



Image courtesy of Forestry Images

Prescribed Burning: It's All About Timing



NEWS FROM GEORGIA-PACIFIC FOR FOREST OWNERS AND OUTDOOR ENTHUSIASTS

FAMILY FORESTS

WINTER 2008

Prescribed burning provides many benefits as a forest management tool and can be performed several times during the life of a stand. For most forestry applications, it is best suited for the fall, winter and early spring months because trees are dormant.

BEFORE PLANTING . . . AFTER THINNING

A prescribed burn before planting can serve several purposes. It helps to clear debris left on the site and makes a clear path for mechanical or hand planting of seedlings. "Burning oxidizes and adds nutrients back to the soil, acting as a natural fertilizer, and also reduces competition from other species," explained Georgia

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PRESCRIBED BURNING

Forestry Commission forester Jason Gillis, who works with landowners to prescribe burn their land.

Burning is beneficial to a tree later in life as well. In a loblolly or slash pine stand, burning at age 12 to 15 helps reduce understory competition. In addition to creating more favorable growing conditions, prescribed burns help minimize the risk of wildfires by reducing hazardous fuels on the forest floor.

“Prescribed burning ensures less chance of a catastrophic wildfire,” said Gillis. “Even if a wildfire occurs, it won’t be as bad if the stand has little or no fuel on the ground.”

Generally, the initial burn is conducted after the stand’s first thinning to ensure that crowns are not scorched and the roots are not damaged; however, longleaf pine stands can be burned from planting through their grass stage (about two years) to stimulate more height growth.

“Although the longleaf species is more fire-resistant than slash or loblolly pine,” noted Gillis, “other contributing factors to its fire tolerance include wider stand spacing as well as sandy soil that allows less competing vegetation.”

WILDLIFE AND PEST MANAGEMENT

Burning keeps the duff, or decomposing organic matter, layer at a minimum, allowing browse to emerge for wildlife.

“Annual or semi-annual burning allows native grasses to grow, which are excellent habitat for birds, including the bobwhite quail,” said Neal Edmondson, Georgia Forestry Commission’s prescribed burn manager. Depending on the type of understory, burning later in the spring may be appropriate to enhance habitat for certain species.

Prescribed burning can help control less desirable insects as well as disease. “Brown spot is one disease that can be controlled with fire,” noted Edmondson. “Regular fire intervals also minimize the amount of ticks, chiggers and other unwanted species that thrive in a dense forest.”



BURNING FOR AESTHETICS AND ACCESS

In addition to helping a stand become more productive, burning can enhance the appearance, recreational and economic value of a stand.

“Burning maintains open stands, produces vegetative changes and increases the number and visibility of flowering annuals and biennials,” continued Edmondson. “It also improves access. Burning underbrush prior to the sale of forest products improves the efficiency of cruising, timber marking and harvesting. The reduced amount of fuel helps offset the greater risk of wildfire during harvesting. In addition, improved visibility and accessibility often increase the stumpage value of the product,” concluded Edmondson.

CONSIDERATIONS FOR BURNING

“Depending on stand conditions and objectives of the burn, winter months are preferable for burning in the Southeast,” said Edmondson. “Lower temperatures help to reduce the chances of crown scorch and root damage in growing stands.” Edmondson also noted that the patterns of cold fronts can be tracked more easily in the cooler months, helping to determine wind direction for smoke management purposes. The ideal temperature for burning is less than 60 degrees, with humidity of 30 to 55 percent and winds of three to five miles an hour.

Perhaps the biggest liability of prescribed burning is smoke management. A person conducting a burn must have a prescribed burn plan that includes fire and smoke management.

Update on GP’s Longleaf Project

While last year’s seedlings are completing their first growing season, GP is gearing up for year two of participation in a grant program through the Southern Company’s Longleaf Legacy Program. The grant, in partnership with the National Wild Turkey Federation, is a \$1.1 million multi-year grant administered by the National Fish and Wildlife Foundation.

Samplings of last year’s plantings showed excellent survival, according to GP procurement forester Roger Thigpen, who works with GP wildlife biologist Bobby Maddrey to coordinate the company’s participation in the program across the Southeast.

This fall and winter, GP will coordinate the planting of approximately 1,000 acres as part of the program.

“We are actively scouting locations and asking landowners who are interested in planting longleaf to determine exactly where we will plant this year,” explained Maddrey. “At this time, we have commitments from 12 landowners in Perry, Wayne and Greene Counties in Mississippi, as well as Montgomery, Brantley and Ware Counties in Georgia and Washington County, Alabama”

Look for more updates on this important longleaf restoration project in upcoming issues of *Family Forests*.



Each state's forestry agency assists individual landowners in developing a site-specific plan. "A professional prescribed burn manager can help determine wind and smoke direction, and avoid affecting schools, nursing homes, highways and other smoke-sensitive areas," said Gillis.

Drought has also become a major concern over the past few years, he continued. "If it is so dry that the fire will burn the feeder roots, or if it would continue to burn instead of coming in contact with moisture and extinguishing, burning is not recommended; however, most stands have enough moisture at this point to burn effectively."

