



# NORTHERN HARDWOOD NOTES

## Hardwood Planting

Hardwood planting used to be most common on private land. Now more and more hardwoods are being planted on public land. Not much hardwood planting research is going on but recent summaries of earlier trials allow us to give you the following guidelines.

### Open Field Planting (the most difficult)

1. Match species to the site. Hardwoods require fertile, well-drained soils without a heavy clay layer or bedrock within 2 feet of the surface.
2. Prepare the site thoroughly (usually by disking and follow up by herbiciding for weed control) until the plantation trees average at least 1 foot taller than the most vigorously competing species. Good site preparation tends to reduce frost heaving.
3. Plant tap-rooted species, such as white ash, northern red oak, black cherry, basswood, and butternut, for best results in open fields. If sugar maple is used, plant it as early as soil conditions permit.
4. Don't plant after below-normal rainfall years and after winters with below-normal snowfall. Groundwater recharge will be low. If precipitation was adequate for planting, survival probably will range from 75 to 85 percent.
5. Control weeds to avoid severe rodent damage and mortality. Don't interplant hardwoods among conifers without control. The habitat is favorable for rodents.

### Interplanting Poorly Stocked Stands and Under Shelterwoods

1. Plant stock in the most open areas. In a shelterwood where the overstory has been treated to increase light, plant immediately after treatment to get the jump on competing herbaceous vegetation.
2. Make sure that the soil is suitable for hardwoods.
3. Fibrous-rooted species (yellow birch, hemlock, paper birch, and sugar maple) can be interplanted provided that competitors (primarily sugar maple seedlings already on the site) are not taller than the planting stock.

## All Planting

1. Plant hardwoods earlier than conifers. Root hairs need time to regenerate and they do this best before bud break.
2. Top pruning (by cutting below the lowest live limb) seems to be highly desirable for yellow birch and northern red oak, especially in dry years and under open stand conditions.
3. Avoid severe root pruning, i.e., to lengths less than 6 to 8 inches, particularly with northern red oak.
4. On prepared sites, try to mix organic with mineral soil before you plant. If you interplant, either disk or make shallow furrows so a mixture of litter and A horizon covers the roots. Never plant in low spots that collect water, or deep in the B horizon.
5. Plant single species rather than mixtures. This avoids difference in growth rate, dominance, quality, and difference in tolerance to type of herbicide (if required) and rate of application.

Don't plant until stock has a minimum root collar diameter of a quarter inch and a top at least 12 inches long.

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