

APPENDIX "B"

YIELD OF PULPWOOD AND SAWLOGS FROM A RED PINE PLANTATION
ON A 60 YEAR LIFE CYCLE
WITH A PRODUCTIVE CAPACITY OF 200 CU. FT. OR 2 CORDS PER ACRE
PER YEAR

Assumptions and Observations

1. On a 60 year life cycle.
2. Plant 6' x 6', i.e. 1200 trees per acre.
3. Crop Trees 15" to 20" diameter at 60 years.
4. At 25 years or 30 years remove to 12' x 12' spacing, i.e., from each acre remove 900 trees (less mortality) and assume 10% mortality leaving 810 trees to remove.

5. These 810 trees per acre to be sold for poles and pulpwood but computed and valued as pulpwood with a 20 foot commercial length with a 2 inch top and averaging four inches in diameter for purposes of calculating cordage.

That is there would be five four-foot sticks of pulpwood averaging four inches in diameter.

It would require 312 sticks of pulpwood of this size to make a cord; this would be 62 trees per cord.

Therefore, the 810 trees would make 13 cords per acre of pulpwood at the 25 to 30 year stage.

6. A farmer could count on \$10.00 per cord and \$40.00 per thousand board feet at his farm for this wood at present prices after paying trucking costs to the mill for an average haul of 100 miles.

7. That is an income of \$130.00 per acre for the farmer's work and investment at the end of 25 to 30 years, or, \$5.00 per acre per year.

This is a half a cord per acre per year for the thinnings only during the first 25 to 30 years.

8. The balance of the acre, that is, the remaining 300 trees, would be thinned again at 45 years, by cutting out 175 trees and leaving 125 trees to grow the full cycle of 60 years of age.

The 175 trees may be assumed to be from 10 inches to 15 inches in diameter at breast height with half in the 12 to 14 inch range, one quarter 15 inches and one quarter 10 inches.

One could estimate the commercial length to a 2 inch top as follows:

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|-------------------------|----------------------|
| (a) 10 inch group | = 30 feet (44 trees) |
| (b) 12 to 14 inch group | = 36 feet (88 trees) |
| (c) 15 inch group | = 45 feet (43 trees) |

Estimate of Sawlogs and pulpwood per tree:

- (a) one 12-foot log with an 8-inch top plus four sticks of pulpwood per tree averaging 5 inches in diameter.
- (b) one 11" and one 7" log, each of 12 feet plus three pulpwood sticks averaging 5 inches in diameter.
- (c) One 13" log and one 11" log and one 8" log, each of 12 feet in length plus two sticks of pulpwood averaging 5 inches in diameter.