

THINNING PINE STANDS

WHAT IS THINNING?

Thinning is the cutting or removal of certain trees from a stand to regulate the number, quality and distribution of the remaining “crop” or residual trees. Thinning is also designed to enhance and improve stand growth. Thinning should be considered as a stand maintenance activity designed to benefit the landowner in four basic ways:

- Growth is concentrated on fewer trees that grow faster. Leaving desirable crop trees increases stand quality while reducing the stand rotation age (time required to reach stand maturity).
- Better quality trees are permitted to grow to final harvest, eliminating timber volume accumulation on low-value trees, thus increasing final monetary values.
- Thinning utilizes trees which may stagnate or die before the final harvest would occur while providing periodic income.
- Thinning enhances fire protection by increasing access into the stand. Wildlife food and cover is also enhanced due to increased sunlight reaching the forest floor stimulating vegetative growth.

TYPES OF THINNING

There are basically two types of thinning: precommercial and commercial.

- **Pre-commercial** - A thinning activity performed either by hand or mechanical methods that reduce the number of trees per acre at a young, non-merchantable age. Usually, such thinnings are needed in naturally regenerated overstocked stands or stands that were not properly reforested. Pre-commercial thinnings do not normally produce any income for the landowner and usually cost \$50 to \$200 per acre.

- **Commercial** - A thinning activity usually performed mechanically that reduces the number of trees per acre. The cut and removed trees are large enough in size, both diameter and height, to be delivered and sold to existing markets. Landowners can usually expect normal monetary returns of \$100 to \$400 per acre for first thinnings, depending on stand and site conditions as well as local markets. Second thinnings can be conducted 6—12 years after a first thinning based on landowner objectives, stand quality and local markets. Monetary returns for second thinnings usually yield \$250 and up per acre.

WHEN DO I THIN

Hopefully, due to proper reforestation activities along with professional forest management planning, pre-commercial thinning will not be necessary. Thinning should be conducted as early and as often as practical, keeping only straight, healthy, and evenly spaced trees. The timing for a first or second thinning should be decided based on several factors.

- **Basal Area** - Basal area is a measurement of stand density based upon the number of trees per acre at a given age and size, measured in square feet per acre. Stands usually need thinning when per acre basal areas are greater than 120 square feet per acre. The goal of thinning is to reduce the average stand basal area down to between 60 and 90 square feet.

- **Tree Size** - When the individual tree reaches a size large enough to cut, remove and sell on the existing market. Usually this occurs when the diameter at breast height (dbh) will be at least 6 inches and total tree height will average 45 feet.

THINNING PAYS IN MANY WAYS

Maintains forest health.

- Improves wildlife habitat.
- Increases plant diversity.
- Increases resistance of healthy trees to insect attack.
- Removes diseased and insect-infested trees.
- Provides growing space.
- Increases quality and value of future trees.
- Allows the sale of trees which would normally die.
- Is aesthetically pleasing to landowners.
- Provides additional income to owners.

TU AND YOU

Timberlands will assist you in all aspects of your woodland, making sound forest management recommendations. As professional managers of an extremely valuable resource, we have obligations to maximize long and short term income as well as maximize the use of land for future generations. Cutting timber and thinning is always a landowner decision, and we stand ready to assist you as you desire!

Conclusion

Thinning is a more expensive operation than clearcutting, and, therefore returns less money to the landowner. However, the improved utilization, intermediate cash flow and the increased value of the final crop can make thinning a profitable management decision. Not all partial cuttings are thinnings, nor are they all good investments. Proper thinning requires that an adequate stand of “crop” trees remain. Landowners should seek the advice and assistance of a professional forester prior to marking or marketing a thinning.

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Timberlands Unlimited
P.O. Box 650 305 S. King Street
Windsor, NC 27983
252-794-3642