WHO SHOULD BURN

Conducting a prescribed burn is no small task. Each state requires a landowner to apply for a burn permit to legally conduct a burn from the state forestry commission or other state forestry agency. In obtaining the permit, the person burning accepts responsibility for containing the fire and staying with it until it is extinguished. Most state forestry agencies in the South offer a certified prescribed burn management course that can qualify landowners to conduct a burn on his or her own.

"Prescribed burning is an important tool in forest management planning," concluded Gillis. "Although the exact timing of the burn has to be determined within a short period of time due to weather conditions and other considerations, prescribed burning is a valuable tool in managing a healthy forest and should be included in the planning process."

Thanks to the Georgia Forestry Commission for their valuable input to this article. State forestry agencies across the Southeast can provide guidance and support for burn planning, permitting and certification. Contact your state agency for more information.

Why Burn? Reasons for A Prescribed Burn
 Prescribed burning has been used as a forest management tool for centuries. Some of its many benefits include:

- Preparing sites for seeding and planting;
- Disposing of logging debris;
- Managing competing vegetation;
- Reducing fuels to minimize the risk and severity of wildfire;
- Improving wildlife habitat;
- Controlling insects and disease; and
- Enhancing the appearance of a stand.



Greg Carter (left) and Bobby Maddrey checking out longleaf seedlings being planted on Carter's Mississippi land.

WILDLIFE FEATURE: Northern Cardinal



Range and Description

The Northern Cardinal can be found in a large portion of North America, from the midwestern to the northeastern United States through the South and into Mexico. The cardinal is between eight and nine inches long, with a wingspan of 10 to 12 inches. The male is brilliant red with a large crest on its head, a red bill and its face is surrounded by black. The female is grayish tan with red in its tail, wings and crest. Its beak is reddish orange. The female's face is grayish black and is not as distinctive as the male. Young cardinals often resemble the female, but have a black bill.

Habitat and Breeding

Habitat for the Northern Cardinal includes areas with shrubs and small trees, such as forest edges, hedgerows and also suburbs. The bird builds its nest from stems and twigs and fills it with leaves and grass. The outer layer sometimes even includes paper or plastic. Usually, the nest is built 10 feet or less off the ground. The cardinal lays a clutch of one to five eggs that are off-white with brown spots. After an incubation of about 12 days, the chicks are born. They fledge in one to two weeks.

Feeding

The cardinal eats seeds, fruits, buds and insects and frequents bird feeders where available, especially at dawn and dusk.

Interesting Facts

- The Northern Cardinal is the most popular state bird, representing Indiana, Illinois, Kentucky, Ohio, North Carolina, Virginia and West Virginia.
- Is that a songbird? The female Northern Cardinal sings, often giving the male information about when to bring food. A pair of cardinals may share song phrases but the female's song is generally longer and more complex than that of the male.
- Fiercely competitive, the male cardinal often spends hours fighting itself if it sees its reflection in a glass or mirror.
- Males that are brighter red live in territories with more dense vegetation, feed at higher rates and have greater reproductive success than their dull counterparts.

Source: Cornell University School of Ornithology

CHRISTMAS TREES:

Top Choices for Bringing the Forest to Your Home

As a landowner who may manage vast acres of forestland, you may not take the time to think about the many varieties of Christmas trees that are available. Here are the top 10 choices for that all-important holiday tradition:

1) **Fraser Fir.** The Fraser Fir is silvery-green, soft to the touch and has excellent needle retention. The spacing of the firm branches make it easy to decorate and it grows to almost perfect shape.

2) **Noble Fir.** The Noble Fir is deep green and has a naturally good shape. Boughs from the noble fir are often made into wreaths. It has branches that are sturdy and has good spacing between branches making it easy to hang ornaments.

3) **Colorado Blue Spruce.** The blue spruce has a pyramid shape with strong limbs and is known for its bluish/silvery foliage.

4) **Grand Fir.** The Grand Fir has glossy, dark green needles that are soft to the touch and limbs that may not be suited to heavier ornaments.

5) **Balsam Fir.** The Balsam Fir is dark green with flexible branches that are often used for wreath making. It has an attractive form and gives off a pleasant fragrance.

6) **White Fir.** The White Fir has bluish/green foliage that dulls as it ages. It has a nice shape and aroma, and good needle retention.

7) **Eastern White Pine.** Branches of the Eastern White Pine are often used in garlands, wreaths and centerpieces because of their feathery soft needles.

Branches are lush, but flexible and last throughout the season with proper watering.

8) **Douglas Fir.** The Douglas Fir has soft, shiny green needles. Branches are tightly woven together and generally sheared to a cone shape. Choose a freshly cut fir and water frequently for best results.

9) **Scotch Pine.** The Scotch Pine retains its needles and keeps well through the holiday season. It resists drying and does not drop its needles.

10) **The Norway Spruce.** The Norway Spruce has an excellent color but does not hold its needles well. It should be purchased right before Christmas in order to last.

Happy Holidays!



Source: About.com



FAMILY FORESTS IS PUBLISHED
QUARTERLY BY GEORGIA-PACIFIC

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