

BLACK ASH

Cover Type Guidelines

ROTATION AGES

There is not enough information available to make recommendations on rotation ages.

HARVEST SYSTEMS

On the wet sites, cut only when the ground is frozen to limit damage to the site and to improve equipment access. Snow cover will provide additional protection to the site and to seedlings. Clearcutting, strip cutting, or shelterwood cutting can be done on drier sites, but considerations must be made for regeneration prior to harvesting. All-aged selection cutting is the only safe method on wet sites. Clearcutting on wet sites causes a loss of transpiration at the site and can lead to higher water tables. Higher water tables can inhibit seedling establishment and favor grass and brush.

REGENERATION SYSTEMS

On better sites (SI 55+), the shelterwood system should be used to regenerate the stand. If advanced reproduction is not present, the stand should be thinned from below to 75% crown cover. This cut should be made in summer to provide soil scarification, but summer cutting may not be possible on some sites due to wet soils. Regeneration will be most successful if this cut is timed to take advantage of a good seed crop. If advanced reproduction is present, the stand should be thinned to 50% crown cover. The removal cut should be made when the ground is frozen, and preferably snow covered, after seedling reproduction reaches 2 to 3 feet tall. The literature indicates that a minimum of 5000 well spaced seedlings and low stump sprouts per acre should remain. Stumps should be lower than 12 inches to ensure healthy stump sprouts.

All-aged selection is the only regeneration system recommended for excessively wet sites. Consult USDA Forest Service Gen. Tech. Rep. NC-115 for procedures. Reproduction on these sites is highly dependent on stump sprouts, therefore the stumps must be cut as low as possible to ensure healthy reproduction.

Bareroot planting stock is currently being produced and can be used to convert sites to black ash or to supplement regeneration in existing black ash stands. Conversion will require intensive site preparation to reduce competition with the planted black ash seedlings. The following types of sites may be suitable for planting sites:

- lowland brush
- upland brush with moist soils.
- lowland grass with proper soil conditions.
- upland grass with wet soils.

- aspen or northern hardwood stands with low productivity due to a high water table.
- former elm stands.
- low value, poor quality, or understocked lowland hardwood stands.

PEST CONSIDERATIONS

Black ash is relatively free of serious disease and pest problems. Unsightly, black galls caused by the ash flower gall mite (*Eriophyes fraxinoflora*) are commonly present on the branches of black ash, but there is no indication in the literature that these seriously affect the growth of black ash. Deer depredation on seedlings and sprouts can be a problem. Trees on wet sites are shallow-rooted and subject to windthrow.

WILDLIFE CONSIDERATIONS

The ash cover type has a fair to good rating for wildlife. The ash community understory is vitally important for providing late fall and winter deer browse (less than 6 feet tall ash, mountain maple, and red-osier dogwood) and upland edges are important fall feeding sites (gray dogwood and highbush cranberry) for ruffed grouse. The ash tree is an important snag and den tree, especially in riparian zones. The ash overstory is sometimes used as nesting sites for blue herons. Mature ash stands are also prime candidates to perpetuate as old growth sites. Winter shelterwood cuts that take into consideration deer concentration areas, reserve snag and den trees, and any other special wildlife needs (i.e. heron colonies) will provide the greatest utilization for wildlife.

PREFERRED SITE CONDITIONS

Black ash occurs on a wide range of site conditions from wet, deep peat to moderately well drained mineral soils. The best growth occurs on sites with the following characteristics:

Organic Soils -

- shallow, moderately to well decomposed peat derived from woody plants or sedges.
- pH greater than 5.0.
- water table deeper than 12 inches below surface.
- good water movement through soil.
- groundwater high in minerals.

Mineral Soils -

- medium texture
- poorly to somewhat poorly drained.
- good water movement through soil.
- free calcium in rooting zone