The table shows that Dairy Products cooperatives rank first in importance, followed by grain, fruits and vegetables, livestock, cotton, poultry and egg products. The principal function of marketing cooperatives is the marketing of agricultural products, although a wide range
of other services are performed, such as grading, processing, financing, warehousing, ginning, trucking, advertising, farm management, pest control, protection against frosts, etc. Of the 7,428 cooperatives engaged in marketing, primarily 73 percent of these perform other services. (1)

**TABLE VII**

<table>
<thead>
<tr>
<th>Farmers' Selling &amp; Buying Associations, Estimated</th>
<th>Cotton &amp; Cotton Products</th>
<th>Dairy Products</th>
<th>Fruit &amp; Vegetables</th>
<th>Grain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Associations listed</td>
<td>415</td>
<td>2,421</td>
<td>1,164</td>
<td>2,619</td>
</tr>
<tr>
<td>Estimated membership</td>
<td>350,000</td>
<td>700,000</td>
<td>164,000</td>
<td>360,000</td>
</tr>
<tr>
<td>Estimated business</td>
<td>$110,000,000</td>
<td>$686,000,000</td>
<td>$300,000,000</td>
<td>$475,000,000</td>
</tr>
<tr>
<td>Livestock</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nuts</td>
<td>926</td>
<td>52</td>
<td>194</td>
<td>11</td>
</tr>
<tr>
<td>Estimated membership</td>
<td>600,000</td>
<td>15,800</td>
<td>106,000</td>
<td>70,000</td>
</tr>
<tr>
<td>Estimated business</td>
<td>$312,000,000</td>
<td>$15,800,000</td>
<td>$91,000,000</td>
<td>$13,000,000</td>
</tr>
<tr>
<td>Poultry &amp; Poultry Products</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wool &amp; Mohair</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Associations listed</td>
<td>130</td>
<td>368</td>
<td>2,600</td>
<td>10,900</td>
</tr>
<tr>
<td>Estimated membership</td>
<td>50,000</td>
<td>84,200</td>
<td>900,000</td>
<td>3,400,000</td>
</tr>
<tr>
<td>Estimated business</td>
<td>$11,000,000</td>
<td>$35,900,000</td>
<td>$350,000,000</td>
<td>$2,400,000,000</td>
</tr>
<tr>
<td>Miscellaneous Selling</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Purchasing</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(1) Farmers Cooperatives Increase—by French N. Hyre, Agricultural Economist, Farm Credit Administration, Extension Service Review, October, 1938, Vol. 9, No. 10.
The assets of marketing and purchasing cooperatives (1) amount to $510,846,000, and of this amount $287,860,000 was contributed by members, either by original contributions or by accumulated savings. The cooperatives have borrowed capital amounting to $109,561,000 for which they have given notes and mortgages. In addition to this amount, they have borrowed $54,194,000 which they have obtained on open accounts and from other sources. (2)

Farmers' Mutual Fire Insurance Companies represent one of the oldest forms of farm cooperative activity. However, marketing and purchasing cooperatives are not new. More than 2,000 now active cooperatives have been operating continuously for more than 25 years. A few date back to 1870, where they were organized in the midwestern states at the start of the Grange movement. Cooperative cotton gins and purchase cooperatives handling petroleum products are relatively new in this country. (3)

TABLE VIII

<table>
<thead>
<tr>
<th>Age</th>
<th>Number of Associations</th>
<th>Percent of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 6 years</td>
<td>1,926</td>
<td>18</td>
</tr>
<tr>
<td>6 to 10 years</td>
<td>1,828</td>
<td>17</td>
</tr>
<tr>
<td>11 to 15 years</td>
<td>1,234</td>
<td>12</td>
</tr>
<tr>
<td>16 to 20 years</td>
<td>2,285</td>
<td>21</td>
</tr>
<tr>
<td>21 to 25 years</td>
<td>1,401</td>
<td>13</td>
</tr>
<tr>
<td>Over 25 years</td>
<td>2,076</td>
<td>19</td>
</tr>
<tr>
<td>Totals</td>
<td>10,752</td>
<td>100</td>
</tr>
</tbody>
</table>

(1) Revised from material in Bulletin, "Cooperative Marketing"--B. A. Wallace.
(2) "Farmers Cooperatives Increase, by French N. Hyre, Agricultural Economist, Farm Credit Administration, Extension Service Review, October, 1938, Vol. 9, No. 10.
(3) Same as (2)
(4) A Statistical Handbook of Farmers' Cooperatives, Farm Credit Administration.
R. H. Elsworth, in his bulletin on, "Statistics of Farmers' Cooperative Business Organizations," makes the following statement as to the progress of Farmers' Cooperation:

"Here and there are reports of farmer-cooperative activity in various parts of the United States prior to 1863, the date of the oldest existing cooperative. Since that date the record is continuous, but far from complete."

"The first boon in the farmer-cooperative movement came during the depression of 1872-1877. The Grange (Patrons of Husbandry), the oldest of the general farm organizations, had been formed in 1867. It was the intention of its founders that it be a fraternal order, but many farmers who found themselves in the depression, following the panic of 1873, turned to the new organization in an effort to lessen the distressing consequences of economic maladjustments. In 1873, 8,667 local granges were organized and the following year, 11,941. Considerable collective buying was undertaken by these units, and cooperative stores were promoted in the North Central States. In the South, the state granges gave attention to the marketing of cotton. Cooperative grain marketing was undertaken in California, and a cooperative bank was established in San Francisco. With the passing of the period of stress, interest in cooperative activities waned."

"There was a farmers' elevator movement in the grain states to the west of the Mississippi, River in the eighties."

"During the nineties the citrus-fruit growers evolved a technique for the cooperative marketing of their products. Beginning with the new century, local associations were organized at the rate of more than 100 a year. This movement reached its peak in 1920, and during that year nearly 1,800 farmers marketing associations were formed."

"The year 1920 seems to mark the close of one era and the beginning of a new one. The farmer was in distress because of a post-war slump in the prices of the things he had for sale. During the years 1920 to 1924, an intensive campaign in behalf of large scale centralized cooperatives was conducted by enthusiastic organizers. Not less than 600,000 farmers were interested in cooperation for the first time. They signed 'iron-clad' marketing agreements, and delivered cotton, wheat, potatoes, and other products to be sold on a 'pool' basis, believing that with the control of the marketing of large quantities of a product, determination of price was in their hands. By 1925, the campaign had spent its force, and during the succeeding years the movement declined rapidly."
"Continued financial distress among farmers during the late twenties resulted in the Agricultural Marketing Act of 1929. Cooperative marketing again became of great interest, and during the next few years large scale national or regional cooperatives were formed for the marketing of grain, livestock, cotton, wool, beans, sugar beets, dairy products, poultry, eggs and pecans."

"During recent years attention has centered largely on the perfecting of existing associations and improving operating practices."
CHAPTER V

COMMON TYPES OF AGRICULTURAL COOPERATIVES

Although farmers are often spoken of as individualists, probably no group of people in America have submitted themselves to so much voluntary cooperation in one form or another as the farmers. Even when the marketing of agricultural products was looked upon only as a local, or usually at the most as a regional problem, farmers found it desirable to cooperate in the marketing of their products, first informally, then through formal organizations. Also, to begin with, farm supplies were purchased advantageously by groups of farmers through informal organizations. Farmers have always cooperated informally to buy a bull or farm machinery for common use, or for the purpose of exchanging work during the rush season when crops are being planted or harvested. As agriculture has grown more complex and less self-sufficient, informal cooperation has given away to the incorporated association.

Early Development of Cooperatives.

Farmers were quick to appreciate that without incorporation a group of persons are held by law to be partners, with each one liable for the debts resulting from group activities. (1) The local associations have been tied together by regional, state and national associations until fully half of the farmers of the nation are in cooperative associations that sell farm commodities and purchase needed

(1) Cooperative Marketing: Its Practical Problems; by B. A. Wallace, Extension Economist in Marketing, Ohio State University.
farm supplies. Groups of farmers, however, will continue to cooperate informally in the solution of simple marketing or purchasing problems. While informal cooperation is often suitable for the solution of simple difficulties, more complex problems make necessary formal organization, not only to give protection to individuals, but also to gain for the members the advantages of bargaining power and other benefits through a legally constituted association. Probably dairy farmers were the first to attempt collective action in marketing. Later cooperative grain elevators were organized. Up to about 1920, the prevailing type of cooperative was the local or community marketing enterprise. The development in cooperative marketing is best expressed by quoting from Ward W. Petrow's Bulletin, "Cooperative Marketing of Agricultural Products:"

"Early in the development of local associations it was found that certain services could be performed for members more advantageously if local units were joined in an overhead organization, known as a federation. The trend in this direction has been continuous since about 1890. There were in 1935 nearly 50 active federations of local marketing associations. In a federated association, growers are members of local associations. The local associations are, in turn, members of the federation. The locals own and control their physical facilities and perform such functions as grading and packing, while the federation performs such services as selling the products, collection of sales proceeds, promulgation of the supervision of regulations relating to grades, and preparation of members' products for market, joint purchasing of supplies, and the handling of transportation claims. Among actual organizations, however, many variations will be found, so that it is sometimes difficult to classify an association as strictly federated, or otherwise."

"More than 40 years ago, farmers began to set up cooperatives sales agencies for selling their products in terminal markets. These agencies receive the products direct from farmers, or from their association, sell to the best advantage, and return the proceeds, less expenses, to the shippers."
"Beginning about 1920, and for several years thereafter, the most significant development in cooperative marketing was the formation of large-scale, centralized cooperative marketing associations. In this type of organization, services and administrative functions, including ownership and control of property are performed by the central organization. These associations differ from locals mainly in that they operate over wide areas and in that the services performed are usually more extensive than those which can be rendered by a local association. Farmers hold direct membership in the central organization, although they may live many miles from the headquarters office. Some of these organizations cover an entire state; others, parts of several states."

"An important development in the form of cooperative marketing organization began in 1929 with the setting up of national sales agencies. The members of these agencies are usually state or regional associations, but they may also be large-scale organizations of other types, or they may be locals. The objectives are to bring together a large volume of a commodity under the control of one management, in order to improve sales efficiency, avoid duplication of facilities, and eliminate competition among cooperatives. National sales agencies are now marketing for farmers such products as cotton, grain, livestock, fruits and vegetables, wool and pecans. All of these are incorporated as cooperative associations, and operate for the mutual benefit of their members."

Since the passage of the Farm Act of 1933, and other more recent farm legislation which attempts to bring about production and marketing controls of the leading agricultural commodities, the government has cooperated with the agricultural marketing associations in an attempt to make marketing agreements effective.

Where monopolistic control of prices has been attempted with a commodity through the joint efforts of the government and the cooperatives, generally speaking their position has been strengthened when the production and marketing controls have been applied in an intelligent manner.

The Purchasing Cooperative.

The history of the development of purchasing cooperatives is similar to that of the marketing associations. The development of both types has been sponsored by the farm organizations, such as the Grange, and the Farm Bureau. It
is interesting to observe that the first efforts by the grange in cooperative purchasing were based on the idea that farmers could club their buying power and get price concessions in return for their combined cash trade. This type of cooperative action resulted in the establishment of local, county, and, to some extent, state agencies for pooling buying power. The grange agency plan was gradually replaced in popularity by the Rochdale principles of cooperative organization. (1) Two of the leading purchasing cooperatives in the Northeast are the Eastern States Farmers Exchange, with headquarters at Springfield, Mass., and the Cooperative Grange League Federation Exchange, located at Buffalo, New York. The former is a highly centralized and of a federated organization.

While agricultural cooperatives generally are considered either marketing or purchasing associations, there are farmer's organizations in every section of the country, doing both marketing and purchasing. Approximately 6,000 cooperatives engaged primarily in marketing, also handle farm supplies as a side-line activity.

Knapp and Lister in their bulletin on, "Cooperative Purchasing of Farm Supplies," make the following statement concerning marketing and purchasing cooperatives:

"Cooperative purchasing has developed along with cooperative marketing, for several reasons. For example, associations have found it possible to reduce their overhead costs by using the same facilities for assembling and selling crops, and for buying and distributing supplies to the farmer. Furthermore, a farmer delivering crops to be marketed by an association, looks upon it as a convenience if he can buy his

(1) Cooperative Purchasing of Farm Supplies.
supplies from the same association. Also, he may not desire to belong to two associations with the responsibilities of membership in both when one association can perform satisfactorily all the required services."

**Coordination of Agricultural Cooperative Activities.**

For the purpose of coordinating the activities of marketing and purchasing associations, many cooperatives are united in the National Cooperative Council. Through this organization the agricultural cooperatives formulate their policies on national matters. Many of the agricultural purchasing associations are also members of the Cooperative League of the United States of America, New York City, which is a general educational and promotional organization for the consumers' cooperative movement. Recently there has been a tendency on the part of the leaders in the agricultural cooperative purchasing field to work in closer harmony with the leaders in the field of consumer cooperation. There are those who believe that if the marketing field is gradually dominated by the consumers, the inequalities existing in the market between the producers and consumers will be gradually eliminated. It is argued that the farmer is an important factor nationally in consumption of goods, and if his purchasing power can be increased by making the dollar go farther, the farmer will be benefited and business generally will be better. However, of the total cooperative business carried on in the United States, only five percent is done by consumer cooperatives.

Business service associations have developed along similar lines as the marketing and purchasing cooperatives. In some sections cooperative fire insurance has developed
to a high degree of efficiency in the protection of rural property. In other regions cooperative automobile insurance among farm people has expanded rapidly. In the West, where irrigation is necessary to carry on agriculture, one of the most important types of organization through which water is procured and distributed to farmers is the mutual or cooperative irrigation company. (1) The cooperative irrigation company is a voluntary association of persons engaged in producing farm products under irrigation. Irrigation districts are quite distinctive from irrigation cooperatives, in that district is public and involuntary, and is a political subdivision of the state. Under law, landowners in irrigation districts are obligated to pay the necessary fees for irrigation rights, once the majority have voted to formulate a district. The highest courts have held that irrigation is a public benefit, and that the district is a constitutional instrumentality for conferring this benefit. Similar to irrigation districts are the Soil Conservation Districts, which are permitted under the Soil Conservation Act of 1935, and which allow Secretary of Agriculture, after a vote by the majority of the landowners, to extend benefits to private lands within an established district.

**Structure of Agricultural Cooperatives.**

The cooperative does not differ greatly from the corporation. Both are organized for the purpose of carrying on business legally under the provisions of existing law. The two differ

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(1) Organization and operation of Cooperative Irrigation Companies by Wills A. Hitchins, F.C.A.
in aim, control, and patronage relationship. B. A. Wallace, Ohio State University, in his bulletin on, "Cooperative Marketing," briefly outlines as follows, the difference between a corporation and a cooperative:

**Straight Business Corporation**
- **Aim** - To make profits which will appear as dividends to the stockholders, in proportion to their stock holdings. The bigger the dividends, the better.
- **Control** - Money votes (one share, one vote) and is the controlling power.

**Cooperative Corporation**
- **Aim** - To effect savings for their members and render them better services than they would otherwise have. Dividend on stock limited.
- **Control** - Men vote (one man, one vote) sometimes, but rarely, commodity votes in part, i.e., the various areas served have representation on the board in proportion to the volume of grain, milk, etc., the association handles from that area.

**Patronage**
- It is not essential or generally material, that stockholders trade with their company.

**Requirements of Farm Credit Administration in Making Loans To An Agricultural Cooperative**

Many of the early farmer marketing or purchasing associations, some of which have continued to operate successfully in the interest of the farmers, were more truly business corporations rather than cooperatives. However, with the passage of the
Capper-Volstead Law, and with the amendment of the Farm Credit Act of 1933, farmer marketing or purchasing associations generally have made the necessary adjustments so that they can be classified as true cooperatives. This has been necessary if an association wishes to borrow money from the Farm Credit Administration, or to avoid federal income tax laws applicable to business corporations.

To (1) borrow from a bank for cooperatives, under the provisions of the Farm Credit Act of 1933 as amended, a cooperative association must be operated for the mutual benefit of its members, and the farmers must act together in doing one or more of the following:

- Processing, preparing for market, handling, or marketing farm products.
- Purchasing, testing, grading, processing, distributing, or furnishing farm supplies.
- Furnishing farm business service.

There are three types of loans available to cooperative associations through the banks of cooperatives; commodity loans at two percent interest; operating capital loans at three percent interest; and facility loans at four percent interest.

Commodity loans, which are of short term, are received by first liens on farm production supplies, approved as collateral by the Cooperative Bank Commissioners.

Operating capital loans are for the purpose of supplementing the borrower’s working capital and are generally made

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(1) Unpublished material, Farm Credit Administration
for relatively short periods of time.

Facility loans are available to enable eligible borrowers to finance, or refinance, the acquisition by purchase or lease, of lands, buildings, or other physical facilities.

The following tables show sources of credit, proportion and amount borrowed, and interest rates paid by cooperatives.

**TABLE 2**

**SOURCE OF CREDIT (1)**

<table>
<thead>
<tr>
<th>Principle Source</th>
<th>Number of Associations Using Type of Institutions Indicated as Principal Source of Credit</th>
<th>Total Amount borrowed in (Thousands of dollars)</th>
<th>Percent of total amount borrowed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commercial banks</td>
<td>2,954</td>
<td>124,114</td>
<td>39</td>
</tr>
<tr>
<td>Banks for cooperatives</td>
<td>1,317</td>
<td>81,711</td>
<td>26</td>
</tr>
<tr>
<td>Bond Issues</td>
<td>58</td>
<td>27,549</td>
<td>9</td>
</tr>
<tr>
<td>United States Reclamation Service</td>
<td>45</td>
<td>15,423</td>
<td>5</td>
</tr>
<tr>
<td>Individuals</td>
<td>1,655</td>
<td>13,326</td>
<td>4</td>
</tr>
<tr>
<td>Other cooperatives</td>
<td>633</td>
<td>12,473</td>
<td>4</td>
</tr>
<tr>
<td>Private Marketing Agencies</td>
<td>428</td>
<td>5,668</td>
<td>2</td>
</tr>
<tr>
<td>Supply manufacturers</td>
<td>126</td>
<td>1,424</td>
<td>(.4)</td>
</tr>
<tr>
<td>Other sources</td>
<td>220</td>
<td>31,081</td>
<td>10</td>
</tr>
<tr>
<td>Unknown</td>
<td>208</td>
<td>1,762</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>7,642</td>
<td>314,553</td>
<td>100</td>
</tr>
</tbody>
</table>

**Legal Structure of a Cooperative:**

The articles of incorporation, by-laws, marketing agreements, and other documents established the pattern of future action for a cooperative. There are several forms of capitalization that are used in starting a cooperative marketing or purchasing association. The method adopted should be one that will function under the existing local circumstances and conditions. Cooperatives are incorporated with or without capital stock. When an association is organized with capital stock, the members have as evidence of their ownership in the

(1) A Statistical Handbook of Farmers' Cooperatives, Farm Credit Administration.
association, stock certificates. There are several types of stock such as common stock, preferred stock, class A stock, and class B stock, although more than two classes of stock are seldom used in any one association. Usually the preferred stock indicates the capital contributions of individuals who may or may not be members of the association, and the common stock represents membership in a cooperative. Where the cooperative does not have capital stock, some form of certificate such as revolving fund certificates, represents the member's contribution to capital. Where the capital is raised by member contributions or fees without issuing stock, the certificates are sometimes designated as certificates of investments, certificates of interest, or certificates of equity. If the certificates are used as evidence of capital contributions, they should not bear a fixed rate of interest, not have a definite due date, thus avoiding the danger of making them more in the nature of fixed liabilities.

Capital for Conducting the Business of a Cooperative

When a cooperative is once incorporated, and the method of capitalization decided upon, it is always difficult to raise the necessary capital. The apparent difficulties of raising capital have advantages in that it often affords a check on too rapid expansion. The members should contribute a fair share of the necessary capital. If a large percent or even all the necessary funds are borrowed to start business, the members are apt to lack the personal interest in the organization necessary to make it successful. After the cooperative is organized, however, it should be recognized
that it needs a source of cheap and reliable credit for conducting the business activities. The following articles and statistics show the extent of cooperative borrowing and the interest rates paid.

**TABLE 10**

<table>
<thead>
<tr>
<th>Total Number of active Associations</th>
<th>Number of Associations using borrowing funds</th>
<th>Per Cent using Borrowed funds</th>
<th>Peak Amount in (thousand dollars)</th>
<th>Per Cent of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marketing, purchasing relative services</td>
<td>10,752</td>
<td>5,909</td>
<td>55</td>
<td>255,886</td>
</tr>
<tr>
<td>Mutual irrigation Companies</td>
<td>2,442</td>
<td>957</td>
<td>39</td>
<td>53,725</td>
</tr>
<tr>
<td>Farmers Mutual Fire Insurance Companies</td>
<td>1,909</td>
<td>646</td>
<td>34</td>
<td>4,210</td>
</tr>
<tr>
<td>Other Types</td>
<td>470</td>
<td>130</td>
<td>28</td>
<td>732</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>15,573</strong></td>
<td><strong>7,642</strong></td>
<td><strong>49</strong></td>
<td><strong>314,553</strong></td>
</tr>
</tbody>
</table>

**AVERAGE INTEREST RATES PAID BY COOPERATIVES CLASSIFIED ACCORDING TO SIZE OF BORROWING (2)**

<table>
<thead>
<tr>
<th>Amount Borrowed</th>
<th>Number of associations borrowing in 1936</th>
<th>Average interest Rate 1936</th>
<th>1935</th>
<th>1934</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than $5,000</td>
<td>2,751</td>
<td>5.8</td>
<td>6.0</td>
<td>6.1</td>
</tr>
<tr>
<td>$5,000 to $9,999</td>
<td>1,246</td>
<td>5.2</td>
<td>5.3</td>
<td>5.6</td>
</tr>
<tr>
<td>$10,000 to $49,999</td>
<td>1,543</td>
<td>4.9</td>
<td>5.0</td>
<td>5.4</td>
</tr>
<tr>
<td>$50,000 to $99,999</td>
<td>157</td>
<td>4.3</td>
<td>4.5</td>
<td>4.8</td>
</tr>
<tr>
<td>$100,000 to $499,999</td>
<td>156</td>
<td>3.7</td>
<td>3.9</td>
<td>4.2</td>
</tr>
<tr>
<td>$500,000 to $999,999</td>
<td>24</td>
<td>3.2</td>
<td>3.4</td>
<td>3.2</td>
</tr>
<tr>
<td>$1,000,000 and over</td>
<td>32</td>
<td>2.9</td>
<td>3.0</td>
<td>3.4</td>
</tr>
</tbody>
</table>

(1) A Statistical Hand-book of Farmers' Cooperative Farm Credit Administration.

(2) A Statistical Hand-book of Farmers' Cooperatives, Farm Credit Administration.
If the cooperative is organized with capital stock the necessary funds are raised by the sale of stock, while in the non-stock cooperative it is raised by the issuance of some type of certificate. The amount to be paid in by individual members should be based on the participation of each member. Where capital stock is issued, there is often advantage in having two classes of stock, common and preferred. Often a few members, or others locally interested in cooperative marketing, are financially able to contribute materially, and they should be allowed to do so, since in a cooperative they do not necessarily receive any special privileges other than a reasonable return on their investment.

While the share value of stock is often set at $1.00 per share or even more, most cooperative associations have found that shares of low par value are desirable. They are more readily sold, transferred and retired, moreover their use often eliminates the necessity for issuing fractional shares. Also, if the par value of a share is too high, farmers tend to patronize a cooperative without becoming members. The following table shows the relationship, of the required initial investment to proportion of business with the members.
TABLE 12

Relationship of Required Initial Investment to Proportion of Business with Members (1)

| Required Initial Investment per Member | Total Number of Associations | Percentage of total number in which the percentage of business with members was:
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>1,384</td>
<td>14</td>
</tr>
<tr>
<td>Annual due</td>
<td>495</td>
<td>18</td>
</tr>
<tr>
<td>Less than $3</td>
<td>991</td>
<td>24</td>
</tr>
<tr>
<td>$3 to $10</td>
<td>2,615</td>
<td>57</td>
</tr>
<tr>
<td>$11 to $49</td>
<td>2,107</td>
<td>64</td>
</tr>
<tr>
<td>$50 to $99</td>
<td>963</td>
<td>72</td>
</tr>
<tr>
<td>$100 and over</td>
<td>1,221</td>
<td>74</td>
</tr>
</tbody>
</table>

(1) Farm Credit Administration

Where members do not have ready funds, cooperatives have accepted notes or other evidences of equity to cover all or part of their subscriptions for capital stock. One great difficulty with the plan is that the notes can often be obtained without much trouble, but it may be difficult to realize the cash from them. This problem can often be circumscribed by having the members enter into a binding agreement with the cooperative which provides for definite deductions from sale proceeds to retire notes given by the members.

Rovolving Capital Plan for Financing a Cooperative

After a cooperative has been operating for a few years,

(1) Farm Credit Administration
changing conditions may cause the necessity for recapitalization. Expanding business may make it necessary to raise additional capital beyond the capacity or the desirability of the cooperative to borrow; or business contraction may make it advisable to reduce the capitalization. Such changes are important, as they relate to the members. New members may want to join the cooperative, others may cease to be producers. It is important that new members have an opportunity to invest in a cooperative if it is to continue as an important business organization.

In order to get around the difficulty of active membership participation in a cooperative, many associations are using the revolving capital plan of financing. If this form of financing is used, it should be expressed in the by-laws and marketing agreement. The plan provides that when the commodity passes through the cooperative, it deducts an agreed percentage of the sale proceeds due the member. The amount deducted is taken out for capital purposes only, and should not be confused with amounts retained to pay operating expenses. At the end of the year or marketing season, the amount taken for capital purposes from each producer’s account is totaled, and a certificate is issued to the member. The certificate may be for stock, if the association is organized with stock; otherwise it will take the form of a revolving fund certificate.

By this method, the member’s equity in the association is increased, and new members upon joining a cooperative start to contribute to the capital structure. With such a policy
in effect, sufficient capital will in time be accumulated, so that the directors will be enabled to start calling, at par value, the certificates issued the first year. The plan is especially satisfactory for interesting new members. Cash received for old certificates and evidence is given that the association is on a sound business basis. Members who have ceased to patronize the cooperative have their investment retired, and active members at all times finance and control the cooperative. The certificates should be issued without due date or a fixed dividend provision, thus avoiding the danger of creating a fixed liability. Members should be encouraged to regard the deductions for the revolving capital, not as an expense, but rather as an investment or a savings account.

**Importance of Reserves**

A cooperative, like any other business, may need to operate at a loss and without reserves is confronted with difficulties during periods of adverse business. For this reason it is important that there be an established policy for building up reserves other than operating or valuation reserves, such as reserves for depreciation or bad debts. Some associations provide in their by-laws that there shall be no distribution of earnings or surpluses until the reserves or surplus equals at least half or the subscribed capital. The amount of reserves necessary depends upon the nature of business carried on by the cooperative. If engaged in considerable credit extension, or if there is wide price fluctuations in the commodity handled by the cooperative, then
there is need for rather large reserves. The amounts set aside as reserves should be looked upon as necessary costs of doing business.

### TABLE 13

**PATRONAGE DIVIDENDS PAID BY ASSOCIATION OF EACH COMMODITY TYPE (1)**

<table>
<thead>
<tr>
<th>Commodity Type</th>
<th>Members of associations paying</th>
<th>Patronage dividends paid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purchasing</td>
<td>1,371</td>
<td>$8,038</td>
</tr>
<tr>
<td>Fruits &amp; Vegetables</td>
<td>350</td>
<td>7,529</td>
</tr>
<tr>
<td>Grain</td>
<td>1,121</td>
<td>3,035</td>
</tr>
<tr>
<td>Dairy</td>
<td>647</td>
<td>2,916</td>
</tr>
<tr>
<td>Poultry</td>
<td>43</td>
<td>2,045</td>
</tr>
<tr>
<td>Cotton</td>
<td>147</td>
<td>1,004</td>
</tr>
<tr>
<td>Livestock</td>
<td>227</td>
<td>584</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>89</td>
<td>225</td>
</tr>
<tr>
<td>Wool</td>
<td>15</td>
<td>4</td>
</tr>
</tbody>
</table>

**Total**

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>4,010</td>
<td>25,380</td>
</tr>
</tbody>
</table>

If it happens that there are no charges against the accumulated reserves over a period of years, then the revolving-capital principle may be adopted to the retirement of reserves. When a portion of such funds is returned to the members, they should understand that they are not identified with patronage dividends. Cooperatives that have built up sufficient reserves and are able to meet other obligations,

(1) *A Statistical Handbook of Farmers' Cooperatives, Farm Credit Administration.*
are then in a strong position to make returns to members from earnings. Dividend payments are usually made to the member on the basis of the annual business that each member carried on with the cooperative. The table on page 64 shows the dividend payments made by different commodity types of cooperatives.

**Marketing Agreements:**

A marketing agreement between a marketing cooperative and a member should be entered into by the association with each individual producer. It should set forth the duties and responsibilities of the association to its members, and of the members to the association. In simplest terms, the marketing agreement provides that the member will deliver to the cooperative as qualified in the terms of the agreement, his production of a specified commodity for sale. The marketing agreement signed by the member should then place him on record as approving the method of capitalization, and plans for making deductions for necessary expenses, reserves and other purposes. In the same agreement, the association usually agrees to accept all of the commodity produced for commercial sale by the member, and to market it to the best of its ability. The association pledges that it will return the proceeds received from the sale of products, less actual handling and marketing costs and deductions for capitalization and reserves.

**Operating Methods and Policies of a Cooperative:**

The operating methods and policies of a cooperative, although guided and held to the general principles set forth
in the certificate of organization and by-laws, must be adjusted to the particular needs of each association. The sales policy of a cooperative must be sound and return the greatest possible income for the products handled over an extended period of time, and yet withstand the competition of business houses handling the same line of goods. This means that prices received or paid for products handled by a cooperative, cannot be greatly out of line with prices on an open market.

Down through the history of the development of cooperative marketing of agricultural products, one of the most frequent difficulties has arisen out of attempts to hold commodities off the market in an effort to stimulate higher prices. No cooperative can afford to get into the field of speculation that extends beyond the bounds of recognized good business practices. Some of the cooperative marketing associations act only as bargaining agencies. They negotiate with existing agencies for the sale of the member's product, which can be handled satisfactorily when delivered directly from the farm to the manufacturer or distributor. This method is often used in the case of whole milk. Many of the livestock associations follow another method of marketing. These cooperatives handle and market each member's products on a commision basis, distributing the savings later as patronage dividends.

Some marketing associations pay their members prevailing market prices at the time the products are delivered. There is considerable risk in this policy, even though some of the risks arising from fluctuations in prices can be avoided through hedging when dealing in such products as grain, and cotton
Many of the marketing groups have found that the soundest plan of operation is one whereby a reasonable advance is made to the producer upon delivery of his products. As sales are made by the cooperative, final payments are made to the member. Speculation in the market by the cooperative is reduced and, at the same time, the member appreciates that his final returns represent the market price for his commodity, less the necessary deductions. The initial advance to members may either be set at a percentage of the existing price, or may be a flat rate which applies throughout the season. Every effort must be made by a cooperative to keep operating expenses as low as possible. Under efficient management, operating expenses can be kept in the right proportion to the volume of business carried on by a cooperative. The operating expenses varies depending upon the nature of the cooperative. The variation in operating expenses for different types of cooperatives is expressed in the following table.

**TABLE 14**

**EXPENSES IN PERCENT OF TOTAL SALES (1)**

<table>
<thead>
<tr>
<th>Type of Association</th>
<th>Citrus fruit packing houses</th>
<th>Cheese factories</th>
<th>Creameries</th>
<th>Feed Stores</th>
<th>Livestock Shipping</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small</td>
<td>35.9</td>
<td>14.5</td>
<td>13.5</td>
<td>8.3</td>
<td>3.4</td>
</tr>
<tr>
<td>Medium</td>
<td>24.8</td>
<td>12.7</td>
<td>9.3</td>
<td>7.9</td>
<td>2.5</td>
</tr>
<tr>
<td>Large</td>
<td>22.5</td>
<td>11.7</td>
<td>7.3</td>
<td>6.6</td>
<td>1.7</td>
</tr>
</tbody>
</table>

(1) A Statistical Handbook of Farmers' Cooperatives, Farm Credit Administration.
As already pointed out, cooperative organizations that extend beyond the border of an area that can be worked locally by a cooperative, take the form of either a federated or centralized cooperative. The general structure and financial policy of a centralized cooperative does not differ materially from the local cooperatives. The federated organization, which is made up of a number of local cooperatives, has the same relationship to the locals as the locals have to their members. With the problems of organization becoming more complex, it is more difficult to maintain the proper relationship between the overall organization, local units, and the members. Like a large corporation, the entire structure becomes more and more impersonal. However, if any agricultural commodity is to be marketed successfully, the marketing program must eventually extend beyond the confines of any local marketing unit.
CHAPTER VI

AGRICULTURAL COOPERATIVES, BY COMMODITIES

Dairy Products

The natural expansion of cooperative marketing of a commodity beyond the confines of a local area, has been a natural development with some agricultural commodities.

In the case of butter and other manufactured dairy products, large-scale marketing organizations are an outgrowth of the development of local cooperative creamery associations. They have been set up by groups of local cooperative creameries to act as sales agents for the member associations. The Land O'Lakes Creameries, Inc., is an outstanding example of organized marketing of the local creameries through one central agency. Products from member creameries are received on consignment, are graded, repacked and sold by Land O'Lakes under their trade name. Savings are effected through stress on quality and by shipping in large qualities directly to developed market outlets. The central agency also performs numerous services for members by the cooperative purchase of creamery supplies.

Grain

During the last few years Farmers' cooperative grain elevators have handled about one-third of the grain moving into market channels. Around one-third of the grain marketed by local cooperative elevators has been handled by cooperative regional marketing agencies. Local cooperative elevators

(1) Cooperative marketing of Agricultural Products by Ward W. Fetrow (F C A)
have been an important factor in narrowing grain margins at local stations. Terminal sales agencies have like-wise handled sufficient volume to influence the spread between prices of cash grain and futures.

(1) The cooperative marketing of grain can be divided into the following periods: 1857 to 1875, a time of isolated local efforts, 1876 to 1885, a period of decline in number of local cooperative elevators; 1886 to 1914, years marked by a revival of interest in this form of cooperation and an increase in the number of cooperatives grain elevators; 1915 to 1920, the period of more active growth of farmers' cooperative elevators, under the additional stimulus of a rapidly expanding wheat acreage; 1921 to 1929, the time of rapid growth in cooperative terminal sales agencies, development of wheat pools, and efforts toward establishing a national sales agency. Since 1929 a national sales agency has been in operation. However within recent years the National Sales Agency has been abandoned and the grain has been marketed largely through the terminal sales agencies and at the local elevators.(1)

Livestock

In the cooperative marketing of livestock, producers with the knowledge gained from operating local associations, saw possibilities in the establishment and operation of their own terminal sales agencies. Livestock cooperative sales agencies have performed a number of important services for producers. Stockmen have had more effective representation on terminal

(1) Cooperative Marketing of Agricultural Products by Ward W. Tetlow.
markets. Business methods used in the marketing of livestock have been improved by cooperative sales agencies by providing efficient, and economical sales service. Unnecessary speculation has been curtailed through improved bargaining power and selling on the basis of grade. Because of improvements in transportation back to rural areas during recent years, the cooperatives are confronted with many difficult problems of over-lapping between local associations and the terminal Sales Agencies.

Poultry Products

While no attempt has been made to organize a national sales agency to market poultry and eggs, some of the poultry and egg marketing associations affiliated into regional sales agencies for the purpose of minimizing competition and to enable the associations to market the products of their members more efficiently. One of the many contributions which one poultry sales organization made is the controlled egg auction method of sale.

