



TEXAS A&M FOREST SERVICE

Timber Management: Pruning Pine Stands

Pruning of pine increases the amount of wood free of knots and other blemishes in the first 16 feet of the tree, thereby increasing the wood quality and market value of the tree.

Although any species may be pruned, loblolly and slash pines are best suited. Select only dominant or co-dominant trees that are relatively straight, contain no forks, excessive sweep or crook, and have at least 20 years left in the rotation.

Live crown ratio (LCR) describes the percentage of a tree with living branches, i.e., live crown length divided by total height of the tree. A ratio of approximately 40% is optimum for merchantable size trees. Trees with less than a 30% ratio grow slowly and are less vigorous; trees with a ratio over 50% contain too many knots and yield lower quality wood products.

Techniques:

There are three basic pruning techniques: one-step and two-step if managing for sawtimber, and a third technique if managing for plywood bolts. All require the same physical pruning techniques; however, they differ in timing and amount.

One-step pruning – Prune crop trees when they reach a height where the first 17 feet can be pruned while leaving 40% LCR. Follow immediately with a thinning to 80 - 90 square feet basal area. A second thinning to remove all but pruned crop trees should occur in approximately 10 - 15 years.

Two-step pruning – When the first 6 - 8 feet can be pruned and leave a 40% LCR, perform the first of two prunings. Thin when the trees are merchantable, leaving the crop trees. When trees reach a height where the 17 feet required for the butt log can be pruned while leaving 40% LCR, prune a second time. A thinning should follow according

to the basal area requirement.

The plywood bolt method requires a pre-commercial thinning leaving approximately 150 - 250 well-spaced trees per acre. All remaining trees are pruned for approximately 8 - 12 feet. Tree selection standards and live crown ratios are the same as the other two techniques. Considering the present reduction in plywood production and use, and the increasing use of Oriented Strand Board (OSB), pruning for plywood may not be a viable operation.

Procedure:

On the selected trees, remove all limbs, living or dead, to the desired height using a well-sharpened pruning saw. Make all branch cuts just outside the branch collar, protecting it from damage. Properly made cuts callus over regardless of when cuts are made. The most important consideration when pruning is the tree's natural defense against decay.