Timber Tree Quality

Indiana hardwood forests produce wood products that vary in monetary value from low value use for pallets and wood crating to high value use in kitchen cabinets and fine wood furniture. High quality timber prices are three to thirty times higher than low quality timber prices. Quality hardwood lumber will always be in great demand.

A quality hardwood tree has a straight trunk, no visible limb scars or damage to the butt, and a consistent growth rate. The species of tree does count to a certain extent in determining quality; however, try to work with the species best adapted to the site.

**Straight Trunk and No Limb Scars**
Most quality traits in a tree can be encouraged only when the tree is young; little can be done to improve the quality of an older tree. When beginning (regenerating) a stand, it is best to start as many seedlings as possible, whether by germinating from seeds or planting seedlings. Upwards of 2,000 trees per acre is desirable. These trees compete with one another for light, causing straight, rapid tree growth. Shading of the lower limbs creates self-pruned trees. Once a limb drops off, a high-quality, knot-free wood will form over the limb scar. As the stand grows, the most vigorous trees win the fight for the light. Thinning to eliminate forked trees, damaged trees and grapevines will help produce high-quality trees at this stage in the forest's development.

**No Damage to the Base of the Tree**
Most of the tree's value is in the butt log. Damage to this log can be caused by fire, grazing and mechanical equipment. Disturbing the soil around a tree by driving over or ditching through the root system can eventually cause decay damage to this first log.

**Consistent Growth**
One characteristic of veneer quality trees is consistent growth rings. To get consistent growth rings, the tree must grow at a constant rate every year. This requires careful, regular thinning of the stand.

**Species**
Log prices vary by species. Although predicting future species prices is impossible, some Indiana upland hardwoods seem to consistently hold a good price: black walnut, white oak, red oak, black oak, white ash, black cherry, sugar maple and tulip tree. Basswood, red elm, beech hickory, shingle oak, chinkapin oak and persimmon command moderate prices. High-value bottomland species include bottomland red oak, bottomland white oak, and pecan. Sweetgum, hackberry, soft maple, sycamore and cottonwood usually bring moderate prices. Pine does not have a well-developed market in Indiana.
Management Review
Management for quality wood products depends on these things:

1. A lot (2,000+) of seed origin seedlings in a new stand, with no large, poor trees competing.

2. Regular thinning (once every 15-20 years)

3. Control fire, eliminate grazing, and minimize equipment movement in the woods.