Tobacco

There is no central marketing agency for the tobacco cooperatives. Tobacco growers have attempted to control the market without much effect and finally concluded that well organized cooperatives could improve marketing services and correct existing abuses without controlling a major portion of the crop. Pooling is no longer considered an essential part of cooperation among tobacco growers, although the selling of tobacco which is pooled still remains a vital problem.
Contracts between members and the cooperatives have become more liberal than formally and more emphasis is being given to satisfactory service as a guarantee of continuing membership. There is a marked trend toward improving marketing services by means of producers' marketing agencies designed to obtain the maximum return justified by the product according to market conditions. Less attention is being given to the idea of controlling prices by monopoly influence.

Wool

The wool growers at first marketed their product through local cooperatives and informal local associations, which are known as "wool pools". The pool type association concentrates wool at a county point, and offers it for sale to the highest bidder, although some pools sell each grower's clip separately by means of sealed bids. The pools are active for only a few weeks during the wool-marketing season. A full time manager is seldom employed to operate a pool, and many are supervised by banks or other lending agencies.

Many of the wool pools and small cooperatives had been in direct competition with each other, and often there was not a satisfactory market. Many of the growers were not satisfied with the buyers' methods. Many of them also believed that better average prices would be obtained if they could distribute the sale of their wool throughout the season. This point was strengthened by the fact that periods of active buying do not always coincide with periods of heaviest purchases by the mills. As a result of these conditions the National Wool Marketing Corporation was organized under the cooperative law
of New Hampshire, with headquarters at Boston, Mass., the wool marketing center of the United States. The bulk of the National's receipts come from territory associations. Most territory associations make pre-shearing advances to their members, which are usually at the rate of 50 cents per fleece. When the clip is shown, each member receives an advance payment on his wool which is shipped to an association warehouse in Boston. Advances are based on field appraisal at the time of delivery. At Boston, the wool is classified and graded, and the grower credited for his wool as to quality. More than 300 wool manufacturers and top makers in the United States are customers of the National Wool Marketing Corporation. When all the wool in the plan has been sold, each member shares in the total sales proceeds, according to its proportion of the total appraised value.

Wool growers receive benefits through their cooperatives in getting freight-rate reductions, additional storage and transit privileges and reductions in charges in demurrage regulations. Because of the large quantities of wool handled by cooperatives, mills can purchase their raw wool needs in any quantity and quality desired, and, as a result, have come to depend upon the cooperatives for their supply.

Fruits and Vegetables

In the cooperative marketing of fruits and vegetables, there are many large scale marketing organizations. Through these organizations, producers have been able to reduce marketing costs and have strengthened their bargaining position.
A few of the associations have set up their own sales organizations and have salaried employees in important consuming markets.

The citrus fruits grown in California are, for the most part marketed through the California Fruit Growers Exchange. It is a non-profit organization, owned and operated for 14,000 California and Arizona citrus growers. The objective of the organization is to sell the members' fruit at the least expense, and to further the national and international market for oranges, lemons, and grapefruit. The interests of the members are represented in all matters concerning the welfare of the industry. There are services designed to reduce the cost of production.

The exchange comprises more than a score of "District Exchanges" located in the principal shipping districts, which in turn are comprised of groups of local Associations. The grower, by affiliating with one of the more than 200 local associations, becomes a member of the exchange. He participates in the election of the board of directors of the Association. The Board of Directors of the local, elects one or more directors to the board of the District Exchange, and, in turn, each District Exchange elects a director to the Exchange Board.

The Exchange was organized in 1893 by the growers for the purpose of stabilizing a demoralized citrus industry. 75 to 80 percent of the citrus crop of California and Arizona is handled through the Exchange. There is no charge for joining.
the Exchange, and the costs are met with reductions from the returns on the fruit sold. All methods of marketing are used in selling the fruit. The auction method in some of the metropolitan centers is used in marketing large quantities of fruit.

Since 1907, the Exchange has advertised at home and abroad in order to increase the use of citrus fruits, and thus furnishes a market for ever increasing production. The Exchange provides services other than marketing. It has departments for products, supplies, research, traffic, pest control, legal, and insurance. These services would be costly to the individual but by acting for more than 14,000 growers, the Exchange applies to agriculture the economies of large scale operations which have been successful in the mass production industries.

The Fruit Growers Supply Company owned by the Exchange Association, purchases and manufactures supplies for members, assuring dependable grove and packing house supplies at reasonable prices. The manufacturing activities of the Supply Company are confined to box shook, for which purpose it owns two lumber mills and large timber holdings in northern California. Boxed were costly until the Exchange Growers provided their own mills to insure an adequate supply of boxes. The supply company also handles packing house supplies, including fertilizers, insecticides, orchard heaters, including heaters, fuel, cover crop seed, boxes, nails, labels, tissue wraps, and other essential materials.
In the field department personal assistance is given to all associations in working out harvesting and packing problems. Authorities on pest control are at all times available for the growers. The exchange does many kinds of research. The Department is constantly developing new products for the utilization of culls and surplus fruit, and improving cultural, handling, packing, and storing methods. (1)

Cotton

The start of cooperative marketing of cotton dates back to the time prior to the Civil War. Since then, many cotton associations have been organized. Some were established on a South-wide basis. Many of the associations were directed primarily toward raising the general price level of cotton. During 1920, the American Cotton Association, at a convention in Montgomery, Alabama, formulated plans for the organization of many of the present large-scale state and regional cooperative cotton marketing associations. One of the principal objectives was to gain control of a large percentage of the crop and thereby dictate the price. This idea was later largely abandoned as unsound and impractical. Cooperative cotton marketing associations now confine their efforts primarily to the marketing of cotton for their members, with the purpose of reducing the costs in marketing.

Cotton cooperatives also emphasize payment of cotton on the basis of quality, and have taken an active part in an attempt at general improvement in cotton marketing conditions and facilities. The cooperatives have continued to follow

(1) Citrus fruits information from literature of California Fruit Exchange.
the general plan under which the state and regional cooperatives were set up.

Cotton Gines

Cotton gin cooperatives are well established in the South, and through these associations farmers have provided themselves with modern ginning equipment. They also have received substantial savings in dividends after paying regularly established rates for ginning. Because of the cooperatives' ginning, rates have been lowered, and there has been an improvement in the quality of ginning, and in the services offered by the gins.

Agricultural Purchasing Cooperatives

(1) Agricultural purchasing cooperatives have expanded in a similar manner as have the marketing cooperatives.

Where a farmers' purchasing cooperative sells on a large scale over a wide territory, it is necessary for the cooperative to buy these materials on a big scale. As the cooperative grows in size, it tends to undertake first cooperative wholesaling and then the direct manufacture of the required supplies. This tendency is illustrated by the history of such large-scale purchasing associations as the Eastern States Farmers' Exchange and others which now operate extensive manufacturing properties. Some of the large cooperatives unite to make special contracts with manufacturers or whole-salers. Farm supply cooperatives purchase a considerable volume of their supplies from cooperative marketing associations which are often a natural source of supply to purchasing associations. The

(1) Cooperative Purchasing of Farm Supplies, by Joseph G. Knapp and J. H. Lister, F.C.A.
large agricultural cooperating organizations are confronted with many problems, and their development has been built upon the experiences of the successes and failures of the past.

Cooperatives in Foreign Countries (1)

During 1937 it was estimated that there were 127 million members in various types of cooperatives in 61 countries. One half of this membership, however, was in Germany, Italy, Latvia, and the Soviet Union, where cooperatives are no longer allowed to operate as free business enterprises. Restrictive legislation has, also, been passed for the purpose of retarding cooperatives in some of the democratic countries. In spite of all this, cooperatives in the majority of the countries are on a better footing than consumers' cooperative Society with nearly a million members, 998 retail stores, and vast resources to those with only a few members and few assets.

In 53 countries consumers' societies are recorded; credit societies in 52 countries; workers' productive organizations in 39 countries; and in 31 countries a varying number of people provide themselves with homes through cooperative building associations. Agricultural cooperatives are to be found in nearly all countries. The International Cooperative Society in 1937 had members in 38 countries, and included 71,500,000 cooperators, grouped in 125,000 associations.

The varying types of the 675,260 cooperatives are shown in the following table

(1) Cooperatives in Foreign Countries Serial no. R. 969
Department of Labor.
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### TABLE 15 (Continued)

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Chapter VII

Membership Problems in an Agricultural Cooperative (1)

Keeping Members Informed

The success of a cooperative association is influenced by two spheres of activity, one, the business administration of a cooperative and, two, the membership administration. Some cooperatives have a good balance sheet and yet are insecure because they are not backed by a loyal membership. The ability of a cooperative in maintaining the support of its membership, involves many important, but yet intangible, factors. It is no problem to organize a cooperative. Farmers can be enlisted to support an ideal marketing program upon a wave of enthusiasm, but their continued support and interest in the association, even though successful, is a problem that always concerns the leaders in any cooperative movement. While a cooperative must be managed on a business basis without interference from the members, the management needs to stimulate the members to appreciate their responsibility in formulating the policy of the organization through their Directors. When the cooperative meets with difficulties because of poor markets, improper financing, and other problems, members should be informed so that they will have the opportunity to decide whether the manager and the board of directors are making every effort to solve the problems. When business is unfavorable, the members of a cooperative are inclined to blame the management unjustly, unless they fully understand and

(1) Membership Relations of Cooperative Associations J.W Jones F.C.A. 1936
and appreciate the reason for the difficulties an association may be experiencing. If there is no educational effort among members after an association has been organized, they often look upon it as another business organization, and do not recognize their own personal responsibility in its success. As the members lose interest in the management of the association, the board of directors and the manager come to look upon the cooperative as an organization for farmers rather than by farmers. Sometimes the management even forgets that the organization is for the farmers.

Cooperative Education Among Members

Much of the success of the cooperative effort among the people of Nova Scotia, as sponsored by St. Francis Xavier University, is attributed to the stress that is placed on education in cooperation before a cooperative is organized. Then, after once organized, study courses in cooperation are continued. The people become completely sold as to the advantages of cooperative enterprise, learn to recognize the difficulties, and appreciate the importance of organized action in the selling of their products, and the purchase of their supplies. While the cooperatives should support and carry on education in cooperative marketing, any program of study dealing with the general philosophy of cooperation should be detached from the business administration of the cooperative. That is to say, when studying cooperation, the people in the area served by an association should examine the problems of cooperation from all sides, regardless of the existing
business policy of the cooperative. When some public or semi-public agency can carry on cooperative study among the people, they have a better opportunity to secure an impartial understanding of the problems involved in cooperative marketing. Also, members of a cooperative, after studying and learning the problems involved in cooperative marketing or purchasing, are likely to study their own cooperative, and often are able to suggest ways and means of strengthening it.

Financial Interest in a Cooperative by the Members

If members have a financial responsibility in the organization, their interest is naturally more pronounced than if they have no investment in the enterprise. The policy of revolving the capital so that the older stock or certificates are retired and replaced by new stock or certificates, stimulates an active interest, since the procedure gets away from carrying stock of inactive members, and provides new members with an immediate stake in the affairs of the organization. Regular payment of patronage dividends by a cooperative is an important factor in maintaining membership interest. Loyalty to the organization is seldom sufficiently intense to bind many members to the cooperative when prices for products paid by the association are less than prices paid by competitive business, even though the cooperative may be an important factor in bringing about a general improvement in the price level for the products marketed. In short, the cooperative must prove its value in the form of better prices, improved markets, and better services, if the people are to support and become a part of the cooperative organization.
It has been learned from experience that members cannot be held in line through iron-clad marketing agreements. Forced cooperation seldom has the backing and support of the people, except during occasional intervals of emotional stress, when the majority of the people in an area are aroused, and are willing to make sacrifices in order to correct some injustice to the producer that exists at the time.

**Responsibility of Manager Toward Cooperative**

The attitude of the members towards their association often reflects the attitude of the manager and of the board of directors of a cooperative. Experience has shown that the success or failure of a cooperative rests largely with the manager. It is always difficult to find a man qualified to manage a cooperative. Usually a good business-man has little knowledge of cooperative management, and a cooperative expert all too often is not a good business executive. The manager not only must provide excellent business management for an association, but, at the same time, must possess the ability to hold the confidence of the membership as to his business policies. If the cooperative is to be successful, the manager must always be searching for new markets for the products that the cooperative needs to sell or purchase, and should be willing to try new business methods that promise to increase earnings. A progressive manager, however, must make sure that he is not too far ahead of the membership in the development of his plans. When such a situation arises, even if the manager is on sound ground, the members become suspicious, and acquire the feeling that something is being put over.
When a manager finds that his board of directors votes against what he considers to be a sound business policy that is designed to increase the earnings of the cooperative, he may conclude, generally speaking, that one of two things is wrong. He has, either, presented a proposal which is not sound, or, if it is sound, he has not offered sufficient facts to convince the board as to its value.

**Relation of Board of Directors to Cooperative**

Next to the manager, an efficient board of directors is the most important attribute to the success of an association. They are elected by the membership at the regular annual elections. The board of directors of a cooperative meet several times each year to hear the manager report on the business activities. As the manager sees ways and means of strengthening the position of the association, he makes the necessary recommendations to the board. After discussing the recommendations a wide-awake board may or may not approve the suggestions of the manager. Perhaps after careful consideration of the plan, the board will make modifications or may even suggest a different plan. If recommendations warrant further study before a decision is justified, two or three members may be delegated to study the problem and report to the entire board at the next meeting. A board of directors of a cooperative usually has an executive committee made up of the president, secretary-treasurer, and one or more other members who are in closer touch with the manager than the entire board. The members of the executive committee are more familiar with the details of the business management, and are in a good position
to advise the manager, when necessary, in the solution of business problems that can be handled without the approval of the entire board. Often at a regular meeting, the members will approve the general policy necessary for the solution of a problem, but they cannot come to an agreement upon some of the minor points. When such a situation arises, the responsibility of advising the manager on the subject is left with the executive committee.

Keeping the Membership Informed

Beside the responsibility of formulating the policy of the cooperative, the members of a board of directors have a very definite task of keeping the membership informed as to progress of the cooperative. False stories are always being circulated as to the activities of any association. No group is in a better position to offset such rumors with the truth than the members of the board of directors.

A board, consisting of directors who are not awake to their responsibilities, is a dangerous drag on an association. The manager cannot carry the entire burden, and no matter how capable a man he may be, without the guiding hand of a wide-awake board of directors, he eventually loses contact with his members, and gradually acquires the attitude that the association is responsible to him, rather than he being responsible to the organization for which he works. If the members of the board are not aware of the problems that confront the cooperative, they soon acquire the attitude of indifference towards discussion of the problems. Thus the members become indifferent, and in time may reason that the
cooperative is a hindrance rather than a help to their farm business. This is especially true if business competitors are interested in breaking down the effectiveness of the cooperative.

Questions to Ask in Determining Qualifications of a Good Manager

A manager, in determining whether he is providing the cooperative for which he works with capable and efficient management, should ask himself the following questions.

Do you feel that it is your responsibility to lead and to develop a member’s understanding in the association?

Do you attempt to have the board of directors and the membership acquire a sense of ownership and responsibility in the cooperative?

Is there a chance for the exchange of ideas and constructive criticism between you and the members?

Do your employees who contact members build up confidence in the association, and do they try to understand the attitudes, opinions, and wishes of the members?

Do you make every effort to have the board of directors understand the problems involved before they take action on questions that come before the board?

If you are convinced as to the desirability of action in the solution of a problem, do you back up your convictions with aggressive leadership, or do you first sense the reactions of your board before expressing yourself?

Do you countenance business practices by the cooperative to which you, as a farmer, would object?

Do you believe it desirable to conceal from the members
certain business practices as carried out by the cooperative?

Is the preparation of an audit done so that the true condition of the association is revealed to the board?

Do you feel it necessary to give a great deal of time and thought in preparing information about the cooperation for the membership meeting?

Do you believe that the average member is provided with sufficient information about the cooperative so that he is able to understand clearly the purposes and objectives of the association?

Are you manager of the association just because it is a job, or because you believe in the purposes and the objectives of the association?

Do you ignore or encourage the situation when the directors use their position to obtain from the association personal advantages and favors that cannot be enjoyed by all the members?

Have you helped a director to hold his position against the will of the majority of their constituents?

Are you surrounded by "yes" men, or do your employees feel free to make suggestions that are in conflict with your expressed opinion?

Are you training understudies to take over your responsibilities sometime in the future?

Are you in touch with the general business situation and what other cooperatives are doing in your field?

Do you sometimes try to show how good you are, and thus
tend to make the board of directors and the members feel unqualified to express opinions of their own?

Are you acquainted with the members, and patrons, and their way of thinking?

If you do not have an adequate volume of business, is it your fault?

Do you put as much effort into the job of manager of a cooperative, as you would in the promotion of your own business?

**Questions to Ask in Determining the Qualifications of a Board of Directors**

The members of a board of directors of a cooperative should ask themselves the following simple questions in order to determine whether they are serving the association in the best interests of the entire membership:

Are you seriously interested in representing the best interests of the members, and if so, do you resent it when they hold you responsible for the business policy of the association?

Are you keeping the members informed about the association with the purpose of having them accept their responsibilities, duties, and ownership in it?

If you, as a member, were not informed about the affairs of the association, would you feel justified in giving it whole-hearted support?

When members complain about the way the association is managed, do you investigate, accept it as true, or dismiss it as gossip?
When you help employ a manager, is your decision based on his ability, training, and experience, or do you allow your attitude to be dominated by your personal interest in the man or how cheaply his services may be secured?

Do you support the manager to avoid unpleasant personal relations, when he acts contrary to the policy of the association and the opinions of the members?

When one or a few influential members attempt to force a manager to act on matters contrary to the best interests of all the members, do you support the manager in opposing such action?

Do you carefully study the reports made by the manager before acting upon them?

Are you careful in spending the association's money?

Do you insist upon a budget, and are you convinced the association is operating as efficiently and economically as it should?

Do you act on your own initiative after arriving at your own conclusion on a subject, or do you follow the lead of the manager, or some other board member?

Are you using the association for personal, political, or financial purposes?

Do you recognize that a director is responsible only for policies, or do you try to manage the association and thus interfere with the management?

Do you favor the policy of the introduction of new blood among the directors from time to time?

Were you elected to the board because of the honor, or
for the purpose of putting into effect the wishes of your
constituents, and, if so, what are you doing about it?

Do you seek reimbursement from the association by having
yourself placed on the payroll at times?

Do, you, as director, give to the affairs of the
association the careful attention that you give your own affairs?

Differences Between Cooperatives and Corporations

There is bound to be varying degrees of conflict between
a business operated for profit and one established to serve
its members, when both are handling the same products within
the same territory. While both types of business compete to
buy or to sell at the most advantageous prices, the cooperative
is looking after the best interests of its members, and con-
sequently is inclined to be more social-minded than the business
operated for the monetary gains of a few. It is advantageous
for the owners of a private business that buys farm products
to have the market disorganized so as to have full advantage
of low prices, especially if the same private business can
be a factor in influencing prices to the consumer. On the
other hand, it is advantageous to a marketing cooperative to
work in an organized market, so that the farmer members can
obtain better and more uniform prices for the products they
sell through the cooperative. When a marketing association
sells a farm commodity to private business which processes
and sells the product to consumers, serious marketing problems
often arise. An outstanding example is the difficulty that
arises in the marketing of milk from producer to consumer. The

Questions revised from F.C.A. Bulletin, "Membership Relations
of Cooperative Associations" J. W. Jones
producer cooperative attempts to obtain the very best price for milk, while the private milk dealer attempts to purchase milk at the cheapest possible price, and sell it to the consumer at a price that usually represents all the traffic will bear. Consequently there is constant conflict between all parties concerned in the problem. This has led to more and more public regulation of the milk market, and gradually to the extension of control of producers over the marketing of milk.

While many of the competitive practices that exist between cooperatives and private business in the marketing of a product are unhealthy, there are advantages. The cooperatives tend to force private business to develop economical methods of processing and marketing agricultural products. Producer cooperatives, in an attempt to secure better prices for their members without reducing consumption, point out the inefficiencies of private business in handling agricultural products, and attempt to overcome the difficulty by extending their influence over the marketing and processing of the products. On the other hand, private business is always watching cooperatives to detect inefficiencies. If a cooperative cannot justify its existence in a competitive market, the producers and consumers will not support it. It is doubtful if an association that cannot maintain itself in a fair competitive market should receive the benefit of public support through direct subsidy.

In countries like Sweden, where cooperative marketing and purchasing has been highly developed, the people have no thought of displacing private business. It is believed that
healthy competition is in the best interest of the people. In this country the government grants many favors to a cooperative that is not allowed private business. There is a general belief that, if cooperatives can gain a stronger position in business, public interest will benefit. Without doubt, as cooperatives become more powerful, the advantages allowed them over private business will be gradually narrowed.

Disadvantages of Agricultural Cooperatives

The following advantages and disadvantages of cooperative marketing of agricultural products are listed:—(1)

Difficulties in cooperative marketing.

In general, people are not familiar with the principles of cooperative marketing. Because of high pressure salesmanship or the honest enthusiasm of a few, many cooperatives are organized with the general support of the people without sufficient appreciation of the problem involved. An organization often is the result of a preliminary promotion meeting, a stock-swelling campaign, and an organization meeting. Members have little understanding of cooperative principles, and problems, members' responsibilities, or attitude toward non-member patrons. Thus the cooperative becomes to the members and to the community just another business enterprise operated for the benefit of a few.

When a cooperative is organized the problem of capital is always serious. The amount needed is generally underestimated, and is usually not raised. Insufficient capital handicaps operations, creates interest expense, often delays

(1) Revised from material in bulletin, "Cooperative Marketing", by B. A. Wallace.
dividends, and, as a result, dissatisfaction arises.

If members do not appreciate that sound cooperation is a slow and gradual development, they too often expect the impossible. Members often have the idea that a cooperative marketing organization can pay better prices for products, meet expenses, and, at the same time pay dividends.

The problem of management confronts every newly organized cooperative. Few cooperatives that are organized are fortunate in securing good management. The choice often lies between some good farmer who has little experience in marketing, or a good business executive who knows markets, but does not know cooperation and may not be in sympathy with it. A good cooperative manager can often work an association out of a difficult situation.

Private industry often objects to cooperatives, in the belief that they are being subjected to unfair competition and that their business will be injured. The people who act as the farmers' middleman, naturally dislike to have farmers carry on their own marketing program. While cooperatives often have the support of middlemen, many have resorted to all kinds of unfair business practices in order to put an association out of business.

Advantages of Cooperative Marketing

Through cooperation, the farmer has an opportunity to carry on the business of agricultural marketing in his own interests. He has an opportunity to develop more economical ways of marketing agricultural products. Emphasis on quality production, aimed toward a long-time marketing program,
can be developed along with a program for immediate profit. A large number of people, rather than a few, benefit from any profits.

Through cooperative marketing, members become market conscious. They learn what the consumer wants, gain an appreciation of the problems of marketing, learn the cost of processing and handling products from the producer to the consumer, and become better satisfied and more content through knowing the reasons for an existing marketing situation.

Through cooperative bargaining of many individuals, rather than a few, savings are made. Cooperatives are instruments, if properly used by farmers, for obtaining better prices, better terms, and a more uniform disposal of their products into the channels of trade. Any savings go direct to the members in proportion to their participation in the business. A cooperative often is the cause for a general price increase in an area for the products handled by it.

Often through a cooperative, farmers' rights receive proper consideration in legislative halls.
Chapter VII

COOPERATIVES ORGANIZED TO MARKET FOREST PRODUCTS

Forest products have been handled by a few agricultural marketing cooperatives for years. In the Lake States, many of the marketing and purchasing cooperatives organized by Finnish immigrants have purchased logs from members and have processed them into lumber at the cooperative sawmill. The lumber is sold on the open market and to the members at a distinct saving. There are a small number of sawmills owned and operated by cooperatives, the majority of which are located in the Lake State territory. The Supply Company of the California Fruit Growers Exchange own stumppage and operate their holdings to supply logs to the same mill and box factory for the manufacture of boxes.

Rock Cooperative, Delta County, Michigan

Several of the Finnish cooperatives in the upper peninsular of Michigan, and at other points in the North Central States, were started by the marketing of forest products. A brief review of the development of the Rock Cooperative in Delta County, Michigan, typifies the experiences of the Finnish Cooperatives in the marketing of pulp logs, mine posts, ties, etc. The club was started in 1912 by a group of settlers pooling a few carloads of timber for sale. The group was not formally organized until 1913, when 39 members incorporated into a formal organization, known as the Maple Ridge Cooperative Association. In 1928 the cooperative was reincorporated as "Rock Cooperative". At the time of organization it was decided to handle other products bought and sold by farmers,
such as consumer goods and materials for production needs, in addition to pulpwood, railroad ties, excelsior bolts, and mining timber, which were obtained from settlers lots of forty acres, or more.

The forest products were sold to excelsior mills, mines, paper mills, and railroads. The first marketing venture of the group was not financed. When the association was incorporated in 1913, it started with $400. worth of capital, some of which was borrowed from the bank and the rest raised on notes. The membership stock sold in 1913 equaled $780, and each share was worth $10.00.

The logging was done by the members and the products were delivered usually to railroad sidings for shipment to the mills and to intermediate buyers with whom the association bargained directly. Members signed marketing agreements with the cooperative. When the demands were good, the association accepted all forest products offered, but discouraged cuttings by members when the market was unfavorable. They were made advances for products at time of delivery, and the balance was paid at the close of the shipping season. Members often accepted supplies from the cooperative in lieu of cash. The following table indicates for eight different seasons since 1913 the volume of business carried on in forest products.
TABLE 16

<table>
<thead>
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<th>Year</th>
<th>Earnings</th>
<th>Loss</th>
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</thead>
<tbody>
<tr>
<td>1913</td>
<td>$877.68</td>
<td>$-39.94</td>
</tr>
<tr>
<td>1914</td>
<td>$1502.20</td>
<td>---</td>
</tr>
<tr>
<td>1917</td>
<td>$85391.22</td>
<td>$2,953.20</td>
</tr>
<tr>
<td>1928</td>
<td>$181484.27</td>
<td>$6,526.50</td>
</tr>
<tr>
<td>1929</td>
<td>$212321.24</td>
<td>$7,022.57</td>
</tr>
<tr>
<td>1933</td>
<td>---</td>
<td>534.18</td>
</tr>
<tr>
<td>1937</td>
<td>$60616.19</td>
<td>310.44</td>
</tr>
<tr>
<td>1938</td>
<td>$52236.43</td>
<td>188.00</td>
</tr>
</tbody>
</table>

The business in the marketing of forest products is rapidly dwindling as the timber supply is being exploited. The members are more and more dependent upon second growth which is of little merchantable value. On the cut-over woodlands, subsistence farming has usually resulted, and already some of the land is returning to state ownership.

Cooperative Sawmills

One manager of a marketing and purchasing cooperative, with a membership of about 500, which has been in operation for 15 years, states that the cooperative has handled forest products for 8 years. The last annual report shows that it handled $135,000 worth of merchandise, feed, flour, groceries, hardware, etc. In addition cooperative sold $35,000 worth of lumber, which was sawed at the cooperative sawmill from logs bought from members. The net profit on the lumber business was $3500, one half of which was paid back to participating members in the form of patronage dividends. The members who sell their logs to the cooperatives are clearing their lands for agricultural uses.

A group of farmers in Maine operate a cooperative sawmill, with the purpose of realizing a better and more uniform
price for the lumber manufactured from their logs. This organization had from the Banks of Cooperatives a small loan which has been liquidated. It was the opinion of the credit agency that the Maine cooperative should expand its business so as to place it on a profitable basis. In the judgement of the local people an expansion program was not desirable. Little or no attention has been given to the management of woodlands from which the forest products are purchased.

Farmers' Federation, Asheville, North Carolina

The Farmers' Federation of Asheville, North Carolina, an agricultural marketing cooperative, has a forest products division. The cooperative does about a million dollars annual business, one-tenth of which is forest products. Most of this is pulpwood, but there are in addition locust posts; locust, walnut, and poplar logs; lumber, extract and chemical wood, cross-ties, and poles.

Profits go into surplus after expenses and interest on the outstanding stock are paid. A fair margin of profit is made on forest products. Some effort is made to have members, when harvesting forest products, through personal contact with the manager of the woods department. Publicity is obtained by contact with the managers of the 17 stores that the association has scattered over the region, as well as through the local papers and the Federation's organ, the "News". The principal outlets for the association's forest products are two pulp mills, several chestnut extract plants; as well as tanneries and sawmills which purchase logs delivered to their mills.
The important benefit of the woods department of the Federation to the average farmer is that their wood products are purchased in small quantities at the various ware houses, and paid for in cash and trade. The association then makes shipments as the market requires, a service which relieves the farmers of the marketing burden.

**Other Cooperatives Handling Forest Products**

The Grange-League Federation, a farmer purchasing cooperative, runs a small saw-mill at Crown Point, New York, for the purpose of manufacturing crates for their members. The manager of this unit has become interested in tying the saw-mill operations back to the woods operations.

A number of the large purchasing cooperatives handle lumber. The Ohio Farm Bureau Federation, a purchasing association, has lumber yards scattered throughout its territory. The handling of forest products by marketing and purchasing cooperatives is a minor part of the total business of Agricultural Cooperatives, and their interest in the handling of forest products does not go beyond the logs or lumber handled.

**Relation of Woodland Management to Cooperative Marketing of Forest Products.**

In discussing the cooperative marketing of forest products it should be recognized that the handling of forest products by a cooperative does not necessarily result in the better management of the woodlands by the members.

On the contrary, in the cooperative marketing of forest products, if better prices to the members result, it may mean increased exploitation of the timber resources. Farmers,
always in need of ready cash, especially during a cycle of low agricultural prices, are liable to increase, greatly, their logging activities when provided with an improved market for their forest products. Such a situation is almost sure to develop if they have any reason to believe that the better prices resulting from cooperative action is only temporary.

On the other hand, it is recognized that with unsatisfactory prices, and inadequate marketing facilities, woodland owners have little incentive to build up their timber resources to meet future needs. Consequently, foresters and others interested in the problem believe that if farmers can be helped to develop stabilized marketing facilities for forest products, they will be more inclined to undertake the task of building up and maintaining adequate forest capital on their own farm woodlands. On such a basis, the purpose of a forest products cooperative is two-fold; first, to establish a better and more reliable market for the handling of farm forest products in a designated area; and, second, to influence the farmers to manage their woodlands so as to build up the growing stock. This two-fold approach to the farm wood problem by cooperative effort is only in the experimental stage.

At the present time, at least six forest products marketing cooperatives have been organized, and are operating with these two objectives in mind. These six forest products marketing cooperatives have been mentioned as the Forest Products Association, Incorporated, with offices at Groveton, New Hampshire; Otsego Forest Products Association, Incorporated, with offices at Cooperstown, New York; the West Virginia Forest
Products Association, located at Terra Alta, West Virginia; the Tioga Woodland Owners' Cooperative Association, Incorporated, located in Tioga County, New York; the Hiles Forest Products Association, located at Hiles, Wisconsin; and the Fog Creek Cooperative, Washburn County, Wisconsin.

Each forest products cooperative will be discussed separately, with the purpose of bringing out the following points: Reasons for organizing the cooperative; general structure of the cooperative; financing; membership; extent of the area served by the cooperative; volume of business; effect of the marketing program on prices for forest products in the area served by a cooperative, and the relationship of the cooperative to sustained yield management of woodlands.
CHAPTER LX

Forest Products Association, Incorporated

The Forest Products Association, Incorporated, that serves the farm woodland owners of the upper Connecticut Valley in Coos County, New Hampshire, and in Essex County, Vermont, was organized November 21, 1935, following a series of events that resulted from an attempt to increase the farm income during a period of the depression, when the farmers were fighting for their economic existence. Briefly, the situation and the events leading up to the incorporation of the Forest Products Association, Incorporated, were as follows. (1)

Previous Efforts in Cooperative Marketing of Forest Products

The New Hampshire State Extension Service had attempted for several years to aid farmers in Coos County in marketing their forest products cooperatively. Since 1929 and up to the winter of 1936, thirty-five carloads of Christmas trees had been shipped from Coos County to New York City, and to other metropolitan centers, by an informal Christmas tree association, sponsored by the County Farm Bureau and the extension Service. The Christmas tree agency was established for the purpose of developing an interest in the special production of Christmas trees for market, and for the purpose of securing for the farmers a better price for trees than was received through ordinary channels. Indirectly the Association was able to increase the general price, and directly brought in $8,000 of new revenue, which would not otherwise have been received. Approximately, 100 farmers have cooperated in this

marketing project.

**Economic Situation: A Cause For An Organized Marketing Program**

The economic situation that existed, following the depression of 1929, in the upper Connecticut Valley, was an important factor in stimulating the farmers' interest in finding a better market for their farm forest products. Farmers in this region depend for cash income, largely upon the sale of milk, potatoes and forest products. Returns from dairy products and potatoes had been low for several years. Many farms which had been in the same family for generations without mortgage, were from one to three years behind in taxes, and had other obligations unpaid.

To some degree, up to 1929, a balanced relationship existed between agricultural and industry in the area. The farmers were fairly prosperous and were able to provide work for farm hands in the fields during the summer season, and in the woods, during the winter. Other labor found work on land belonging to pulp and lumber companies and in the mills. With the gradual decline in agricultural and forest prices, during the post war period and the chaotic price situation that developed following 1929, along with other economic maladjustments, the farmers in the region were soon in difficulties. Many of the men who labored in the pulp mills, in the woods, and on the farms, were thrown on the relief rolls. The pulp mills were operating on greatly reduced schedules, with large supplies of high-priced wood in their yards. News print dropped from $75.00 to $36.00 per ton. Like many industries, the pulp companies were over-capitalized, and often
carried excessive overhead charges.

When some degree of confidence was restored and business improved, the mills increased their production, but were unable to purchase wood from farmers in the region. This made the condition of the farmer still more critical. After using the supplies of wood on hand, the two principal pulp mills in that section started to cut wood from their own lands, with the aid of state and federal financing. Before the 1929 period, the mills had purchased wood from farmers and other small land owners through contractors, who usually figured on a commission of about $1.00 a cord. The contractors, following the break in the market, had little or no resources of their own, nor could they receive credit from the bank or from pulp companies to re-establish themselves in business. Consequently, as a result of low prices for agricultural products and no market for pulpwood, well over 59 per cent of the farmers in the region were in serious difficulties.

Marketing of Pulpwood Through the Rural Rehabilitation Cooperation

During the winter of 1934-35 representatives of the State and Federal Extension Services approached one of the pulp companies in the region, asking the manager in charge of wood purchases to buy pulpwood from the farmers on the condition that the New Hampshire Rural Rehabilitation Corporation would aid the distressed farmers in the area to finance the marketing of the wood. The State Rehabilitation Corporation had been organized by the Federal Emergency Relief Administration, and was later taken over by the Resettlement Administration. The Pulp Companies consented to such an arrangement, agreeing to pay the current market price for pulpwood delivered by farmers to their mills. One hundred thousand dollars was granted by the
FERA to the New Hampshire Rural Rehabilitation Corporation for the purpose of financing a self-liquidating pulpwood project. Some $65,000 was actually turned over to the State Director of Rural Rehabilitation to finance the project.

As a result of this effort, some 75 farmers cut nearly 6,000 cords of pulp wood. The cost to the Rural Rehabilitation Corporation for marketing the wood, not considering overhead for investigations of families being aided, amounted to about $1.00 per cord. Through an understanding between the State Rural Rehabilitation and the State Extension Service, the State Director employed a technical forester to take charge of the project, and an effort was made to have the clients conform with forestry rules as recommended by the State Extension Service.

