NORTHERN HARDWOODS ON MICHIGAN STATE FORESTS

Where Northern Hardwoods is the designated "Management Objective" the following guides should be followed:

SILVICULTURAL SYSTEMS

Coppice management of Northern Hardwoods (maple, beech, birch) is not acceptable. Poor quality stands of northern hardwoods which would not justify the cost of marking for the Selection System should be considered for conversion to more productive types, e.g., aspen, larch, or red pine. In most cases, it would be better to postpone harvest for ten years than to clearcut such stands without the ability to establish a more productive stand.

SELECTION SYSTEM

In stands of sugar maple and associated species having at least 100 good quality crop trees per acre Arbogaas’s "Marking Guide for Northern Hardwoods Under the Selection System" should be followed.

Cutting cycle should be 8 to 15 years
Rotation size should be 24" dbh
Residual stocking in regulated stands should be:
60-75 sq.ft./Ac in sawlogs (>10" dbh)
10-15 sq.ft./Ac in poles (5-9" dbh)
"Ancillary System" should be used for establishing a marking prescription

Marking Rules: Sawtimber Stands:
First) Remove "risk" trees (those which will not last till next cutting cycle.)
Next) Remove culls--fell or triple girdle
Next) Remove trees of poor form
Next) Select the best quality trees regardless of species to keep as crop trees
Then) Remove trees >24"
But: Don't go below 70 ft² B.A./acre
In stands overstocked with SAWLOGS keep Basal Area high = 85 to 100 ft² B.A./acre

Marking Rules: Pole Stands:
If B.A. is <100, leave it alone.
If overstocked with Poles:
First) Remove most sawlogs (all of them is ok if quality is poor and removal will not drop B.A. below 60)
Next) Mark to release crowns of crop trees (should be 100-200 per acre, or 15 to 20 foot spacing)
But: Don't go below 60 ft² B.A./acre residual stocking

SHELTERWOOD SYSTEM

In stands of red maple, beech, oak, and associated species, shelterwood systems such as described by Godman in Northern Hardwood Notes should be used.

1. If maple and ash seedlings are present, cut from below to 60 percent crown cover. Log in winter.

2. If you wish to encourage yellow birch and hemlock with other species, cut from below to 70 or 80 percent crown cover.

3. Final harvest must wait until regeneration is adequate and is 3-4 feet high.