

WORK PLAN

STUDY NO. 89 SELECTION HARVEST

Sec. 2, T49N-R34W

(1974)

I. Introduction and Objectives:

The cutting unit comprises approximately 30 acres in the NE 1/4 of Sec. 2, T49N-R34W (See map in Appendix). The five C.F.I. plots within the study unit show a gross volume in 1969 of 5,797.2 b.f. (Int. 1/4 Rule) and a net volume of 4,309.1 b.f. per acre. This volume does not include cull trees. The inventory shows an additional cordwood volume of 11 cords net per acre. The stand is urgently in need of a harvest to remove the large volume of overmature and highly defective trees. It will be necessary to remove approximately one-half of the gross volume to remove these over-mature and defective trees.

The harvesting objective is for the purpose of continuing the improvement cuttings begun in 1961 for the purpose of improving the growing stock of the research forest by a series of annual improvement cuttings.

II. Procedures:

An additional four plots will be established for the purpose of increasing the sampling intensity (See map in appendix). Trees to be harvested will be marked with blue paint. All marked trees will be tallied on Scribner cumulative tally sheets for the purpose of obtaining estimated marked volumes. Every fifth merchantable tree will be sampled for cull percent and butt-log grade. This will allow for the calculation of an estimated net volume and value of products to be harvested. Trees designated for harvest will be mainly in the 35-50% cull

classes. Defective low quality pole size trees will also be marked for cutting.

All sawlogs will be scaled and graded according to the N.H.P. Assn. log grading rules and identified with a log number for sawmill identification.

TABLE 1A. Study No. 89 Selection Harvest (1969 C. F. I. Plot Volumes)

C. F. I. Plot No.	(1) Bd. Ft.		Board Ft.		Cords		Cubic Feet		Basal Area
	Gross	Net	Gross	Net	Gross	Net	Gross	Net	
2562	2245.7	1518.8	4.5	2.3	828.98	615.62	29.99		
2565	1040.5	654.2	4.8	3.4	567.67	446.75	24.15		
2569	1391.5	1002.3	2.1	1.2	461.38	364.24	19.56		
2583	1250.5	1032.6	2.5	1.9	499.50	430.20	22.07		
2587	1098.7	1015.3	2.3	2.1	434.31	406.70	17.98		
Vol/A.	7026.9	5223.2	16.2	10.9	2791.84	2263.51	113.75		
Adj. B. F. Volume	5797.2	4309.1							

(1) Board foot volume International 1/4 Rule, Variable top 8" d.i.b. minimum.

(2) Board foot volumes reduced by a correction factor of 17.5 percent.

TABLE 2A. Summary of Marking Tally Study No. 89

Selection Harvest, Section 2, T49N-R3

Trees Tallied on Scribner Cumulative Tally Sheets

I. Estimated Merchantable Tree Volumes

<u>Species</u>	B. F. Gross ⁽¹⁾ <u>Vol. Corrected</u>	<u>% SO.</u>	B. F. Volume ⁽²⁾ <u>Net</u>	B. F. Volume <u>Including 15% Overrun</u>
Sugar Maple	10,907	.79	8,616	9,908
Yellow Birch	5,082	.73	3,710	4,266
Red Maple	7,475	.77	5,756	6,619
Oak	330	.86	284	327
Aspen	<u>2,772</u>	<u>.86</u>	<u>2,384</u>	<u>2,742</u>
	26,566		20,750	23,862

II. Estimated Cull Tree Volume

Sugar Maple	14,817
Yellow Birch	15,692
Red Maple	21,681
Oak	<u>858</u>

53,048 @ 7 ton/M = 371 tons

III. Pulpwood Volumes

		<u>Cords</u>
Hardwood Pulpwood (pole size)	167 tons	62
Hemlock Pulpwood (pole size)		9
Hemlock Pulpwood (sawlog size)	8,910 b.f. @ 2.5 cds/M =	<u>22</u>
	Total	93

- (1) Applied a volume table reduction factor of 17.5%
- (2) Every fifth merchantable tree sampled for cull percent to obtain net volumes.