Demand for Better Business Methods: - Marketing Pulpwood

The Pulpwood Project in general was well received by the farmers and the pulp companies, but because of regulations applied by the Rehabilitation division, it was impossible for the farmer to become a Client of the Rehabilitation Corporation unless he was on relief, or could prove on investigation that he was in dire straits financially. In September 1935, 182 farmers signed a petition requesting that a more efficient method be developed for the marketing of their forest products.

Following many conferences between the State Extension Service and the Resettlement Administration, the Extension Service was assured that every effort would be made to secure a federal loan of $100,000. When a forest product association was organized, the money loaned would be used for the most part,
by the members for financing their pulping operations. The Rehabilitation Corporation maintained that because of federal regulations, the $65,000 which was a grant from the FERA, could not be transferred to a cooperative Forest Products Association. With the support of the Rural Rehabilitation Administration assured, the State Extension Service, November 21, 1935, called a meeting of farmers in the region for the purpose of organizing a Forest Products Cooperative Marketing Association. Nearly 300 farmers attended and organized the Forest Products Association, Inc.

Organization of a Cooperative Marketing Association

The Cooperative was incorporated under the cooperative law of the State of New Hampshire. It was organized with out capital stock and it was decided to establish the offices of the association at Groveton, N.H. The purpose of the cooperative was to create and maintain an organization for the marketing, selling, processing, grading, manufacturing, storing, handling, or utilization of forest products or by-products. The cooperative can also engage in any activity in connection with the purchase, hire, or use by the members of the association of supplies, machinery, or equipment, or in financing any of the activities set forth. Each member has one and only one vote.

Membership by Signing a Marketing Agreement

The by-laws as adopted by the incorporators November 21, 1935, provided that a farmer became a member of the association for three years upon signing a marketing agreement which also must be accepted by the Association. There is no membership fee.
Nearly 200 farmers signed marketing agreements. The signing of the agreements was accomplished through Community Meetings and personal contacts made under the direction of the Extension Service. The marketing agreement was a lengthy document which was prepared by the attorneys of the Resettlement Administration, and bound the member and the Association in close cooperation.

The directors decided it was best at the start, to handle only pulpwood. A member was obligated to market all of his pulpwood through the association, but he could withdraw at the end of one year upon written notice by registered mail. The Association was obligated to the member for three years unless the membership was terminated, as explained. In addition, a clause appeared in the marketing agreement that in case the producer failed to deliver his products to the association as agreed, he was subject to a fine of 1.00 for each cord of pulpwood not delivered. Although there were several violations of the marketing agreement the board of directors did not believe it advisable to enforce the penalty clause.

Loans to Members For Pulpwood Operation

In the marketing agreement provisions were made whereby the Association could make loans to its members. Money loaned by the Association to its members is at the rate of interest charged by the local banks. The amount that could be loaned was not to be in excess of 60 per-cent of the market value of the products securing the loans, except that loans might be made on products which had been transported to the truck-road in an amount not in excess of 70 per-cent. The loaning of money to members by the cooperative for wood operations was
involved because of the regulations required by the Resettlement Administration in order to protect the $100,000 loan which was granted the Forest Products Association Inc. February 1, 1936 at 3 per-cent interest to be repaid at the rate of $3,000 a year over a period of 33 years. There is a clause in the loan agreement that permits the Cooperative to delay the annual $3,000 payment on the principal for three years, it will be necessary to make the first payment 1940. Because of New Hampshire Laws, classifying standing timber as real property, a real estate mortgage was necessary to bind a timber operating loan of over $50. The procedure as developed by the Resettlement Administration was complex, costly, and foreign to the farmers, many of whom objected to placing a mortgage on their Real Estate. In Vermont where the law relative to loans for timber operating is not as exacting, the procedure was not so involved, but even there it was irritating to the farmers.

Business Activities First Year

The first year's operations (1936) were not very successful. The manager was cautious and was not willing to take reasonable business chances. He was not in the position to advise members to start cutting pulp at the start of the spring pulping season because the association did not have a signed contract with the pulp companies. When contracts, calling for substantial amounts of wood had been signed with the companies, the members were busy with other agricultural activities, and the cooperative found itself in a position where it could not fulfill its obligations with the companies.
because the members had not cut sufficient quantities of wood. This situation caused friction between the association and the pulp companies, and the farmers began to lose confidence in their association. Twelve car loads of Christmas Trees were marked in the fall, and the association broke about even on the venture.

During the early winter of 1936-37 the manager resigned, and the Resettlement Administration decided to close out its loan with the Forest Products Association Inc. The $100,000 loan was secured by a promissory note and by a mortgage, both in favor of the United States Government. There was also an assignment of any and all contracts, and such further securities as the government might deem necessary.

Through the effort of interested New Hampshire people, the Resettlement Administration did not close out the loan, but its administration was transferred to the United States Forest Service. The Forest Service had become interested in the cooperative, because upon the request of the State Extension Service it was making an inventory of the Farm Forest Resources of the Area. The survey was started July 1, 1936 with the use of CCC labor, with the purpose of securing basic data and maps, that were to be used in an intensive Educational program advocating the sustained YIELD Management for the Farm Wood Lands of the area.

**Changes in Use of Loan by Cooperative**

In the mean time the Board of Directors had employed a new manager who had to his credit over 30 years experience in cooperative work. He was recommended by officials in the
Resettlement Administration, and his first duty was to study the existing problems confronting the cooperative and report to the Resettlement Administration whether the Cooperative had a chance to succeed. The new manager made a favorable report with definite recommendations as to changes that were necessary both in the administration of the $100,000 loan between the government and the cooperative, and in the handling of loans between the cooperative and its members. When the Forest Service took over the administration of the $100,000 loans, most of these recommendations were accepted by the government. The modification of the restrictions on the loan, made it possible for the new manager to conduct the affairs of the association on a business basis. In some instances the government was extremely lenient in releasing its hold upon the business operations of the association. For example, the cooperative was granted the right to allow a loan of less than $200. to the individual producer for pulping or logging which was secured only by a unsecured promissory note. The borrower was supposed to be approved by the Director living nearest to him, but the manager did away with this requirement. When the loan was for more than $200. the loan had to be secured by a chattel mortgage, a real estate mortgage or a bill of sale on the wood cut. As provided for in the marketing agreement, advances to producers may not exceed 60 per cent of the market value of the product as it lies in the woods, but when yarded to a truck road, the advances may be increased to 70 per cent of the market value. Also under the revised set-up as approved by the government, the association was permitted to maintain out of the $100,000. loan, a working fund
of $15,000, from which payments could be made by checks signed by the Secretary and Treasurer without approval of the Trustee.

**Adjustments in the Management of the Cooperative**

The new manager was self confident as to his ability to manage the cooperative and to bring it out of the existing difficulties. He immediately barraged the membership with literature on the principles and value of cooperation, and held local meetings, where he spoke enthusiastically, and to the farm population in regard to what they could accomplish through united cooperative action. The farmers absorbed the enthusiasm of the new manager, and gave whole hearted support to the cooperative. During the late winter and spring of 1937 business was good, and the pulp mills were short of wood. The farmers were assured a good market for their wood if they would stay with the association and not sell out to the pulp companies. The manager immediately initiated a program of expansion based upon the potential business that was in sight.

A more modern system of accounting then that which is used generally by cooperative marketing associations was put into effect. The system was installed by the cooperative League of New York City, and since that time, the books have been audited by certified accountants from that organization. The lengthy marketing agreement was discarded for a two page agreement which was a marketing agreement combined with a definite contract for delivery of wood at an agreed price. Under previous arrangements there had been much dissatisfaction on the part of members over the deductions made for operating
and other expenses. Members had received less for wood than non-members who sold wood direct to the pulp companies. Members overlooked the fact that the companies may have used this procedure for discrediting the association. The manager promised the farmers to overcome these problems by making a satisfactory contract with the pulp companies whereby the carrying charges of the cooperatives would be borne by the companies rather than by the farmers. Also a new combined contract and marketing agreement between the members and the association gave the farmer two options in contracting their wood to the association. They could either accept a fixed market price per cord for peeled wood, or have the privilege of accepting an open contract, the price contingent upon the market price prevailing at the time the pulpwood was delivered. A majority of the farmers accepted the open market price upon delivery clause of the agreement. The aggregate amount of pulpwood contracted by the members exceeded 40,000 cords. The first marketing agreement obligated members to the cooperative for a period of three years. The revised agreement binds the members to the association only for the duration of the contract. This feature has caused confusion as to the membership status.

**Business Activities of the Cooperative Under New Management**

While the farmers were giving wholehearted support to the new manager of the association, the pulp companies were using more and more pressure to win the support of the individual farmers. With every indication of a good price for wood practically every farmer stayed with the association. The
companies became more and more desperate for wood, especially one company that was largely dependent upon farmer wood. Finally this company, with only a two days supply of wood left in its yard, signed a contract with the association for 25,000 cords of peeled pulpwood at a price substantially above the going price for wood. The company agreed to pay a fifty cent margin above what the association was to pay its members on the open market. Experience has shown that about a 75 cent to $1.00 per cord margin is needed by the association for handling pulpwood between the producer and the mills. A few weeks later the same company signed a contract with the association for rough wood. As soon as information in regard to the contract, was given out, enthusiasm among the farmers reached new heights. Prices for peeled wood exceeded the previous year’s prices by two and two and a half dollars a cord. Farmers who had not cut wood for years, went to work getting out pulp, and there was great concern whether the contracts could be fulfilled. Although the cooperative had not filled the previous year’s contracts, the one company had been forced to overlook the breach because of the need for wood. Soon after the contracts had been negotiated, the business recession had set in, with the result that the pulp companies were more bitter than ever towards the cooperative. The significance of the recession, however, was not fully appreciated by the management until the cooperative became involved in serious difficulties in the large scale marketing of Christmas Trees and Christmas Wreaths. For the first time Christmas Trees shipped from the area were based upon grades developed
by the New Hampshire Extension Service. Carefully graded, each tree was tagged with an attractive cooperative label, and neatly bundled as singles, two, threes, fours, or more, depending upon size. Thousands of wreaths were made by the farm women. The manager went to a great deal of trouble and expense in locating markets with high class commission firms throughout the East. If the recession had not been in full swing just prior to the Christmas Holidays, this venture in Christmas trees and wreaths marketing would probably have netted the association a tidy profit in spite of the excessive expense in cutting, preparing, and marketing, the trees and wreaths. The manager also stocked up with large quantities of twine, and wire used in the marketing of Christmas Trees and Wreaths. Because of the recession coupled with excessive costs of production and marketing, the venture in Christmas Trees and wreaths marketing showed a net loss, approximately $4,200.

Following this setback trouble developed with the pulp companies as their business dropped off. They were slow in accepting deliveries of wood as agreed in the contracts, and the association was in no position to force the issue, especially since it had not lived up to its contracts with the pulp companies the previous year. To make matters worse the farmers in their enthusiasm had overcut their contracts by several thousands of cords. The wood accepted by the companies was not paid for promptly, and consequently the association could not pay in full for deliveries made by the members. $78,000 of the $100,000, had already been loaned the members for operating purposes. The farmers immediately placed the blame
upon the manager for the predicament they were in, and during the fall of 1938, he was obliged to resign. Before leaving he was able to negotiate a favorable contract with a local furniture company for hardwood logs. The balance of the $100,000 loan was used in the hardwood log operations, and was invested in pulpwood which was accepted, but not paid for, by the pulp companies. The hardwood log contract helped to prevent a collapse of the cooperative during the critical period of 1938. The hardwood log market has continued since the spring of 1938, and has netted the association an excellent profit, about 2.50 to 3.00 for each thousand feet of logs. This has offset to some degree the financial reverses experienced in the marketing of Christmas trees, wreaths, and pulpwood.

Proposed Revision of the By-Laws of the Cooperative.

At the annual meeting of 1938 the second manager still has sufficient influence with the members and the Board of Directors to have the by-laws revised. The new by-laws had to have the approval of the Secretary of Agriculture because of the $100,000 federal loan. They were approved in principal during December 1939. The new by-laws when put into effect are designed to have members become investors in the cooperative and should cause them to take greater responsibility in the affairs of the cooperative. The most important and desirable change in the by-laws over the old ones is the revision of the capital structure of the cooperative. The new by-laws provide for 25,000 worth of common stock certificates divided into 2,500 shares of non-assessable stock of the par value of
$10.00 each. Each member must own one share for which he pays cash. No member can own over five percent of the capital stock. In order to facilitate the raising of additional necessary capital the board of Directors have a right to insert a clause in the association purchase contracts for forest products, requiring each member to apply a certain percentage, not exceeding 5 per cent of the total purchase price, for the purchase of membership shares. Interest on shares cannot exceed 5 per cent. Also it is provided that when ever the share capital of the Association shall, in the judgment of the Board of Directors, be in excess of current needs, the Board shall have the right to purchase from any or all shareholders, who have shares in excess of the minimum requirements of one share of stock, as many such shares as it is considered necessary to the best interest of the association. Moreover, the by-laws provide that, at the end of each year, a sum of not less than 10 per cent and not more than 25 percent of the net surplus earnings or profits shall be allocated to a reserve fund.

These provisions and other features in the by-laws are a marked improvement over the old by-laws which did not provide for members having a financial responsibility in the cooperative.

Consideration of New Markets For Forest Products Available in The Area

The second manager of the cooperative attempted to overcome difficulties which were largely due to fundamental faults, that the association handled for the most part pulpwood,
making it dependent for an existence upon two local pulp companies. He reasoned that no cooperative would be in a safe position when obliged to sell through such a limited diversified market. Consequently he developed a more outlet for forest products by making a contract with a local furniture company for sawlogs, and by extending the market for Christmas trees. He also laid plans for the construction of a processing plant for the manufacture of lumber and for the establishment of a central yard for the storing of forest products. In order to accomplish these objectives he obtained permission from the Forest Service to use $25,000 of the $100,000 to purchase a suitable site, a mill, and other necessary equipment. He proposed to market the lumber through cooperative purchasing organizations located in the East and the Midwest. He investigated these markets and worked out tentative arrangements for selling the lumber.

This reasoning based on the experience of Agricultural Cooperatives is correct, and if the Forest Products Association Inc., is to continue as an organization to serve the farmers of the area to the fullest extent this expansion of the business as planned by the Manager should be the objective of the cooperative. The growth, however, should be steady, and should not materialize faster than the members are ready to accept the expansion of the marketing program.

Circumstances That Saved Cooperatives From Legislation

Besides the development of the hard wood log market there was another factor that assisted in saving the association from disaster in 1938. While the Pulp Companies were unfriendly
to the cooperative, and in a declining market, were making things difficult, they were also in an unfortunate position financially with the State Government. Since the depression of 1929, the companies have been kept going with public funds loaned to them by the local, state and Federal Governments. When the pressure on the cooperative became too difficult, the Board of Directors appealed to the State Government for justice, with the result that the cooperative has been gradually working out of the difficulties that developed in 1938 as a result of overenthusiasm coupled with the effects of the business recession. While the Manager had unusual ability in developing the business of the cooperative, and understood the purposes and objectives of cooperative marketing, he apparently lacked the necessary ability to keep the association on a sound business basis. His unlimited enthusiasm led him to take unreasonable chances, and caused him to run up excessive expense chargeable to potential returns on business deals that did not materialize as anticipated.

In spite of the many difficulties that resulted from the activities and enthusiasm of the Manager, he did stir the farmers up. They thought about, and discussed cooperative marketing. He preached that they were masters of their own business affairs, and could acquire their economic independence through cooperative action. Many of the members, and especially the Board of Directors, gradually acquired the attitude that they really were responsible for the affairs of the cooperative, with the result that the manager resigned during the early fall of 1938.
Problems Resulting From a Surplus of Pulpwood and Damage Done By a Hurricane

The Board of Directors immediately employed the third manager, a local man, who was well qualified to market forest products, although he was not experienced in cooperative work. At the same time, the problems confronting the cooperative became more complicated as a result of the hurricane of September 21, 1938, which blew over thousands of cords of pulp and timber in the area served by the cooperative. The government, through the Forest Service, finally initiated a program of timber salvage, whereby woodland owners could bring their salvaged timber to designated points of delivery, and receive an established price based on grade.

An effort was made to have the New England Timber Salvage Administration, which is an agency of the Federal Surplus Commodity Corporation and is administered by the Forest Service, allow the Forest Products Association, Incorporated, to act as its agent in salvaging the fallen timber in the area served by the cooperative. This proposal was not favored, but the New England Timber Salvage Administration agreed not to sell the salvaged pulp purchased in the area until the Forest Products Association has an opportunity to dispose of its surplus pulp.

The new manager was able to quiet the members, and, after a time, the pulp companies began to pay for the wood already delivered, and started to accept the undelivered wood as contracted for, so that the Association is gradually settling its back accounts with members. As the wood has been paid for, the loans to the members have been cancelled, and the cooperative should be in a position to make new loans for pulping.
operations.

The Association made no contracts with the companies for pulpwood during the spring of 1939 and made every effort to work off several thousands cords of available wood for which there was no contract. Although the balance sheets showed that the association was financially sound during the spring and summer of 1939, the pulpwood problem became more and more critical. Several members with whom the association was unable to settle threatened suit.

September 1939 the International situation suddenly changed the business outlook for pulpwood. The companies began operating on full time, and by October the association was able to dispose of its rough wood at a small loss. The peeled wood is being held with the hope that it can be sold at a price sufficiently to recoup the loss taken on the rough wood. The relations between the cooperative and the pulp companies has greatly improved under the new manager, and it seems probable that satisfactory pulpwood contracts will be made during the next few months. The somewhat uncertain financial condition of the pulp companies is an obstacle that may retard the signing of contracts.

Adjustments Made On the Management of the Cooperative Under the New Manager

One of the principal complaints made against the previous manager by the Board of Directors was the excessive expense for operating the Association. The present manager greatly reduced the operating expenses. One item of expense that has been excessive in the management of the Association, has been the charge for scaling wood on members' land where
loans are made. Scales have been employed to do this work on a per diem basis. To date, no satisfactory solution to the problem has been found.

Although the Association had lost money on its Christmas tree project in 1937, those who had handled the Association's trees were pleased with the quality and the policy of grading and tagging the trees. The Association made a profit of over $1200.00 on Christmas trees during the Christmas season of 1938. The new manager, aside from reducing the general operating expenses of the Cooperative, greatly reduced the cost of marketing Christmas trees, also was able to capitalize on the advertising and the contacts made.

The cooperative has experienced many reverses, due largely to changing business conditions, unsatisfactory management, and lack of understanding and appreciation on the part of the farmers as to the value and importance of the cooperative. Many of the difficulties could have been avoided if a year or more of preliminary intensive educational work had been carried on among the farmers of the region to bring out the advantages and the problems relating to cooperative effort. In addition, the members would have acquired a greater feeling of responsibility in the cooperative if the Association had been so organized that each member felt a personal interest in its finances. The fact that the cooperative started as it did under public sponsorship, with a $100,000 loan from the federal government, without financial responsibility on the part of the individual
members, along with the background of the Rural Rehabilitation activities in the area, led many of the people, including members, to believe that the Association was a government agency, rather than a strictly cooperative business organization owned and controlled by the members. This point of view is gradually being overcome, although it is retarded somewhat by the fact that the Forest Service feels that there is a necessity for having a full time federal employee stationed in the area, who acts as trustee over the $100,000 loan. Under the present set-up, the cooperative, besides having the responsibility of marketing the members' forest products cooperatively, also acts as a credit agency by loaning money to members to finance their woods operations. Until the fall of 1939, the cooperative did no processing, but acted largely as a bargaining agency in marketing the forest products of members.

**Expanding Market for Forest Products by Manufacture of Lumber**

During the spring of 1939 the Association after careful study by the Board of Directors, requested permission from the Forest Service to use funds from the $100,000 loan to purchase a processing plant with storage grounds for logs, poles, Christmas Trees and other forest products for the manufacture of lumber, squares and other dimension material. The plant has been in the hands of the receivers for some time, and the local bank, interested in developing local industry permitted the sale of the property to the Association at a low figure. They estimated that if necessary they could dispose of the machinery at a price more than they paid for the entire plant. At the start they planned to manufacture spruce lumber, and
gradually get into the business of manufacturing dimension stock. It was felt by the Board of Directors and the Manager that as a result of this development the association would have sufficient diversification of activity to cushion some of their recently experienced difficulties which resulted from handling only one or two kinds of products in times of business reverses.

It was also felt that the members would acquire a better appreciation for their association if they could actually visit and see tangible facilities that were owned and used by the cooperative.

When it became evident that the United States Forest Service would not permit the Board of Directors to purchase the sawmill by using funds from the $100,000 loan, another proposal was presented to the government. It was requested that the Forest Products Association Inc. be permitted to purchase logs for sawing, contract the sawing, and then sell the manufactured lumber. The association was permitted to adopt such a policy and the Forest Owners Lumber Company was organized, composed largely of members of the Board of Directors of the Forest Products Association Inc. The manager of the cooperative is also treasurer of the Forest Owners Lumber Company. The sawmill was purchased by the company and it contracted to manufacture the logs of the Forest Products Association Inc. into lumber at $8.00 per thousand. The Forest Owners Lumber Company sub-lets the sawing done at $5.00 per thousand. The company has raised its capital by selling stock at $25.00 per share, and they are allowed to capitalize up to $10,000. The Forest Products Association Inc. started to purchase logs for sawing during
October 1939. The Association has more demands for lumber than they can fill, and has already up to November 1939, sold several thousand feet of spruce lumber at a price that has netted a good profit. This venture into the manufacture of lumber has interested many of the woodland owners in the vicinity of the mill, and, if successful, will be an important factor in convincing local people as to the value of the cooperative. Because of the roundabout method that the Board of Directors of the cooperative were obliged to adopt in the manufacture of lumber and the fact that they have money invested in the sawmill rather than in the cooperative, there is some danger of the cooperative being submerged by the Forest Owners Lumber Company. With the change of the by-laws of the Cooperative as already explained, this danger should be largely eliminated.

**Marketing Methods Employed by the Cooperative**

In one sense the members pool their forest products, but the procedure used by the association in marketing forest products has not been on a strict pooling basis. Members were not willing to pool their wood, allow the Association to bargain for the best price, and then receive the established price less the necessary deductions. One reason that such an arrangement has not been practical, is that the Companies have been inclined to purchase wood from non-members at better prices than the members receive through the Association. Consequently a continuous effort has been made to persuade the companies to pay a premium on the wood bought from the Association, so that members could be paid current market prices for wood in the area and the Association be left a margin for operating expenses.
The principal argument used with the companies on this point has been that the Association is acting in the same capacity as buyers who acted as the company’s agents, prior to the depression. Also, the companies do not need to finance the cooperative as they did the buyers. In addition to these advantages, the cooperative is attempting to persuade the members to manage their woodlands so as to sustain the yield; a policy which is essential to the very existence of the pulp companies. The reasons for the resistance of the pulp companies to the cooperative, regardless of the advantages to them are obvious. Without doubt the companies felt justified in their fears of the cooperative when, in 1937, the manager of the cooperative was able to increase the price of wood above what they believed to be reasonable. These difficulties and others resulting from dealing with one product in a limited market, point to the necessity of expanding the activities of the Association. The hardwood log and Christmas Tree markets probably saved the cooperative from disaster in 1938. With a broad base established for activities in the processing and marketing of forest products, the Association develops a steady business rather than seasonal activities, as is the case of pulpwood. The members, also, with a varied market for their forest products, through the cooperative, are in a better position to increase and to equalize the annual income from their woodlands, and, at the same time, develop a forest management plan, based on a broad program of forest utilization.

Financial Status of the Cooperative Spring 1939

At the completion of the fiscal year, May, 1939, the
association was able to pay the interest on its $100,000 loan, meet necessary operating expenses, and reduced the operating loss of the previous two years from $9,451.71 down to $2,059.29. The gross business of the Cooperative for the past year was $141,564. Since the organization of the Association in the fall of 1935, it has done a gross business of approximately $500,000.
### Table 17

Volume of Business Carried on by the Forest Products Association, Incorporated, During three years of Operation

<table>
<thead>
<tr>
<th>Season</th>
<th>Number of Members</th>
<th>PULP WOOD Peeled</th>
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<th>PULP WOOD Rough</th>
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<tr>
<td></td>
<td></td>
<td>Softwood Cords</td>
<td>Hardwood Cords</td>
<td>Poplar Cords</td>
<td>Softwood Cords</td>
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<td>1,612.01</td>
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<td>135.46</td>
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<td>1937-38</td>
<td>315</td>
<td>9,348.87</td>
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<td>1938-39</td>
<td>131</td>
<td>3,268.55</td>
<td>1,459.27</td>
<td>636.61</td>
<td>6,001.18</td>
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<table>
<thead>
<tr>
<th>Season</th>
<th>Number of Members</th>
<th>Christmas Trees</th>
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<tr>
<td></td>
<td></td>
<td>No. of Bundles</td>
<td>Carloads Sold</td>
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<tr>
<td>1936-37</td>
<td>220</td>
<td>5,484</td>
<td>10</td>
</tr>
<tr>
<td>1937-38</td>
<td>315</td>
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<td>131</td>
<td>7,543</td>
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No contracts with members made for pulpwood, 1938-39. Figures shown 1938-39 yet to be delivered.
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<tr>
<th>Year</th>
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<th>May 21</th>
<th>May 21</th>
<th>Net 21</th>
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<tr>
<td>1927-28</td>
<td>14,701.27</td>
<td>2,494.18</td>
<td>14,701.27</td>
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<tr>
<td>1926-27</td>
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<th>Year</th>
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<th>Operative 21</th>
<th>Other 21</th>
<th>Gain 21</th>
<th>Loss 21</th>
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<tr>
<td>1928</td>
<td>17,494.42</td>
<td>16,221.11</td>
<td>11,207.11</td>
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<td>1927-28</td>
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<td>5,578.66</td>
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<table>
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<th>Season</th>
<th>Other Income</th>
<th>Interest Income</th>
<th>Other Income</th>
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<td>16,221.11</td>
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<td>17,494.42</td>
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<tr>
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<td>1,004.42</td>
<td>5,578.66</td>
<td>5,578.66</td>
</tr>
</tbody>
</table>

By Years

Table 19

-120-
The operating expenses for 1938-39 are divided about as follows:

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<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Insurance Expenses</td>
<td>$63.45</td>
</tr>
<tr>
<td>Interest Expense on R.A. Loan</td>
<td>2,575.00</td>
</tr>
<tr>
<td>Legal fees and expenses</td>
<td>71.75</td>
</tr>
<tr>
<td>Light</td>
<td>19.24</td>
</tr>
<tr>
<td>Miscellaneous Expenses</td>
<td>412.79</td>
</tr>
<tr>
<td>Office Supplies</td>
<td>463.20</td>
</tr>
<tr>
<td>Organization's Promotion Expenses</td>
<td>9.13</td>
</tr>
<tr>
<td>Rent</td>
<td>325.00</td>
</tr>
<tr>
<td>Salaries</td>
<td>4,413.45</td>
</tr>
<tr>
<td>Taxes (F.I., A.B. &amp; Unemployment Insurance)</td>
<td>100.11</td>
</tr>
<tr>
<td>Travel</td>
<td>1,306.65</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$9,942.35</strong></td>
</tr>
</tbody>
</table>

Forest Management on Farm Woodlands Through Cooperative Marketing

The policy of using a Forest Products Cooperative Marketing Association as a vehicle with which to get forestry practice on the farm woodlands served by the Association has its difficulties. The manager of a cooperative becomes so engrossed in the difficulties of conducting its business, that he neglects, or disregards, the long time program that reaches beyond problems of marketing. Trained foresters experienced in cooperative management are not available, and the average business managers interest in the long time program of forest management is quite secondary to his present day business.
problems. There is, also, some question whether a newly-
or-organized cooperative can, at the start, afford to contribute-
sufficient funds to a project that does not yield a tangible re-
turn. The other alternative would be for the members to pay-
the additional expenses involved in developing individual-
woodland management plans, and the marking of trees for-
cutting. Few farmers as yet are sufficiently interested in-
forest management, or able to afford to bear the expense of-
preparing plans for the management of their woodlands. The-
government, through its authorized agencies, has for the interest-
of the community a definite responsibility in teaching and helping-
woodland owners to undertake proper management of their timber-
resources so that they may sustain the yield. The New Hampshire-
Extension Service has worked on the premise that, if the farmers-
in the northern part of the state become interested in their-
woodlands as a result of better and stabilized markets for their-
forest products, they would be more interested in applying efficient-
forestry practices when working on their woodlands. With-
this thought in mind, the Extension Service and the Forest-
Products Association, Inc., signed a memorandum of understanding-
which suggests ways and means for encouraging farmers to under-
take the task of growing trees as a crop.

The Memorandum reads in part as follows: -

"The State Extension Service agrees: that the principal-
object of such cooperation shall be to provide technical-
assistance in the good forest management of the woodlands of-
members when their forest products are being marketed by the-
Association. Good management of woodlands consists of adopting-
scientific practices in the care of growing stock, and the-
cutting of merchantable growth with the purpose of sustaining-
the yield and quality of suitable forest products.

"To provide the Forest Products Association with technical
assistance in determining the annual growth of forest products on woodlands of the members so that the Association may determine the maximum or periodic cut on the woodlands of its members. Since such data can only be obtained from field studies, the Extension Service will seek the cooperation of the New Hampshire Agricultural Experiment Station, the Northeastern Forest Experiment Station, and other interested public agencies in making such information available to the Forest Products Association, Inc.

"The Forest Products Association agrees: that every effort will be made through its manager to have its members develop the policy of sustained yield on their woodlands, and will ask and seek the technical advice of the New Hampshire State Extension Service on such matters.

"That over any five-year period starting January 1, 1936, the total annual cut will not exceed the total annual growth on the woodlands of its members in the State of New Hampshire."

Responsibility Taken, So Far, By the Cooperative in Getting Forestry Practiced

While the Forest Products Association has not been in the position to carry through a program of forest management with its members, it has urged them to apply forestry practices in the cutting of pulp and other forest products. The following clause relative to forestry practice by members appears in the marketing agreement:

"To adopt and apply proper forestry practice as recommended by the representative of the Secretary of Agriculture and the Extension Service, in cutting timber from his woodland and to handle his woodland in accordance with the principle of maximum sustained yield."

In the new by-laws which have the approval of the members but have not been passed on by the government, the following references are made to woodland management:

"The Association shall carry on educational work among the members at large in the practices of sustained yield forest management, membership is limited to farmers and owners of forest land who agree to carry out improved forestry practices for the protection and perpetuation of our nation's forest resources and other interested persons endorsing the program."

Interest on the part of the members, board of directors, and the manager in developing the timber resources on the farm woodlands in the area served by the cooperative, has gradually
increased to a point where there is a consistent demand on the part of individuals for technical advice in regard to the selection of trees for cutting pulp and timber for market. This interest has been built up by a program of intensive education among the woodland owners, and by studies and surveys of timber resources of the area, and the cost of handling forest products for market.

**Study of Cost of Harvesting Pulp Wood for Market**

Starting in 1934, the Northeastern Forest Experiment Station undertook a pulpwood cost-of-production study on a number of farm woodlands where pulpwood was being cut and marketed. By this research the man-hours required to cut, peel, work-up, scoot, yard, load, and truck pulp wood to a point of delivery were determined. The study revealed that the owner could not afford to cut small trees and market them in the form of pulpwood. It was found that the average farmer usually put unnecessary labor into his pulping operation. The results of the study appear in an unpublished report by Victor Jensen, Forester, Northeastern Forest Experiment Station.

The following table indicates the approximate cost involved in the average pulpwood operation on farm woodlands in northern New Hampshire. A comparison is made as to the cost per cord in a selective cutting in a clear cutting. It will be noted that there are only a few cents difference per cord in the cost of operations in the two types of cutting. While it costs a little more (in getting) to fell trees in a selective cutting, this loss is offset by the saving made in using only the larger trees, thus leaving the smaller growth for future development.
<table>
<thead>
<tr>
<th>Selective Cutting, 10.58 Cords per Acre</th>
<th>Clear Cutting 18.69 Cords per Acre</th>
</tr>
</thead>
<tbody>
<tr>
<td>Costs</td>
<td>Costs</td>
</tr>
<tr>
<td>Per Cord</td>
<td>Per Cord</td>
</tr>
<tr>
<td>Per Acre</td>
<td>Per Acre</td>
</tr>
<tr>
<td>Felling, Limbing, Peeling 1</td>
<td></td>
</tr>
<tr>
<td>Skidding 3</td>
<td>$2.22</td>
</tr>
<tr>
<td></td>
<td>$23.53</td>
</tr>
<tr>
<td>Skidding</td>
<td>0.71</td>
</tr>
<tr>
<td></td>
<td>7.52</td>
</tr>
<tr>
<td>Bucking (Landing) 1</td>
<td>0.72</td>
</tr>
<tr>
<td></td>
<td>7.60</td>
</tr>
<tr>
<td>Piling (Landing) 1</td>
<td>1.25</td>
</tr>
<tr>
<td></td>
<td>2.65</td>
</tr>
<tr>
<td>Trucking 4</td>
<td>1.31</td>
</tr>
<tr>
<td></td>
<td>13.82</td>
</tr>
<tr>
<td>Total</td>
<td>5.21</td>
</tr>
<tr>
<td></td>
<td>55.12</td>
</tr>
<tr>
<td>Market Value</td>
<td>10.00</td>
</tr>
<tr>
<td></td>
<td>105.80</td>
</tr>
<tr>
<td>Margin 5</td>
<td>4.79</td>
</tr>
<tr>
<td></td>
<td>50.68</td>
</tr>
</tbody>
</table>

1. One man crew, 35 cents per hour
2. Horse and driver, 60 cents per hour
4. Driver and Helper, $1.31 per hour
5. Available for Stumpage, Profit, Risk, Taxes, etc.


The following table clearly indicates why it is less expensive to cut the large trees for pulp and leave the smaller ones to grow. It should be remembered, however, that the best and largest trees should not always go into pulp. Trees capable of producing good butt logs may be worth more if the butt log is put into lumber and the top sticks into pulp.
Table 21
NUMBER OR STICKS OF PEELED SPRUCE AND FIR PULPWOOD PER CORD

<table>
<thead>
<tr>
<th>Average Center Diameter</th>
<th>Number Sticks Per Cord 1</th>
<th>Volume Cubic Feet</th>
<th>Number Sticks Per Cord 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>276</td>
<td>93.4</td>
<td>274</td>
</tr>
<tr>
<td>5</td>
<td>173</td>
<td>94.5</td>
<td>176</td>
</tr>
<tr>
<td>6</td>
<td>122</td>
<td>95.3</td>
<td>122</td>
</tr>
<tr>
<td>7</td>
<td>90</td>
<td>96.0</td>
<td>90</td>
</tr>
<tr>
<td>8</td>
<td>69</td>
<td>96.7</td>
<td>69</td>
</tr>
<tr>
<td>9</td>
<td>53</td>
<td>97.3</td>
<td>54</td>
</tr>
<tr>
<td>10</td>
<td>45</td>
<td>97.9</td>
<td>44</td>
</tr>
<tr>
<td>11</td>
<td>37</td>
<td>98.5</td>
<td>36</td>
</tr>
<tr>
<td>12</td>
<td>32</td>
<td>99.1</td>
<td>30</td>
</tr>
<tr>
<td>13</td>
<td>27</td>
<td>99.6</td>
<td>26</td>
</tr>
</tbody>
</table>

1. Based on piles of stacked wood, having different average D.B.H. Values from curve to nearest stick.

2. Assuming 95.3 Cubic Feet of Solid Wood per Stacked Cord. 128 Cubic Feet).


The following table gives the man minutes required to fell, limb, and peel, pulp wood with one man and two man crews on a clear cutting. From these figures it might appear that one man crew is more efficient than a two man crew. For example on a twelve inch fir a one man crew can cut and peel a cord in 206 minutes while it takes a two man crew 264 minutes. There are other factors, however, that off set the apparent saving of time. Few choppers like to work alone
and seldom will work as steadily as when in company. Where a selective cutting is made a two man crew is necessary in felling. Some woodland owners have felt the necessity of paying their choppers more when making a selective cutting. Two choppers, in putting up pulp on selective cutting, should be able to turn out as many cords as the crew making the clear cutting. They don't handle as many sticks of pulp in putting up a cord.

