

Harvesting and Best Management Practices

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A forest-management plan will include some type of harvesting. You may want to grow pine trees as a crop, or you may want to concentrate on wildlife management. Whatever you choose, there is an appropriate harvesting method for managing your property.

Harvesting Methods

Clear Cutting. Clear cutting is an even-aged stand technique that removes all of the merchantable timber from a stand at one time. Trees that are not merchantable are sometimes left standing and may need to be removed before planting. One alternative is called a clean-cut. This is a clear cut, but during the course of the harvesting operation, all of the stems are dropped regardless of merchantability. This also enhances the aesthetic appeal of the logging site.

Seed Tree or Shelterwood Cuts. These types of cuts are also even-aged stand techniques. These cuts are made to ensure natural regeneration on the tract of land. Trees of desirable species and quality are left standing and spaced as evenly as possible to promote seed production and dispersal. Seed tree cuts are commonly used with pines. This cut requires fewer trees to remain as the seed source, typically between 7 and 10 trees per acre, since pine seeds are dispersed by wind.

Shelterwood cuts leave about 30% stand basal area per acre to ensure regeneration. This method is used with trees that produce heavy seeds. Once the new stand is established, the seed trees are removed.

Diameter-Limit Cutting. This is an uneven-aged management technique that only removes trees of a predetermined diameter and larger. It is supposed to result in a high quality uneven-aged stand. Unfortunately, this technique has been used in the past as a method of high-grading, or taking just the good trees and leaving poor quality trees. It typically results in a poor quality stand that has little future timber value and is, therefore, rarely used.

Selection Cutting. The selection-cutting method of harvest is also for uneven-aged stands. Trees are selected singly or in small groups to promote regeneration in those areas where the trees are removed. The goal is to maintain a well stocked stand while realizing periodic financial returns from harvesting.

Best Management Practices

Best Management Practices (BMPs) are designed to minimize or prevent non-point source (NPS) pollution that is created either from harvesting operations or from other silvicultural practices. NPS pollution from forestry operations occur after the land is cleared and exposed soil washes into a stream or other water body. This sediment can carry herbicides, pesticides, fossil fuels, and other contaminants, to name just a few. Increased sediment is the main pollutant from harvesting operations.

Forest Roads. Harvesting does not typically expose soils. Forest roads and skid trails do, and are the major source of sediment, especially where the roads or trails cross streams. Roads should be crowned and water diversion structures should be used to allow water to run off the road and into vegetation. Approaches to streams should be stabilized and protected to ensure sediment does not enter the stream.

Streamside Management Zones. Streamside Management Zones (SMZs) are areas of limited management along streams and other water bodies. They serve as vegetative

buffers to slow water down before it reaches the stream, allowing any sediment to settle out before the water enters the stream. The width of the SMZ depends on the slope of the land. The steeper the terrain, the wider the SMZ needs to be. Harvesting is allowed within the SMZ, but only half of the crown cover should be removed and only if doing so will not expose the soil within the SMZ. The remaining trees and ground cover will filter the water.

Specific guidelines and recommendations on topics covered in this chapter can be found in *Mississippi's Best Management Practices Handbook*. This guidebook is available from your county office of the Mississippi Forestry Commission or your county Extension Service Office.

Communication. The best management tool you can use is your involvement. Communicate with the foresters and the loggers who are working on your property. Let them know what your expectations are. They can help with specific decisions and offer alternatives if needed. Loggers can and should explain to the landowner what to expect from any harvesting operation.

References

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