TABLE 3A. Study No. 89 Tree Grade Sample

I. Estimated Per cent Grades (Butt Log Grade)

<u>Species</u>	Percent Tree Grade (Marking Tally)		
	<u>Grade #1</u>	<u>Grade #2</u>	<u>Grade #3</u>
Sugar Maple	0	52	48
Yellow Birch	0	100	0
Red Maple	0	75	25
Oak	0	100	0
Aspen	65	35	0

II. Board Foot Estimated Volumes by Tree Grade

<u>Species</u>	Board Foot Volume (Scribner) by Tree Grade		
	<u>Grade #1</u>	<u>Grade #2</u>	<u>Grade #3</u>
Sugar Maple	0	5,152	4,756
Yellow Birch	0	4,266	0
Red Maple	0	4,964	1,655
Oak	0	327	0
Aspen	1,782	960	0

III. Estimated Lumber Conversion Value

<u>Species</u>	<u>Net B. F. ⁽¹⁾ Scribner</u>	<u>Tree Grade</u>	<u>Tree Q. I.</u>	<u>Unit Price M. B. F.</u>	<u>Est. Conv. Value</u>
Sugar Maple	5,152	2	.6836	\$ 157.23	\$ 810.05
Sugar Maple	4,756	3	.5492	126.32	600.78
Yellow Birch	4,266	2	.9143	237.72	1014.11
Red Maple	4,964	2	.7088	155.94	774.09
Red Maple	1,655	3	.6200	136.40	225.74
Oak	327	2	.7088	163.02	53.31
Aspen	1,782	1	--	100.00	178.20
Aspen	<u>960</u>	2	--	100.00	<u>96.00</u>
	23,862				\$ 3752.29

(1) Volumes include estimated 15% overrun.

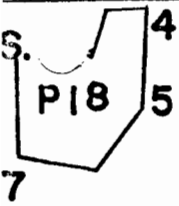
(2) Quality index obtained from FFC sawmill recovery studies in conjunction with FFC Research Note No. 2.

(3) Quality index multiplied by current price of No. 1C lumber gives the unit price per M.b.f.

Hardwood Market Report (January 25, 1975)

Prices No. 1C 4/4"

Hard Maple	230
Yellow Birch	260
Red Maple	220
Oak	230



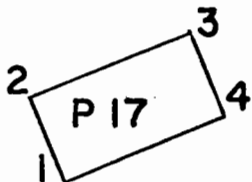
2(62)3

2(62)7

2(66)1

2(66)5

2(66)9



2(78)3

2(60)2

2(60)5

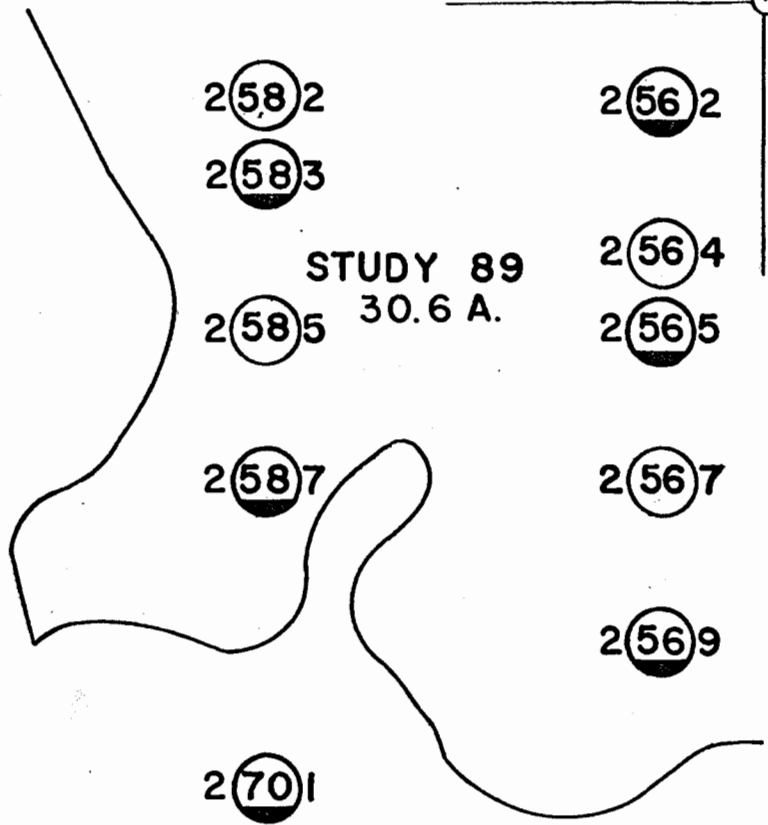
2(60)9

2(64)3

2(64)7

2(76)1

2(76)5



STUDY 89
30.6 A.

2(58)2

2(58)3

2(58)5

2(58)7

2(70)1

2(70)5

2(70)9

2(74)3

2(56)2

2(56)4

2(56)5

2(56)7

2(56)9

2(68)3

2(68)7

2(72)1

2(72)5