**Table 22** (1)

Falling - Limbing - Peeling - Clear Cutting. Man Minutes per Cord

<table>
<thead>
<tr>
<th></th>
<th>SPRUCE</th>
<th>FIR</th>
</tr>
</thead>
<tbody>
<tr>
<td>One Man Crew</td>
<td>Two Man Crew</td>
<td>One Man Crew</td>
</tr>
<tr>
<td>4</td>
<td>695</td>
<td>976</td>
</tr>
<tr>
<td>5</td>
<td>569</td>
<td>744</td>
</tr>
<tr>
<td>6</td>
<td>458</td>
<td>572</td>
</tr>
<tr>
<td>7</td>
<td>369</td>
<td>487</td>
</tr>
<tr>
<td>8</td>
<td>311</td>
<td>426</td>
</tr>
<tr>
<td>9</td>
<td>283</td>
<td>382</td>
</tr>
<tr>
<td>10</td>
<td>270</td>
<td>356</td>
</tr>
<tr>
<td>11</td>
<td>268</td>
<td>345</td>
</tr>
<tr>
<td>12</td>
<td>271</td>
<td>350</td>
</tr>
<tr>
<td>13</td>
<td>279</td>
<td>360</td>
</tr>
</tbody>
</table>


Need for Inventory of Timber Resources of Farm Woodlands in Area Served by the Cooperative.

In the preparation of a preliminary budget for the Forest Products Association, for the purpose of making application for the $100,000 loan, it was estimated that the Association would need to handle annually between 15,000 and 17,000 cords of pulpwood and about 15 carloads of Christmas trees. It was roughly estimated that the area served by the
Forest Products Association, the Upper Connecticut Valley, could, if recommended cutting practices were applied by the owners, yield over 20,000 cords of pulpwood and other forest products annually and yet sustain the yield.

The Extension Service, however, had neither maps of the farm woodlands, nor knowledge of the available growing stock. If this information could be made available, it would be possible to prepare woodland management plans for individual farmers which would show them definitely their allowable annual cut.

The Survey of the Farm Forest Resources of the Area Served by the Cooperative.

With such a purpose in mind, the United States Forest Service was asked to undertake the inventory of the Farm Woodlands of the region with the use of C.C.C. labor. They started the cruise July 1, 1937. The Northeastern Forest Experiment Station, the New Hampshire Agricultural Experiment Station, and the State Forestry Departments of New Hampshire and Vermont, have cooperated with the Forest Service in making a ten percent cruise of the farm woodlands in the area. The field and office work by the Forest Service was completed during the spring of 1939. As soon as the work in a township is completed, the Forest Service turns over to the Extension Service composite type and property maps of the farm woodlands, and of the farms in each town surveyed.

With the data and maps is included an estimate of the volume and growth of the timber by types, age, and site, so that the Extension Service is able to prepare woodland management plans for the individual farms. After the individual farm
maps checked in the field for accuracy, it is possible, with the use of the data, to compute the existing volume of merchantable and unmerchantable timber, and the present annual growth on the individual farm woodlands. With the knowledge of the condition of the farm woodlands of a given section, it is possible, in cooperation with the farmer, to develop a simple management plan for the improvement of his woodlands. The woodland management plans should be only a part of the farm management plan for the entire farm. The Extension Service with the cooperation of the Forest Service plans to employ at least two men before 1940 to develop the data and maps for the individual farms and use them in persuading the farmers to conform with good forest practices when harvesting forest products.

The following table is a summary by towns of the inventory of the forest resources on the farm woodlands and small holdings in the area served by the cooperative in the upper Connecticut valley. The volume of the standing timber on the 223,818 acres covered was 349,723,970 board feet or 1,471,390 cords, and the annual growth was 63,793 cords or 81,896,500 board feet.
### Volume and Growth of Timber for all Ages and Conditions of Stand by Forest Type and Site Quality

<table>
<thead>
<tr>
<th>Town</th>
<th>Forest Area Surveyed</th>
<th>Volume of Standing Timber</th>
<th>Per Acre</th>
<th>Growth</th>
<th>Total Annual Growth per Acre for Total Acreage</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>(Bd. Ft.)</td>
<td>(Cds.)</td>
<td>(Bd.Ft.)</td>
<td>(Cds.)</td>
</tr>
<tr>
<td>Carroll</td>
<td>5,752</td>
<td>8,850,038</td>
<td>37,413</td>
<td>1,259</td>
<td>6,504</td>
</tr>
<tr>
<td>Dalton</td>
<td>4,340</td>
<td>5,481,090</td>
<td>23,094</td>
<td>1,263</td>
<td>5,321</td>
</tr>
<tr>
<td>Whitefield</td>
<td>13,526</td>
<td>22,995,828</td>
<td>94,585</td>
<td>1,700</td>
<td>6,993</td>
</tr>
<tr>
<td>Jefferson</td>
<td>14,124</td>
<td>16,193,022</td>
<td>67,320</td>
<td>1,146</td>
<td>4,774</td>
</tr>
<tr>
<td>Lancaster</td>
<td>16,854</td>
<td>25,509,988</td>
<td>99,007</td>
<td>1,514</td>
<td>5,874</td>
</tr>
<tr>
<td>Northumberland</td>
<td>16,260</td>
<td>21,234,916</td>
<td>96,609</td>
<td>1,306</td>
<td>5,941</td>
</tr>
<tr>
<td>Stark</td>
<td>11,536</td>
<td>19,930,209</td>
<td>76,526</td>
<td>1,728</td>
<td>6,634</td>
</tr>
<tr>
<td>Milan</td>
<td>6,032</td>
<td>6,194,570</td>
<td>32,161</td>
<td>1,219</td>
<td>6,528</td>
</tr>
<tr>
<td>Stratford</td>
<td>15,664</td>
<td>25,642,630</td>
<td>105,776</td>
<td>1,637</td>
<td>6,753</td>
</tr>
<tr>
<td>Stark</td>
<td>11,536</td>
<td>19,930,209</td>
<td>76,526</td>
<td>1,728</td>
<td>6,634</td>
</tr>
<tr>
<td>Colebrook</td>
<td>8,258</td>
<td>12,315,928</td>
<td>55,809</td>
<td>1,491</td>
<td>6,758</td>
</tr>
<tr>
<td>Pittsburg</td>
<td>11,743</td>
<td>19,078,208</td>
<td>85,074</td>
<td>1,624</td>
<td>7,242</td>
</tr>
<tr>
<td>TOTAL</td>
<td>134,630</td>
<td>203,356,630</td>
<td>849,900</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AVERAGE</td>
<td></td>
<td>1,491</td>
<td>6,316</td>
<td>9.296</td>
<td>.260</td>
</tr>
</tbody>
</table>

* One thousand board feet is here considered equivalent to two cords in converting board feet to cords.
<table>
<thead>
<tr>
<th>Town</th>
<th>Forest Area Surveyed (acres)</th>
<th>Total Volume (Bd. ft.)</th>
<th>Volume of Standing Timber (Cds.)</th>
<th>Average Volume Per Acre (Bd. ft.)</th>
<th>Average Annual Growth per acre (Cords)</th>
<th>Total Annual Growth for total acreage (Cords)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Concord</td>
<td>14,564</td>
<td>16,913,188</td>
<td>83,769</td>
<td>1,299</td>
<td>5.751</td>
<td>.265</td>
</tr>
<tr>
<td>Lunenburg</td>
<td>6,730</td>
<td>6,181,030</td>
<td>40,456</td>
<td>1,216</td>
<td>6.011</td>
<td>.345</td>
</tr>
<tr>
<td>Guildhall</td>
<td>10,620</td>
<td>21,692,000</td>
<td>86,315</td>
<td>2,068</td>
<td>8.127</td>
<td>.428</td>
</tr>
<tr>
<td>Maidstone</td>
<td>7,336</td>
<td>15,673,000</td>
<td>60,542</td>
<td>2,156</td>
<td>8.352</td>
<td>.402</td>
</tr>
<tr>
<td>Ferdinand</td>
<td>4,998</td>
<td>5,060,288</td>
<td>22,102</td>
<td>1,012</td>
<td>8.022</td>
<td>.302</td>
</tr>
<tr>
<td>Brunswick</td>
<td>4,750</td>
<td>13,892,000</td>
<td>47,772</td>
<td>2,925</td>
<td>10.057</td>
<td>.401</td>
</tr>
<tr>
<td>Bloomfield</td>
<td>7,066</td>
<td>10,705,202</td>
<td>53,699</td>
<td>1,615</td>
<td>7.599</td>
<td>.333</td>
</tr>
<tr>
<td>Brighton</td>
<td>12,984</td>
<td>14,979,142</td>
<td>64,733</td>
<td>1,154</td>
<td>4.935</td>
<td>.173</td>
</tr>
<tr>
<td>Lemington</td>
<td>8,354</td>
<td>18,301,868</td>
<td>75,578</td>
<td>2,191</td>
<td>9.046</td>
<td>.262</td>
</tr>
<tr>
<td>Canaan</td>
<td>11,736</td>
<td>16,969,622</td>
<td>79,524</td>
<td>1,446</td>
<td>6.776</td>
<td>.289</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>99,138</td>
<td>144,367,340</td>
<td>621,490</td>
<td><strong>---</strong></td>
<td><strong>---</strong></td>
<td><strong>---</strong></td>
</tr>
<tr>
<td><strong>AVERAGE</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>GRAND TOTAL</strong></td>
<td>223,618</td>
<td>349,723,970</td>
<td>1,471,390</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* One thousand board feet is here considered equivalent to two cords in converting board feet to cords.
During the last decade the annual drain of forest products during a period of extreme business activity, the annual cut probably would exceed the growth by several thousand cords, if buying in the area is competitive. One company that purchases wood in the section uses over a quarter of a million cords of wood annually. Other large pulp companies some distance away reach into northern New Hampshire for additional wood supplies when the pulp market is booming.

The following table indicates the annual drain of forest products during the last decade from the woodlands within the area served by the Forest Products Association Inc.

<table>
<thead>
<tr>
<th>TABLE 24</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annual consumption of Pulpwood by local mills</td>
</tr>
<tr>
<td>Normal purchase of pulpwood from area by local pulpmills</td>
</tr>
<tr>
<td>Pulpwood purchases from area by outside mills</td>
</tr>
<tr>
<td>Normal purchase of lumber from area served by cooperative</td>
</tr>
<tr>
<td>Annual fuelwood cut taken from the area</td>
</tr>
<tr>
<td>TOTAL</td>
</tr>
<tr>
<td>Annual growth of forest products in area served by the cooperative</td>
</tr>
</tbody>
</table>

(1) Based on USFS Survey. Annual drain figures based on estimates different individuals familiar with the area.

While the above table indicates that the annual drain nearly balances with the growth of forest products, it should be understood that the quality of the growing stock
has become progressively poorer because of exploitation of
the timber without thought of the future stands. Good hard-
wood for furniture is becoming more and more difficult to
locate on the farm woodlands. It is estimated that there
is only about a two year supply of suitable hardwood available
on farm woodlands within reasonable hauling distance of the
local furniture company. The supply of spruce has been
gradually reduced to a point where the percentage of soft-
wood on farm woodlands in the upper Connecticut valley runs
about 80% fir and 20% spruce on most farm woodlands.

The woodusing industries and the woodland owners in the
area served by the cooperative are confronted with the
difficult task of building up the timber resources on the
farm woodlands and small holdings. The cooperative should
be the medium through which the objective can be accomplished.
Educational efforts to bring about good Forest Management.

In the meantime, the Extension Service has carried on
intensive educational work in farm forestry among the farmers
of Coos County, in-so-far as funds are available. The
Assistant Extension Forester, with the help of a forester
working part time during the spring of 1937, interviewed
farmers, with the purpose of persuading them to adopt
recommended forestry practices. Plots of a quarter acre
or larger, which were marked for selective cutting on 60
farms, were used as demonstration areas to guide farmers in
their cutting practices. During the spring and summer of
1937, the intensive educational work was carried on as long
as the farmers continued to work on their woodlands. During
the fall of 1937, a forester interviewed these farmers with
the purpose of determining whether the intensive educational effort had been effective. Each cutting on the individual owner's land was graded.

The following grades were used:

**Softwood for pulpwood:**

"A"

Cutting of forest products under the above grade should be done in such a way that at least two-thirds of a complete tree canopy for each acre should remain following the operation. Each acre should also support one hundred crop trees well distributed over the area. Cutting should be a single tree type selection or group selection in so far as the above conditions were complied with. A cutting to receive the above grade should show the minimum amount of damage from felling and skidding. The slash should be distributed in such a way that no reproduction would be covered. Indication must appear that every effort was made during the course of the operation to keep the land fully productive and producing forest crops at the maximum rate. Forest conditions prior to cutting must be considered when grading operations.

"B"

This grade of work must show good intentions on the part of the owner in an effort to keep the land productive. Residual stand must be so selected that it will not suffer materially from wind throw. Conditions on the ground must be such that the land will either re-seed within a reasonable time or the residual stand will quickly form a well stocked stand.

"C"

This type of cutting should be of the character in which no effort whatsoever was made to protect the residual stand or reproduction already established. All merchantable material should be removed, leaving the intermediate and suppressed trees to be broken off or blown down. Large clear-cut areas would characterize this grade of operation.

"D"

Consists of areas which are being cleared for pasture and grazing.

**Hardwood for Saw logs:**

The presence of all three of the conditions listed below in a cut-over stand would classify the cutting as an "A" grade. The presence of any two would indicate a "B" grade, and the absence of all three of the above conditions would cause any cut-over area to fall in the "D" grade.

1. Sufficient residual stand (80 sq. ft. basal area or
another cut of the same type of merchantable product in 20 years) where the cutting takes the form of group selection a single group shall not exceed ½ acre size.

2. All cutts on undesirable trees which are dominant or co-dominant following the cutting shall be felled or girdled.

3. Reproduction of desirable species shall be present or conditions on the ground shall be such as to permit establishment within five years of such reproduction.

Results of the Intensive Educational Program

Of the cutting areas visited on 116 farms the forester made the following classification of the cuttings:

grade A---22 or 19%
grade B---28 or 24%
grade C---43 or 37%
grade D---14 or 12%
did not cut, not graded 9 or 8%

As a result of the survey the following observations were made by the forester (1)

"Any attempt to establish good sound sustained yield management on the farm wood lot will meet with many obstacles, and to reach this goal will necessarily require several years. Time worn ideas must be overcome by a program of education, and demonstration. The present program of woodland practice under the Agricultural Conservation program whereby an owner may be in some measure compensated, will go a long way toward getting interest in forestry. It has already proved valuable during the past year.

Sustained yield has more appeal to the younger man in most cases. This matter of age will have some bearing on the success attained for some years to come. Many farmers feel that they are too old to do the work and wish to secure the maximum return from their land at the time of cutting, while others have no interest in undertaking something from which they personally will receive no material benefit.

In each town there are a certain number of key individuals, rather progressive, who have done very good jobs of cutting during the past year. It would seem advisable if any more intensive work is to be carried on, that here is the place for the beginning. The opinions of these men are respected and their ideas more or less followed by others. Any effort expended here would be quite worth while and their woodlots would become demonstrations for the whole community."

(1) Report to N.H. Extension Service on Survey of Educational Efforts in Farm Forestry—Coos County—John Chandler
The extensive educational work in forest management was started again with the pulp season (1937-1938), and the following summer (1938) the forester made a second survey on the same farms where the owners had made new cuttings, with the purpose of determining whether they had improved upon their cutting practices since the time of the first survey. He made the following observation as to the general change in attitude of the individual farmer within a year's time, toward the cutting practices used on their woodlands. The chart gives a comparison of the cuttings classified by grade for 1937-1938.

<table>
<thead>
<tr>
<th>Grade of Cutting</th>
<th>Acre-age Cut 1938</th>
<th>% of Total Operation Acre-age</th>
<th>No. of Operations in 1937</th>
<th>No. of Operations in 1938</th>
<th>% of Total Operations 1937</th>
<th>% of Total Operations 1938</th>
<th>Change in Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>150</td>
<td>27</td>
<td>22</td>
<td>17</td>
<td>21</td>
<td>29</td>
<td>+8</td>
</tr>
<tr>
<td>B</td>
<td>114</td>
<td>21</td>
<td>28</td>
<td>15</td>
<td>26</td>
<td>26</td>
<td>+0</td>
</tr>
<tr>
<td>C</td>
<td>245</td>
<td>44</td>
<td>43</td>
<td>20</td>
<td>40</td>
<td>35</td>
<td>-5</td>
</tr>
<tr>
<td>D</td>
<td>42</td>
<td>8</td>
<td>14</td>
<td>6</td>
<td>13</td>
<td>10</td>
<td>-3</td>
</tr>
<tr>
<td>Total</td>
<td>551</td>
<td>100</td>
<td>107</td>
<td>58</td>
<td>100</td>
<td>100</td>
<td>---</td>
</tr>
</tbody>
</table>

The forester makes the following statement in a report following his second survey. (1)

"The same procedure was followed as before; all individuals contacted and their lots gone over with them. Of the 129

(1) John Chandler
farmers visited, only 58 had operated since the last gradings—considerable more interest was shown in sustained yield practices since the last survey. A great many farmers who were graded as (C) before have now realized their mistake."

Along with a program of intensive education in forest management, farmers have received some encouragement from the small subsidy offered for woodland improvement as provided under the Agricultural Conservation program. Each farm has a soil building base established with allowance can be used in carrying out soil building practices such as use of fertilizer, or lime on pastures and hay lands, the planting of forest trees, fencing live stock out of woodland, and the improvement of wood land by weedings and thinnings. Since the inclusion of the forestry practices in the program, farmers of Coos County have carried on the forestry practices as indicated.

**TABLE 26**

<table>
<thead>
<tr>
<th>Woodland Practices Under the Agricultural Conservation Program</th>
<th>Coos County</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Trees Planted</strong></td>
<td><strong>1936</strong></td>
</tr>
<tr>
<td>Acres</td>
<td>22</td>
</tr>
<tr>
<td><strong>Woodlands Improved</strong></td>
<td><strong>1936</strong></td>
</tr>
<tr>
<td>Acres</td>
<td>--</td>
</tr>
<tr>
<td><strong>Livestock Excluded from Woodlands</strong></td>
<td>320 Rods of</td>
</tr>
<tr>
<td>fence constructed</td>
<td>Fence Con-</td>
</tr>
<tr>
<td></td>
<td>structured</td>
</tr>
</tbody>
</table>

Although this effort of intensive education in the Coos area is of minor importance when compared with the problem of getting forestry practiced on many millions of acres of farm woodlands, it does definitely indicate that by educational efforts farmers can be persuaded to change their cutting practices on their woodlands with the purpose of building up a growing
stock for future cuttings.
Blue represents type of work prior to the time in 1937 when intensive educational work was carried on among the farmers who were cutting for association. Following several months intensive educational work, the second survey was made which is represented by the red.
CHAPTER X

The Otsego Forest Products Cooperative

The Otsego Forest Products Cooperative Association, Inc., came into existence due to circumstances quite different from the events responsible for the organization of the Coos Forest Products Association, Inc. The idea was first suggested in an unpublished thesis prepared in 1934 by a graduate student at the New York State College of Forestry, Syracuse University, entitled "Centralized Management and Marketing Applied to the Woodlands of the Cooperstown Forest Unit". The Northeastern Forest Experiment Station became interested in the project, and developed the idea which has finally resulted in the Otsego Forest Products Cooperative Association, Inc. It should be recognized from the start that the approach to the Otsego County project is quite different from that of the Coos project although the objectives in both cases are the same.

Adaptability of Cooperative Marketing Program for Cooperstown Area

The Northeastern Forest Experiment Station, in starting the project made a comprehensive inventory of the forest resources on the farm woodland surrounding Cooperstown, New York, county seat of Otsego County, and attempted to determine whether it was feasible and practical to urge the farmers of the area to organize a Forest Products Marketing Cooperative. The report of the survey and investigation appeared in the form of a bulletin in 1937, entitled, "Centralized Management and Utilization Adapted to Farm Woodlands in the Northeast", by C. Edward Behre and C. R. Lockard, of Northeastern Forest Experiment Station. Extracts from the summary of the bulletin
clearly state the justification for urging the woodland owners to organize a Forest Products Cooperative.

(1) "-------- Production from farm woodland can be stabilized and enhanced in quantity and value by a program of integrated utilization in which the cutting of timber will be directed toward building up and conserving the forest resources.

"Some form of cooperative action within natural forest units is essential to such a program, since farm woodland owners can rarely solve the problem independently. Owners of only small acreage, with limited financial backing, have little opportunity to control or change the generally unsatisfactory utilization situation.

"A forest unit in which cooperative sustained yield production may be undertaken need not be rigidly defined, and may vary in size according to local silvicultural and economic conditions.

"The Cooperstown Forest Unit serves as an example of the possibilities in many farm woodland sections. The Unit comprises 450,000 acres, of which 126,000 acres are woodland. The economic status of the rural population in this area indicates the need for the values that proper woodland management can bring. The Unit lies in a region where the use of land for agriculture has been declining steadily for more than 50 years, and where the area available for forest use is increasing.

"The forests of the Unit are composed chiefly of commercial value species, among which sugar maple, beech, white ash, basswood, hemlock, and white pine predominate.

"The total volume of standing timber within the Unit is adequate to support a substantial commercial enterprise, under sustained yield management.

"The Unit is favorable located with respect to centers of lumber consumption, and has access to a variety of existing wood using industries. The need is for a practical method of organization that will place the woodlands of the Unit under scientific management to serve these markets effectively.

"The following proposals for organization, forest management, and utilization should meet the needs:

"a) The grouping of farm woodland owners into a capital stock cooperative association, whose members voluntarily agree to practice sustained yield forestry on their holdings. Membership should be restricted to actual producers of forest products, and control should be kept in the hands of active producers by a revolving stock plan which insures economy in the use of capital, and which has proven successful in other agricultural commodity enterprises.

(1) "Centralized Management and Utilization Adapted to Farm Woodlands in the Northeast," by C.E. Behre and C.R. Lockard
"(b) The adoption of a system of light selective cutting, which will involve working over a relatively large area of woodland each year, but which will provide stability of income to the owners by return to individual tracts at 3 to 5 year intervals. Cutting during any period should not exceed growth, and selection of trees for removal should be based on silvicultural considerations and economic status of individual trees, rather than on any predetermined age or size.

"(c) The development of a system of integrated utilization which will aim, by pooling, classification, and processing, to utilize and market the forest products obtained, under the proposed method of forest management most economically and in the forms for which each class is best suited.

"Processing facilities to handle about 3,500,000 board feet of sawn material, as well as a commensurate volume of round products, should be provided as a minimum requirements for efficient operation. Processing should aim to prepare material for consuming industries rather than to compete in the markets for finished goods.

"With sufficient forest growing stock, scientific forestry practice, adequate utilization facilities, and efficient business management, the chief factor which will influence the success of a forestry cooperative is the degree to which its members understand and adhere to the basic principles of its organization, and give it enthusiastic and continuous support. An aggressive program of education is essential if this condition is to be obtained, and the public benefits involved are such that all agencies interested in forest conservation and sustained yield management may well aid such a cooperative association in this educational effort."

Organization and Structure of the Cooperative

The Otsego Forest Products Cooperative Association, Incorporated, was organized during December, 1935, under Article 8 of the New York State Cooperative Corporation. The Certificate of Organization, by-laws, and marketing agreements, provide a legal basis for accomplishing the objectives as stated above. On July 1, 1938, the membership of the Cooperative was 241 paid-up members. (1)

The cooperative, a stock cooperative, has two classes of stock—common and preferred. Fifty thousand shares of each,

(1) "Report of the Board of Directors, Otsego Forest Products Cooperative Association, Inc., for Fiscal Year ended June 30, 1938".
with a par value of $1.00, have been authorized. Dividends are restricted to 5% on preferred stock, and 8% on common. Common stock can be acquired and held only by timberland owners. It is acquired by a deduction from amounts due members for raw material deliveries, which is not set at 5%. The common stock is on a revolving plan whereby it can be bought up when, in the judgment of the Board of Directors, sufficient capital has been accumulated from the sale of common stock to active members. For example, as in the case of the Otsego Cooperative where 50,000 shares of common stock at $1.00 are authorized, as soon as the entire allotment has been issued, a block of the older stock will be purchased by the cooperative and an equal amount of new stock will be sold to active and new members.

Operating Capital

Up to 1939, about 4,000 shares of perferred stock had been purchased, mostly by citizens of Cooperstown. Common stock had been issued in the amount of $304 for membership subscriptions, and $413 in part payment to members for products delivered as provided in the by-laws.

(1) To provide capital for initial operations and to finance the construction of an efficient processing plant, especially designed to handle the varied classes of material yielded by the woodlands of the members, the Association has borrowed from the Farm Security Administration, $160,000 at 3% interest with a repayment period of fifteen years. Responsibility for technical supervision of the loan has been

(1) "Annual Report, Northeastern Forest Experiment Station, 1938."
placed with the Forest Service.

The loan is to be paid off by a series of equal annual payments, covering both principal and interest. A stated sum is set aside for this purpose from all products sold. Theoretically, the estimated production will take care of the situation, but if it does not, the difference will be made up from any surplus available. Common stock deductions could be used for this purpose. The source of the surplus will be partly from a small log margin, but mainly from processing margins.

Lumber Operations of Members during the First Year of the Cooperative

During the first season, (1937-38), 85 members brought in about 750,000 board feet of sawlogs for manufacture by the temporary mill which had been set up primarily to prepare material for construction of the main plant, which should handle at least 3,000,000 board feet a year. With an average price for all species, and grades at about $20.00 per thousand, net return to members for stumpage, profit and risk averaged about $9.30 per thousand. The average return to a member for the sale of logs to the Association averaged $150.00 worth of logs. In addition, the average member sold 7 cords of fuelwood at $18.00 per cord, delivered to consumer, or $56.00 worth; $10.00 worth of fence posts, and $2.00 worth of maple syrup. His out-of-pocket expense for producing this $218.00 of income was $65.00 which left him a net return from his woods of $153.00.

The Doyle Rule is used in the purchase of logs, because
it has been in use in the vicinity for more than 40 years, and the current prices were based upon the use of this scale. The Directors felt that it would be simpler to argue scale than to argue price at the outset. Also, from preliminary studies made in New York State on Log Rules, it was found that the unfairness of the Doyle Rule, as it is usually conceived, is not in the values of the Doyle Rule, but rather in the inadequacies of the utilization facilities which are not adapted to small-sized material and which, therefore, can operate in the smaller sizes only at an excessive cost and with minimum return. The Association does not make loans to members for logging operations, as is done by the Forest Products Association in Coos County. Each member does as much of his own logging as he wishes. Where a member is unable, or does not desire, to do the work, the Association puts him in touch with men who will do the work on contract. The Cooperative has a Diesel-powered Cletrac tractor, with a Gar Wood road builder and cable which is available to members at reasonable rates for logging rough spots. A Dodge truck and semi-trailer were purchased, and can be rented at a reasonable price by members for trucking logs. A sliding scale is used, so that members as far away as 25 miles can get hauling done for about $5.00 per thousand.

The Cooperative sells its lumber on the open market, and is not dependent upon any one business for its existence. Coming into the market at the time of the second depression, it was difficult to sell lumber at any price. Like the Coos Cooperative, the Otsego Forest Products Cooperative has had
its managerial difficulties, which have been a definite factor in retarding the development of the Association.

Financial Status of the Cooperative

The Osage Forest Products Cooperative for the fiscal year ending June 30, 1939 shows an inventory including the sale of stock of $28,707.78 against $25,749.56. To this cost must be added the interest charges on a $163,885 loan with the federal government and interest on $5796.00 worth of stock. The sale of lumber and dimension stock for the year amounted to $15,265.63. The total income of the cooperative for the fiscal year was $16,143.41 against total expenses of $30,826.28.

A statement of operations for the fiscal year ending June 30, 1939 is as follows.

<table>
<thead>
<tr>
<th>TABLE 27 (1)</th>
</tr>
</thead>
</table>

A. Inventory and Stock Sold

<table>
<thead>
<tr>
<th>Item</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales of Lumber and Dimensions</td>
<td>$15,265.63</td>
</tr>
<tr>
<td>Fuelwood and Sawdust</td>
<td>$409.52</td>
</tr>
<tr>
<td>Custom Sawing and Kiln Drying</td>
<td>$140.85</td>
</tr>
<tr>
<td>Inventory of Logs, June 30, 1939</td>
<td>$3,351.32</td>
</tr>
<tr>
<td>Inventory of Lumber and Supplies</td>
<td>$8,703.96</td>
</tr>
<tr>
<td>Income from Member Logging</td>
<td>$836.48</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$28,707.78</strong></td>
</tr>
</tbody>
</table>

B. Log Purchases

<table>
<thead>
<tr>
<th>Item</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Logs purchased from Members</td>
<td>$6,507.63</td>
</tr>
<tr>
<td>Logs purchased from non-members</td>
<td>$23.41</td>
</tr>
<tr>
<td>Supplies</td>
<td>$31.47</td>
</tr>
<tr>
<td>Association Timber</td>
<td>$300.00</td>
</tr>
<tr>
<td>Scaling Logs and Travel</td>
<td>$319.85</td>
</tr>
<tr>
<td>Logging Expenses-Labor</td>
<td>$1,016.13</td>
</tr>
<tr>
<td>Equipment Operations</td>
<td>$1,000.00</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$8,198.67</strong></td>
</tr>
</tbody>
</table>

C. Manufacturing Expenses

<table>
<thead>
<tr>
<th>Item</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Labor</td>
<td>$7,703.06</td>
</tr>
<tr>
<td>Material and Supplies</td>
<td>$2,828.23</td>
</tr>
</tbody>
</table>

(1) Report of Finance Committee to Special Meeting of Members of Otsego Forest Products Association October 21, 1939
-1560

Taxes and Insurance
Supervision

1,232.56

478.06

12,241.91

D. Cost of Selling and Delivering Lumber

Sales Salaries and Commission
Trucking and Freight

1,674.64

582.42

2,257.06

E. Cost of Office, Insurance, Taxes

Salaries, Executive and Office
Rent and Telephone
Supplies and Miscellaneous
Depreciation
Freight and Express
Auditor
Taxes and Fire Insurance

937.74

294.49

236.60

37.22

27.79

109.79

409.29

2,052.92

F. Assets

Current Assets
Fixed Asset
Other Assets

32,090.02

111,741.58

32,010.98

175,842.58

G. Liabilities And Capital

Current Liabilities
Deferred Liabilities
Total Capital

6,160.88

163,885.70

5,796.00

175,842.58

It is estimated that the cooperative can operate on a sound financial basis if it can manufacture and sell at least two and one half million feet of lumber annually. For the last fiscal year the association handled a little less than a million feet of lumber. The cooperative did not complete the construction of its plant until the latter part of the year, and consequently has not been able to operate at normal capacity for an entire fiscal year.

The annual growth on the woodlands that could be served
by the cooperative is between ten and fifteen million board feet. At the present time about two to three feet are cut in the region, and about one third of the amount is channeled through the cooperative.

The finance committee in its report points out that the greatest local interest of the cooperative is related to employment. If the mill manufactured one and a half million feet of lumber annually, it would employ approximately twenty-six men. Also about twenty-five men would be employed in the woods for six months of the year. In discussing the need for employment in the county, the committee points to all forms of relief and grants made to the county during the past six years exclusive of the city of Oneonta and not including the State and Federal overhead.

<table>
<thead>
<tr>
<th>Year</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>1933</td>
<td>$175,000</td>
</tr>
<tr>
<td>1934</td>
<td>$350,000</td>
</tr>
<tr>
<td>1935</td>
<td>$375,000</td>
</tr>
<tr>
<td>1936</td>
<td>$575,000</td>
</tr>
<tr>
<td>1937</td>
<td>$675,000</td>
</tr>
<tr>
<td>1938</td>
<td>$800,000</td>
</tr>
</tbody>
</table>

Application of Forestry to Woodlands of Members

The marketing agreement, which each member signs, calls for the Association to formulate a system of forestry and for the member to follow it. Based on studies by the Forest Service, a statement of approved forestry methods was worked out and sent to every member. At the outset, the Association adopted a system of forestry as standard, which was based upon cutting not more than 10 to 15 percent of the merchantable sized growing stock, (trees 6 inches and up,) with the idea that the owner could return to any one acre in three to five years. These cuttings are selective in nature and are aimed to shift the
the current growth from the poorest to better individual stems, so as to improve quality and increase the quantity of the annual cubic foot yield. All timber on woodlots which are operated, are marked in advance in accordance with the volume on the lot, the condition of the woodlot, and the desires of the member.

Since the start of Timber operations by the cooperative, all marking has been done by the Northeastern Forest Experiment Station, in an effort to develop a cheap and practical system of applying sustained yield management. (1) The work was divided into three steps, mapping, inventory of basic growing stock, and determination of permissible volume of cut and selection of individual trees. The map showed boundaries of each individual holding, interior features, and classified timber areas. Where no aerial photographs are available, and where the merchantable timber is approximately 20% of the total farm area, this map has been made for about twenty-five cents per merchantable acres. Where aerial photographs are available, and where merchantable timber area is greater, the cost may not exceed half of this. The inventory phase of the work using a specially developed reconnaissance system based upon a 100' tally, costs about twenty cents per merchantable acres. It appears to be practical to make one inventory and three markings over a ten year period at a cost of sixty-five cents per merchantable acre, or six and one-half cents per merchantable acre per year. The initial cost of mapping the farm woodlands should be added during the first ten years.

(1) Charles Lockard--Northeastern Forest Experiment Station
Of the 85 lots operated during that year, on only 2 percent was there any serious cutting beyond the marking, and on an additional 10 percent only, was there cutting beyond the marking. Cutting practice was not standard. Some members cut both fuel wood and saw-timber trees; others cut saw timber trees only, getting their fuelwood out of the tops. A stump tally of one-half of the cut-over areas showed the cutting removed about 3 percent of the total stand of growing stock on the entire area operated, or one year's growth (1).

Comparison of the Methods of the Coos and Cooperstown Cooperatives

In studying the two cooperatives—The Forest Products Association, Incorporated, Coos County, N.H. and the Otsego Forest Products Cooperative Association, Inc., Cooperstown, New York,—it is apparent that the objectives of the two organizations are similar: First, to stabilize and improve the marketing of farm wood products within an established working circle, and, Second, to bring about sustained yield forestry management on the woodlands of the members. The Coos Cooperative has developed in the natural course of events, one step at a time leading toward the objectives sought after. As a result, the unfolding of the Coos Cooperative has been gradual. Often steps that have been taken were found impractical, and it was necessary to retract and make a new approach. Those responsible for the management of the Otsego Cooperative have made an immediate direct frontal attack toward the objectives. It cannot be said that one approach is correct, and that the other is wrong. The two cooperatives were organized under

entirely different circumstances and conditions. The approach
to the problem, as made in Coos County, perhaps is not
applicable in Otsego County, and the Otsego approach in Coos
County would probably have been unwise.

The complete and immediate establishment of a modern
processing plant by the Otsego Cooperative, whereby logs can be
processed into well manufactured, and graded lumber, and sold
on the open market in competition with lumber manufactured
and marketed by industry, is fully justified as an experiment.

C. R. Lockard, Northeastern Forest Experiment Station,
makes the following observation on this point in a paper
presented to the Northeastern Forest Research Council, December
1, 1938.

