

Block.. Adams.. Fay Lot
 Compt.....
 Stand.. P-5, .11.3 a.
 (1929)

HARVARD FOREST - COMPARTMENT RECORDS

Operation of 1930.....

Sample Plot

Silvicultural Treatment... Pruning.. (first)..... Area.. about. $\frac{3}{4}$ a..... Date.. April. 3.....

Location: Along eastern side of road beginning at a group of red pines planted in an opening and extending south about 250 ft. No marked corners.

Purpose: To study the effect of pruning white pine growing on light, sandy soil in fairly open stands.

History and Condition of Area Treated:

The area was apparently pasture at one time and judging from the unevenness of the present stand, it was intermittently used over a period of years before complete abandonment. Prior to the sawtimber operation of 1924-25, the stand was composed of pines of all ages from seedlings to large scrubs 80 or more years old, the general tendency in distribution being groupwise. The cutting of the larger trees left a rather thin stand of young and middle-aged trees, the younger ones being well-formed and almost free from weevil damage. For this reason and furthermore because of the small limbs characteristic of pine growing on weak soil, many of the sapling pines were well adapted to pruning.

Method of Treatment: Well-formed, free to grow trees from four to six inches in diameter were pruned to approximately one-half their total height. A hand saw was used for the lower limbs, a ladder and hand saw for the upper. A total of 25 trees was pruned and the number of each tree was painted on the bole at breast height. The accompanying tabulation shows by tree number the DBH, total height, pruned height, crown class, dead length, and average knot size of each tree.

Time and Costs: Total time for pruning, 3 man hours. Rate, 50¢. Work done under the supervision of A. C. Cline. Tools used, hand pruning saw and pruning ladder.

Inspections: Examination of the pruned trees in midsummer showed that the common pine bark beetle (*Pityogenes Hopkinsi*, Sw.) had attacked the most exposed trees, but that in every case the beetles had been killed by the flow of pitch. No damage was done.

A. G. CLINE,
 ASST. DIRECTOR

PLOT Adams Fay Lot P-5

CREW A.C. Cline, C.S. Herr

SUBJECT Pruning open grown.

Harvard Forest

DATE 1st Pruning 4/3/30

PROJECT NO. Pine on light soil.

2nd. Pruning

White Pine

TABULATION SHEET

3rd. Pruning

Tree No.	D.B.H.	Knot Range	Size Average	Dead Length	Height in Feet	Height of Pruning in Feet		
						1st.	2nd.	3rd.
1	4.5	$\frac{1}{4}$ - $1\frac{1}{2}$	$\frac{3}{4}$	2	18	7.2		
2	4.4	$\frac{1}{4}$ -2	$\frac{1}{2}$	8	23	10.3		
3	4.1	$\frac{1}{4}$ -1	$\frac{1}{2}$	3	20	8.2		
4	3.7	$\frac{1}{4}$ - $1\frac{1}{4}$	$\frac{1}{2}$	2	17.5	7.7		
5	4.4	$\frac{1}{2}$ - $1\frac{1}{2}$	$\frac{3}{4}$	1	18.8	7.6		
6	4.7	$\frac{1}{4}$ -2	$\frac{3}{4}$	4.5	20.5	8.5		
7	6.1	$\frac{1}{4}$ - $1\frac{3}{4}$	$\frac{3}{4}$	4.5	20.5	10.3		
8	4.6	$\frac{1}{4}$ -1	$\frac{1}{4}$	1	15.5	5.8		
9	5.7	$\frac{1}{4}$ - $1\frac{3}{4}$	$\frac{3}{4}$	4.5	24	11.2		
10	5.8	$\frac{1}{4}$ -2 $\frac{1}{2}$	1	7	22	10.6		
11	5.3	$\frac{1}{4}$ -2	1	4	23.7	9.2		
12	5.5	$\frac{1}{4}$ - $1\frac{3}{4}$	1	4.5	26.5	9.3		
13	4.2	$\frac{1}{4}$ - $1\frac{3}{4}$	$\frac{3}{4}$	3	19	7.1		
14	5.0	$\frac{1}{4}$ - $1\frac{3}{4}$	1	2	21.1	8.5		
15	4.6	$\frac{1}{4}$ - $1\frac{1}{2}$	$\frac{3}{4}$	2	20.5	8.0		
16	4.2	$\frac{1}{4}$ - $1\frac{1}{2}$	$\frac{3}{4}$	4	20.8	7.8		
17	5.4	$\frac{1}{2}$ -2	1	3	22.4	7.3 ('28)	9.0	
18	3.2	$\frac{1}{2}$ -1	$\frac{1}{2}$	4.5	15.1	5.7		
19	5.0	$\frac{1}{4}$ - $1\frac{1}{2}$	$\frac{3}{4}$	5	20.5	9.0		
20	5.0	$\frac{1}{4}$ - $1\frac{1}{2}$	$\frac{3}{4}$		24.5	8.0 ('28)	10.0	
21	5.5	$\frac{1}{2}$ -2	$1\frac{1}{4}$	4	22.7	7.5		
22	3.6	$\frac{1}{4}$ -1	$\frac{3}{4}$	3	16.5	7.0		
23	5.2	$\frac{1}{4}$ - $1\frac{1}{2}$		4.5	28.5	11.0		
24	4.1	$\frac{1}{4}$ - $1\frac{1}{2}$	1	4	17.9	8.1		
25	2.5	$\frac{1}{4}$ - $1\frac{1}{2}$		1	15.3	5.3		

