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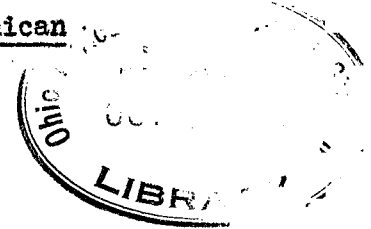
Forestry Mimeograph No. 7

Planted White Pine Makes Good Growth at Mohican

By

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A study of a white pine planting on the Mohican State Forest, near Loudonville, Ohio, disclosed some rather remarkable growth figures. This planting which was 20 years old at the time the study was made, occupies a typical abandoned hillside field. The transplant stock that was used in establishing the planting was spaced at about 7 x 7 feet, and no special site preparation was done. Aside from protection, no other treatment had been applied until study was made in late summer and fall of 1952.

At that time, four 1/4-acre plots were established for study purposes. On a 1/10-acre plot within each quarter acre plot, all live trees were measured. Diameters were measured in inches and tenths and heights were secured with an Abney hand level. Then one plot was designated as a check and the other three were marked for pruning and thinning. During the thinning operation, additional height measurements were secured by measuring felled trees. Also taper measurements to different points on the felled trees were made.

Different degrees of thinning were applied in the three treated plots. Periodic measurements will be made of all four plots to determine the rate of growth of each

The statistical information thus secured is summarized as follows, on a per acre basis:

1. Average number of live trees found on all four plots - 630.
2. Average diameter of all four plots - 5.8 inches.
3. Maximum diameter found - 9.2 inches.
4. Average height of all four plots - 36 feet.
5. Maximum height found - 45 feet.
6. Average basal area of all four plots - 117.7 sq. ft.
7. Average cubic feet of all four plots - 1614.6.
8. Trees pruned - 230 on one plot, 240 on another.
9. Average time required to prune to height of about 8 - 9 feet - about 3½ minutes per tree.
10. Mean annual growth, average of all four plots: 80.7 Cu.Ft. - .89 Cord.
11. Maximum current height growth - 4.1 feet.
12. Average current height growth - 1.5 feet.
13. Average length of live crown - 14 feet (38% of ave. total height).
14. Average length (height):
  - To a 4" top diameter inside bark - 17 feet.
  - To a 3" top diameter inside bark - 23 feet.

It was observed that the trees in this young stand are very straight with practically no defects of any kind. While the stand has closed well and forced several of the lower whorls of branches to die, natural pruning no doubt has been slowed down by low density during the early years in the life of this stand. This low density was caused by the very slow early height growth of quite a number of trees here and there in the stand, which is rather typical of many white pine plantings observed in this part of the country. In general, however, this planting stands as a very promising young white pine forest.



**One of the trees in this white pine planting grew over four feet in height in one year.**