"From the inception of this organization, the Forest Service,
through the Project Staff, has been the chief source of technical
guidance in all phases of activity. It is planned to
maintain this intimate relationship so long as it yields
valuable information, both to the Association and to the
public at large. This is one of the few instances where accurate
cost on all phases of the harvesting and processing operations
will be available. A set of books have been developed, which
will give details of operating costs and strategic points,
these costs to include charges for capital and depreciation,
as well as those for direct labor, material, and supplies.
This background will be favorable for time cost studies in
connection with the extraction of the forest crop under the
selective cutting method advocated. Studies in the processing
plant will enable comparisons to be made of various types
and arrangements of equipment. Data obtained from these studies
will also aid in the studies of grading, measuring, and pricing
forest raw materials which will have universal application. The
diversity of species encountered presents numerous seasoning
problems. Completely cooperative studies of both air and kiln
drying methodology, will be made. Close tie-up between the
Association and the Station will make possible the maintenance
of current and accurate soundings into markets for all classes
of products. Various problems connected with the organization
activities and extension of technical knowledge will be par-
ticipated in. In addition, studies of the general economic
status of farmers will be made, so as to keep track of the
effect of the Association's activities on economic levels."
OTHER COOPERATIVES ORGANIZED FOR THE MARKETING OF FARM FOREST PRODUCTS

The West Virginia Forest Products Association

The West Virginia Forest Products Association, with headquarters at Terra Alta, Preston County, West Virginia, was organized during 1937, under the auspices of the Division of Forestry, West Virginia University. In the year and a half since the start of the Cooperative, it has been reorganized twice. For the year 1938, the Association did a gross business of approximately $11,000. During 1938 there were 24 members, with the probability that the number would be doubled during 1939. The majority of the members are non-resident woodland owners. They turn over the management of their lands to the Cooperative, which is substantially subsidized and managed by the Division of Forestry of West Virginia University. The Forest Service has been making an inventory of the woodlands of the members and some of the adjacent holdings, which cover an area of approximately 15,000 to 25,000 acres. The maps and data are being used by the Cooperative in the development of Woodland management plans. It is organized as a non-stock, non-profit corporation, under the Agricultural Cooperative Marketing Laws of West Virginia. It sells no stock, collects no dues from members, and issues no membership certificates.

Timber land owners automatically become members upon signing a land management contract with the Association. Very little capital is needed, since it is only used for the temporary financing of operating contractors, who are unable to have funds tied up in cordwood during a three months drying
period before delivery. No money is loaned to members. All
wood products which have been sold to date (1938, and which have
been cut and prepared, transported, and marketed by the Association,
have resulted in a profit. This, however, has been due to the
fact that the manager's salary has been subsidized. Those
responsible for organizing the Cooperative, hope that within
two years the volume of business done by the Cooperative
will be sufficient to make the Association self-supporting.

The Tioga Woodland Owners' Cooperative Association

The Tioga Woodland Owners' Cooperative Association, Inc.,
was incorporated January 1, 1939,(1) through the efforts of
the New York State Extension Service, as a result of a
program of farm woodland management that they had sponsored
in cooperation with a friendly local wood-using industry. For
a number of years the Industry has paid a premium for logs
where the farmer has conformed with cutting practices as
recommended by the New York State Extension Service.

(2) The Cooperative was organized under Article 4 of
the New York State Cooperative Corporation law. There is no
capital stock. The cooperative is a bargaining agency, and
at present its products are sold to one wood-using industry in
the region. The financing of the logging operations is carried
on by each individual member without help from the Association.

During the first six months of operation January 1 to July
1, 1939, thirty-one members marketed $1310.47 worth of logs
through the Association.

(1) J. A. Cope Extension Forester, Cornell University
(2) Roy L. Donahue, "Your Forestry" page 818, Volumes 37-10
1939
The United States Forest Service and the Soil Conservation Service cooperated with the New York State Extension Service in making individual woodland maps, and an inventory of the timber resources for farmers in the area that might be served by the cooperative. Of the area cruised, farm woodlands cover 31,677 acres, which is 31.5% of the total area of the farms mapped. At the time of the survey, the volume of sawlogs was 102,855,174 board feet, and the total volume of all species, was 5,000 board feet and the average annual growth was 200 board feet, making the total annual growth in the entire woodland area 6,335,400 board feet.

The objectives and general procedure of operation of the Cooperative is stated in the Marketing Agreement, which is signed by each member.

"In order to improve the yield of farm woodlands, and the income derived from the woodlands, and at the same time establish a conservative cutting policy on these woodlands in the interest of a perpetual crop, the Tioga Woodland Owners' Cooperative Association, Inc.,---------------- and the undersigned owner, agree to the following:-

"This agreement applies to the disposal of products from all trees marked for removal on the owner's land by a trained and competent timber marker. Assistance in marking and marketing timber or other woodland products will be furnished by the Association, only on request of the owner.

"A trained and competent marker shall be a person trained and instructed in timber marking, and in the employ of the association. The owner designates the Association his lawful agent to sell products from marked trees in his woodlands, upon his request.

"The owner agrees to deliver and sell through the Association, and the Association agrees to mark, scale and sell for the owner the products from his woodlands, from the date of this Agreement until the same is cancelled or revoked.

"The cost of marking the timber in the woodlands, scaling the products, and all costs of marketing, shall be deducted by the Association from the proceeds received from
the sale of products; the balance shall be returned to the owner as payment for his products. The cost of marking and scaling sawlogs shall be 50 cents a thousand board feet; for other forest products marked and measured equivalent costs will be charged. Three percent of the sale price of all forest products at point of final delivery shall be deducted to cover marketing and bookkeeping costs.

"The Association has the right to mingle products of similar species and grades from different producers, and divide the net receipts on the basis of volume and distance from point of final delivery.

"All marking shall be done in consultation with the owner. It is agreed by the owner that he will not cut any unmarked trees for sale through the Association, or otherwise, unless some emergency now unforeseen arises. It shall be within authority of the Association to determine when such an emergency exists, and to declare the controlled cutting provision of the Agreement null and void. Nothing in this Agreement, however, shall prevent an owner from cutting trees for home use, or setting aside special areas of woodland on which this Agreement does not apply. If desired, the services of the Association's timber market will be available to members at cost, for marking woodland products for home use.

"This Agreement is perpetual, but may be cancelled or revoked by either the owner or the Association by giving a written notice to the other party the month of July of any year."

It will be observed that the procedure of the Tioga Cooperative in obtaining the objectives set forth in the Marketing Agreement is quite different from the Coos Cooperative. Since the Tioga Association is able to market the bulk of its products through one mill that has been friendly toward the objectives of the Cooperation, it has been possible to bend the members to a rather strict cutting policy. However, if there should develop strong competition for the farmers' forest products in the same area, it would be more difficult to bring about suitable woodland management unless the members were determined on a policy necessary to bring about sustained yield management of farm woodlands.
Hilles Forest Products Cooperative

The Hilles Forest Products Cooperative Association of Hilles, Wisconsin, was incorporated during the winter of 1939, following a year's investigation and study by the United States Forest Service. The project is being worked out under the sponsorship of the Resettlement Administration and the United States Forest Service. The Resettlement Administration can grant loans to individual members of the association for operating purposes if they qualify as clients of the administration. At present the project centers around the timber lands on a national forest. Approximately 80 farmers signed marketing agreements. The majority of the members consist of subsistence farmers, and people on relief or those sadly in need of employment. Up to the present time only a few members have marketed forest products through the cooperative and little progress has been made beyond the point of actual organization.

(1) The Association has been formed without capital stock. The purpose of the cooperative is to promote the orderly marketing and manufacture of forest products for its members, and for others who may wish to make use of the facilities of the Association.

The Cooperative of Frog Creek Wisconsin (2)

September 6, 1939 five farmers signed the articles of incorporation establishing a Forest Products Cooperative in the Town of Frog Creek, Wasburn County, Wisconsin. The essential elements which feature the proposed group marketing

(1) From the articles of Organization of the Association
(2) F. B. Trenk, Extension Forester Wisconsin
association are as follows.

Stumpage to be made available to individuals by purchase from the county—either the cooperative acting as the purchasing agent, or each individual cutter contracting with Washburn County for its stumpage.

A contract note made and signed by each cutter of pulpwood obliging himself to deliver to a specified landing, a definite number of cords of pulpwood.

A selling contract made by the cooperative with a wood utilization plant whereby the cooperative is to deliver a specified number of cords of wood at a contracted delivery price.

The contracts to produce, and the contract to purchase, taken together, become negotiable paper, upon which a bank or a purchaser may advance to the cooperative at least 50% of the selling price of the wood called for.

In order to finance the operator while working, the Association would advance fifty percent of selling price as the wood is cut and piled at the nearest truck loading point.

Final payment to be made after delivery to the mill, which will be equal to the contract selling price, less items of interest on the loan, scaling charges, trucking costs, county stumpage, and service charges made by the association to defray overhead.

At the start there will be no manager, and the contracts with outside markets must be made by interested persons willing to contribute their time.
Comparison of Forest Products Cooperatives

As already stated in Chapter VIII, the general objectives of the forest products cooperatives organized within the last four years are two fold, one, to increase the income from forest products harvested from farm woodlands and second, to eventually bring about sustained yield management on the same woodlands. Five of the six cooperatives were organized without capital stock. The Otsego Cooperative was organized with capital stock in which all members are obligated to invest. Based on the experiences of agricultural cooperatives, the Non-stock cooperatives should hold the members' interest by requiring them to invest in certificates of indebtedness that take the place of stock certificates.

The Otsego cooperative is the only one of the six that started with the purpose of processing lumber from the logs marketed through the association by the members. The rest started as bargaining agencies marketing forest products through the existing wood using industries. However, the Forest Products Association Inc. has started to manufacture lumber and finds it advantageous in increasing the margin of profit in the products handled. The Coos Cooperative was made over into a capital stock company during the winter of 1939-40.

The wise policy to adopt in the business management of a forest products association depends upon many local factors. The pattern of organization and business management that is practical for one cooperative may not be applicable for another. Experience shows, however, that a cooperative to be successful must have the support of the members, and this can best be brought about by having them invest in their marketing organization.
Of equal importance is good management. Business must be of sufficient volume to carry on the association without a long continued direct subsidy. At the start public aid may be desirable and necessary to get a forest products cooperative underway but if direct public subsidy continues any length of time the members are liable to lose interest, especially if they feel that they are not directing the affairs of their association.

The technique used in getting members of forest products cooperatives to manage their woodlands properly is based upon limited experience. Until the first forest products marketing associations were organized in 1935, the approach of bringing about good woodland management through the medium of improved marketing of farm woodland products had never been tried, although such an objective had been discussed among foresters for some time.

Possibilities of Extending Program of Cooperative Marketing of Forest Products into Other Areas

Just how rapidly Forest Products Cooperative Associations will be sponsored and organized among farmers and other woodland owners, depends upon several factors. At present, foresters and interested woodland owners, are discussing and investigating the possibilities of an approach to the problem, which will secure better markets for forest products on farm woodlands, and a program of sustained yield management. There is danger of moving too rapidly without sufficient data to determine whether the cooperative marketing of forest products is justified. It is important to know whether the forest products market in any area can be improved by cooperative effort.
If the program of cooperative marketing of forest products does expand, the question arises whether it would be in the best interests of the farm woodland owners and the conservation of forest resources to favor the centralized type of cooperative which extends its control out from one center over a large territory, or support the federated type, where several cooperatives develop independently of each other, and perhaps are finally brought together into one federated organization. Although in agricultural marketing both types have been successful, each has its advantages and disadvantages. Whether a federated or centralized type of a cooperative develops in the marketing of forest products in any section, is contingent upon the circumstances surrounding the development. There may be several leaders who might develop forest cooperatives independently of each other in the same region, and later these units would find it advantageous to amalgamate into a federation. On the other hand, one strong cooperative leader might be responsible for extending an existing forest products cooperative out beyond its natural working circle, thus creating a highly centralized association, or perhaps a modified federated organization. Markets are an important factor in determining the type of cooperative. If the products are to be exported from the area where they are produced, a centralized organization has greater possibilities than a section where the products go to numerous local wood using industries.

At the present time, there is not sufficient evidence to establish the fact whether it is possible to get farm woodland owners to manage their woodlands properly, because
they have been enabled to have a stabilized and better market for their forest products as a result of a program of cooperative marketing. Furthermore, it should be kept in mind that the existing forest products cooperatives have not been in operation a sufficient length of time to prove, definitely, that the cooperative marketing of forest products will be as successful a business venture as the cooperative marketing of many agricultural products.

If it can be assumed that the cooperative marketing of forest products is a sound business proposition, it must be recognized that most members of an association will not undertake the task of building up their timber resources without a complete change in their thinking toward the problem. To accomplish a change in the farmer's attitude toward the importance of sustained yield management, intensive educational work must be carried on. Most forest products cooperatives that may be organized, will be in no position to carry on a program in forest management unless they are subsidized at the start with funds to employ a qualified personnel to undertake such work or to work in cooperation with the public agencies conceived with these matters. Generally, if sustained yield forest management on farm woodlands is to be urged upon woodland owners through a cooperative marketing organization, the educational program will need to be in conjunction with public educational agencies qualified to do the work.

It is not probable that many associations, which are bargaining organizations and do no processing, will be in a position where it is advisable to accept only forest products
from members who cut according to recommended forestry practices, unless the industry buying from the cooperative favors such a policy. The possibility of public regulation of future cutting practices on private woodlands might be successfully allied with the cooperative marketing of forest products.

Success in applying regulation to cutting practices on private woodlands, depends largely upon the willingness of the people to accept regulation and upon the procedure followed in bringing about compliance. It should be recognized that regulation applied through centralized control is not applicable to the American point of view. If cooperative forest products marketing associations, managed by the woodland owners, could be made responsible for bringing about suitable forestry management by the members, it would appear that the majority of woodland owners would take a reasonable attitude toward the proper management of their lands. If it becomes generally recognized that forest products cooperatives have an important contribution to make in getting forestry practiced under any form of local regulation, such as through Soil Conservation Districts, or State or Federal regulatory laws, forest products association may have an important place in the future local and national programs of forest management, and marketing. A real danger exists in the possibility that too rapid organization of forest products marketing cooperatives will result in many unnecessary failures. This will be especially true, if there is not an appreciation of the difficulties involved in the organization and management of such an association. A cooperative business is like any other business, it must grow step by step, building soundly upon each success and failure.
In the state of New Hampshire farmers of adjoining counties are asking that they be assisted in developing better markets for their forest products, especially through cooperative effort. The problem is to keep the movement on a sound basis. In Carroll county, New Hampshire, the Agricultural Experiment Station has completed a marketing study of the farm forest resources with the purpose of determining the feasibility of a cooperative marketing organization for the marketing of farm forest products. After the farmers have been presented with the findings at a general meeting held at some central point in the area, they should be able to make an intelligent decision as to whether a cooperative marketing association for handling forest products is a sound business venture.

The demand for studies of a similar nature has become so insistent in other counties, that it will be necessary for the Agricultural Experiment Station and other interested agencies recognize these requests.
CHAPTER XII

Development of Cooperative Marketing of Forest Products in European Countries

The degree of development of cooperative marketing in European countries varies according to the locality. The problem has been approached in each country, from the point of view of improving markets. The task of getting forestry practiced on the areas served by the cooperatives rests largely with the public forestry agencies and the forestry societies. From what information is available however, there appears to be close correlation between the cooperative marketing agencies and the state in bringing about suitable forest management on private lands. In the European countries public regulation as applied to private forest lands is more stringent than in the United States. Data on forest products marketing cooperatives and from Europe as traveling in this country has been obtained from various European publications. A brief survey of the forestry practices of each European country where information is available will be given under separate headings.

Sweden (1)

Nearly fifty percent of the woodlands of Sweden are owned by 300,000 farmers and other small owners. Sweden is one of the countries in which silviculture has become a normal and important aspect of forestry, because stumpage values are high enough to make silviculture pay. In every county there is a committee known as the Forest Conservation Board, whose duty it is to see that the forest laws are enforced. The County Board also offers the private forest owners expert advice and

(1) "The Forests of Sweden," by Th. Streyffert.
assistance, so that they may be able to carry out the precepts of the forest laws, which cover the minimum silvicultural measures that are necessary to keep the forest production on a satisfactory level.

**TABLE 28**

<table>
<thead>
<tr>
<th>Ownership</th>
<th>Productive Forest Area</th>
<th>Percent of Productive Forest Area</th>
<th>Total growing stock</th>
<th>Growing stock per acre</th>
<th>Annual growth</th>
<th>Annual cut</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>State</td>
<td>10,056,000</td>
<td>18.3</td>
<td>50,060 Million Cu. Ft.</td>
<td>845 Cu. Ft.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other public</td>
<td>3,164,000</td>
<td>5.8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Company Holdings</td>
<td>14,145,000</td>
<td>25.8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Private</td>
<td>27,443,000</td>
<td>50.1</td>
<td>28.4 Cu. Ft.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>54,808,000</td>
<td>100.0</td>
<td>1,533 Million Cu. Ft.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(1) The Forests of Sweden--by Th. Strangfert.

In 1935, there was a total of 24 county foresters, 63 assistant foresters, and 272 county rangers. In addition, there were 1,088 men employed temporarily as foremen to supervise field work. Aside from the task of assisting woodland owners to conform with the forest laws in the management of their woodlands, the Board, through their foresters, have the responsibility of convincing woodland owners that sustained yield really pays. It is with this aim in mind that some of the County Boards have begun to draw up working plans for each owner who wishes them.

Evidence of the wide-spread interest of forest owners is shown by the fact that in 1935 the Board handled 49,550 requests for help and advice about planning cuttings primarily
through marking of timber. During the year, every sixth forest owner turned to the County Forest Board for help. The forest area treated was 1,300,000 acres.

It is difficult to maintain good forest management on the farm woodlands of Sweden, since the forests of that country are a part of an often unstable and rarely profitable agriculture. On the other hand, the weak financial position of the farmer makes the forest indispensable to him. In recognition of this, it is prohibited by law to sell off from a farm forest land beyond the point where the farm becomes an inefficient unit.

**Cooperative Marketing Forest Products**

The Swedish farmers have always experienced difficulties in disposing of small quantities of wood. However, starting about 1934, marketing conditions were improved through an organization called the "Forest Owners' Association," (1) a cooperative marketing and bargaining agency. (2) By contracting to furnish raw material in large quantities, the groups can obtain a better price than each individual owner. They can also watch for changes in the wood market, and advise the farmers as to the suitable amounts and kind of timber to cut. The following tables show the growth of the National Association of forest co-operatives since 1934.

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(1) Information on Swedish Cooperatives from paper contributed by Eric A. Lundh. The translation was done by Doctor R. East, Harvard University.

(2) Mr. Gunnar Lange of Sweden. Traveling in U.S.A.
TABLE 29 (1)
MEMBERSHIP, AREA, AND TURN-OVER OF THE NATIONAL ASSOCIATION OF
FOREST CO-OPERATIVES FOR THE YEARS 1934-38

<table>
<thead>
<tr>
<th></th>
<th>1934</th>
<th>1935</th>
<th>1936</th>
<th>1937</th>
<th>1938</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of Members</td>
<td>1,500</td>
<td>3,100</td>
<td>7,384</td>
<td>13,152</td>
<td>21,777</td>
</tr>
<tr>
<td>Members' Holdings in</td>
<td>741,300</td>
<td>1,776,313</td>
<td>2,515,676</td>
<td>3,453,788</td>
<td>4,469,263</td>
</tr>
<tr>
<td>Acres</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Turn-over in Dollars</td>
<td>$351,000</td>
<td>$1,104,698</td>
<td>$2,348,901</td>
<td>$5,326,673</td>
<td>$9,456,201</td>
</tr>
</tbody>
</table>

The volume of business done by the cooperative represents about one twentieth of the total production of forest products in Sweden.

The form of the organization of the National Association of Forest Cooperatives is set forth in the following chart.
If the chart represents the complete organization, there are three forest products cooperatives federated together by the National Association.

(1) Ivis A. Bund—Translations Dr. R. Gart, Harvard University
The Development of the Forest Owners Movement:

The National Association of Forest Cooperatives organized during 1934, resulted from the gradual organization of associations in the different parts of the country as the woodland owners attempted to improve the markets for their forest products. The organized marketing movement was also stimulated through the initial concern on the part of the people over the future forest resources. The first forest associations organized about 1903 were for the management of the forests. Up to the time of the world war the movement was dominated entirely by production problems. The associations and the government worked in close harmony to bring about recommended cutting practices as required law.

Following the crisis of 1931-33, a new and almost unexploited field had to be developed by the associations, that is, propaganda for the increased use of forest products. A contributing cause in this development was the report of the national forest survey which revealed a large surplus of low quality wood. The propaganda for the use of fire wood was started and promoted by the government.

(1) Federal buildings such as hospitals, post offices, telegraph offices, etc., are by law obliged to use wood-fuel if their furnaces are suitable, and if the cost does not exceed twenty percent of coke. A great deal of wood-fuel has been furnished by the local cooperative associations.

The Forest Owners Associations have become more and more involved in the marketing of forest products and have gradually made the necessary adjustments so as to participate in this field.

(1) Eric O'stlin—Secretary of the National Forest Survey, Sweden
The development of cooperative marketing associations has been gradually developing. At the start no effort was made to market all forest products of the members through the associations. Care has been exercised not to antagonize industry and only when an association became well established did the woodland owners venture to do processing of forest products. Most of the cooperatives have begun with a very few members, perhaps not more than 15 to 20. This has meant that in many cases at the start buying was done from non-members when it was necessary to fill certain orders.

Employment of Woods Labor As it Relates to Cooperative Market of Forest Products

(1) Some 50,000 farmers and small woodland owners of Sweden have united into a rural organization for the purpose of bargaining their labor for work in the woods. This organization coordinates its activities with a labor union composed of laborers who gain a livelihood from work in the woods. Much of the labor for work in the woods is secured through the rural organization and the labor union. While this procedure may appear to regimentate the rural people who work in the forests, it is a means of insuring rural people a reasonable wage for their labor. For example, the farmer sells a few hundred cords of pulp through the cooperative at the established price, and he may need to employ two men to assist him. Hence he goes for the men to the Rural Bargaining organization of which he is a member. On the other hand he may bargain directly with two neighboring farmers to do the work, but at a price not below the rate established by the association. If he is to employ woods

(1) Gunnar Lange of Sweden-Traveling in U.S.A.
laborers the rural organization secures the help from the labor organization. If the owner sells his products on the stump, the cooperative or the company buying the wood obtains the woods labor through the organizations as explained. Before any trees can be cut, they are usually marked by the forester representing the local Forest Conservation board.

The three common types of sales between the members and the cooperatives, have been outright purchase, commission sales, and pooling. In case of outright sale the association purchases the products from its members at a price which is determined at the time of purchase. The price is so fixed that the surplus for satisfying the costs and the necessary contribution to the funds of the association can be obtained.

In the case of commission transactions, after the sale has been completed the member is credited with the amount received for his products less the costs and contributions to the general funds.

Pooling is distinguished by the fact that all who sell products of the same quality within an established period, receive the same price, and this price is so fixed that it is equivalent to the average price for the product in question during the pool period, less costs and contributions to funds.

The Forest Owners Associations are operated as follows. Subordinate to the directors of an association is a business manager. Experience has shown that this man should have practical forest experience as well as an education in forest theory, business sense, and ability to get along with people. His pay should be not entirely on a percentage of turnover. When an
association reaches a point where the budget is large enough to employ a manager at a regular salary it should do so.

The buying from members may take place by the members coming to the office of the association or it may be handled through representatives of the association in the different communities. The members often arrange to meet the representatives of the association at local meetings. Each representative is assigned a special task. In this way there are many workers for an association. A representative is compensated for the work performed.

The Swedish farmers and foresters are enthusiastic over the results accomplished to date in their cooperative associations. Although the main purpose of the cooperatives is the marketing of forest products, they also cooperate with the government by urging members to manage their woodlands properly and to conform with the forest laws.

Finland

(1) Finnish woodland owners prior to the time they marketed forest products cooperatively, were confronted with problems similar to those that worry many woodland owners in this country. The buyers of forest products had been schooled for years in dealing in timber from the stump up to the highest stage of manufacture, and knew its trade value at all of the different stages. On the other hand the forest owners had inadequate knowledge of the value of their forest products. Their concern with the continued existence of the forest has often given way to the urgent needs of funds. As in this country the reasons for this difference in ability for marketing forest products is

(1) From two papers on Finnish cooperatives marketing forest products. Contributed by D. Ilivissalo
The buyers are performing a daily task for which they are prepared down to the smallest detail, whereas the forest owner markets forest products perhaps once a year, and often at intervals of several years.

**Organization of the Forest Owners' Centre Ltd.**

After trade grew livelier following the world war, these difficulties caused to develop among forest owners the idea of securing a more independent position in selling their timber. Saw-mill and flourmill cooperative societies were being organized at that time in different parts of the country, and the question began to be discussed as to how the forest owners themselves could sell their forest products on a larger scale. The cooperatives made such rapid progress that the central organization in forestry and agriculture, the Pellervo Society, the Central Union of Agricultural Societies and the Forestry Association Tapio, decided to support them. It was planned to establish a central organization of forest owners covering the entire country, and then forestry cooperative societies and forestry societies would become members of the central body.

Forest owners met at Helsinki in 1920, when it was decided to establish a central marketing agency, Forest Owners' Forest Centre Ltd. The share capital was fixed at ten million marks, $216,000 and later increased to fifteen million marks, based on currency exchange 1935, $324,000. The membership at the start was about 8,000 consisting mostly of individual forest owners.

Although the central agency is a limited liability company, it has adopted the principles of cooperation. The shares are 500 marks each, $10.80 in U.S. currency, and are of two types.
The so-called ordinary shares can only be held by forest owners' cooperative societies and communes, parishes, and the state. Preference shares can also be held by individuals. The object of the latter was to finance the business at the start. The company is gradually redeeming these shares, and as the individual share holders are reduced, the cooperative element becomes more pronounced.

While the voting is not restricted to one vote for each member, no share holder is allowed more than six votes, and only share holders possessing 41 or more shares have this number of votes.

Of the profits that are made, thirty percent are transferred to the reserve fund, and ten percent goes to the fund for the redemption of preference shares. If there is sufficient balance, a seven percent dividend is paid on the ordinary shares, and two percent on the preference shares. Any remaining balance is divided among the holders of ordinary shares according to the amount of business done through the association.

Object of the Association

The association acts as a central agency of sale and manufacture. It has not established actual woodworking mills of its own, but has confined itself to acting as an agent in business transactions. Although it engages chiefly in export trade, domestic trade has developed considerably, being about twenty-five percent of the total annual business. The company has its own shipping organization and timber yards at Kotka, Makalahiti, Helsinki, and L apalisota.

In order to remedy the defects in the marketing of forest
products, the central agency and the affiliated societies have a policy in effect that keeps the woodland owners informed on existing market conditions and encourages sustained yield management. With the market information available, the forest owners are able to offer timber for sale that will net the greatest returns without over supplying the market.

The agency watches the course of prices both on the Finnish and foreign markets, so that any forest owner who uses the information is familiar with the current price of various kinds of timber and assortments. Forest management is given proper consideration, and care is taken not to jeopardise the continued existence of the forest. The organization follows the policy of accepting only timber that has been marked for cutting by experts.

At the start of cooperative marketing of forest products many of the larger producers imagined that all woodland owners both large and small, receiving the same prices for their products, their chances of securing the highest current prices would be restricted. This has not been the case, for, owing to the financial necessities, small forest owners had lowered the whole level of prices, so that, even though the big forest owners had obtained higher prices, they had not been the best.

The Marketing Organization for Handling Forest Products

At the start the Forest Owners' Forest Centre Ltd. obtained forest products principally from individual forest owners. As the affiliated cooperatives were organized, nine in number, prior to the depression, and now, four, more and more of the products were obtained through the district associations. It is
not the aim of the central agency with its office located at Helsinki, to earn profits for itself. From 1923 to 1928 the annual profits were from one to one and a half million marks, £21,600 to £32,400. During the period of the depression the association suffered considerable loss, a large percent of which was due to the financing of the production work of the affiliated societies. During the period it was difficult to obtain credit in Finland, and, when it was available, the rates of interest were high. Foreign credit was obtained, and unfortunately these credits had to be repaid at a considerably higher rate of exchange than the rate current at the time the loans were obtained. In the course of two or three years the losses in exchange amounted to ten to twelve million marks, £216,000 to £259,800. Losses also occurred as a result in the fall of prices, as the central association credited the affiliated societies for forest products received irrespective of whether they had been sold. Losses also occurred with the affiliated associations by the purchasing outright, of forest products, which had formally been supplied on a commission basis. Since there were not sufficient funds held by the affiliated societies, the central association was obliged to make good the losses. In this way the entire share capital was lost during the depression in addition to the reserves of about four million marks, £86,400. Since 1933 the central association has shown a profit and the capital of fifteen million marks, £324,000 has been recovered.

The affiliated societies that have an important place in the marketing organization of the Forest Owners' Forest Centre
Ldt., are either in the form of limited companies or cooperative societies. The four societies that now carry on the business in the field are all limited companies. Cooperative principles occupy an even more pronounced place in the organization of the local societies than in the central agency. As previously mentioned the object of each society is to promote forestry on the lands of their shareholders, and to increase the benefits derived from the forests. The companies take charge of the sale and manufacture of the forest products of their shareholders. They also encourage thrift in the consumption of wood for domestic purposes, and interest the shareholders in the better management of their woodlands. So far no woodworking mills have been established except sawmills. This is due partly to the lack of capital.

The affiliated societies are members of the central agency and own its shares. The sales except those that are local, are made through the central agency. The business of the affiliated societies is financed by the Forest Owners' Forest Centre Ltd.

The owners, whose forests are situated within the working area of the local company, own the shares of stock. For every 30 hectares, 74.1 acres, of timber land owned by the individual he is entitled to subscribe to one share of stock. Each member must own at least one share of stock. The shares are issued in the name of specified shareholders, and the sale is restricted in such a way that the shares always remain in the hands of the local forest owners. Members are obligated to sell their timber through the company's at least give the company the first refusal. The division of profit, the building of reserves
and voting rights are approximately the same in the affiliated societies as in the central agency.

Forest Products Sales

The value of the total sales of the Forest Owners' Forest Centre has varied in recent years between seventy and a hundred million marks, €1,512,000 to €2,160,000. The total sales of the association in 1937 amounted to 101.8 million marks, €2,198,880. The following quantities of timber products were sold.

<table>
<thead>
<tr>
<th>Description</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Long sawn timber</td>
<td>17,155 stds</td>
</tr>
<tr>
<td>Planed timber</td>
<td>953 &quot;</td>
</tr>
<tr>
<td>Short sawn timber</td>
<td>960 &quot;</td>
</tr>
<tr>
<td>Egyptian spars and builder's timber</td>
<td>2784 &quot;</td>
</tr>
<tr>
<td>P itprops</td>
<td>180,945 cubic M--75,352 cords</td>
</tr>
<tr>
<td>Pulpwood</td>
<td>108,837 cubic M--45,348 cords</td>
</tr>
<tr>
<td>Firewood</td>
<td>93,355 cubic M--38,898 cords</td>
</tr>
</tbody>
</table>

The affiliated societies delivered the following totals of the above amounts.

<table>
<thead>
<tr>
<th>Description</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sawn timber</td>
<td>14,478 stds</td>
</tr>
<tr>
<td>P itprops</td>
<td>125,761 cubic M--52,396 cords</td>
</tr>
<tr>
<td>Pulpwood</td>
<td>32,892 cubic M--13,705 cords</td>
</tr>
</tbody>
</table>

From the figures it is evident that a large portion of the forest products obtained by the Forest Owners' Forest Centre comes direct from the forest owners. The central association has not fully recovered from the depression and dividends have not been declared since that time. However, the forest owners have benefited by the fair prices paid for timber by the association, and the work of the association has tended to raise the level of prices in the areas of supply.
The Forest Association Ltd.

There is the second center in Finland that carries on the marketing of forest products on a cooperative basis. The Forest Association Ltd., with headquarters at Helsinki, is a selling organization sponsored largely by the Central Association of Agricultural Producers. All shares in the company are held by Agricultural Institutions. It was organized during the depression to meet a need for marketing forest products of small woodland owners that apparently were not being helped by the existing marketing societies. The association is the centralized type, and reaches into practically every parish in south and center Finland where the Finnish language is spoken. Like the other marketing center the bulk of the business is export trade.

Organization of the Selling Agency

With the head office at Helsinki there is a branch office in each province, directly responsible to the head office. In many parishes there are forest selling committees with a local chairman responsible for sales. These managers are in touch with provincial branches of the selling organization usually called district offices. The main office keeps the local committees informed as to the state of the market and the needs. In turn, the local committees informs the central office regarding the quantities of timber for sale in each parish. The organization has its own journal in which it carries on publicity in favor of cooperation and gives advice on various questions concerning forest management and sale.

Collection and Sale of Timber

When the time approaches for the annual purchase of timber, the head office instructs the district manager in points concerning
demand and market condition. The district offices pass all this information to the parish committees and the local sales agent who receives the necessary forms. When a contract is signed, it goes to the district office for inspection, and finally to the central office for approval. If the woodland owner needs an advance payment, the head office sends it to him, with a copy of the contract, through a savings bank or co-operative credit society. These documents are accompanied by a filled-in receipt for the advance, which the operator signs. Second advances are made when needed, but the agency takes title to the wood. As a rule about 30 to 40 percent of the value of the timber is paid in the first advance and another 30 percent on the second.

At the start the timber was purchased F.O.S. at an established point of delivery. The agency acted purely as a commission agency. For the first two years of operation the policy was entirely satisfactory. But as market conditions improved, the operators began to demand more convenient terms of sale as other buyers made attractive offers for their products. While the organization preferred to have the producers deliver their forest products at established delivery points, because of the greater returns to the woodland owners, they were obliged to accept the products along the roads. Since adopting this policy of buying, the agency employs the local agents to transport the forest products to the stations and then on to the ports. In return the agents receive a certain portion of the commission which the forest owners pay the agency.

In so far as feasible, part of the selling commission is returned to the forestry societies according to the quantities of timber received by the organization from the districts of the
societies. The return commission is paid on the condition that the funds are used for paying the salaries of foresters employed by the societies.

Financing the Business

There was no set policy of financing when the organization was started. The original capital was 100,000 marks, $2160. Hundreds of small woodland owners applied for permission to market their forest products through the organization but credit was difficult to obtain. Means were found in the form of advances from foreign buyers against contracts and timber that had already been bought or was to be bought. This method was chosen after a large number of producers assured the agency that they would make their deliveries. The initial step was taken, one contract after another was signed with foreign buyers, and advances were obtained as they were made. Later a small internal credit was arranged, and at present the organization carries on business partly on internal, and partly on foreign, credit. The majority of the operators selling through the agency are small producers who have proved to be the most dependable in making deliveries. After three years of business, the turnover of the selling organization amounts to 65 million marks, $1,404,000.

The selling organization attempted to center its efforts in districts where competition was weak, and, consequently, prices low. In some cases stumpage prices rose fifty percent as a result. The Forest Association Ltd. was organized to aid small woodland owners and farmers. It has reached its goal by obtaining for small owners the same prices for forest products as paid the larger owners. At times, when the actual business season has not started, the selling organization has offered advances to sellers.
who were in need of money in order to enable them to avoid unfavorable sales. In such cases the operators have made open contracts, in which it is stipulated that the organization fixes the price, when the selling season starts.

It will be interesting to observe the development of the two selling organizations marketing forest products. If the time arrives when the bulk of the forest products are utilized within the country rather than exported, a different set of problems will confront the two marketing agencies.

Denmark (1)

The development of cooperative marketing of forest products in Denmark is closely allied with the Danish Forest-Association. Before discussing the cooperative sales of forest products from Danish woodlands, a brief description of the Association is given. Apparently the organization acts as a sort of a central clearing house for the sales organizations handling forest products.

There appears to be somewhat rigid rules, supported by law, in effect, regulating prices, and sales, and these are enforced in various ways.