PLOT Adams Fay Lot P-5

CREW A.C. Cline, C.S. Herr

SUBJECT Pruning open grown.

Harvard Forest

DATE June 4, 1930.....

PROJECT NO. Pine on light soil.

WHITE PINE

TABULATION SHEET

Tree No.	PROCESS OF HEALING				
1	Heartwood of limbs not covered by pitch.				
2	Heartwood still dry on green limb cuts.				
3	Heartwood still dry except in limbs under $\frac{1}{2}$ in.				
4	Heartwood still dry on knots over $\frac{1}{2}$ in.				
5	Live knots mostly over 1", heartwood dry except on live limbs under $\frac{1}{2}$ in.				
6	Heartwood still dry on $\frac{3}{4}$ in live knots.				
7	Heartwood still dry on average sized knots.				
8	Heartwood still dry except on limbs $\frac{1}{2}$ in and under.				
9	Heartwood still dry on all knot s. tree heavily attacked by bark beetles most of which have been killed by pitch.				
10	Heartwood pitched over $\frac{1}{2}$ in and under. Weeviled 19.5'; 2.5' nearly straight.				

PLOT Adams Fay Lot P-5

CREW A.C.Cline C.S.Herr

SUBJECT Pruning open grown

Harvard Forest

DATE June 4, 1930.....

PROJECT NO. Pine on light soil.

White Pine

TABULATION SHEET

Tree No.	PROCESS OF HEALING
11	Heartwood exposed On all limbs; Pityogenes drowned out. Weeviled 9.5', nearly straight 22.5'.
12	Heart. exposed on all limbs. Weeviled at 10.5'; Nearly straight. Weeviled 1930
13	Heartwood dry on limbs over $\frac{1}{2}$ ".
14	Heartwood exposed on all limbs. Weeviled at 11". Nearly straight.
15	Heartwood exposed on all limbs. Weeviled at 16". Crotched at 12". Nearly straight.
16	Heartwood exposed on all limbs. Weeviled at 17 and 18".
17	Heartwood covered over 1" and under. Weeviled at 20.5'.
18	Heartwood pitched over on limbs $\frac{1}{2}$ " and under.
19	Dry down to $\frac{1}{2}$ " limbs. Weeviled at 18'.
20	Knots $\frac{1}{2}$ " and under pitched over. Weeviled at 22.5 and 18'.

CREW A. C. Cline C. S. Her

Harvard Forest

DATE.....

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TABULATION SHEET

Tree No.	PROCESS OF HEALING						
21	Heartwood still exposed. Pityogenes killed out.						
22	Heartwood dry in all limbs even below $\frac{1}{2}$ ". Weeviled leader, limb half dead before pruning.						
23	Heartwood still dry; limbs half dead before pruning. Bark pinicortices present.					Aphids Adelges	
24	Heartwood exposed on all knots. Crook at 9'. Not weeviled at 13 and 15.5'. Crotched At 13'.					Weeviled	Weeviled
25	Heartwood sealed over Crook at 11'. Not weeviled.						