



JULY 2017

TREE TALK

GRAHAM
FORESTRY
& APPRAISAL
SERVICES

JOHN L. GRAHAM, JR.
P.O. BOX 524
BUTLER, AL 36904
PHONE · 205 · 459 · 2472
FAX · 205 · 459 · 2914

Establishing Southern Pine Plantations: Site Preparation

Successful reforestation involves a sequence of carefully planned treatments that are suited to the unique characteristics of the particular site and the landowner's objectives. Success is dependent on the establishment of a suitable growing environment for young trees as well as choosing high quality seedlings. There are various options for landowners and several decisions to make.

Like all plants, southern pines have three major requirements: water, sunlight and nutrients. To establish a southern pine plantation, some type of site preparation is necessary. Site preparation treatments are designed to clean-up logging debris, break-up hardpans (hard layers of subsoil or clay), eliminate future competition from unwanted vegetation for sunlight, moisture, and nutrients, and/or cultivate the soil for drainage purposes.

The first step is to create a good GIS map of the property with which to build the treatment plan. The tract map will show areas which will be planted as well as areas that will not be planted, such as streamside management zones, fields, ponds/lakes, etc. Acre calculations for each of the designated areas will be made based on the digitized aerial map. So, actual acres to be prepped and planted are very accurate.

Normally a tract will be left unplanted for approximately one year. This is done in order to restore the site's fertility and to allow weeds and undesirable species to sprout so that the herbicide can be most effective. Once the preferred site preparation application is per-

formed, seedlings are planted in the coldest part of the year, usually late December through February.

SITE PREPARATION

There is a big range of what can be spent on site preparation. It is the major cost in developing a timber stand and that cost must be carried for the entire rotation. Therefore, it is important to select a cost effective method that meets the needs of both site and landowner. The goal of site preparation is to create a stand that offers a good amount of water and nutrients, allows good sunlight, and has good maneuverability. The landowner should consider the most cost effective way to accomplish that. He should consider his options and ask what techniques would have good results and still be cost effective and fit within a feasible budget. Like most things, the minimum is not usually the best route and the maximum is not really financially feasible. Somewhere in the middle range normally produces a good stand of timber and is cost effective unless the tract requires more costly procedures.

Chemical Site Preparation

Chemical site preparation consists of applying herbicide to control or eliminate woody competition which competes with the young seedlings for nutrients, water and sunlight. Because the herbicide works through the leaf system, chemical site prep is usually done after sprouting has occurred when there is good foliage coverage on the tract. To



Aerial spray application, Choctaw County, Alabama, 2015. (photo by GF&A)

achieve this, a meeting is held with the chemical specialist to develop a prescription for the most effective herbicide mix for each tract.

Chemical site prep is usually accomplished by an aerial application done by a helicopter. Most aerial applicators use an on-board geographic positioning system and a flow meter which records the exact placement of the application along with the amount of product applied. The digitized aerial maps created in our office are uploaded to the pilot to load into his on-board system. Brown-up usually begins to occur about 30 to 60 days after the site has been sprayed.

Release Spray

At times, shortly after time of cut, the seedlings will go ahead and be planted and left to grow for approximately one year. Then a release spray will be done to control the hardwood competition. This spray is done with a chemical mixture that is not harmful to the young pines but kills the undesirable vegetation. In essence the site is planted then site prepped. This is not usually recommended but can be done for a late cut if desired.

Prescribed Burn

Prescribed burning is fire applied in a skillful manner to a tract for a specific purpose. To minimize burn liability, prescribed burning is usually done in conjunction with some other method of site preparation. For example, if a site has been chemically sprayed, a prescribed burn may be used on the loading deck areas to rid them of heavy debris to open them up for planting.



Aerial spray application, Choctaw County, Alabama, 2015. (photo by GF&A)



Aerial spray helicopter refueling and refilling with chemical. Choctaw Co, AL, 2015. (photo by GF&A)



Dozer piling logging debris prior to spray and planting, Choctaw County, Alabama, 2017. (photo by GF&A)

Mechanical Site Preparation

Mechanical site preparation is a method of reducing competing vegetation, removing logging or storm damaged debris or preparing the soil for planting by using large machinery.

It can take many forms, but some of the most common are shearing, raking, bedding, piling, mowing or bush-hogging and disking. Bulldozers, skidders, and tractors with certain implements attached are reliable tools for this type of site prep. Use can be restricted by wet weather, poor drainage or extremes in topography. With this method, there is also the potential for abundant hardwood sprout development.

Mechanical site prep can be costly and is usually only used when there is no other alternative. It is typically used in conjunction with spraying.

In closing, site preparation is very important in establishing a pine plantation. Many times, the quality of the site dictates the budget...the higher the quality of the site, the higher the budget can be for site preparation techniques. In most cases, chemical site prep spray is the most cost effective approach and typically offers good results. It can be done in conjunction with some prescribed burning in selected areas of the tract and associated costs typically fit well in the reforestation budget.

Our Services

- Forestry Consulting
- Management Plan Development
- Pest Management
- Hunting Lease Management
- Reforestation
 - Mechanical Site Prep
 - Chemical Site Prep
 - Prescribed Burning
 - Trees & Planting
- Mapping & GIS
 - Assessment
 - Mapping the Property
 - Analysis
- Inventory & Appraisal
 - Cruising the timber
 - Establishing Volumes & Values
 - Bare Land Valuation
 - Building/Improvement Valuation
- Timber Sales
- Residential Appraisals
- Commercial Appraisals
- Estate Appraisals
- Estate Planning

About Us

Graham Forestry & Appraisal Services is a full service forestry consulting and real property appraisal business. Located in Butler, (Choctaw County) Alabama, GF&A serves landowners and clients throughout Alabama and Mississippi. Owner, John L. Graham, Jr. (Johnny) is a forester registered in both Alabama and Mississippi as well as a Certified General Real Property appraiser; fully licensed and certified in both states.

He obtained his forestry degree from Mississippi State University in 1987 and achieved his license as a registered forester for Mississippi

in 1987 and Alabama in 1991. Johnny became licensed as a Certified General Real Property Appraiser in both Alabama and Mississippi in 1993. Forestry consulting and management was the main focus when the business first opened in 1989. Now, however, appraisals account for at least 50% of the company's daily work.

Mr. Graham works hard to keep up with technology and takes pride in using the latest mapping and GIS equipment and software as well as the latest real property appraisal equipment and software. This has made a big difference in the information he can offer his clients and in the range of services he can provide. At the present time, he is studying and training to obtain a commercial license for the use of a

drone. This little flying machine will be useful in many ways. .

Johnny grew up with his father and grandfather telling stories of buying and selling timberland, logging, and forestry. His middle son is now working with him as a forestry technician, making the fourth generation of their family in the forestry business.

Johnny and his wife, Donette, have been married for 31 years. They have three sons, John (Sommer), Alex (Shelby), and Reed and one granddaughter, Georgia Ruth.

Although he enjoys all aspects of the business; his favorite part is still inspecting a tract for the first time and helping the landowner work out a management plan.

Our next issue will focus on trees and planting. If there is something you'd like more information on, let us know!

grahamforestryandappraisal@tds.net
205-459-2472



gf&a
gfanda.com

Graham Forestry & Appraisal Services

P.O. Box 524
Butler, AL 36904

ELECTRONIC SERVICE REQUESTED

PRSRT STD
U.S. POSTAGE
PAID
BUTLER, AL
PERMIT No. 4