The Danish Forest-Association in 1916 established sales districts over the entire country, each with its own chairman. When the time arrives for determining volume of forest products needed to meet the demands of the market, and the establishment of prices, district meetings are held, and information is exchanged with the Central Trade, Committee of the Forestry Association regarding the recent sales, prices obtained, and possible inquiries. The chairmen of the sales districts form the central sales committee which submits a report based on the

(1) Mr Bondo, President of the Danish Forest Association. Information obtained through Foreign office United States Department of Commerce, Julian B. Foster Commercial Attache
proceedings of the district meetings. These reports appear periodically in the magazine of the association. Price reports are also frequently sent to the forest districts.

The central trade committee of the Forest Association has been working to bring buyers and sellers together. This effort has brought owners of small quantities of forest products in touch with buyers, thus furnishing a market for woodland owners who usually have difficulty in disposing of their forest products advantageously. Moreover, the central trade committee has established a sales organization on behalf of several important sales lines, with the central trade committee of the association acting as the coordinating agency.

Cooperative Office of Danish Manufacturers of Staves

The most important sales organization was instituted in 1925, and reorganized in 1930. Through negotiations between the Danish-Forest Associations, representing woodland owners by forest districts, and the cooperative office of the Danish Manufacturers of Staves, Gasks and Butternuts representing its members, quantity, prices, quality, and terms of delivery are annually established. The forest districts are obligated to sign a declaration binding themselves only to deliver staves to the customers of the Danish manufactures of staves, and only in quantities settled by the trade committee, and proportionate to the total supply and demand.

When the organization of the manufacturer of butternuts was dissolved in 1928, funds were provided as a result of cooperation between the manufacturers of staves and some of the forest owners, with the purpose of encouraging the export of sawn
beech, especially where it was to go into the construction of butter tubs. The funds were procured by a royalty on the logs as well as on the tubs sold on the home market, and they were spent in an export premium. They were granted by the board of directors of the funds and were used for investigations concerning the export market. In this way support was granted by the funds in 1931 for the export of 318,000 tubs at $2.50 a piece. This policy was abandoned in 1936.

The Sales-Association of the Forests on the Island of Funen

This organization comprising all the woodland owners on the island was organized in 1933. The organization undertakes the sale and transport of the entire annual production of the members. The accounts of the woodland owners are settled following marketing after deducting for the normal carrying expenses of each forest estate. The cooperative has placed the members in a very stable position in the marketing of their products. The organization appears to be a subsidiary of the agency established for the cooperative marketing of stave products.

Pulpwood

In 1928, the central trade committee of the Danish Forest Association distributed forms to the forest districts inquiring of the woodland owners whether they were interested in the collective marketing of pulpwood. Apparently the majority of the woodland owners welcomed this opportunity, and through their respective districts, agreed to deliver a fixed quantity of wood during the following ten years, provided they would get prices equivalent to those offered from other sources. A large number of districts joined the association and as a result...
grinding machine located was installed. Later, a second machine was added. Each year an agreement is made between the central committee of the Danish Forest Association and the two Danish parish papermills regarding quantity, quality, price, and delivery.

**Danish Timber**

Regulations for the marketing of lumber for the different forest districts were established during 1932-33. The first association established works exclusively in the wholesale market. The agency sells the lumber in accordance with certain rules, and at prices agreed on by all parties concerned. In case the price for manufactured lumber increases, the woodland owners benefit in the increase, and they accept lower prices in case of a falling market.

On the Island of Funen the woodland owners, sawmills, and the timber merchants belonging to the marketing association for that district benefit equally from regulated marketing of forest products. The committee representing the three groups are permitted to change the sales prices at any time for the manufactured forest products, thus being able to make the necessary adjustments in prices as the market changes. Also, the prices paid by the sawmills to the woodland owners and the prices received by the mill operators are fixed by the association.

The woodland owners are not allowed to retail forest products, and they are obligated to regulate their cut to meet the market needs for the year, and decrease their cut proportionately as the demands drop off. Timber merchants must apply for a permit to export if there is not a sufficient supply to meet home consumption. They are allowed only to buy from members
of the association, and the sawmills are allowed only to cut for members. The association operates a common office in charge of all business.

Until 1936 there was a similar arrangement for Sealand and the islands of Lolland and Falster, but during that year they were discontinued because the woodland owners were obliged to reduce their annual cut because of the wind of 1934. After negotiations between the chiefs of the districts on Sealand, minimum prices have during the last few years, been fixed for Sealand firewood. Nearly all of the districts have joined, and minimum prices are established for nearly all kinds of round logs, throughout the country. A district manager agrees not to deal in or start, delivery of round logs of designated species, until the central committee of the Danish Forest Association has established price agreements or fixed minimum prices regarding the species named. The districts agree not to go under the prices established.

Each year a meeting is held between the central committee of the Danish Forest Association and the permanent joint committee of the Wood Industry and the workshops for wooden shoes. At this annual conference an agreement is made as to the prices to be paid by wooden shoe workshops in the various parts of the country for wood needed in the making of wooden shoes.

It appears that in Denmark, during the last ten years, a close cooperative relationship in the handling of forest products has been built up between the woodland owners, the sawmill operators, and other handlers of forest products. An attempt has been made to prevent any one group from making un-
reasonable profits to the disadvantage of other groups dealing in forest products. In the beginning there were varying opinions as to the importance of cooperative trade in forest products, and many of the smaller woodland owners maintained that they would be deprived of individual initiative and of some natural advantages. At present, however, these disadvantages appear to be overbalanced by the advantages of cooperative trade. Cooperative marketing trade for the country should become more efficient as time goes on. The aim is to establish for each part of the country a common cooperative organization dealing in forest products, which will eventually consist of a section for each group of forest products, rather than partly parallel organizations.

From the available literature it would appear that the regulation of cut of forest products so as to sustain the yield on private lands is enforced by the state. Apparently the marketing agencies concern themselves largely with the marketing of forest products. Probably the Danish Forest Association sponsors efficient forest management as well as the marketing of forest products.

Norway

The majority of the farms in Norway generally have a piece of woodland which at least provides the necessary timber for the farm requirements. Farm forests comprise about 65 percent of the total forest area. The greater part of the rest of the forest land is in public ownership. Since so much of the forest land is in farm ownership, it became important to organize the sale of forest products from these woodlands.
The Norwegian Forest Owners Union was established in 1913 as a central organization of forest owners, and this union in turn established subdivisions throughout the country. In the fall of 1929 the Union was reorganized and Norway's Timber and Sawn Lumber Dealers Association was established. The board of the association consists of a permanently appointed director and nine board members, who are chosen from among the forest owners in the various districts. In each district, which is associated with a certain waterway for the floating of timber, associations are organized with a permanently appointed business manager and a board consisting of forest owners. In the rural districts trade organizations are established which in turn submit the amount of timber to be disposed to the Sales Organizations. The Sales Organizations then dispose of the timber and assist the members in obtaining advance payments in order that operations may be carried on.

The law of February 12, 1932, for the protection of forests, replaced the old Norwegian law concerning the treatment of private forests. Under this law, each district shall appoint a forestry council whose duty it shall be to see that the law is observed in the said district. As technical advisors, the district board may appoint one or more forest inspectors. The State pays one half of their wages, and in the districts in which Protective Forest regulations have been introduced, three fourths of their wages. The balance is paid by the municipality concerned. The law gives regulations concerning the felling of trees for the owners' use and for sale; scientific treatment of the forest, and the duty to plant or sow on areas cut if

Source: Director of Forests of the Norwegian Government-Signed by Brandt Hjelsen. Information obtained through William H. Beck,
a natural growth has not become established within a reasonable
time after the cutting has been made.

England (1)

The situation of most forest owners in Great Britain
parallels that of America where the ownership is largely in
small holdings and the resources depleted. The method of
manufacture is crude and the quantities available irregular
and undependable. Severe competition is encountered with well
manufactured and dependable supplies from Scandinavian Countries,
Russia, and Canada. This difficult marketing situation that
exists in parts of United States and Great Britain, hinders
the application of Forestry in the management of small woodland
holdings.

While Great Britain affords one of the best markets for
timber in the world, the market for home grown timber is poor.
Therefore the approach to the problem of getting forestry
practiced has been to work out a solution to the marketing
problem. The pressing need seemed to be some type of an organi-
ization that would accomplish what can not be done by the indi-
vidual. Also it was important to collect information on the
market needs and on the available supplies.

The Home Grown Timber Marketing Association

The Home Grown Marketing Association was organized the
latter part of 1935 with headquarters in London and branches
covering different parts of the country. The branches were not
set up at the same time. Some were set up in advance of the
headquarters in London while others were organized much later.
This has afforded an opportunity to observe various methods of

(1) Development of Cooperative Timber Marketing and Forestry in
Great Britain. Barrington Moore Journal of Forestry,
May 1937, Vol 35, No.5
organization and profit by some of the earlier mistakes. During the organization period of the association every consideration had been given to all interests that might be affected by the organization. The objects are broad and cover about anything needed to help the forest owner. The annual dues of the association are based on the area of forest owned by a member. The branch dues are at the rate of four cents per acre, with a maximum of $50 and a minimum of $5. The branches pay the central organization one cent per acre with a maximum of $7.50 and a minimum of $2.50 for each member. The association is administered by an executive committee of the council which consists of a president, vice president, treasurer, and representative elected by each branch, representatives of associated branches, and not more than three other representatives elected by the council. The association takes in about all organizations connected with the growing and marketing of timber, and it works with the Central Landowners Association, the National Farmers' Union and similar bodies. A bulletin is published about once a month giving information on markets, with prices and other items of interest about growing and utilizing forest products.

Each branch operated differently but an idea may be obtained as to the policy of carrying on the work in a branch by discussing the policy of the Southwestern branch. Information is collected on markets and available supplies. A panel of timber valuation experts were organized for each county. When an owner wrote that he had timber to sell, he is sent the names of several men from the panel who can value his timber and provide him with the necessary advice that will help in the
marketing of the timber. The experts are not paid by the association but get their pay from the owner with whom they consult. The pay is usually taken by charging the client a commission on the sale negotiated for the individual by the expert.

Two of the first formed branches have gone beyond the expressed intentions of the association. They have formed themselves into limited liability companies so that they can make contracts and sell the timber for their members.

Cooperative Marketing of Timber Products

The South Devon Woodland Owners' Association, Ltd., is located at South Devon and was organized during February 1935. It covers an area of about 440,000 acres. The members automatically become members of the Home Grown Timber Marketing Association and receive all the benefits of membership including the bulletin. The annual dues are the same as in all the branches and it is financed by these dues and by commissions on sales for the members. The liability of any member in case of liquidation, is limited to five dollars. The South Devon Woodland Owners' Association acts as a bargaining agency and it is not liable to a member for failure to pay or breach of contract, but it holds the member responsible for breach of contract.

The rates charged for marketing on round, sawn, or standing timber is 10 percent on the first $250, 5 per cent from $250 to $5,000, and 2½ on any amount above $5,000. If arrangement for felling and hauling to the loading point are desired, there is an additional charge of one cent per cubic foot.
A representative from the association makes an initial visit to the woods of each member without charge. Subsequent visits are made upon request. More and more owners are requesting visits and often the cost exceeds the membership dues. As yet the association has not faced the necessity of charging for visits when the cost exceeds the value of the membership.

The financial statement from February to the end of December 1935 showed that the South Devon Woodland Owners' Association Ltd. was solvent, with a very small excess of expenditure over income. During that period $5,000 worth of mine timber was sold at an advance of 40 percent on the prices received by the same owners when selling through dealers.

Rumanie (1)

Seventy-four percent of the total forest property in Rumania is in large holdings. Of this the state owns thirty three percent, or 3,896,203 acres, while the balance, 4,819,990 acres is privately owned.

<table>
<thead>
<tr>
<th>Size of Property</th>
<th>Number of Properties</th>
<th>Percent of Total Area</th>
<th>Percent of Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acres</td>
<td>Units</td>
<td>number</td>
<td>Acres</td>
</tr>
<tr>
<td>0-247</td>
<td>80,060</td>
<td>89</td>
<td>1,261,317</td>
</tr>
<tr>
<td>247-12345</td>
<td>5,952</td>
<td>6</td>
<td>2,943,015</td>
</tr>
<tr>
<td>over 12345</td>
<td>4,047</td>
<td>5</td>
<td>11,945,450</td>
</tr>
</tbody>
</table>

The small forest properties up to 247 acres, and the privately owned properties amount to 77% or 965,972 acres. The majority of the smaller properties have resulted from the sale or division of the large properties belonging to former

(1) Source—Rumanian Ministry of Agriculture. Information obtained through Commercial Attaché, United States Department of Commerce
Feudal owners and they are usually a part of agricultural holdings.

When a privately owned forest property is declared a protection forest, it is subject to strict regulations. These regulations prohibit deforestation and grazing, and provide for sustained yield management. For other forests, either state or privately owned, cutting and grazing may be allowed under certain conditions. Cutting can be made without maintaining continuous production, the only obligation being to preserve the existence of the forest.

Farm woodlands generally are destined first of all to meet the need of the owners. In case the production exceeds such requirements, the surplus may be marketed directly by the owner or through a middleman. In the latter case the trees are sold by the trunk, and the cutting, timbering and transportation is done by the purchaser. Cooperative marketing is not used for private forests.

The forestry cooperatives existing in Romania are cooperative enterprises for the marketing of wood and wood products. These cooperatives are granted important advantages by the Romanian State, such as tax reduction, freight reduction, and the marketing at favorable prices, of wood products belonging to state or public.

The marketing of farm forest products is not developed in Romania. This is due to the fact that Romanians are more concerned with strictly agricultural pursuits.

**Cooperative Marketing in Other European Countries**

Cooperative marketing of forest products in other European countries is carried on in greater and lesser degrees.
Up to the time of the Third Reich in Germany considerable progress was being made in the cooperative marketing of forest products in that country. At present German forests are regulated, and the timber products marketed by decrees.

Apparently the cooperative marketing of forest products in European countries did not make much progress until several years after the World War. The greatest gains were made during the period of the depression which was felt in nearly all countries from 1929 on. It is impossible to predict the effect of the present European war upon the future of the cooperative marketing of forest products in European countries. It would be expected that cooperative marketing may suffer serious reverses in a country like Finland, which has been invaded by a totalitarian state such as Russia.

Cooperative Marketing of Forest Products in Nova Scotia

For the first time in 1938, the cooperatives sponsored by St. Francis Xavier University, Nova Scotia, marketed pulpwood. They received ten dollars a cord on the boat which price was three to four dollars higher than the farmers had been receiving for peeled pulpwood.

The forestry division of the Department of Agriculture, Nova Scotia, has cooperated with the cooperatives in an effort to influence members to manage their woodlands properly. As a result of the Department's efforts, there is, on the part of members, less tendency to clear out.
CHAPTER XIII

PROCEDURE FOR ESTABLISHING A FARM FOREST MARKETING COOPERATIVE COUPLED WITH A PROGRAM OF SUSTAINED YIELD MANAGEMENT

The organization of a forest products marketing association, for the purpose of the orderly marketing of farm forest products and the sustained yield management of timber resources growing on farm woodlands, requires careful study and analysis. Usually a program of cooperative marketing is initiated by a few interested leaders as a result of a general dissatisfaction by the majority of people over existing market outlets for their products. Sometimes a propagandist who senses the dissatisfaction of the people, will convince them that a quick solution to the difficulties is to be had through cooperative effort. As a result interested farmers will rush into an organized marketing program without much understanding of the problems involved or without consideration of the actual justification for an association.

Careful Study By Woodland Owners Advisable Before Organizing A Cooperative

Before a forest products marketing association is organized in any locality the situation should be carefully studied. At the start it would be advisable for farmers to organize into one or more study groups and carefully examine the advantages and disadvantages of cooperative marketing of farm forest products. The extent of a working circle is dependent upon the topography, the kind of forest products being handled, the nature and location of the woodusing industries, the condition and extent of the roads, and the prices paid for forest products. In general, it is not profitable to haul pulpwood more than 40 miles, and logs and similar heavy forest products are
seldom hauled profitably over 20 to 30 miles.

After a year or more of discussion, study, and investigations, on the part of the woodland owners as to the advisability of a forest products marketing association, then it is logical, if such an undertaking appears desirable, to take the steps necessary for organizing a forest products cooperative association. When the organization policy is being formulated, the farmers should have two objectives in mind, improved marketing facilities for farm forest products in an area, and the sustained yield management of the forest resources on the woodlands of the members.

The farmers, when studying the situation, should gain a general appreciation of the problems involved in the cooperative marketing of agricultural and forest products, and at the same time, they should get a rather complete picture of the existing local situation, based upon data gathered for the purpose. The local farmers interested in the project, usually in cooperation with a public agency interested in such problems, needs to make an inexpensive reconnaissance survey of the farm forest resources and the possible markets for forest products.

Methods Employed in Determining the Available Resources and Markets Which Would Justify a Marketing Organization

There are several methods used in making an inventory of the growing stock, and of the annual cut that would be available for marketing through a cooperative organization. In the Coos Survey, the Forest Service has made a ten percent cruise of all farm woodlands in the region being served by the forest products association. The volume per acre in each
in each forest type, by age class, site, and merchantability, along with the per acre annual growth is determined. From the mass of information which has been compiled for the total farm woodlands by townships, it is possible with the use of property maps to determine the probable annual growth and a safe annual cutting budget for the individual holdings. Obtaining information in such detail as was done on the Coos project cannot be justified in a Reconnaissance Survey.

In the survey made of a group of farm woodlands of Tioga County, a hundred percent inventory was taken on a limited number of farms.

In Worceher County, Mass., an inventory was made of a large number of farm woodlands in one township, and in a number of towns, a few representative farm woodlands were cruised. In this inventory a mass of material was collected that is not needed for a survey.

The Carroll County New Hampshire Study

The New Hampshire Agricultural Experiment Station recently completed a survey of a farm woodland area in Carroll County for the purpose of determining the feasibility of establishing a cooperative organization marketing forest products. The Station made the study upon the request of the local people. Information was obtained upon the following topics:

Quantity and quality of merchantable timber
Acreage of forest land
Quantities of forest products cut for sale or home use
Amounts of various forest products taken by present market
Outlets within an economical range of the area of supply
Prices at which forest products from the area have been marketed in recent years
Transportation charges from roadside to mill, and from mill to final woodworking industry

Interest in attempts to improve marketing conditions. All the information on the points listed was obtained from available literature interviews, and the investigations of the workers doing the field work.

The figures on the volume and quality of merchantable timber were obtained by ocular estimates and previous estimates made on different properties adjusted for cut and growth up to the present time. Three cover types were recognized, pine, hardwood, and softwood other than pine. The estimates were supplemented with an enlarged topographical map of the area showing roads, railroads, bodies of water, and town lines. The names of the woodland owners were placed on the maps which were taken into the field when the individuals were interviewed, at which time the approximate boundaries of their woodlands were sketched.

The survey was inexpensive, and provided about all the data necessary in determining the feasibility of an organized marketing program for the area. If information had been gathered on the age class distribution, the statements on future yields based upon sustained management would be more valuable. By using the acreage of the age class distribution on a few typical farm woodlands as representative of the entire area, it is possible to determine roughly the volume of the growing stock per acre in the various age classes for the entire area. (1) Also by the diagramatic process, along with the use of yield tables, or a growth formula, one can determine the probable

(1) Management of American Forests by Matthews.
annual growth of merchantable timber, establish a tentative rotation and the approximate annual cut, and determine both the present and the normal growing stock for the area and the degree of normal stocking that might be expected to result from management.

The report is being used by the Carroll County woodland owners in determining the feasibility of establishing a cooperative organization for the marketing of forest products. The following conclusions appear in the report (1):

"Farm Woodlands supply an important part of the farm income in Carroll County. Consequently, any methods by which income from forest products can be increased should be of value to the farmers.

Woodland acreage in the area studied totaled 223,000 of which approximately 32,000 acres supported merchantable timber. Total stand of merchantable timber approximated 250 million board feet. For the next few years, the annual cut on a sustained yield basis would be about 5 million board feet. Present market outlets take about 6 million board feet annually. Some 3.5 million of this goes to more or permanent industries, and the remainder is handled by portable mills. Plant capacities bear little relation to the amounts of timber cut by particular industries. In general, effective plant capacities are far in excess of annual consumption.

Comparing the average annual cut in recent years with that estimated to be allowable on a sustained yield basis, it is found that except for hardwood the present cut exceeds the increment of merchantable timber.

Stumpage prices have ranged all the way from $1.50 per thousand board feet for low grade or relatively less accessible hard-wood to $5.00 and over for especially desirable pine and spruce. Log prices have fluctuated considerably over the past 15 years, as shown by the series for pine logs delivered to the mill. Starting at $4.18 per thousand in 1924, they reached a peak of $20 in 1927 and then declined at first gradually, then rapidly until 1932. From this point to the present, except for the slight rise in 1937, they have remained at $10.00.

Transportation charges have ranged upward from one dollar per thousand minimum and tend to vary with distance rather than the value of product.

It appears that during the intermediate time period considered, the area is well supplied with wood-using industries. These industries have capacity ample to take care of normal production. Farm income from the sale of woodland products was about $30,000 in 1929. This income could be increased by making more efficient the assembling and sale of forest products, increasing the labor income by the owner himself doing more of the logging and
and assembling operations and adopting improved production practices.
Cooperation offers opportunities for increasing farm income from
marketing forest products in the area. A large proportion of the
woodland containing merchantable timber was found to be in
the hands of persons favorable to cooperative effort. Another
fair sized portion was controlled by those indifferent, and
only a small amount was in the hands of persons definitely
antagonistic to cooperation in this field.
The direction in which cooperative effort might be most success-
ful is in assembling sawlogs, keeping in touch with markets
and market conditions, bargaining as a unit for members, and
perhaps assisting them in forest management. As the annual
business of a cooperative which confined its activities to
harvesting forest products would be in the neighborhood of
$40,000, operating expenses should be less than $4,000, an
amount probably insufficient to maintain an organization and
a manager on a full time basis. There are already ample
processing facilities located in the area."

Organization of Forest Products Marketing Associations

After the farm woodland owners in Carroll County have
carefully studied the subject of cooperative marketing of
forest products, and if they, or any other district, believe
it advisable to form a forest products marketing association,
attention then should be given to the type of cooperative
organization suitable for the working circle.

It is important to proceed slowly at this point. The
cooperative should not be incorporated until the necessary
capital to run the association is available or in sight. Also,
the leaders who are organizing the association should be assured
that a reasonable number of the farm woodland owners will
actually support the project. Suitable organization,
marketing agreements should be used to enroll potential members.
When a sufficient number of farmers have signed the organiza-
tion and marketing agreements, the organization committee
should ascertain whether the necessary capital can be raised
locally and if necessary from loaning agencies. If the association is to be only a bargaining agency, little capital will be needed.

If sufficient capital can be raised, then the farmers should be called together and the necessary steps taken to incorporate. The association should be organized so that the capital revolves, thus keeping the shares or certificates in the hands of active members. The certification of organization, by-laws, and marketing agreement, establishes the general foundation upon which the association is to carry on its business. The services of an attorney, familiar with cooperative organization should be retained. Advice can also be obtained from the cooperative division of the Farm Credit Administration, and from the State Agricultural Extension Service. (1)

Management of the Cooperative

After the cooperative has been incorporated and is ready to do business, the most important step to be taken will be the selection of a manager. The success or failure of the organization may depend upon this decision. The manager must be a good business executive, and, at the same time, have an appreciation and understanding of the objectives and purposes of a cooperative marketing association. Besides these qualifications he needs to understand people and have an appreciation of their difficulties without permitting his sympathies to interfere with the efficient management of the cooperative. If the association is to do only a limited business, the employment of a full time manager is not advisable.

(1) In the appendix will be found the revised by-laws of the Forest Products Association Inc. prepared by Frank Galtonen, from the by-laws of several different cooperatives. Reworked by Representatives of the U.S.A. Forestry Service and N.H. Extension Service.
If a part time manager is necessary when a forest products marketing association is started, the manager would be encouraged to increase the sales of the cooperative if he is paid a small salary plus a commission on the sales he negotiates for the cooperative. As soon as the association reaches a point where it is possible to employ a full time manager, he should be paid a salary. It is seldom possible to employ a qualified manager for less than $2,000.

It has already been pointed out that a cooperative dependent entirely upon forest products for its business cannot operate successfully without a yearly budget of at least $5,000. The annual operating budget required to run the Forest Products Association Inc., amounts to approximately $10,000. Before a cooperative for the marketing of forest products is organized in any working circle, farm woodland owners should make certain that there is a sustained annual production available, so that the association can, within a reasonable time, build up an annual gross business sufficient to permit an operating budget of at least $5,000.

Cooperative Marketing of Forest Products as Applied to Sustained Yield Management

The manager of a forest products association, also has the responsibility of encouraging the members to build up the forest resources on their holdings. Aside from having in the by-laws and marketing agreements, clauses which set forth the responsibilities of the members in the management of their woodlands, every reasonable means should be used by the association to encourage members to cut their timber according to good forestry practices. How rapidly these objectives can
be accomplished, depends upon the condition of the growing stock, the markets, data and maps available, and the initial interest of the woodland owners. Experience to date indicates that the public agencies concerned with the problem of building up timber resources will need to assume leadership in getting members of a cooperative to conform with good forestry practices. These agencies should work in close cooperation with the marketing association.

Simple woodland management plans should be prepared for the individual farm woodland holdings. The inventory of the individual farm woodlands should be made carefully. When the management plan is completed, it should be possible for the member to determine the annual cut, the location of the cutting areas, and the silvicultural treatment needed to build up and to improve the quality of the growing stock.

The most difficult step in persuading farm woodland owners to manage their woodlands properly, is to convince them that timber is a crop. Trees, like other plants, such as wheat, potatoes, corn and grasses, have individual characteristics, and respond differently under various circumstances. It is important to know which trees to save for the final crop, and to manage the cuttings so that the greatest possible yield is obtained from each acre. Some foresters believe that the farmer is unwilling or unable to acquire sufficient interest or knowledge to manage his timber and, therefore, should have his trees marked for cutting by a trained forester. Others believe that farmers can learn to manage their woodlands just as they learn to plant, care for, and harvest an agricultural crop.
In Germany and Sweden and to a certain extent in other European countries, the government marks the trees for cutting on private land, and the owner pays for the cost of marking. In Sweden the state does not require that the individual land owner employ an expert to mark his trees for cutting, but when he cuts without such advice, he does it on his own responsibility.

At the present time in the United States, there are few regulatory laws requiring woodland owners to conform with the best cutting practices. In any area served by a Forest products marketing association, there will be woodland owners capable of conforming with good cutting practices without the necessity of having trees marked by experts. In other instances woodland owners will desire or need to have the entire cutting area marked. When it is necessary to mark trees for cutting, the individual owner should pay a reasonable charge for the expense involved.

Where woodland owners decide to learn how to mark trees for cutting, it would be advantageous to teach them how to select the well formed rapid growing trees that should be left for future cuttings. Once they are able to identify trees that should be saved, they will have little difficulty in selecting the trees that should be cut. The criterion upon which to decide whether a tree should be cut or left is primarily the rate at which it is growing, its form, the species, the market, and its relation to the neighboring trees in a stand.

In any working circle where the cooperative marketing of farm forest products is attempted, it is apparent that a program of forest conservation or woodland management needs to be
synchronized with the organized marketing project. If this is not done, improved markets for forest products may result in more rapid exploitation of the farm forest resources. It has already been demonstrated that through an intensive educational program in farm woodland management paralleled with organized marketing, an increased number of farmers are stimulated to adopt recommended forestry practices. The best results will be obtained if the approach is made on the basis of the entire farm business rather than from the point of view of building up the timber resources without regard for the rest of the farm.

It should be recognized that the educational approach to the problem will be slow, and probably not adopted by over fifty to seventy percent of the farm woodland owners, even with the most intensive educational efforts. A forest products cooperative marketing association in its early development, at least, will not be in a position to carry on intensive educational work in woodland management, nor can it logically be in the position of forcing the proper management of forests on the lands of its members. The association will need to depend upon the cooperation of public agencies concerned with the problem of the conservation of natural resources. Such a procedure is being followed by the forest products cooperatives that have been organized in this country.

As the woodland owners adopt improved forestry practices, the more concerned they and others within the area, dependent upon forest resources, will become over the necessity of
sustaining the yield of forest products. Gradually individuals who have come to recognize the need for sustained yield management, will demand that their delinquent neighbors apply the proper cutting practices on their woodlands.

**Regulatory Measures to bring about Woodland Management**

In time the more progressive farm woodland owners will demand the necessary legislation to force woodland management on all the woodlands within the working circle. There are several approaches to the problem of public regulation of cutting practices on private forest lands. One is national or state regulatory measures which might be enacted to bring about the conservation of timber resources on all private lands, and which would probably result in enforcement without proper appreciation or understanding of the problems that confront the individual woodland owners.

Another method is a comprehensive adjustment in the taxing of timber in a state, and for such considerations the woodland owners will be obligated to conform with recommended cutting practices. This proposal is the same as the first except that tax adjustment is added to the measure as a means of encouraging woodland owners to conform with the regulatory measures, and at the same time an attempt is made to put the growing of timber on a better paying basis. Legislation of this nature has been drafted to be introduced in the next session of the New Hampshire legislature.

At the end of the seventy-sixth congress, a bill was introduced which is designed to bring about the development of timber resources on private land, through a rather elaborate
plan for the government to lease private timberlands on a long term contract. The government pays the individual an annual rental equivalent to the taxes, and takes over the management of the lands. The agreement would continue until the income from the property becomes sufficient to redeem the investment made to aid in the development of the property. Holdings under 500 acres would need to return only fifty percent of the investment, while the larger holdings would be required to pay in full. The proposal is coupled with a plan to use unemployed labor to work on these lands. The owner would have first choice to work on his own property. While the proposed legislation has received strong support, it has been severely criticized.

Since the introduction of this legislation into the congress several modifications of the proposed bill have been suggested. One has been that instead of the government dealing with thousands of individual woodland owners, cooperative land holding units be organized by the local land owners. Each individual would have the opportunity within a designated area to place his woodlands in the cooperative for the purpose of unified management. He would receive from the government negotiable securities for the lands he places in corporate ownership. The government would lend money to the cooperative for the development of the timber resources on the lands under its control on the basis that an approved sustained yield management plan is followed. Also it has been suggested that the government extend credit to the individual woodland owner for the purpose of developing the forest resources on his lands. The loans would have no fixed date of retirement, and would be
without interest. The individual could not secure a loan unless he agreed to follow recommended forestry practices.

Another approach to the problem that has been suggested is to intensify an educational program which would encourage private woodland owners to manage their woodlands. This program might be paralleled with a program of tax adjustment for timber lands. Coupled with such a program a policy would be adopted to increase greatly the public ownership of timber lands through federal and state cooperation, by acquiring tax delinquent lands and other property that could be acquired cheaply. These public holdings would not be sold back into private ownership again, but, as the timber resources were developed on these holdings, individuals could lease the lands to be exploited in conformity with established regulations.

It has been suggested that woodland management can be brought about on private land within prescribed areas by establishing soil conservation districts as provided for under the Soil Conservation Act of 1935. It is believed that the district law when adopted in a state can be written so as to permit the regulation of cut on woodlands within an established district, or that existing soil conservation laws can be amended to include such provisions. Such a law was presented to the Massachusetts legislature during 1939. No action was taken. Once a district is established by the vote of the people in the area, they can by the democratic process develop their own laws designed to bring about better land use and the conservation of natural resources. When the thinking of the people has reached a point where regulation of cutting practices on woodlands is acceptable, this latter approach seems to be
the most democratic attitude toward the problem. Forest regulatory measures applied to private lands should be most effective when the people involved have full opportunity to discuss, frame, and decide upon the regulatory measures best adopted to the woodlands within this region. It is important, also, to remember that any regulations applied to the woodlands within a region, are related to and affect the use of all the land in the section. Consequently forest management cannot be considered as a problem by itself, but needs to be coordinated with the land use program for the entire area. If the farmers devote more time to the management of their woodlands, it is necessary for them to make adjustments in the farm program of work. Certain lands need to be converted from run-down pastures into forests, while some woodlands might be more profitable to the owners if converted into fields. Provided the scope of a district law is sufficiently inclusive, a great deal can be accomplished in making important land use adjustments.

In some sections the owners of the few low productive farms isolated within surrounding forests might improve their condition if a way could be found to encourage them to migrate to a nearby agricultural area. On the other hand, perhaps, if work in the forest is available, they should remain in their present location. There are large areas of private forest lands where the soil is so poor, or the resources so badly depleted, that it is not feasible for individuals to build up the timber resources. These lands in time will go into public ownership. Naturally, adjustments in the use of lands affects the physical and social advantages that the people have established.
The maintenance of good roads and schools are demanded by the people, and, at the same time, are among the most expensive necessities that burden the tax-payers. It is quite apparent that the land-owners need to consider the entire problem of land use with all of its ramifications, if they hope to base their security on the land upon which they live.

When a people within a working circle attempt to bring about the proper use of land, involving sustained yield management of timber lands, they find there is a point beyond which education cannot be effective. There should be available then legal tools such as might be provided for in a soil conservation district law, which permits the local enforcement of regulations.

One may conclude, therefore, that a progressive, and at the start intensive, program of local education, the organized marketing of farm forest products, and the provision in later stages, of legal regulatory measures, will be the most effective means of establishing sustained yield management on farm woodlands.
APPENDIX

Articles of Agreement Forest Products Association, Inc.

Proposed Organization Agreement to Be Used in Initiating Forest Products Marketing Cooperative in Carroll County, New Hampshire

Certificate of Organization

Revised By-Laws

Marketing Agreement and Sales Contract Used During 1938 by Forest Products Association, Inc.

A Bibliography Cooperative Marketing of Forest Products. Compiled and Annotated in the United States Forest Service Library, November 1, 1939.
PROPOSED ORGANIZATION AGREEMENT TO BE USED IN INITIATING FOREST PRODUCTS MARKETING COOPERATIVE IN CARROLL COUNTY, NEW HAMPSHIRE

The undersigned, a producer of forest products, hereinafter referred to as "Producer" together with other signers of agreements identical herewith, for the purpose of engaging in the marketing of forest products and in a program of good forest management, propose to organize a cooperative association with capital stock under the laws of the State of New Hampshire, as hereinafter provided, and in consideration of the premises, hereby agrees for himself and for the express benefit of and for the association to be organized, as follows: Upon signing the said agreement the producer will pay an organization fee of $1.00.

1. (a) The association shall be organized with suitable articles of incorporation and by-laws as determined by an organization committee consisting of the following persons:

| Name | Address |

(b) This committee may, in the discretion of a majority thereof, increase its membership, fill any vacancy therein, and appoint any committees deemed necessary to conduct the details of its affairs. The committee, or any committee designated by it, may prescribe an organization fee to be paid by each person signing an organization agreement identical herewith and may incur necessary obligations, make necessary expenditures, and take any action as may, in its discretion, be deemed advisable to further the organization of the association.

2. The by-laws of the association shall provide, among other things, the identity, seal, and place of business of the association; objects of the association and nature of its business; structure of organization and method of business; membership requirements; methods of raising capital and the handling of the same; for contracts, prices, and methods of financing products handled; use of surplus funds; government of the association; duties of the manager, and provision for changes in the by-laws.

3. If, on or before __________, 1940, the organization committee is of the opinion that sufficient sign-up has been obtained to enable the association to operate efficiently, the committee shall, by notice to be published in one or more newspapers of general circulation in the area in which those who sign this agreement
reside and by a notice through the mail to those in the area who sign this agreement, or are known to be interested in signing the agreement, specify a date and place for a meeting to enable those attending such meeting conclusively to determine, by majority vote, if a sufficient sign-up can be obtained to justify the formation and operation of the association and to consider such other business as may be deemed expedient. Notice of the action taken shall be published in one or more newspapers of general circulation in the area.

