Harvesting Options

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Before harvesting timber, have a plan for how the site will be regenerated and what the remaining stand should look like. Methods used to produce even-aged stands (pine, pine-hardwood, or hardwood) include clearcut, seed tree and shelterwood harvests. In addition, stands usually require an improvement cut or thinning during mid-rotation.

CLEARCUT HARVEST: Timber is removed and the site is cleared of merchantable vegetation. The cleaner the site following harvest, the less expensive it is to reforest. This method is most useful to species intolerant of shade when seedlings are already in place, where stump sprouting is expected, or when artificial planting is planned, such as a pine plantation.

SEED TREE HARVEST: This method of harvesting leaves approximately 6 – 10 well-spaced, good quality trees per acre to provide for natural regeneration of stands. This method works best with light-seeded species such as loblolly and slash pine. Monitor the stand for germination of seedlings after seedfall. Once an adequate number of seedlings is established and approximately two years old, remove the overstory. Control hardwood competition either before the initial cut through controlled burning or after harvest with herbicides. A professional forester can inspect your property and make that determination for you.

SHELTERWOOD HARVEST: This method uses two or more successive cuttings so residual trees provide protection from sun and wind during the period in which a new crop of trees is established. This system regenerates heavy-seeded species (oak and longleaf pine) intolerant to shade or species with intermediate shade tolerance by allowing sunlight in to promote growth. When removing merchantable timber, leave 20-50 well-spaced, good quality trees per acre. Leave the best trees to grow for another 5-10 years as advanced regeneration is establishing. After thinning, the forest floor should receive enough light for seed from remaining overstory trees to germinate.

During late summer to early fall, prior to seed fall, prescribe burn to expose mineral soil and allow a better seed catch. Pine seed germinates and survives better when in direct soil contact. Once advanced regeneration becomes established and trees are at least five feet tall, harvest the overstory. Consult a professional forester for guidance in this activity.

GENERAL ROTATION LENGTH: The General Rotation Length (GRL) is the amount of time required for establishing and growing a timber crop to a specified size. GRL varies according to species, soil conditions and climate. Maximum pine timber production is best achieved by growing to sawlog size of 16-inches in diameter. Intermediate cuts, where all diseased, crooked, and suppressed trees are marked and harvested by professionals, will add to timber income. Maximum returns on pine

trees are obtained by growing an even-aged stand for 30 - 40 years with periodic thinnings.

Maximum hardwood timber production allows trees to reach a 20-inch diameter. In most situations, manage hardwood stands on an even-aged basis favoring oak, yellow poplar and ash. Exceptions are Streamside Management Zones, wetland areas, or recreational/aesthetic areas where unsightly clearcuts or seed tree cuts are not desired. In these instances, partial-harvesting techniques may be used to remove some merchantable timber and all undesirable, diseased, poor quality and suppressed trees. Alternatively, small clearcuts 1-10 acres in size can produce an overall stand with varying age classes. Hardwood should be managed on a 60-year rotation.

Generally, higher site index areas produce greater returns and can be more intensively managed. These sites usually require greater site preparation, and herbaceous and woody vegetation control. Steeper, sandy and gravelly sites should be less intensively managed to protect topsoil from washing and producing gullies. Pine timber should not be grown in wet, swampy or hydric soils. Alternatively, hardwoods do best on wetter sites.

SUSTAINED YIELD: A sustained yield forest can yield timber indefinitely at a given level of intensity. This means there is a steady, long-term supply of growing timber. Under this system, the forest should have equal acres in each age group, up to the General Rotation Length. For example, if a forest consists of 600 acres managed on a 60-year rotation, cut, on average, approximately 10 acres per year (600 acs /60 yrs. = 10 acres/yr.). Harvesting 50 acres every five years or 100 acres every 10 years, should eventually obtain a sustained yield forest. The Alabama Forestry Commission recommends this be attempted only on tracts larger than 400 acres.

Photo Credit: Alabama Forestry Commission