

Thinning Guidelines for Loblolly Pine

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The definition of thinning used in forestry simply means the harvesting of certain trees to reduce stand density in efforts to improve timber stand growth, tree health, prevent natural mortality, improve wildlife habitat and reduce wildfire potential. When one considers thinning their timber there are basically two indicators they should look for as a sign that it is time.

One indicator is something called Live Crown Ratio. Live crown ratio is when you take the height of the crown (top of the tree to the bottom of the green needles) divided by the total height of the tree (top of the tree and down to the stump), and then multiply by 100 to get a percentage. When the percentage falls below roughly 30%-35%, it is time to thin. Keep in mind that trees standing on the edge of a stand will have more live branches (green needles) growing lower due to trying to catch as much sunlight as possible than a tree standing within a stand. Thus to get an accurate assessment, one needs to take random samples throughout the stand.

The other indicator is when you are looking at the Basal Area of a stand. Basal area is the square footage of a tree @ DBH (Diameter at Breast Height, aka 4.5'). If the basal area is greater than approximately 100-120 sq ft/ac, typically that too means it's time to thin. When thinning a tract, and going by basal area, 60-80 is common for timber production stands. Again, basal area needs to be calculated by taking multiple random samples throughout the stand.

Thinning can be somewhat of an art form and many people have different ways they look at a stand when it needs to be thinned. The one thing that is common in all these different ideologies is the types of trees that are needed to be removed. Trees to consider that should be removed would be ones that are forked, have diseased places such as fusiform rust, crooked main stems, smaller suppressed trees, trees with a one-sided crown and trees that are growing too close together.

Thinning is often looked at as five different types of thinning; row thinning, selective thinning, combination thinning, strip thinning or pre-commercial thinning.

Row thinning typically means the removal of the 5th row in most plantation planted stands. Other row thinning's such as 3rd row or 7th row are not as common and depend on a forester's recommendations and a landowners objectives. These recommendations typically come from many years in the field and are generally based on current and targeted stand stocking.

A Selective thinning is the removal of individually selected trees based on form, health and/or position relative to other trees in a stand. This method of thinning's removal method is either by marked timber or operator select. Marked timber will be marked by a forester in one of two ways, either marked to leave or marked to cut. Operator select is when discretion is left to the operator of the feller buncher to decide which trees to fell.

Strip thinning is the removal of a strip of trees from a stand to resemble a row. Typically these strips are 12'-16' wide to allow equipment ease of access. This method is generally used in natural stands or edges of plantations where natural pine over seeded an area.

A Combination thinning is typically when a Row thinning and a Selective thinning are used together. This method is what is known as a 'First Thin' in most southern loblolly pine plantations. Typically the 5th row is removed, and then trees of poor form are individually selected out of rows 1-4. A combination thinning can also be a strip thinning and a selective thinning combined as well. When these two methods are used together, it is in hopes of shaping a stand to resemble more of what is typical of a plantation planting.

Pre-commercial thinning is another thinning method used that can eliminate overstocking issues. Typically this is used on young natural pine stands that have overseeded too thick. Pre-commercial thinnings are typically done between years 8-12. The term pre-

commercial basically means 'before value'. Thus with the stems small size they have no economic value. Wood chip operations have helped many landowners with this problem by giving this small wood some value. Most of these chipping operations will produce a 'dirty chip' due to the abundance of bark and needle content and lack of wood material. Such generated tonnage may not make a

landowner much money, but it beats having to pay for a pre-commercial operation. Regardless, pre-commercial operations should not be curtailed in hopes of wood being able to be chipped. This loss of time waiting could have been years that the trees could be growing into bigger wood products if released by eliminating competition.