

Mass State  
Agri Ferry

December 12, 1919

Mr. C. C. Ferry,  
136 State House,  
Boston, Mass.

Dear Carl:-

I am looking forward to reading your report on the Blister Rust in Petersham, but so far it has not come to hand.

As to the check for \$97.70 which you returned to me as an unexpended balance, you can certainly count on it to use next spring, but why not keep it. Can you not leave the money on deposit where it is until the spring? If so, let me know and I will tear up Mr. Allen's check, or rather return it to you.

Very sincerely yours,

RTF:IV

Mass. St. of  
Ag.

March 18, 1920

Mr. C. C. Perry  
136 State House  
Boston, Mass.

Dear Carl:

I have your note enclosing the check  
for \$70 from Mr. Choate. I will deposit this  
with what I have already received from Mr. Sims.  
This makes, together with what I am holding for  
you on behalf of the Harvard Forest, approximate-  
ly \$270.

Very truly yours,

RTP/G

### Value of White Pine in Massachusetts

White pine is the BLUE RIBBON tree in the timber-producing and recreational forests of Massachusetts. It is practically the only real timber tree that can be profitably grown in many sections of the State. The present standing white pine timber in Massachusetts, including pine reproduction, has a value estimated conservatively at more than 44 million dollars, based upon what may be termed normal pre-depression values. In addition to the value as a timber crop, the white pine forests in Massachusetts have an other than a crop value, estimated at an additional 10 million dollars at least. This figure includes the aesthetic and recreational value, a value in the regulation of stream flow and water supply, a cover for game, and the protection of soil from wasteful erosion.

White pine lumber, like all commodities, has deflated in value in the present situation, but the price decline has been much less than in the case of many basic foods, such as wheat, rye, potatoes, butter-fats, and hogs. Moreover, white pine is one of the few commodities produced or manufactured in Massachusetts that need not necessarily be disposed of in the present unfavorable market. The white pine crop will not deteriorate, and if protected from fire and pests, can be held for better market conditions. In fact, there are many stands of white pine in the State that should be held for a longer growth period, in order to improve the quality of the final crop. The present flooding of the eastern markets with lumber from the northwest and elsewhere, cannot continue forever. When conditions ultimately change, the proximity of the white pine forests of Massachusetts to the larger centers of population, where the largest amount of wood products is consumed, offers a distinct market advantage to those who can hold their timber to improve its quality.

### Need for Protecting White Pine

RT The forests of Massachusetts have suffered a severe shrinkage in value, due to the complete elimination of the Chestnut by the Chestnut Blight. The white pine blister rust, now threatens serious damage to the one remaining valuable timber tree species in the forests of Massachusetts - White Pine. Unlike the Chestnut Blight, however, blister rust can be controlled for the reason that the causal fungus cannot spread from one tree to another, but must pass thru intermediate stages of development upon the leaves of our common wild and cultivated currant and gooseberry bushes, technically referred to as Ribes. This fortunate fact simply means, that if Ribes can be permanently eliminated from white pine growing sections, the disease can be controlled. *I agree - If - 11*

The blister rust is not spectacular in its damaging effects on white pines, and, therefore, does not attract the attention of the average layman. The disease acts slowly, affects individual trees, or groups of trees, rather than sweeping thru an entire stand. Affected trees, moreover, retain their green foliage until they are completely girdled and about to die. Soon after the death of the pine, the needles drop and the trees are no longer conspicuous in the landscape. The rust kills pines of all sizes, but our greatest concern is for the younger trees; that is, the pines that will have to be depended upon to make up the forests of the future. These trees being small in diameter, are more quickly girdled by the disease, and, therefore, under optimum conditions, Ribes are capable of completely wiping out white pine reproduction. There is no doubt whatever, that in areas where Ribes have been prevalent, white pine seedlings in great numbers have been destroyed.

### Basis of Present Plan of Control

The present plan of combating the rust in Massachusetts; namely, by enlisting the cooperation of local property owners, is based upon the contention that it is the function of State and Federal agencies, to furnish pertinent information to the public regarding such pests, and where necessary, to render a reasonable amount of assistance to individual property owners. In other words, our white pine forests are a distinct community asset, and it is the function of constituted authorities to prevent serious loss to property that is indirectly an asset to the Commonwealth. The control of the blister rust can only be accomplished by the cooperative effort of local property owners acting concertedly under proper leadership and guidance.

### Initial Control Work to Date

Success has been attained in applying initial control measures in practically all the white pine producing areas in the State. This has been accomplished with the participation of 14,000 owners. These individuals have invested the equivalent of more than \$72,000 in time or the hire of labor. During the operation of the present plan of control, (1922-32) initial examinations have been made of approximately 1,700,000 acres of land, and this area cleared of over 9½ million wild Ribes, and 223,000 Ribes under cultivation. The total cost of this initial work averaged 13¢ per acre.