4. The organization committee shall keep full, true, and detailed accounts of all receipts and all expenditures of every kind and shall have such accounts audited and render a written report thereof to the board of directors of the association when organized, and shall thereupon turn over to the association any balance remaining in its hands free of obligation. If the association is not organized, such unexpended balance shall be pro-rated among those who contributed thereto.

5. The producer agrees to purchase and hereby subscribe for one share of voting common stock of the association, par value $10.00 payable on demand following the incorporation of the association, less $1.00 the organization fee paid at the time of signing this agreement.

6. The producer hereby agrees that his signature hereto shall be irrevocable except as provided in Section 3 hereof, or in the by-laws of the association, and he so agrees in order to induce other producers to sign agreements like this one for his benefit as well as their own general benefit.

7. Acceptance hereof by the association shall be deemed conclusive upon mailing, by the association, of a notice to that effect to the producer at his address noted below, and such mailing and notice shall be conclusively established by the affidavit of the secretary of the association.

Read, Considered, and Signed, this____day of______, 1940.

Producer’s signature________________________________________(Do not sign without reading)
Address_____________________________________________________(Town) ___________________(State)
Accepted this_____day of___________, 1940
_______________________________________Association

By________________________________________

Revised Form from Circular No. C-108—Organizing a Farmers’ Cooperative, by S. D. Sanders, Farm Credit Administration
ARTICLES OF AGREEMENT

We, the undersigned, being of lawful age and a majority of whom are residents of this State engaged in the production of agricultural products, do hereby associate ourselves together for the purpose of forming a corporation under the provisions of the Cooperative Marketing Law of the State of New Hampshire and amendments and additions thereto.

Article I. Name. The name of this corporation shall be Forest Products Association, Inc.

Article II. Purposes. Section 1. The purpose of this corporation shall be to create and maintain an organization for the marketing, selling, processing, grading, manufacturing, storing, handling, or utilization of forest products or by-products.

Section 2. To engage in any activity in connection with the purchase, hiring or use by the members of this corporation of supplies, machinery, or equipment, or in financing any of the activities set forth in section one.

Section 3. This corporation shall not buy or handle the forest products of others than members in an amount in excess of the value of the products bought, handled or sold for its members.

Section 4. This corporation may acquire by gift or otherwise real or personal property as may be necessary for its purposes, and may borrow money from time to time as may be necessary for the accomplishment of its said purposes.

Section 5. This corporation may make advance payments and advances to members.

Section 6. The enumeration of the foregoing purposes shall not limit or restrict the corporation in the exercise of all powers, rights and privileges necessary or incidental to the purposes hereinbefore stated.

Article III. Membership. This corporation shall be organized without capital stock, and the property rights and interest of each member shall be determined in accordance with the value of the products marketed by each of said members through or by this corporation. New members may be admitted from time to time and shall be entitled to share in the property of the corporation in accordance with the foregoing rules.

Article IV. Voting Rights. Each member shall be entitled to one vote and only one vote in all meetings of the corporation.

Article V. The first meeting of the incorporators shall be held at the Town Hall, North Stratford, New Hampshire, on the twentieth day of November, 1935, at 10:00 o'clock A.M.

Hugh H. Johnson North Stratford, N. H.
John Call Guildhall, Vt.
Walter R. Hicks Colebrook, N. H.
John R. Jackson Colebrook, N. H.
Harold B. Alden Lancaster, N. H.
CERTIFICATE OF ORGANIZATION

We, the undersigned, being the President, Treasurer, and a majority of the Directors of the Forest Products Association, Inc., do hereby certify that a meeting for the organization of the said association was held at North Stratford, New Hampshire, on the 30th day of November, 1935, by eleven persons, a majority of whom are residents of New Hampshire and engaged in the production of agricultural products, and we do hereby file the following certificate of organization:

Article I. Name. The name of this corporation shall be FOREST PRODUCTS ASSOCIATION, INC.

Article II. Purposes.

Section 1. The purpose of this corporation shall be to create and maintain an organization for the marketing, selling, processing, grading, manufacturing, storing, handling, or utilization of forest products or by-products.

Section 2. To engage in any activity in connection with the purchase, hiring or use by the members of this corporation of supplies, machinery, or equipment, or in financing any of the activities set forth in section one.

Section 3. This corporation shall not buy or handle the forest products of others than members in an amount in excess of the value of the products bought, handled or sold for its members.

Section 4. This corporation may acquire by gift or otherwise real or personal property as may be necessary for its purposes, and may borrow money from time to time as may be necessary for the accomplishment of its said purposes.

Section 5. The enumeration of the foregoing purposes shall not limit or restrict the corporation in the exercise of all powers, rights and privileges necessary or incidental to the purposes hereinbefore stated.

Article III. Membership. This corporation shall be organized without capital stock, and the property rights and interest of each member shall be determined in accordance with the value of the products marketed by each of said members through or by this corporation. New members may be admitted from time to time and shall be entitled to share in the property of the corporation in accordance with the foregoing rules.

Article IV. Voting Rights. Each member shall be entitled to one vote and only one vote in all meetings of the corporation.

Article V. The Principal Place of Business. The principal place of business of this Corporation shall be at Concord, New Hampshire.
Article VI. Directors. The number of Directors shall not be less than five, nor more than eleven. Their term of office will be for one year. The names and addresses of the presently elected Directors who are to serve until the annual meeting of this corporation which is to be held on the first Tuesday of May 1938, are:

- Clinton Ferren
- Hugh H. Johnson
- John R. Jackson
- Walter Hicks
- Lawrence Philbrook
- Robert Barber
- Francis Stone
- Harold Alden
- Chester Marshall
- Otis Bryan
- Errol, N. H.
- North Stratford, N. H.
- Colebrook, N. H.
- Colebrook, N. H.
- Shelburne, Vt.
- Lunenburg, Vt.
- Jefferson, N. H.
- Lancaster, N. H.
- Lancaster, N. H.
- Canaan, Vt.

Article VII. Clerk. The name of the Clerk is George M. Putnam and his residence is Concord, New Hampshire.

Hugh H. Johnson, President

Clarence S. Herr, Treasurer

Lawrence E. Philbrook
- Walter E. Hicks
- John R. Jackson
- Clinton S. Ferren
- Otis Bryan
- Robert E. Barber
- Francis C. Stone
- Harold B. Alden
- Chester Marshall

STATE OF NEW HAMPSHIRE

November 20, 1935

Subscribed and sworn to before me

Gloria K. Pekley
Notary Public

(Seal)

(Revised winter 1939-40 into capital stock company)
BY-LAWS
of the
FOREST PRODUCTS ASSOCIATION, INCORPORATED

ARTICLE I - IDENTITY, SEAL, AND PLACE OF BUSINESS

Section 1 - Name - The name of this corporation shall be FOREST
PRODUCTS ASSOCIATION, INCORPORATED.

Section 2 - Seal - The corporate seal shall consist of two
concentric circles between which shall be the name of
the corporation and in the center of which shall be
inscribed "Incorporated, 1935, New Hampshire." The
secretary of the corporation shall have the custody of
the seal.

Section 3 - Place of Business - The principal office of the
corporation shall be located in Groveton, in the County
of Coos, State of New Hampshire. In addition to the
principal office, the corporation may have other offices
at such place or places as shall be designated from
time to time by the Board of Directors.

ARTICLE II - OBJECTS OF THE ASSOCIATION AND NATURE OF ITS BUSINESS

Section 1 - Objects - The objects of this Association shall be

to promote the economic welfare of its members by util-
izing their united efforts for the production, processing,
manufacturing, and distribution of products and commodi-
ties in the following fields of economic activity.

t
a/ Marketing Forest Products for the Members, such as logs,
pulpwod, poles, posts, railroad ties, Christmas trees,
and/or any products or by-products of the forest cut
and processed by the members.

b/ Production, Processing, and/or Manufacture, including
Cutting, hauling, shipping, marketing, and distribution,
of forest products and by-products such as lumber,
dimension stock, or any other type of manufactured or
semi-manufactured forest products and/or by-products
found from time to time desirable and convenient by
the Board of Directors.

c/ Financing the production, Manufacturing, Marketing and
Transportation Operations of its members in the prepara-
and delivery of such forest products or by-products
for market.

(S-210)
In addition to the above-mentioned economic objectives, the Forest Products Association, Inc., shall advance the system of cooperative business in every legitimate manner by expanding, so far as it legally may, into any and all industrial or commercial activities which are deemed to have the tendency to improve the economic position of the members in particular and the rural people in general, and not herein before specifically mentioned. The Association shall also carry on educational work among the members at large in the practices of sustained yield forest management and in the principles of producers' and consumers' cooperation and affiliate within legal limits with other cooperative organizations and federations locally and nationally in order to increase its strength and usefulness.

Section 2 - Nature of Business - The general nature of the business to be carried on by the Forest Products Association, Inc., shall be to produce, process, manufacture, store, purchase, export, market, distribute, handle and/or sell, both wholesale and retail, to or for its members and within legal limits to other patrons, forest products of every description and all by-products derived from them; supplies for forest operations of every nature and description; the Association within legal limits sees fit to handle; to acquire either by lease or purchase, real estate, factories, buildings, or any other properties or facilities necessary and desirable in the conduct of its business; to purchase, mortgage, pledge, sell and convey such properties; and within legal limits to purchase, hold, sell, assign or transfer the shares of original stock of other cooperative corporations. The Association shall also enjoy all other rights and privileges consistent with its Articles of Incorporation and the laws of the State of New Hampshire.

ARTICLE III - STRUCTURE OF ORGANIZATION AND METHODS OF BUSINESS

Section 1 - Structure of Organization - The Forest Products Association, Inc., is made up of a general membership of all persons qualified to become members. The general control of the organization is in the hands of the membership meetings held annually and special meetings held as often as may be necessary. In the interim between the membership meetings the Board of Directors shall control all the activities of the Association as laid out in these By-Laws.

For more efficient regulation and better control of its business activities, the organization may be divided into as many departments as may be deemed necessary by the Board of Directors.

The management control of each and all departments is vested in the General Manager and the Board of Directors as provided in these By-Laws. The Board of Directors shall appoint from among their number a general management committee and such departmental operating committees as may be necessary for the efficient management of each and every department.
Section 2 - Adherence to Cooperative Principles - The business shall be carried on according to the genuine cooperative principles and methods as follows:

(1) One vote for each member and no more.

(3) Interest paid on membership capital at not more than 5% per annum.

(3) All net earnings, after paying running expenses, setting aside not less than 10% nor more than 50% for reserve and 5% for education in cooperative principles, to be proportioned among the members on the basis of their participation in the organization’s productive and/or consuming activities as the case may be, or by vote of the membership used collectively for social purposes.

(4) Membership is limited to owners of forest lands or producers of Forest Products, who agree to carry out improved forestry practices for the protection and perpetuation of our nation’s forest resources, and to cooperative societies, farmers’ and forest owners’ associations as defined in Section 11 of Article IV of these By-laws.

(5) Political, religious, and social neutrality.

(6) Business on a cash basis only.

(7) No proxy voting.

The purpose of these methods is democratic control and a system of business carried on for the benefit of those whose labor and productive effort sustains the organization.

ARTICLE IV - MEMBERSHIP

Section 1 - Membership Defined - The members of the Forest Products Association, Inc. shall be the holders of membership shares, shall be not less than twenty-one years of age and shall have complied with all the requirements of Article V, Section 4 of these By-Laws.

Section 2 - Qualifications of Membership - Any owner of forestland or any producer of Forest products, who is in agreement with the aims and purposes of the Association and who agrees to purchase one or more membership shares as hereinafter provided, is eligible to membership, regardless of his race, religion, nationality, or political opinion.
Section 3 - Application for Membership

Application for membership shall be made in writing on a form provided for that purpose, shall be endorsed by a member of the Association, and shall be presented to the Board of Directors, which shall pass upon such application at its next meeting. The sum of $10.00 as full payment of the membership share shall accompany the application, but the same must be returned if the application is rejected by the Board of Directors. The Board shall state its reason for such rejection on the reverse side of the application and place the same in a permanent file.

The Application shall contain the applicant's full name, his mailing address, his occupation and age, whether married or single, number of children if any, the acreage of his forest land, and a statement that the applicant agrees to adopt and apply proper forestry practices in the cutting of wood and/or timber from his or other forest land as recommended by the Association to the best of his ability, and such other facts as the Board of Directors shall from time to time require.

The membership meeting shall have full authority to accept or reject the applications passed upon by the Board of Directors.

Section 4 - Action on Application by Board of Directors

Upon approval of the application by the Board of Directors the applicant shall become a full member with voting privileges, only after he has paid for at least one membership share in full.

Section 5 - Rights of Deceased Members

Upon the death of a member the Board of Directors shall redeem the deceased member's shares, subject to the limitation in Section 7 of Article IV of these By-Laws, at not more than par value, from a special fund set aside for that purpose. In the event a legal heir of the deceased is qualified and shall properly apply for, and is elected to, membership, the deceased member's shares may, by written authority from the personal representative of the deceased, be transferred to the account of such heir on the books of the Association. However, the Board of Directors shall have the same right to approve or reject the applicant as indicated in Section 3 of Article IV of these By-Laws.

Section 6 - Withdrawal from Membership

A member wishing to terminate his membership shall give written notice to the Board of Directors which upon a favorable action may order immediate redemption of his membership shares at not more than par value. In the event, however, that there is an incompletely business transaction between the withdrawing member and the association, the Board of Directors may,
at its option, withhold the redemption of the shares until such time as the then pending business transactions have been fully completed.

Section 7 - Redemption of Membership shares - Shares of deceased or withdrawing members shall be redeemed by the Board of Directors, at not more than par value, for cash from a special fund set aside for that purpose by the Annual Membership meeting; provided that if the special redemption fund is exhausted, or the number of redemptions and the amount involved is so large that it would seriously endanger the financial position of the association, the Board of Directors may, at its discretion, defer all redemption until such time or times as it can be done safely.

Section 8 - Exclusion from Membership - The Board of Directors shall at all times have the right to dismiss any member or members who have been judged by the Board to be acting contrary to the best interest of the Association; provided that said member or members have a right to appeal to the next general membership meeting of the Association, whose action shall be final.

Section 9 - Membership Roll - A list of the members with their addresses, occupations, and age at the time of admission to the Association, with such other facts as may be determined by the Board of Directors, shall be kept by the Secretary. Each member shall agree to notify the Secretary within ten days of any change of address.

Section 10 - Presentation of By-Laws - A copy of these By-Laws shall be given to each applicant for membership upon request.

Section 11 - Organization Members - Cooperative societies, farmers' and forest owners' associations not operated for profit and whose aims and purposes are not in opposition to those of this Association may make application for membership and on approval by the Board of Directors shall purchase at least one membership share as required of individual members in Article IV, Sections 3 and 4. Such an organization member shall, however, be entitled to only one voting delegate in the meetings of the Forest Products Association.

Section 12 - Rights and Duties of Members - Every member must agree to obey the rules of the Forest Products Association, Inc., as set down in these By-Laws or elsewhere and the decisions of the general membership meetings or of the Board of Directors. He must also help to promote the aims and purposes of the Association, the success of its business and the welfare of its members. By patronizing its business and by participating in its membership activities, he shall aim to serve himself by promoting the interests of his fellow members in the spirit of mutual
aid. Every member shall have the right to vote, and an equal right to participate, in regular or special meetings, provided said member has paid in full for at least one membership share. He shall also have a right to receive his share in the distribution of the net earnings of the Association based upon his participation in the economic activities of the organization.

ARTICLE V - CAPITAL

Section 1 - Fiscal Period - The business period of this Association shall begin with January 1st of each year and end on December 31st of the same year.

Section 2 - Various kinds of Capital - The capital of the Association shall be composed of (1) the funds paid in by the members for its membership shares; (2) such funds as the Association may borrow from its members or from other sources; (3) the accumulated surplus earnings accruing from its business and the properties purchased with such surplus; and (4) the properties which the Association builds or creates.

Section 3 - Membership Share Capital - The authorized share capital (Common Stock) of the Forest Products Association, Inc., shall be twenty-five thousand Dollars ($25,000), divided into two thousand five hundred (2,500) shares of non-assessable stock of the par value of ten dollars ($10.00) each.

Section 4 - Shareholders - Each person or organization making application for membership in the Association shall subscribe for a minimum of one (1) share of its capital stock. The privileges of full membership shall be given to each subscriber when he has paid for in full and obtained a certificate for at least one share of stock subject to the provisions of Article IV Section 4. A member shall not receive a stock certificate until he has paid in full for the share of shares represented by said stock certificate. No shareholder shall hold, either directly or indirectly, more than five percent (5%) of the total number of shares authorized. A numbered certificate of shares in the Association shall be issued to each member on the payment in full for the shares represented by said certificate, such certificates to be numbered and registered as issued and to contain the shareholder's full name, the number of shares owned by him, and their value at par, and to be signed by the President and Treasurer and impressed with the seal of the Association. The record of shareholders and the outstanding stock shall be kept by the secretary in a stock book for that purpose.
Section 5 - Payments on Share Capital may be Deducted from Purchase Contracts - In order to facilitate the raising of additional necessary capital the Board of Directors shall have the right to insert a clause in all Association purchase contracts for forest products, requiring each member to apply a certain definite percentage, but not to exceed five per cent (5%) of the total purchase price, to apply for the purchase of membership shares. In such cases the percentage agreed upon shall be deducted from the amount due the member in the final settlement under the contract and fully paid certificate of shares at par value issued to cover the amount deducted.

If this clause is inserted in any purchase contract during any season, it shall be inserted in each and every said contract made during that season except that in the cases of members who already own the maximum number of shares permitted under these By-Laws, no further deductions shall be made.

Section 6 - Interest - Membership share capital may receive interest at the rate of not more than five percent (5%) per annum. Loan capital may receive interest at the rate of not more than six percent (6%) per annum and such interest may be cumulative.

Interest on share or loan capital may be calculated semi-annually, but no capital held by the Association for less than three months shall bear interest. Such interest may, on request of the member and at the discretion of the Board of Directors, be applied toward the purchase of additional shares of stock or the deposit of additional loan capital.

Section 7 - Transfer or Repurchase of Shares - The Association shall have the first option on any shares of stock offered for sale. Shareholders desiring to dispose of such shares must first offer them to the Association through the Board of Directors, which is authorized to redeem them at a price not exceeding their par value, or book value, if the latter be less. If the Association through its Board of Directors is unable or refuses to redeem such shares, the shareholder shall have the right to dispose of them to any member or other person eligible to membership in the Association. Transfer of the shares of this Association shall not be binding until made upon the books of the Association with the approval of the Board of Directors and no transfer shall be completed until the old certificate or certificates have been endorsed and surrendered and a new certificate issued in the name of the purchaser.
In accordance with the Public Laws of the State of New Hampshire, Ch. 334, Sec. 30, as amended, there shall be printed on every certificate of stock of the Association entitled to voting rights, other than preferred stock, the following: "The shares of stock represented by the within certificate are transferable only to persons qualified to be members of the Forest Products Association, Inc., in accordance with the By-Laws thereof."

Section 8 - Authority of Board in Transfer or Repurchase of Shares
- The duration of the option of the Association on repurchase shall continue for a period of six months after the shares have been offered for sale.
- The Board of Directors shall at all times have the authority to repurchase the shares of stock and to cancel the membership of any shareholder who has died; who has ceased to patronize the business of the Association or who has, for any other reason, been judged unfit for membership.

Section 9 - Reducing Capital by Repurchase of Shares - Whenever the share capital of the Association shall, in the judgement of the Board of Directors, be in excess of current needs, the Board shall have the privilege of repurchase at par value from any or all shareholders willing to sell, who have shares in excess of the minimum requirements of one share of stock, as many such shares as it shall consider favorable to the best interest of the Association.

The Board of Directors shall not repurchase the shares of any withdrawing member, nor of any other member when such a reduction of the Association's capital would in any way endanger the financial condition of the organization.

Section 10 - Lien on Capital - The Association shall have an absolute lien on the share or loan capital, and on the interest due thereon, of any member or any subscriber to share capital for his debts or obligations owed to the Association.

Section 11 - Loan Capital - The Association may accept loans from its members or from non-members in any amount acceptable to the Board of Directors, and shall undertake to pay interest for the use of the same at not more than six per cent (6%) per annum figured semi-annually. Such loan capital shall have preference over share capital. Notes or other evidences of indebtedness shall be given by the Association for such loans, but no such note shall be for a period of less than 90 days.
Section 12 - Reserve Fund - At the end of each year, a sum not less than ten per cent (10%) and not more than fifty per cent (50%) of the net surplus earnings or profits shall be allocated to a reserve fund. This fund shall be made up of money especially allotted to it from net earnings of the business, from fines, contributions from individuals, bequests and any other funds appropriated to it by action of the Board of Directors or the general membership meetings. The reserve fund shall be maintained for the purpose of meeting unforeseen losses due to extraordinary depreciation of equipment, fire, theft, or other losses or damages, for the extension of the Association and expansion of its business, or on the affirmative vote of the Board of Directors, be applied to outstanding obligations of the Association. The reserve fund shall be the indivisible property of the Association as a whole.

Section 13 - Educational Fund - At the end of each year, a sum not less than five per cent (5%) of the net surplus earnings or profits shall be allocated to an educational fund. This fund shall be placed in the hands of the educational committee of the Association to be used for purposes of education among the members and the public.

Section 14 - Distribution of Surplus Earnings - At the end of each fiscal period, after discharging its current obligations to the government and after paying the interest on capital stock, and providing for the reserve fund and the educational fund as required by Article V, Sections 6, 12, and 13, the remainder of the surplus profit may, by vote of the membership, be used collectively for social purposes or may be divided among the members who are not in arrears in their accounts, in proportion to the amount of their patronage. Any such dividend returns not with drawn within 10 days after being declared shall be carried to the members' loan account, except, dividends due any member who is in arrears in any account with the Association may, at the discretion of the Board of Directors, be applied to such account.

Section 15 - Basis for Dividend Distribution - The Forest Products Association, Inc., is primarily a producers' cooperative and therefore the members participation in the productive activity forms the basis for the distribution of net surplus earnings from such activity. Such dividends as may be declared shall be equitably proportioned on the quantities of forest products produced by individual members for the Association. In the event of net surplus profits realized from other activities the amount of each member's participation in such activity may be used as the basis for proportionate division of such profits.
At the close of each fiscal year, after the inventory has been taken and the books closed and properly audited, and the amount of net surplus earnings determined, the Board of Directors shall prepare specific recommendations to the annual membership meeting regarding the dividend distribution. The membership meeting shall thereupon pass upon said recommendations and no dividend distribution shall take place unless first approved by the general membership meeting.

ARTICLE VI - CONTRACTS, PRICES, AND METHODS OF FINANCING

Section 1 - Purchasing Operations - The Association, in acting as a marketing organization may purchase from its members products and commodities by paying the cash market price for same, or such products may be handled on brokerage basis as may be determined by the Board of Directors.

Section 2 - Production Contracts - The Board of Directors of the Association shall formulate a fair and equitable form of contract from time to time for marketing such forest products as the members may produce for the Association under contract. Such Contracts shall provide that any member becoming a party to the contract shall sell for any period not over ten years all or such lesser portions as may be specified to or through the Association exclusively, and shall adopt such forestry practices concerning the care and development of the woodlands and the conduct of operations for the removal of forest products as conform to the applicable principles of good forestry practices, including the principle of maximum sustained yield.

Section 3 - Methods of Financing - The Association may finance the production operations of its members under contract as determined by its Board of Directors, by a system of Loans advanced from time to time to cover the cost of labor. For such loans the member shall pay interest at such rate as the Board may determine, said rate to be plainly stated in the production contracts.

Section 4 - No Production or Financing Contracts with Non-Members - The Association shall not enter into production and financing contracts with non-members, but make outright purchases from such parties when advantageous to the Association and to the extent permitted by its Certificate of Incorporation.

Section 5 - Selling Operations - In marketing the members' products the Association shall make every effort to secure the highest market price and shall never enter into price cutting competition with any private firm or firms. It shall be the fixed policy of the Association to maintain firm prices both in buying and selling for the benefit of its members.
ARTICLE VII - USE OF SURPLUS

Section 1 - Surplus Earnings - The surplus gross earnings or profits which accumulate shall be used for: (1) paying running expenses and costs; (2) paying interest on loans and on capital; (3) creating a permanent reserve fund; (4) allotment for educational work; (5) expanding the business; (6) general welfare undertaking in the interest of all members; (7) philanthropic service; and (8) the balance shall be returned to the members in proportion to their participation as provided in Article V, Sections 14 and 15.

ARTICLE VIII - GOVERNMENT

Section 1 - Membership Control - The control of the Association shall be vested in the membership meetings. The Board of Directors and such special committees as may be elected by the membership meetings, are elected to administer its affairs. Final and supreme authority resides in the membership meetings. All meetings shall be governed by the "Roberts' Rules of Order."

Section 2 - Quorum - A quorum competent to transact business shall consist of twenty per cent (20%) of the members. No meeting shall proceed with business unless a quorum be present.

Section 3 - Regular Membership Meetings - The regular meetings of the membership shall be held annually on the third Tuesday in the month of May at a place and time to be determined by the Board of Directors and specified in the call to meeting.

Notice of regular meetings shall be posted prominently in all the places of business of the Association and shall also be sent by mail to the address of every member as registered on the books of the organization at the time the notices are sent. Notices shall be sent at least fourteen (14) days before the date set for the meeting.

Section 4 - Order of Business at Regular Meetings - The order of business at regular membership meetings and in so far as possible at all other meetings shall include:

1. Call to Order and proof of notice of meeting.
2. Registration of members and record of legal quorum.
3. Reading of minutes of last regular or special meeting.
4. Reading of reports and action thereon:
   a. Financial report and auditors' statement,
   b. Report of the Board of Directors,
   c. Management report,
(d) Educational report,
(e) Committee and other reports.

(5) Distribution of net earnings
(6) Election of Directors.
(7) Election of education and other committees.
(8) Old or unfinished business.
(9) New Business
(10) Adjournment

Section 5 - Special Meetings - Special meetings of the membership may be called at any time by action of the Board of Directors and such meetings must be called whenever a petition therefor is signed by at least ten percent (10%) of the members and presented to the Board of Directors.

Notice of special meetings shall be given in the same manner as is provided for regular meetings in Article VIII, Section 3.

Notice of Special meetings shall state the time, place, and purpose of such meetings, and the business to come before it; and no business other than that specified in the notice shall be transacted.

Section 6 - Rights and Limitations of the Membership Meeting - The membership meeting has both the right and the responsibility to elect Directors or members of Educational or other committees and to remove them from office if and when they are delinquent in their duties; to hear and pass upon the report of the Board of Directors and the General Manager of the Association and of any committees which are responsible to it; to determine the method of dividing the net surplus earnings or profits; to make the final decision regarding drastic changes in the financial policy; to act as the final arbiter of any dispute or disagreement which may arise between the Board of Directors and any committee or individual members; to determine what amendments shall be made in the By-Laws; and to exercise its final authority in all other matters vitally affecting the Forest Products Association, Inc., as a cooperative fraternal body and as a business organization.

Section 7 - Participants in Membership Meetings - Every member who has met his full obligation as regards membership shares, as specified in Article IV, Section 4, and who has not in other respects been judged delinquent or acting contrary to the interests of the Association by the membership meeting, shall be qualified to vote and to participate in the meetings of the organization.
Section 8 - Voting Rights - Election of Directors and members of committees shall be by ballot. Action on all other matters shall be either by ballot, by a show of hands, or by a rising vote, as the majority of members present may decide. Each member shall have one vote on all voting occasions, and never more than one vote, and there shall be no voting by proxy.

Section 9 - Directors and Officers - The affairs of the Forest Products Association, Inc., shall be administered by a governing board of nine (9) directors. All Directors shall be fully qualified members of the Association and shall be elected by the members at the Annual Meeting. At the first Annual Meeting after the adoption of these By-Laws, three (3) Directors shall be elected to serve each a term of three (3) years; three (3) directors to serve each a term of two (2) years; and three (3) directors to serve each a term of one (1) year. Thereafter all directors shall be elected to serve a term of three (3) years or until their successors are elected and qualified. In the election of directors, each member of record shall be entitled to cast one vote and only one vote for each director to be elected.

Section 10 - Alternate Directors - In addition to the regular members of the Board of Directors, every Annual Meeting shall also elect three (3) alternate directors, each for a term of one (1) year. They shall be elected from the members in the same manner as the regular Directors. In the event of vacancies in the Board of Directors because of death, resignation, or any other cause, between regular Annual Meetings of the members, a majority of the remaining directors shall call upon such alternates in the order of the highest number of votes received by them when elected to serve only until the next annual meeting of the membership. If for any reason regularly elected alternates are not available or have become unqualified to serve on the Board, a majority of the remaining Directors may themselves name any qualified member of the Association to fill a vacancy occurring on the Board until the next Annual Meeting.

Section 11 - Vacancies on the Board - In case of vacancies left on the Board of Directors whose terms have not expired at the time of any Annual Meeting, such vacancies shall in each case be filled by the Annual Meeting only to the end of the unexpected term.

Section 12 - Board of Directors to Meet in Ten Days - The Board of Directors shall meet within ten (10) days after the first election after each Annual Meeting, and shall elect
by ballot from among their number a President, a Vice-President, a Secretary who shall be the clerk of the corporation, and a Vice-Secretary. They shall also elect a Treasurer or at their discretion combine the office with that of the General Manager, who shall not be a member of the Board of Directors.

Section 13 - Management Committee - The Board of Directors may also elect from their number a Management Committee of three (3) members or other special committees as in their discretion may be necessary for the proper administration and conduct of the Association's business, or as may be required from time to time by the membership meetings or these By-Laws.

Section 14 - Compensation of Directors - The Directors shall serve without pay, but may be compensated for their actual expenses while serving the Association, as may be determined by any regular or special meetings of the membership.

Section 15 - Disqualification of Directors - Any Director shall vacate his office if he holds any other administrative office or place of profit under the Forest Products Association, Inc., or if he participates in the profits of any outside business with the Association. No employees on the administrative staff of the Association shall hold office as a Director on any account whatever. Any Director who shall engage in any business which competes with the business of the Association shall forthwith resign from his office.

Any Director of the Association may be removed from office, for cause, at any regular meeting or at a special meeting called for that purpose, at which a majority of the members shall be present. A director shall be informed in writing of the charges preferred against him at least ten (10) days before such a meeting and at such a meeting shall have an opportunity to be heard in person or by counsel and witnesses thereto.

If any Director shall cease to be a member of the Forest Products Association, Inc., his office shall be declared vacant.

Section 16 - Duties and Powers of Directors - The Board of Directors shall supervise all affairs of the Forest Products Association, Inc., and the conduct of its business between the membership meetings. They shall make all necessary rules and regulations, not inconsistent with law, these By-Laws, or recognized cooperative principles for the management of the business and the guidance of the officers, employees and agents of the Association. They shall meet as often as may be necessary for the proper supervision of the business. A Majority shall constitute a quorum.
Any three (3) Directors may call a special meeting of the Board of Directors by giving a notice in writing to the Secretary, specifying the object of the said meeting.

The Directors shall convene the membership meetings of the Association and shall act for the organization and be responsible to it for the performance of the following duties:

(1) To engage and dismiss the General Manager, who shall be an experienced business man and a reliable cooperator. The Board shall have the power to determine the duties and salaries of all administrative employees and at its discretion to require terms of notice governing the dismissal or resignation of such employees.

(2) To appoint operating committees from the employees or producers for such departments of the Association where they may deem it necessary for more efficient operation.

(3) To provide suitable plants, machinery, and accommodations for the proper conduct of the Association's business.

(4) To pass on all appointments of the administrative personnel, such as the department or plant managers, accountants, etc., made by the General Manager.

(5) To control all investments whether in loans, land, property, or equipment and fixtures.

(6) To secure economical working of the Association's business; to safeguard the organization against fraud by providing as complete a check as possible against errors, pilferage, carelessness or loose handling of cash and property by every person responsible for the same.

(7) To provide the best possible conditions of labor in the Association's service and to demand and secure equivalent returns in efficiency, faithfulness, and diligence.

(8) To control the sources of supply of raw materials and the channels of distribution and to maintain a direct and vital connection with other cooperative organizations.

(9) To foster a spirit of enthusiasm for cooperative effort, both in its staff of employees and the members of the Association and to identify themselves with every good feature of cooperative endeavor.
(10) To examine at regular intervals at least four (4) times a year at their regular meetings all accounts of the Association and to have the accounts properly audited by competent auditors at least once a year during the ninety (90) days next preceding the Annual Meeting, at which time a full report to the members shall be made.

(11) To present a complete report of its administration to the Annual Meetings of the Association.

(12) To prepare, as far as possible, all matters under its notice and required by these By-Laws or otherwise to be considered at membership meetings, for proper presentation at such meetings.

Section 17 - Duties of President and Vice-President - The President or in his absence, the Vice-President, shall preside over all membership meetings, or the meetings of the Board of Directors. If both be absent a Chairman shall be elected from the members present. The President shall sign with the Secretary or the Treasurer, as the case may be, all notes, deeds and conveyances or real estate, as well as the certificates of capital stock and other instruments of the Association.

Section 18 - Duties of the Secretary - The Secretary shall keep a complete record of the membership meetings and of the Board of Directors; sign as Secretary with the President all certificates of membership shares of the capital stock and any other documents, agreements, or papers on behalf of the Association and as the Board of Directors may direct; and affix the seal of the Forest Products Association, Inc., to all issued instruments as may require such attestation; serve all notices required by law, and these By-Laws, and conduct the official correspondence of the Board of Directors; be the custodian of the Seal of the Association; prepare and submit any reports and perform such other secretarial duties as may be required of him by law, the membership meetings or the Board of Directors.

In the absence or disability of the Secretary, the Vice-Secretary shall perform the duties of the Secretary.

Section 19 - Duties of Treasurer - The Treasurer's office may be combined with that of the General Manager by the action of the Board of Directors, in which event, the Treasurer cannot be a member of the Board. The Treasurer shall receive and disburse all funds of the Association, and deposit or cause to be deposited all funds for safe keeping in the name of the Forest Products Association, Inc.,
in such banks or other depositories as the Board of
Directors may direct; keep or cause to be kept a
complete record of all financial transactions of the
Association; sign with the President, such notes or
other instruments as he may be instructed by the
Board of Directors to attest, and perform such other
duties pertaining to his office as the Directors may
require.

Section 20 - Duties of Committees - The members may elect at
the Annual Meeting the following special committees,
composed of a Chairman and not less than two other
members, which shall serve for one year; Educational
Committee and Membership Committee for the purpose
of securing new members and increasing the interest
of the members through recreational and social activities.
Other committees may be elected or
appointed from time to time to meet special needs.

Section 21 - Bonds - The Treasurer, General Manager, or other
officers or employees having the custody of the funds or
goods of the Association shall each furnish a bond with
corporate surety, satisfactory to the Board of Directors,
for the faithful performance of his duties and obliga-
tions.

ARTICLE IX - GENERAL MANAGER

Section 1 - Duties of General Manager - The General Manager shall
be in direct charge of the Forest Products Association, Inc.,
in all its business activities under the supervision and
in accordance with the instructions of the Board of Directors.
He shall hire and discharge the administrative personnel,
as well as all other employees, subject to the approval
of the Board of Directors. He shall see to it that accu-
curate books are kept of the Association's business activ-
ities and submit the same together with all files, records,
inventories, and other information pertaining thereto, for
inspection at any time by auditors appointed by the Board
of Directors. He shall also furnish the Board once a
month a statement in writing of the financial and business
conditions of the Association and submit a report of the
management to the regular membership meetings. He also
shall attend to such other duties and office as the
Board of Directors may assign to him. For the faithful
performance of his duties, the General Manager shall
furnish an adequate fidelity bond for such amount as the
Board of Directors may require, the expense of which shall
be borne by the Association.

