



CENTRAL HARDWOOD NOTES

Planting Yellow-Poplar, White Ash, Black Cherry, And Black Locust

Hardwood plantations that include yellow-poplar, white ash, black cherry, and black locust can be established on upland sites in the central hardwoods region (see Note 3.06 *Seeding and Planting Up/and Oaks*, and Note 3.08 *Seeding and Planting Walnut*). Even though hardwoods are more difficult to establish than conifers, there are good reasons to plant them. Yellow-poplar, white ash, and black cherry can provide valuable lumber and veneer, and black locust is still prized for fence posts because it resists rot. Yellow-poplar, white ash, and black locust can be planted and expected to grow on old fields or in forest openings and clearings that have at least moderate fertility. As a rule, all four species should be planted rather than direct seeded. None of these species is likely to survive if planted under existing tree crowns. Except for black locust, plantations should be free of competing vegetation the first few years after planting.

Here are the basic guidelines for establishing plantations on upland sites:

1. Sites should be moderately productive whether they are old fields or forest openings. Ranked from high to low according to the need for fertility are yellow-poplar, black cherry, white ash, and black locust.
2. Prepare the site before planting. This may include mowing (brush hogging), tilling, and/or application of herbicides for weed and sprout control.
3. Carefully plant large, sturdy, healthy stock at least onequarter inch in diameter at the ground line for black cherry, white ash, and black locust. Yellow-poplar should be at least one-third inch.
4. Control weeds and sprouts for 2 to 4 years, depending on competition and tree growth. See exception for black locust.
5. Take appropriate action to control cattle, deer, rabbit, and/or mice damage.

Selecting Sites

Yellow-poplar, white ash, and black cherry grow best on deep, moist, but well drained soils. There should be at least 18 inches of soil above a hard pan or other impermeable material. Sites inherently poor or impoverished by past practices should not be planted with site demanding hardwoods. You can improve border-line soil by planting legume crops and fertilizing, or even planting black locust, which fixes nitrogen in the soil. If grass is sparse and not vigorous, the site quality is likely too poor to support these species. In hilly country, the coves, stream bottoms, and the north and east lower slopes are generally moister and consequently better for good tree growth. On questionable sites, consult local or regional experts.

Preparing and Maintaining Sites

Black locust is more suitable than the other species on poor or old-field sites. It fixes nitrogen in the soil, tolerates drier sites, and consequently may survive and grow satisfactorily on the south and west facing slopes. If the site is too severe, even black locust may not produce a crop.

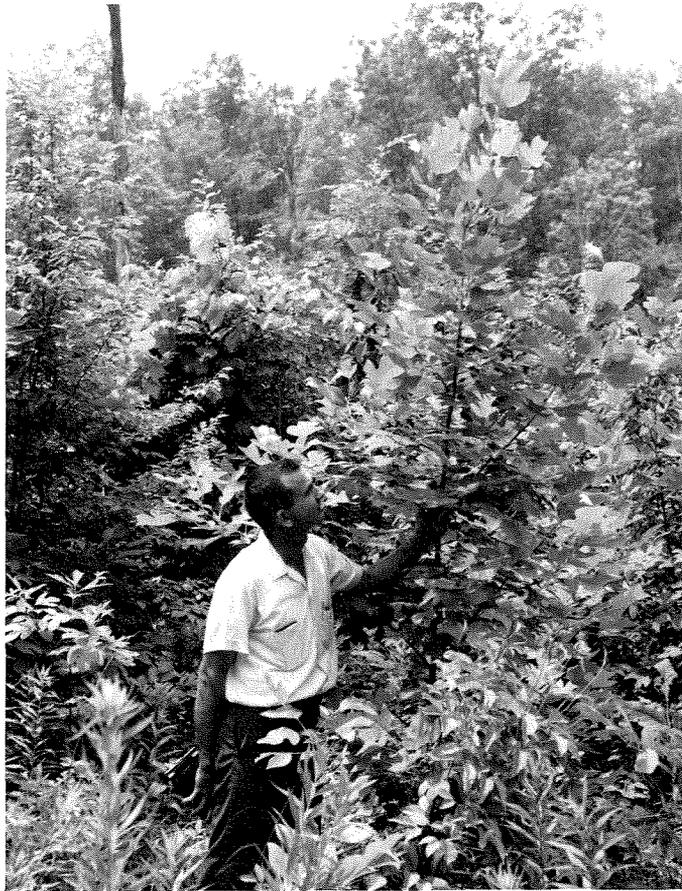
You have to prepare the site and control weeds if you want to establish yellow poplar and white ash. Control weeds by mowing and/or using herbicides unless there is a dense stand of grass occupying the site. Where grass is dense and vigorous, plow and disc. You may need to follow up treatment with pre-emergent weed control chemicals. It is not necessary to control weeds over the entire plantation area. You can treat 2- to 4-foot strips in the tree rows or you can treat a 2- to 4-foot-diameter spot around each tree.

Each tree species has its own herbicide tolerance level that varies with soil texture and organic content. Take care to protect people, animals, and the environment when using chemicals to control weeds, brush, and grass. Refer to publications, product labels, and local experts for specific application instructions and regulations.

Black cherry has not been widely planted on either forest or old-field sites in the central hardwoods region. However, in Pennsylvania tests, black cherry has been grown by planting large seedlings (20 inches tall) in scalped areas and fertilizing with nitrogen and phosphorus.

Black locust will generally become established when planted on unprepared sites unless competition is extreme. Like all crops, black locust will do better with some site preparation, weed control, and/or fertilization, but of the four species, it needs the least care. It grows rapidly and will occupy most sites in a few years.

(For additional essential information on site preparation, planting stock selection, and care and planting methods see Note 3.05 *Seeding and Planting Hardwoods*).



Five-year-old
yellow-poplar

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