### Need For Reexamination

Observations made in the course of this initial work in the pine areas thruout the State, supported by investigations on the ecology of Ribes, demonstrate

*eradication costs*

*SO IS ANY FOREST.*

*eradicated per acre of pine protected - How much?*

that control areas become restocked with Ribes, due to the germination of seed in the soil, and the growth of seedlings. These recurring Ribes may in a relatively short time, become of sufficient size to constitute a decided menace to the white pines in a control area. Just as long as centers of infection persist thruout the Commonwealth, any recurring Ribes will become infected, and in turn cause a further spread of the disease to other white pines. The problem that must be faced is to accomplish such reexaminations within control areas in the State as may be necessary, to eliminate recurring Ribes before they do further damage.

#### Reeradication to Date

Since 1927, an increasing amount of reeradication work has been in progress each year. First reexaminations have been made of approximately 309,000 acres of land, upon which 475,000 wild Ribes were persisting. More than 4,600 cultivated Ribes were found in spite of restrictions regarding the planting of such stock in control areas. Thirteen hundred property owners participated in these first reexaminations, and expended the equivalent of \$11,600 in the further protection of their white pine holdings. This work was accomplished at a reduced cost of 9¢ an acre. !!!

#### The Minimum Requirements for the Maintenance of Adequate Control

The problem that must be faced at this time is to determine the means whereby the reexamination of control areas will be continued as may be necessary, and in time to eliminate recurring Ribes before they do further damage. For the purpose of determining what the minimum requirements for the maintenance of control will be, the records of field work in each township have been tabulated, on the basis of the prevalence of Ribes found in the initial control work and the degree of infection

known to be present. The townships have been grouped into three classes - (1) Townships where the reexamination of control areas is essential within the next three years. (2) Townships where reexaminations will be necessary within the next six years; and (3) Townships where, for one reason or another, no additional work will be required during the next six years. This latter group includes townships where, because of the complete absence of Ribes, no further work is likely to be required at any time.

Our present concern then, is with the first group of townships where, within three years, further field work is urgent. On the basis of the records, it appears that within the next three years, it will be essential to reexamine control areas, aggregating approximately 687,700 acres of land, or roughly 229,000 acres annually for the purpose of determining conditions and eliminating all recurring Ribes. This requirement constitutes the absolute minimum requirement for the maintenance of the adequate control of the disease. On the basis of recent field work, this urgent work can be accomplished at an average cost of 9¢ per acre. It will require therefore, in the neighborhood of \$20,000 annually to maintain the present status of control for three years. It can be anticipated that approximately \$6,000 of this total cost will be assumed by local cooperators, leaving a balance of not less than \$14,000 needed from State funds.

#### Special Black Currant Elimination Project

Since investigations both in the laboratory and in the field, show conclusively that the continued presence of *R. nigrum* in Massachusetts constitutes the most dangerous factor, in the possible widespread dissemination of the disease, steps were taken in 1927 to eliminate plants of this variety of Ribes on a state-wide basis. To date, this special work has been completed in all but 83 cities and towns representing about 16% of the land area of the State. It is essential that

this work be pursued to completion without delay. For the purpose of maintaining suitable progress in this sub-project during 1933, an additional \$2,000 from State funds will be needed.

#### Relation of Control Costs to Commercial Value of White Pine

As previously stated, the commercial value of white pine in Massachusetts based upon pre-depression values, has been figured at in excess of 44 million dollars. On this basis, the total cost of all blister rust control activities including expenditures by cooperators, from 1917-1932 inclusive, amounts to but 1.5% of the total commercial value of the white pine in the State. This is certainly a reasonable expenditure for the protection of the value at stake.

#### Conclusion

It is the history of pest control work that when a certain point is reached in the temporary establishment of control, efforts to maintain the status already attained have been relaxed. The result has been that the pest involved simply asserts itself again until much that has already been accomplished, is undone. Subsequently much larger expenditures have been required to preserve the property attacked. Much has been accomplished in Massachusetts, particularly during the operation of the present plan of control, in establishing temporary control of the blister rust. Any sizeable reduction in appropriations available for the maintenance of control, and for the furtherance of black currant eradication work, will automatically impair the organization at the time it is doing its best work, and cause a complete cessation of control activities in some sections of the State.

The control of the rust is not only a Massachusetts problem; it distinctly concerns all the States in the northeast. These States are actively engaged in the solution of the problem, and Massachusetts is under a distinct obligation to do its part toward the solution of this regional pest control and forest protection problem.

February 6, 1933

C. C. Perry

March 27, 1944.

Mr. Carl C. Perry,  
White Pine Blister Rust Control,  
State House,  
Boston, Mass.

Dear Mr. Perry:

In inspecting our plantations, we are finding a great deal of what appears to us to be blister rust. In my opinion the hurricane has, in many cases, created conditions ideally suited for Ribes, and we are now seeing the beginnings of a rather severe outbreak on the Harvard Forest. Because of the great difficulty of working in hurricane blowdown areas, there seems to be no practical means of controlling it.

I would appreciate very much your stopping in here the next time you are in this vicinity to look over the situation and give us the benefit of your advice.

Sincerely yours,

Stephen H. Spurr  
Assistant to the Director