



Tree Planting

Alabama Guide Sheet No. AL 612



Definition

The establishment of tree species by planting seedlings.

Trees to Plant

The decision of what tree species to plant should be based on management objectives and soils. Some soils are best suited for growing pines and some soils are best suited for growing hardwoods. Other soils will grow either pines or hardwoods.

Transporting and Handling

Care should be taken in transporting and handling seedlings. Poor handling of seedlings in transport and before planting can result in tree planting failures. Tree roots may be killed by as little as five minutes exposure to the wind. Seedlings should be protected from heat and freezing temperatures.

Quality Criteria for Bareroot Pine Seedlings

	Loblolly, Slash, or Shortleaf	Longleaf
Stem Length	5 in	8 in (needle length)
Root Collar	1/8 in	3/8 in
Root Length	5 in	5 in
Lateral Roots	Abundant	Abundant
Winter Buds	—	Present
Mycorrhizae	Present	Present

Quality Criteria for Bareroot Hardwood Seedlings

Root collar diameter ----- 1/4 to 3/8 inch
Stem length ----- 12 to 18 inches

Storage

Tree seedlings may be stored up to 12 weeks in refrigerated storage. In non-refrigerated storage, seedlings should only be stored two to three weeks when the storage temperatures range from 38 to 50 degrees Fahrenheit. Longleaf pine seedlings should be planted within three days of pickup from the nursery. If longleaf seedlings must be placed in cold storage prior to planting, store them no longer than two weeks. If seedlings freeze, allow them to thaw gradually before separating.

Planting Dates

Bareroot seedlings should be planted from December to March 15. Containerized seedlings may be planted from October through April. Seedlings planted late in the planting season are at a greater risk for mortality unless the site is wet.

Planting Methods

Trees may be planted by hand or machine. Pines may be hand-planted with dibble bars, hoedads or planting shovels. Hardwoods may be hand-planted with a shovel, power auger, post hole digger or a hardwood planting dibble. An acceptable planting machine for hardwoods would be one that has a coulter diameter

of at least 32 inches and a planting foot and trencher plate assembly to allow for the creation of a trench of four inches in width and fifteen inches in depth.

Planting Procedure

Trees should be planted to the proper depth and should receive adequate soil compaction. Tree roots should not be pruned. It is ok to plant seedlings with excessive lateral roots. If taproots consistently exceed 10 inches, contact the nursery where seedlings were purchased for guidance on what to do. Lean should not exceed 45 degrees.

Proper Seedling Depth

The planting depth for hardwoods and all pines except longleaf should be one to two inches deeper than they grew in the nursery. Longleaf should be planted with root collars at or slightly below ground level after the soil settles.

Herbaceous Weed Control

Herbicides may be used to increase seedling survival and growth by controlling weeds and grasses the first year after tree planting. Herbicides are usually applied over the top of tree seedlings and should be applied

within six months after trees have been planted. Only herbicides that are labeled for over the top application should be used. Contact your local Alabama Forestry Commission Forester or a herbicide company representative for specific recommendations. Always follow label recommendations for rates and usage.

Tree Planting Rates

The number of trees for various spacings are:

6' x 8' = 908	9' x 9' = 538
7' x 7' = 889	9' x 10' = 484
6' x 10' = 726	8' x 12' = 454
8' x 8' = 681	10' x 11' = 436
7' x 10' = 622	9' x 12' = 403
6' x 12' = 605	11' x 11' = 360
8' x 10' = 544	12' x 12' = 302

References

USDA-NRCS AL Conservation Practice Standard 612 - Tree/Shrub Establishment. January 1999.

Alabama Forestry Commission Seedling Care and Reforestation Standards. November 1997.

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