ARTICLE X - CHANGES IN THE BY-LAWS

Section 1 - Amendments - These By-Laws may be altered by amendment,
repeal, elimination or addition by two-thirds vote of the
members voting at a membership meeting, provided, however,
that no such amendment shall be come effective if inconsistent with the terms, covenants or conditions of any agreement entered into by the Association previous to the adoption of such amendment or amendments. Notice of the proposed changes shall have been published to the membership at least 60 days before the meeting.

Section 2 - Amendments to the Certificate of Organization - The Agreement of Organization may be altered or amended at any regular meeting or at any special meeting called for that purpose provided such an amendment is approved by two-thirds of the Directors and adopted by a vote of the majority of all the members of the Association, and by otherwise complying with the statutory requirements for amendment thereof, provided that no amendment shall become effective if inconsistent with the terms, covenants, or conditions of any agreement entered into by the Association previous to the adoption of such amendment or amendments.

Section 3 - No Amendments Inconsistent with the Loan and Trust Agreements - These By-Laws, or any Article or Section thereof or any amendment thereto, shall not become effective, valid, or operative if inconsistent with the terms, covenants, or agreements of the Loan and Trust Agreements, entered into on May 31, 1937, or any renewal thereof, between the Forest Products Association, Inc., and the Government of the United States, during the life of the said Loan and Trust Agreements. In any and all cases where such inconsistency occurs the terms, covenants, or agreements of the said Loan and Trust Agreements shall govern; and such inconsistent Articles of Sections thereto of these By-Laws shall be null and void and of no effect.
FOREST PRODUCTS ASSOCIATION, INC.
Woodland Owners Cooperative
MARKETING AGREEMENT AND SALES CONTRACT

THIS AGREEMENT for the season 1937-38 is made and entered into this........day of........, 1937, by and between the Forest Products Association, Inc., a corporation organized and existing under the Co-Operative Marketing Law of the State of New Hampshire, and doing business at Groveton, County of Coos, State of New Hampshire, hereinafter called the "Association" and ............ of ............ County of ............ State of ....... who is a member, or who upon acceptance of this Agreement by the Association becomes a member of the Association, hereinafter called the "Member."

1. The Member hereby agrees to sell and does hereby sell to the Association and the Association hereby agrees to buy and does hereby buy from the Member a quantity of sound pulpwood or other forest products as follows:

(a) Amount and Kind to be cut:


(b) Land from which timber is to be cut:


(c) Quality. All timber to be of merchantable quality and cut in accordance with the Association's specifications printed on a separate sheet and made part of this contract.

(d) Delivery points:


The Member agrees to make a complete delivery to the above specified point, or points, either by truck, team, or by railroad delivery loading cars at ............. and paying all loading and transportation costs.

The Association may, at its option, direct the Member to load any or all of the herein contracted forest products into railroad cars at ............., in which event it is
mutually agreed by both parties that the transportation and loading costs shall be adjusted to net the Member the same price at his yarding point he would have received had the products been delivered to the regular point or points specified in this contract.

(c) Prices:
The Association shall pay the following open market prices in effect at the time of the execution of this contract as follows:

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Or at the Member's Option, exercised at the time of the execution of this contract, and so indicated in this contract, the Association agrees to pay the Open Market Price at Delivery (OMP) in which event no prices are to be inserted in this contract until the delivery is made.

The Member shall be promptly paid within 30 days after the receipt of the final scale by the Association all net amounts due said Member, without deductions, except those due the Association for loans, advances, interest thereon, and such other charges as may have been caused by the Member's nonperformance of this contract.

(f) Marking ..............................................................

(g) Loans and Advances:
The Association agrees to loan to the Member against such security as may be required by the Association, the necessary funds, from time to time, to cover labor and transportation costs in accordance with the following schedule:

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<th>Softwood</th>
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<td>Balance upon completion</td>
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The Member agrees to pay for the loans advanced 5 per cent interest until such time as the title to the wood upon which advances have been made shall have passed to the Association.

(h) The Member guarantees that he is the sole owner of the forest products herein contracted and that the same is free and clear of any and all encumbrances and adverse claims, except..
In the event the timber is to be cut from Mortgaged property, the Member agrees to secure the necessary cutting permit, authorizing the Association to pay the Mortgagor the stumpage money as specified in his permit, and to deduct the same from payments due the Member under this contract.

(i) Delivery of all forest products contracted for herein shall not be complete until the same have been scaled by the sworn surveyor herein mentioned. Title to said forest products shall pass upon complete delivery at the points herein specified.

(j) Shipments:
Shipments shall be made VIA .................. to .................. Company of .................. State of ..................; and a duplicate copy of Bill of Lading, or invoice sent to .................. office at the time of each shipment for identification of cars. The Member to assume all responsibility for procuring cars.

(k) Measure:
The agreed measurement of all products to be made by a sworn surveyor of .................. Company on receipt at .................. State of .................. 128 Cu. Ft. of wood to equal one cord. All carloading by the Member shall be done in an even and workmanlike manner and to the fullest capacity to reduce freight.

II. The Member hereby agrees:
(a) To sell any and all forest products produced by him during the season covered by this Agreement to, or through the Association, except products required for the Member's own use, or ..................

(b) To adopt and apply proper forestry practice as recommended by the representative of the Secretary of Agriculture and of the Extension Service in cutting timber from his woodland and to handle his woodland in accordance with the principles of maximum sustained yield.

(c) To comply with the By-Laws of the Association as they now exist or may hereafter be duly amended. The said By-Laws are hereby made a part of this Agreement, except as to those particulars as to which it is herein expressly stipulated to the contrary.

(d) To accept as the basis for all payments made for the forest products under this Agreement the measurement by the sworn scaler of .................. Company on receipt of the products at .................., or by the scaler the Association may select.
III. Nonperformance or Breach of this Agreement.

It is mutually agreed between the parties hereto that in the event of nonperformance or breach of this Agreement by the Member particularly as to the delivery or sale of the herein stipulated forest products to others than to, or through the Association, or the Member’s failure to complete the job in a workmanlike manner, the Association shall have the following remedies:

(a) One Dollar ($1.00) for each of 128 stacked cubic feet of pulpwood, or for each 100 cubic feet of solid content of all timber products sold or delivered to others as liquidated damages for the said breach of contract.

(b) The Association shall, upon proper action instituted by it, be entitled to an injunction to prevent further breach hereof and a decree for specific performance hereof, according to the provisions of this Agreement; and the Association and the Member expressly agree that this Agreement is not a contract for personal services or demanding exceptional capacity or talent, and that this is a contract for the purchase and sale of personal property under certain conditions and circumstances and is a proper subject for the remedy of specific performance in the event of a breach thereof. The Member agrees to pay all costs, premiums for bonds, expenses and fees, including reasonable attorney fees, in case any action is brought upon this Agreement by the Association.

(c) In the event that the Member fails, neglects or refuses to complete the job, hereunder it is expressly agreed that it shall be lawful for the Association and or its agents to enter upon the Member’s land and premises with men, teams and the necessary machinery to cut, remove and transport all products to the extent necessary to finish the uncompleted part of this Agreement. The Member agrees to assume the liability for all expenses in such case, the same to be deducted from any sums due said Member in the final settlement hereof.

IV. Life of This Agreement.

This agreement shall become effective immediately upon its acceptance by the Association and shall be in full force and effect until May 1, 1938. Should any part of the contract remain incomplete at the date of expiration, the Agreement shall remain in full force and effect until the same is completed. Any renewal contract for the sale of forest products to or through the Association from year to year will automatically renew the within Membership Agreement.
THE PARTIES EXPRESSLY AGREE that there is no oral agreement, understanding or condition between them in addition to those herein set forth and that this Agreement represent the intents of both parties clearly, thoroughly and completely.

Dated at .................. State of ............. this .... day of ....................., 193.....

................................
Member

FOREST PRODUCTS ASSOCIATION, INC.

By................................
Title................................

Member's Address..................
Member's Phone No................
Number of acres Forest Land.....
COOPERATIVE MARKETING OF FOREST PRODUCTS

AALTONEN, FRANK, HERR, C.S., and BARRAGLOUGH, K. E.
A basic collection of papers on the scope and work of cooperatives established in New Hampshire and New York, with sections, "Aims of cooperation", "Financing of cooperatives", and "General purpose cooperatives". Discussions by J. H. Rich, Burt P. Kirkland, J. A. Cope and Howard Hopkins develop various phases of the subject. The necessity of centralized management of small woodland holdings is covered, stressing the importance and difficulty of education unsustained yield management.

BARRAGLOUGH, K. E.
Suggested rules and regulations for an association to bear the expense of transporting logs.

BARRAGLOUGH, K. E., and HERR, C. S.
Article on the organization and operation of this Association in Coos county, New Hampshire. 500 farmers cooperate in marketing pulpwood and Christmas trees. Various federal and state agencies aid the project and an effort is made to keep products' lands at a sustained yield.

BARRAGLOUGH, K. E.
The farmer will grow timber if it is profitable, the author holds, and a cooperative scheme will meet this difficulty, but it must be voluntary. The Coos County, New Hampshire, project is cited.

BEHRE, C. E., and LOCKARD, C. R.
1937. Centralized management and utilization adapted to farm woodlands in the Northeast. In cooperation
with the New York State College of Forestry.
Syracuse, N. Y., Published by the Charles Lathrop
Pack Forestry Foundation and the New York State
College of Forestry at Syracuse University, 1937.
"...the Northeastern Forest Experiment Station
has undertaken a comprehensive study of an area
tributary to Cooperstown, New York, in order to
establish a sound basis for cooperative management
there and to assist a local pioneer organization
in solving the many technical and economic problems
incident to operations in this field. The experience
of the Cooperstown organization, known as the Otsego
Forest Products Cooperative Association, Inc., should
serve as a demonstration of what can be done, and
should pave the way for similar developments else-
where. - from p. 18.

BESLEY, F. W.
1919. Marketing timber from farm woodlands. Jour. Forestry
The author points out the farmers' lack of silvi-
cultural and marketing information, and concludes
that selling cooperatively with the aid and advice
of a forester would be desirable.

BROWN, H. L.
1938. The place of timber farming in modern agriculture.
Forestry in relation to agriculture, p. 23. 1938).
Advises selling forest production on a unit basis.
Cites the timber cooperatives now maintained in Coos
County, New Hampshire, and Cooperstown, New York.

BRUSH, W. D.
Bul. 1450).
The section "Finding a market", p. 9-11, contains
suggestions to farmers on cooperating with groups of
producers in selling timber, and the advantages of
forming a temporary organization for this purpose.

BRYANT, R. G.
1938. Lumber: its manufacture and distribution. N. Y.,
Mentions the need for cooperative effort to im-
prove the quality of lumber products and distributig
methods. Cites the attempt of present German gov-
ernment to obtain harmony between the production
and consumption of lumber products. Pages 383 and
385 mention cooperative sales action by groups of
mills.
BUFFAULT, PIERRE.
The author deplores the state of farm woodlands in France. There are cooperatives only for production and others for both production and sale of products. The first class also buys forests and each member owns stock.

CHALULEAU.
Includes the constitution and operation of general agricultural cooperatives as well as cooperatives for reforesting of land.

CHRISTERSON, TORE.
Suggested plans for cooperatives and communal ownership of forests belonging to peasant farmers in Sweden, and notes about existing organizations along these lines. Special emphasis is placed on the management of forests rather than marketing of forest products.

CLINE, A.C.
One of the suggestions for improvement of the market is associations of producers or timberland owners. One of the weaknesses at present is small holdings in scattered localities. Either a locality must combine to supply a local plant or have a distribution center.

CONGRÈS FORESTIER INTERNATIONAL.
Cites advantages of cooperatives: prevention of exploitation, permits economy in management and more remunerative sales, establishes a better hiring-out of hunting rights, permits the hiring of competent personnel, diminishes risk by fire, insects, etc., and facilitates reforestation. Gives various divisions of cooperatives and a brief survey of those in foreign countries. Financial methods are reviewed.
CONNECTICUT FOREST AND PARK ASSOCIATION.
A note on the work of the Marketing committee of this Association in cooperation with the State Chamber of Commerce and other agencies toward organizing cooperatives for forest products.

CRAIG, R. B.
A comprehensive bulletin concerning all factors relating to forestry in this county, suggesting the advantages of cooperation in obtaining increased sales and higher prices.

CURRAN, H. M.
The present poor market does not warrant the owner's taking care of his forest. If this condition is improved, the mills of North Carolina can produce annually two or more times the present cut and there will be an improvement in quality of logs and prices. There must be proper location of mills and exact grading and scaling. The author suggests that county agents, the marketing service of the U. S. Department of Agriculture, and the forester employed by the State Department of Agriculture work together to perfect plans for the marketing of timber.

DANNECKER, KARL.
1939. Cooperative activities of forest owners. (In his The forest manager, p. 168-169. c1939.).
The organization of associations of forest owners in all German states and provinces, and the necessity of the farm woodland owners to join such associations. German agriculture owes its success mainly to the agricultural organizations. Why is not the same thing possible with forestry in this country, the author asks.

DONAHUE, R. L.
On the Tioga Woodland Owners' Cooperative, Inc., in New York. Gives a summary of the history of this organization, the marketing agreement which the woodland owner signs, and the benefits he obtains by belonging to the organization.
DRANEA, M.
Statistics of cooperatives in Romania, 1921-1929. Forest products and by-products have been sold to their own members, to consumer cooperatives, to forest industries, exported, and sent to Colonies. The development of cooperatives has been made possible by the law permitting the use of government forest. States the financial organization of these cooperatives.

FORSLING, C. L.
A concise summary of cooperative forestry effort in Sweden, certain points of which may be applied to American conditions. In Sweden practically every province has its marketing association and a national union of such associations has been formed. Each association has qualified personnel to handle marketing problems. Timber cooperatives are expanding because a large part of the standing timber is in small holdings.

FRIG, JAN.
Historical sketch of cooperatives in Czechoslovakia and other European countries. Deals principally with cooperatives for reforesting, and not directly with marketing.

FROISLAND, FROIS
Organization of the Association and its function, compared with similar credit associations in Germany, Denmark, and Finland. Not specifically on marketing, but is of interest in this bibliography in revealing the varied workings of forest cooperatives in Europe.
FROTHINGHAM, E. H.
Basic information on value and extent of woodlots, problems and opportunities for marketing products. The author says that farmers may be influenced by the cooperative movement to pool the management of their woodlots. In the footnote, p. 42, is listed the timber marketing problems about which the farmer is usually ignorant.

GEBHARD, HANNES
In the section entitled "Cooperative Societies for the manufacture and sale of the members' produce"; societies for the sale of lumber and other forest products in Finland are included.

GRON, A. H.
Detailed account of effect of sales organizations on prices in Denmark and its export trade.

HARVARD FOREST.
Five obstacles to efficient lumber marketing are listed, and seven improvement policies are recommended, among them possible associations of producers.

RANES, A. F.
The author holds, cooperative marketing is especially suited to farm forest products, because the yield is not annual and the owner is out of touch with markets, and because of the bulk and weight of logs the markets are restricted geographically. The following topics are covered; work of a cooperative forest products association, organization (includes financing and methods), benefits to farmers, and a section on comparable organizations in France.

Notes on the necessity of proper grading of lumber and selling in carload lots. Cooperative associations should be formed after the pattern of the creamery associations. The State Forester will make a marketing study where an association controls 1,000 acres or more. Includes application form.

HERR, C. S.
News item on this successful project and plans for further cooperative effort in marketing Christmas specialties.

HESKE, FRANZ.
"The cooperative form of enterprise (Genossenschaft) is already one of the most important means of improving management in the small, much subdivided forest properties, and will become increasingly important in the future. There are two forms to be considered. In one, the forest is really a common, cooperative property and each member has only a theoretical share in it; in the other form, each member retains his separate property and the cooperative relation covers only specified purposes, such as joint administration, protection, and sale of products. "-from p. 77. Page 196 outlines the purposes of various associations of forest owners, some of which were dissolved in 1934, and their functions transferred to the Reichsnachricht.

HICKS, W. T.
Analysis of general cooperatives as related to forestry cooperatives. Stabilizing markets for forest products, classification and uniform grading of products and improvement of management practices, and establishment of processing plants are possibilities of forest cooperatives. A section also on legal machinery existing for organizing and financing them.

HILEY, W. D.
Outline of form of organization of two different types of cooperative societies in Finland, originally
formed for marketing timber but taking more and more interest in management.

Advocates formation of associations or syndicates. Small landowners could in that way run their own nursery and sawmill, and organize sales.

HOLBROOK, S. H.
History of the Forest Products Association, Chicago, with headquarters at Groveton, New Hampshire, organized in 1935. Includes accomplishments to date and plans for the future.

HOYLE, R. J.
Points out the definite need for cooperative management and marketing on small cut-over areas of New York State.

INSTITUT INTERNATIONAL D'AGRICULTURE.
Page 215 cites a Belgian cooperative composed of forest owners and interested parties. It undertakes among other aims, the furthering of marketing of forest products. Pages 316-317 mention the Commission pour Ventes Coopératives de Produits Forestiers under the administration of l'Association Forestière danoise. A sketch of the different associations of small forest owners formed under the Danish law and receiving subsidies from the Government for the employment of foresters follows.

Besides aid in managing, the wood is sorted, information given about prices, and cooperative sales are organized. A summary follows of another Danish society for the sale of forest products. The association can establish its own markets and means of transport. The financial structure is given. Pages 224-226 give statistics of Finnish voluntary forest owner
association. Marketing is considered very important. Expenses and receipts for 1936 are given. The subsidies granted by the State since 1933 are listed. A list of French societies and cooperatives follows on p. 236. These are all united in a national federation. The aims of the national society are given. Page 239 mentions the Scottish Landowners' Cooperative Forestry Society, and suggests on the next page that its sphere of usefulness could be enlarged. Page 234 concerns l'Union Novégiennne des Propriétaires de Forêts, a central organization having sections in different parts of the country and these have under them marketing or owners' associations. The associations have done important work in establishing standards of measurement, just tax laws, etc. Mention is also made of a similar association founded in Finland in 1928.

KENTUCKY. STATE BOARD OF FORESTRY.
Three different lines of cooperation are suggested and mention is made of the willingness of the U. S. Forest Service to work with county agents and farmers in cooperative marketing.

LAMB, G. N.
Contains one paragraph (p. 25) on advantage of cooperatives in that they would enable farmers to use a custom mill and sell the product as lumber in car load lots instead of in the rough, as logs or cordwood.

Contains one paragraph only (p. 15) showing advantages of cooperative marketing.

Gives suggestions for marketing various woods and products. Also logging scales, methods of marketing, weights and cost of shipping different woods. A paragraph on cooperative marketing is found on p. (5).
LOOKARD, C. R.
1938. The first season’s operations of the Otsego Forest products cooperative association, Inc. (New Haven, Conn., Northeastern forest experiment station, 1939). Sp. processed.
An address delivered before the Northeastern forest research council at New Haven, December 1, 1938, giving a summary of the organization and workings of this cooperative, and its relations to other programs of the U. S. Department of Agriculture.

LODEWICK, J. E.
"Professor Lodewick first discusses the advantages and disadvantages of different methods of selling, describes the place of the sawmill in marketing, and gives an account of cooperative marketing procedures. - From review.

MACKAYE, BENTON.
There exists now a needlessly complex system of marketing, the author says. Some central shipping point is necessary for each community. When a market exists for crude products, as logs, all that is needed is a shipping point. When there is a good market for rougher products, as lumber or staves, then a small sawmill is needed. The latter would correspond to cooperative creameries and cheese factories in the State.

MATTOON, W. R., and BARROWS, W. B.
"Cooperation in marketing", p. 57-59. Recommends no plan for cooperative marketing, but suggests that such plans could be effected through the aid of State and Federal governments.

MAUGHAN, WILLIAM
The chart accompanying p. 192 shows the organization of the Extension Service and its relationship with cooperation agencies. The program given on p. 193 includes the marketing of forest products. On p. 194 the various activities along that line are enumerated. Pages 241-243 concern the Farmers’ Federation of Western North Carolina.
MOON, F. F.
Advocates either a township wood market under agent or county farm bureau, or a subsidized millman. A state agency should be set up to help solve the problem of marketing. In states like Massachusetts and Connecticut, cooperation could easily be put into effect. The Town Foresters through the medium of the State Foresters' office could make available all data on dimensions, prices, and specific needs in order to uncover new supplies for the manufacturer and obtain good prices for the producer. County agricultural advisers could further this work.

MOORE, BARRINGTON.
The form of organization and objects of the Central Home Grown Timber Marketing Association and its branches in Great Britain. A comparison is made with the Otsego, New York project, and the distinction between the British and American attitude toward cooperation is expressed.

MURPHEE, F. T.
Gives outstanding economic and financial advantages of cooperative marketing over the existing system, and points out that our successful big corporations are "really a tightly organized form of cooperative". The author poses several questions and problems which will have to be answered and worked out if cooperatives are to succeed.

NEUBRECH, W. L.
States the possibility of several owners combining their estimates and selling cooperatively.

NEW YORK FORESTRY AND PARK ASSOCIATION.
A general review of organization and purposes of the Otsego Forest Products Cooperative Association
after one year of existence. It was formed for the
building up of farm woodlots, to supply wood to
industries now importing it, and build up an annual
cash income for members. The frequent light cuttings
are brought to a central point, sorted, graded, and
processed to be sold to the best advantage.

NORWAY. SKOGDIREKTØREN.
1930. Skogbruksorganisasjoner (Association of forest
land owners). (In its Oplysnings om skogforhol-
dene i Norge. 1930. p.66-69).
Outline of organization and purposes of lumber
marketing associations, and the Norwegian Foresters'
Association.

O'BRYNE, J. W., and GRANTHAM, J. B.
1936. Farm forestry for Virginians. (Blackburg, Va.,
Bul. v. 31, no. 5. March 1938).
Page 54 is on cooperative marketing and how it
could be applied to forest products. A well quali-
fied director is necessary. Even if an association
is not formed, several farmers can market their
products collectively.

PELLERVO-SEURA.
1937. Genossenschaftswesen und forstwirtschaft in Finland.
(Helsinki. 1937). 4p. processed.
The spread of cooperation among forest owners in
Finland.

PINECHOT, GIFFORD.
Points out the need for study of the relation of
the woodlot to the rest of the farm. Future condi-
tions may give better opportunity to sell wood than
at present, and conservation is necessary to get
value of wood. Includes a note on a cooperative
sawmill which was established near a western
National forest.

QUEBEC. FOREST PRODUCTS COMMISSION.
1933. Federation of the sawmill owners. (In Quebec.
Forest products commission. 3d annual report.
1933. p. 20.).
Advocates an association of sawmill owners to
solve common problems of methods, prices and markets.

ROGERS, R. H.
1934. Centralized management and marketing applied to wood-
lands of the Cooperstown forest unit. (Syracuse,
N. Y., 1934). 90numb. diagra., photos. Typewritten
thesis, New York State College of Forestry. Presents information collected during five years of practical experience and study. Considers the many factors involved in such a project, management plan, soils, climate, distribution of types, logging costs, cost of marketing, utilization of woods, milling costs, methods of selling and organization.

SMITH, H. A.
The author points out the difficulty of a farmer in getting a fair price for his products, and states that a knowledge of silviculture is necessary to maintain a crop. The farmer loses because of the low grade lumber put out by the portable sawmill. Cooperation would remedy all these evils.

SPARHAWK, W. N.
A central cooperative society of forest workers was organized in 1921, with a capital of 10,000,000 marks. This article gives details of sale of common and preferred stock, profits to cooperators, organization, business methods, and aims of the Society, one of which is the preparation and merchandising of forest products for export.

STERRETT, W. D.
Suggests three different lines of cooperative effort and gives points to be observed in marketing.

STIRLING-MAXWELL, JOHN.
A good presentation of the advantages of cooperative marketing of forest products. All members must take advantage of the services of the Society to increase its usefulness.

U. S. EXTENSION SERVICE.
Notes on the Tioga Woodland Owners' Cooperative, New York, the first private nonsubsidized cooperative to handle all products of the farm woodlot. The first sales contract will give the owners substantially more than they would get as individuals. The group has a membership of fifty persons and controls 3,000 acres of merchantable timber.

U. S. FOREST SERVICE.
1931. Cooperative selling increases Christmas tree returns.
Short note about a cooperative experiment near Colebrook, New Hampshire directed by the Extension Forester at Lancaster, and the increased financial returns from four carloads of Christmas trees marketed cooperatively.

U. S. FOREST SERVICE, and U. S. EXTENSION SERVICE
A collection of five papers, the first giving the favorable and unfavorable factors in the establishment of a sustained yield project, the steps necessary to its accomplishment, and the projects already under consideration by Region 7 of the Forest Service. One chapter each is devoted to four associations giving financial set-up, organization, and experiences thus far in their existence. These are: Forest Products Association, Inc., N. H., Tioga County Woodland Owners' Cooperative, Negro Farmers' Sawmill Cooperative, and West Virginia Forest Products Association. By-laws and agreements are included for two of the associations.

U. S. FOREST SERVICE
The work of the Extension Forester in North Carolina in circulating questionnaires to help farmers sell timber cut as thinnings. He has arranged a cooperative contract with a large pulp mill. Farmers' social clubs in Halifax county, Virginia, are handling an order for 1,000 cords of pulpwood arranged by the County Agent. This is confined to weedyings or thinnings.

1933. The farmers' woodland. (In Conference of lumber and timber products industries with public agencies on forest conservation... Proceedings ...1933, 1934. 3 numb. 1. mimeo.) Measures suggested for getting a fair price for forest products, one of which is cooperative marketing.

The Committee recommends that the county be divided into four districts and that a woodland owners' and a forest wardens' association be formed in each of these districts. They could employ foresters and cooperate in protection, management, and utilization plans. The wood used for factories at present is imported, but cooperation in management and marketing could bring about use of local timber.


A 10-year county forestry program has been worked out for Norfolk county, by a committee representing various local interests and the Massachusetts Forestry Association. Fifty-two percent of the land area is under some sort of forest growth, most of inferior quality.

Formation of woodland owners' associations throughout the county is recommended as a means of encouraging forest management and increasing profits.

U. S. FOREST SERVICE.

1930- (Notes on) Farmers' Federation of North Carolina.


Short items on the work of this association in marketing forest products and plans for the future along this line.

1937. Wood-lot management and marketing. (In its Annual Report, 1937, p. 12.)

A note on the project near Cooperstown, New York -- its objects and financial backing.

WEIDELICH, A. O.

1937. European forestry - methods and practices - and how these methods can be applied to southern forests, both public and private. (In Assoc. South. Agrs. Workers. Forestry Sect. Forestry in relation to Agriculture. 1937, p. 15-21.)

Quotations from the report of Dr. Dannecker (See above) on forest cooperative associations in Germany before the present government and also methods of central regulation at the present time. The problem of management is considered, with mention of marketing.
WILLIAMS, W. K.  
Assistance in marketing forest products has been given by State Foresters. Cooperative marketing of pulpwood in Virginia and North Carolina has been developed; of Christmas trees in New Hampshire.

ZON, RAPHAEL.  
The work of a commission appointed by the Government of Finland to consider means of improving financial condition and work of the forest owners' associations. A management tax based on area and yield is desirable for purposes of employing efficient managers and foresters.

ZON, RAPHAEL.  
The author suggests that the Executive Committee on the Conservation of Natural Resources help in the formation of cooperative associations. Granges and Farmers' Institutes offer the best existing means of taking up the matter.

1934. The woodlot in rural organization. Salvation of the settler in Northern Lake states depends on cooperative marketing and use of woodland resources.  
Gopher Countryman, April, 1934. (2) p.  
The handicaps under which the settler labors are noted. Some of the land companies help the farmer in his marketing problems. It is suggested that one system should arrange for the cooperative marketing of all the farmers' products, help him to clear his land and to aid him in buying farm machinery.
READING LIST ON AGRICULTURAL COOPERATIVES

AMERICAN BANKERS ASSOCIATION. STATE BANK DIVISION.
1924. Principles and progress in cooperative marketing of farm products. 1924. 33p.
A collection of more than twenty papers, which include financial problems of cooperatives, general principles, and the farmer's viewpoint. A general survey of cooperative marketing achievements, p. 30-32.

AMERICAN COMMISSION TO INVESTIGATE AND STUDY AGRICULTURAL CREDIT AND COOPERATION.
1913. Agricultural cooperation and rural credit in Europe.
1913-1914. 5 pts. Pt. 1. Evidence gathered in Europe; Pt. 2. Annotated bibliography arranged by countries; Pt. 3. Statement regarding cooperation and rural credit in each state.

AMERICAN INSTITUTE OF COOPERATION.
Papers on all phases of cooperative marketing and purchasing. Contains six papers on the marketing of nuts. Earlier annual publications of this Institute also contain material on this subject.

BASSETT, C. E., and JESNESS, O. B.
Fundamental requirements for the success of a cooperative and suggestions for their organization.

BOMBERGER, F. B.
1926. If renewed interest develops in the organization of cooperative marketing associations, what shall be the county agent's part in it? (Wash., D. C., 1926) 12 numb. 1.
Address delivered before the Extension conference of the Northeastern states, in Washington, D. C., March 5, 1926. The educational duties of extension agents are noted. The importance of cooperation in Denmark is stressed. The author points out that emphasis should not be solely on marketing, but also on problems of production.
BOOTH, J. F.

CHRISTENSEN, C. L.
1924. Agricultural cooperation in Denmark. Wash., D. C., Govt. print. off., 1924. 88p. illus. (U. S. Dept. Agr. Bul. 1366.) Outlines the development of cooperative enterprise among the farmers of Denmark, and has various cooperatives function. Contains a section on agricultural credit and one on miscellaneous cooperative organizations.


DERRICK, B. B.

ELSWORD, R. H.


Consists of 95 tables and a great number of
tables and a great number of
graphs and charts on status of agricultural
cooperaives in the United States.

ELSWORTH, R. H.
1936. Statistics of farmers' cooperative business organ-
maps, diagrs. (U. S. Farm Credit Adm. Coopera-
tive Div. Bul. 6).
Sketches the development of different types
do cooperatives. Statistics are divided by commodity,  
and state the quantity handled and number of
associations. "Associations providing business
services", and statistics by states are added.

EVANS, FRANK, and STOKDYK, E. A.
1937. The law of agricultural cooperative marketing.  
Rochester, N. Y. The Lawyers co-operative
publishing co., 1937. 648p.
Written to provide up-to-date informations on
a rapidly growing subject. Covers basic principles,
organization procedure, membership rights and
liabilities, contracts, and various financial
aspects. Appendix contains forms needed in
cooperative enterprise.

FETROW, W. W.
1936. Cooperative marketing of agricultural products.  
Wash. D. C., 1936. 106p. (U. S. Farm Credit  
Adm. Cooperative Div. Bul. no. 3). "Selected
list of references on cooperative marketing":  
p. 104-106.
A handbook of cooperative marketing of various
commodities in the United States, considering
organization and policies of individual companies.

FIPPIN, E. C.
1934. First principles of cooperation in buying and selling
in agriculture. Richmond, Va., Garrett and
Massie, c1934. 320p. illus. "References" at
end of chapters.
Issued in textbook form, numbered paragraphs,
queries and problems at end of chapters, and pro-
fuscely illustrated. Considers marketing principles,
incomes, economic production, governmental agencies,
laws, organization, causes of failure and success,
and general and specific marketing factors.
FLORIDA, DEPT. OF AGRICULTURE.
Contains, in addition to laws relating to cooperatives, application forms, suggested constitution and by-laws, with chapters on the functions of various cooperatives and what is being done in other states.

FLORIDA DEPT. OF AGRICULTURE.
Partial contents: "Organizing farmers for business", by J. T. Hooks; "Can cooperative marketing do it all?" and "More about cooperative marketing—its possibilities and impossibilities", by Nathan Mayo.

GARDNER, CHASTINA
Includes only works printed in English, with index by subject and by country.

Listed the more important sources of information, and brief annotations, arranged by author with a subject index.

HAAG, H. M.
Information on 410 local cooperatives operating in Missouri in 1935. Gives an analysis of factors causing variations in costs. Considers average expenses of Missouri cooperatives, and relation of size to costs and efficiency.

HANNA, JOHN.
A comparative study of applicable statutes in different states. Written with these groups of people in mind: those connected with associations, those who do business with them, and students of farm problems.

**HERTEL, HANS.**

1931. Cooperation in Danish agriculture, by Harold Faber. An English adaptation of "Andelsbevoegelsen i Danmark" by H. Hertel. new ed. London, Longmans, Green and co., 1931. 198p. Historical introduction and notes on Danish cooperatives, which serve as models for other nations. A résumé of the field of agricultural cooperation in Denmark with its many ramifications.

**HOWE, F. C.**


**HULBERT, L. S.**

1922. Legal phases of cooperative associations. Wash.; D. C., Govt. print. off., 1922. 74p. (U. S. Dept. Agr. Bul. 1108). It is the purpose of this bulletin to discuss some of the legal questions with respect to the organization, conduct, and operation of cooperative associations. These questions will be considered from the standpoint of incorporated associations with capital stock, incorporated associations without capital stock, and unincorporated associations. Appendix includes form of by-laws and form of contract.

**JESNESS, O. B.**

1924. Cooperative marketing. Wash. D. C., Govt. print. off., 1920; rev. 1924. 27p. (U. S. Dept. Agr. Farm. Bul. 1144 rev.). Contents include: purpose and possibilities of cooperative marketing; when such organizations should be formed; essentials of success; membership; pooling sales; forms of organization; by-laws; incorporation.

**JESNESS, O. B., and KERR, W. H.**

practices, agencies which assist such organizations, and a digest of laws pertaining to them.

JONES, J. W.
Considered types of associations, relations of members and directors, means of membership contact, and house organs.

KERR, W. H. and MAHSTOLL, G. A.
Sound accounting practice and record keeping, with a short bibliography.

LANDIS, B. Y.
The development of cooperative marketing in the United States and in Europe.

MCKAY, A. W.
A text prepared especially for farmers and students. Takes up various commodities and particular companies, and indicates in detail the points that make for success or failure of cooperatives.

MALOTT, D. W.
Chapters 7 and 8 deal entirely with cooperatives.

MASTERS, C. S.
Partial contents: cooperative marketing lessons; types to marketing associations; essentials of success of cooperative marketing.
ORECKOFF, P. N.

SANDERS, S. D.
An outline of procedure in the formation of a cooperative by the Cooperative Bank Commissioner. Appendix contains sample agreement forms, by-laws, and minutes of meetings blanks.

SMITH-GORDON, L. E. P.
"The present volume contains a description of the origin, growth, organization and results of cooperation in Denmark"..."The value of the contribution made to co-operative thought by Danish cooperators is very great". - from preface.

U. S. FARM CREDIT ADMINISTRATION.
1939. Loans to farmers' cooperatives. Wash. D. C., 1939. 7p. (U. S. Farm Credit Adm. Circ. 8).
A simple statement of number of banks, location, types of loans, interest rates, repayments, and eligibility.

U. S. FARM CREDIT ADMINISTRATION. COOPERATIVE DIVISION.
Statistics are given for different states and various commodities, and many phases of the subject are covered, among which are methods of marketing, legal status, financial conditions and insurance. An evaluation of data is given in conclusion.

WALLACE, H. A.
1939. The cooperative movement and the American way. Address of the Secretary of Agriculture...at the American institute of cooperation at the University of Chicago...August 7, 1939. 15p. mimeo.

WHITE, H. F.

This study "gives a hint about a few problems facing the farmers during the period from 1930 to 1932 and points to some ways that should benefit the farmers in the future." Chapter one discusses the marketing problems that call for cooperation and the difficulties of bringing it about. Chapter two considers the various cooperatives in the East, and their history. Chapter five concerns the cooperatives of California, and Chapter six, those of Texas.