

# Natural Regeneration of Southern Pines

*Alabama Guide Sheet No. AL 612A*



## Definition

The regeneration of southern pines by natural methods.

## Criteria

Natural regeneration methods should be selected which are conducive to the regeneration success of the desired species. Additional practices such as precommercial thinning and tree release may be needed to obtain a good stand of the desired species.

## Advantages

The advantages of natural regeneration are:

- Low establishment cost
- Less labor and equipment required
- No problem with geographical source of seed
- Good early root development
- Less visual impact
- Less soil erosion

## Disadvantages

The disadvantages of natural regeneration are:

- Less control over initial stocking and spacing
- Loss of year or more of growth
- Longer rotations needed
- Risk of seed tree loss
- Generally lower yields
- No genetic improvement or use of disease resistant stock
- Possible lag in regeneration due to drought or inadequate seed fall

- Possible need for precommercial thinning
- Possible need for tree release

## Species Selection

The primary species of southern pine that are usually managed by natural regeneration are loblolly, longleaf, slash, and shortleaf pine. Some stands may have more than one species of pine. It is usually desirable to favor one species. Those species, which are less desirable, should be removed prior to initiating the regeneration process.

## Types of Natural Regeneration Methods

### Clearcutting in Strips

Narrow strips up to 200 feet may be clearcut and allowed to seed in from the sides. This system is suited to loblolly, slash and shortleaf pine. Strips should be perpendicular to the prevailing winds to ensure good seed dispersal.

### Seed Tree

Seed tree is the most frequently used system of natural regeneration for pine species. Seed trees should be at least 10 inches DBH (diameter at breast height) and preferably 12 to 16 inches. They should be dominant trees of good quality that have a history of good cone production. Seed trees should be equally distributed over the area to be regenerated. The number of seed trees depends on tree size, species, cone-bearing conditions and site conditions.