Project Subject/Title: Star Lake Red Pine Plantation Management County: Vilas TRS: T41N R8E sec. 5

Contact Person: Jeff Olsen, 715-385-3362 Type Of Prescription: thinning Year Initiated: Results from 8 thinnings (1943-1999)

Abstract/Prescription:

The Star Lake red pine plantation was originally a horse pasture owned by the Wilson-Salsich Company. Original stand type (presettlement) was white pine. In 1913 the site was scalped with grub hoes and hand planted with (PR, PW, PS, and PP). Tree seedlings (2 year) from the Trout Lake nursery were planted at a density of 930 trees/acre. This became the first nursery from grown stock in Wisconsin.

In 1929 and 1934 the trees were pruned to 7 $\frac{1}{2}$ feet. In 1943, two 1 acre plots were established. All trees within the plot were numbered. One plot was thinned and the other used as a control (no thinning). The effects of thinnings on tree diameter and height growth were studied. Thinning schedules were every 5 years for the first twenty years and every ten years there after. In the year 2011 the stand will be 100 years old.

Results:

- Although the total number of trees has been reduced in the thinned plot, there is no significant difference in the total cumulative volume produced in each plot.
- No significance difference in the height of average dominants.
- There is a significant difference in the average diameter in the thinned plot versus the control. (the thinned plot average diameter was much larger).
- Tree mortality occurred on the control plot but not on the thinned plot.

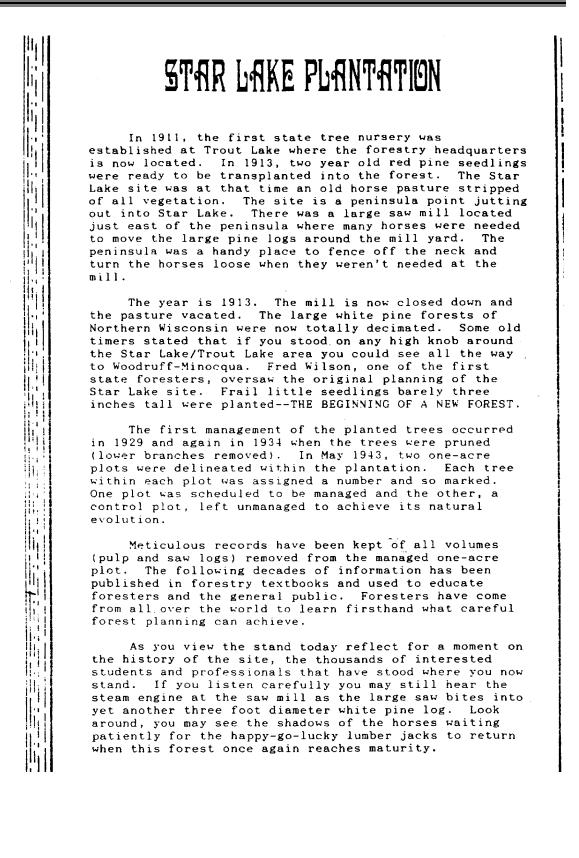
Discussion:

- Select proper species per site...trees out of their native range very seldom grow well (ponderosa and scotch pine).
- Use even aged management techniques.
- Pruning 150 crop trees/acre to 9feet at 20 years and 17 feet at 34 years recommended.
- First thinning should be at 18-32 years and every 10 years thereafter.

Site statistics:

Enclosed Documents

Red Pine



2

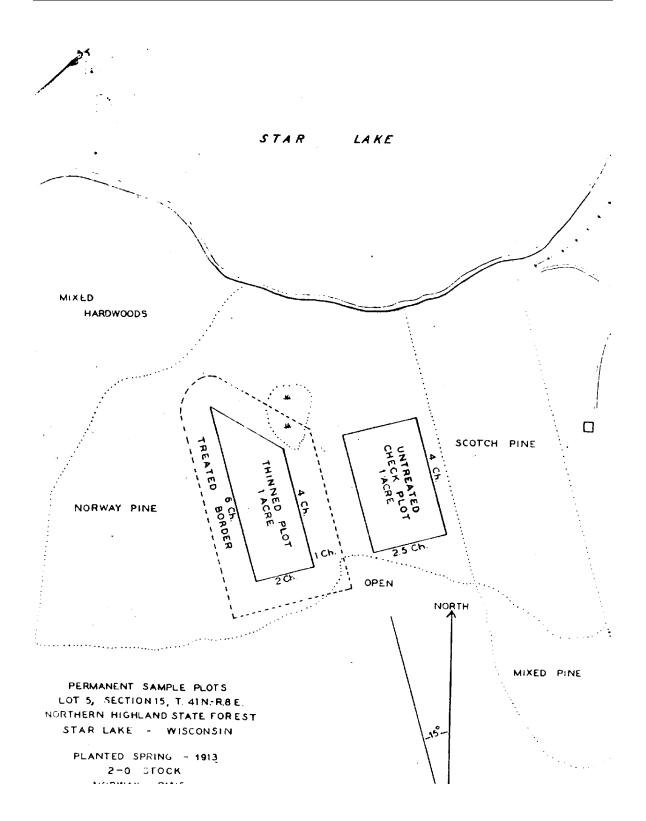
		CONTROLS			RESULTANTS	ANTS					YIELD	
Age Years	Top Height Feet	Stand Density S % H	Stem Count	Diameter Range	M <u>ean T</u> r Height Feet	Tree D.B.H. Inches	Basal Area Sq. Ft.	<u>Pee</u> Periodic	<u>Peeled Stem Volume - Cub</u> <u>Cumulative</u> c Total Cut	<u>ume - Cubic</u> ative Cut	Feet Cut as % Annual of Total Periodi	<u>Annual</u> Periodi
32	42	17.2	836 -256	1.8-9.9 1.8-9.0		6.2 5.0	174	2,880 540	2,880	540	18.7	
		20.6	580	3.0-9.9	41	6.6	140	2,340				
	49	17.7	580	3.1-10.7		7.1	162 -30	3,120 540	3,650	1,080	29.5	156
37		20.6	-150 430	5.0-10.7	48	7.5	132	2,580				
	57	17.7	429	5.1-11.2		8.1	-39.5	3,580	4,660	1,820	39.1	167
43		20.5	-109 320	5.1-10.5	56	8.3	121	2,840				
•	66	17.6	320	6.3-12.2		8 Q 2 C 2 C	-30	4,300 -820	6,120	2,640	43.1	209
g		20.4	240	7.6-12.2	65	9.7	122	3,480				
3	74	18.3	240	8.4-13.4		10.9	-30	4,930 -960	7,570	3,600	47.6	181
58		20.7	185	9.2-13.4	73	11.1	124	3,970				
	82	18.7	185	10.0-15.0		12.4	155 34	5,550 -1,200	9,150	4,800	52.5	176
6/		21.5	140	10.6-15.0	80	12.6	121	4,350				

16320

Red Pine

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STAR LAKE PLANTATION - SUMMARY TABLE - RED PINE - ONE ACRE PLOT THINNED PLOT



4