



Fire in HARDWOOD – a North Alabama Perspective

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Are forest fires really bad? Has Smokey been telling us the truth all these years? Well of course he has, kinda, most of the time. Actually it depends on your long-term objectives . . . How do you want your timbered area to look? What are your expectations of income from your forest? What “use” of the area is important to you? And finally, is wildlife habitat enhancement one of your goals?

Fire can be a useful tool, but so can dynamite. I don’t recommend using dynamite unless you know what you are doing. It is the same for using prescribed fire as a tool. A prescribed burn can be very useful; an out-of-control wildfire can be very damaging. Keeping a fire under control can be difficult. Alabama Forestry Commission associates are experts at controlled burn-

ing, but even we have lost control of prescribed burns in the past. Private vendors also lose control of prescribed burns at times. This past fall, in Jackson County, Alabama, a site-prep operation conducted by a planting vendor went awry. High winds pushed the fire across control lines and resulted in multiple volunteer fire departments responding to control the blaze, in addition to our AFC bulldozers and personnel.

In another situation, a simple task of burning leaves went wrong for a private landowner in Jackson County last spring and again, multiple fire departments responded. The Alabama Forestry Commission also responded to this fire which was on the side of a mountain. We put breaks around the active fire. We raked and used leaf blowers in the inaccessible areas of rock and



in a pine stand just as a farmer does when he gazes out across acres of corn or soybeans. However, from a purely aesthetic perspective, a mature hardwood forest is hard to beat, and a hot fire damages hardwood timber.

The trees that live can be devalued by the fire and later succumb to its effects. Fire or prescribed burning in hardwoods does a number of damaging things. One, fire causes a fire scar at the base of hardwood timber. Since the bark of hardwood trees does not have the same insulating capacity as pine trees, the fire scar is an entry port for decay and stain. The bark is cracked due to the heat of the fire, and the crack opens the tree to stain and rot. This can adversely affect the health of the tree. Two, this can devalue the tree from that of a sawlog to pulpwood. This can be a reduction in value for a prime 20-inch white oak from approximately \$1,000 dollars a thousand board foot to an average of \$8 dollars a ton for our local markets in North Alabama. One such local market for oak logs is a mill that builds staves for whiskey barrels. This mill pays prime prices for quality white oak logs. The price per foot depends on quality as well as size. If a tree has a 'dote' heart, due to fire-induced rot, the landowner has lost money.

Most fires in our area are 'set' fires, not controlled burns. These fires are often off the side of the mountains in hardwood timber. The timber is almost always damaged, even if the damage isn't evident initially. Several years ago, I wrote an article for our local newspaper concerning fires and burning in hardwood timber on the mountainsides of Jackson County. In the article I wrote that a fire had burned an area of Sand Mountain around Thanksgiving. Quoting from that article, this was my evaluation a year after the fire. "Initially, the fire seemed to have cleaned up the area without doing much damage. However, I flew over this area early in the spring. From the airplane, you can see a lot of dead timber. The fire did not burn extremely hot, so the area bushed out substantially in the spring. There was no real (lasting) 'clean-up' effect to this fire."

This demonstrates that prescribed burning does not result in a 'park-like' appearance after one prescribed fire. It is necessary to conduct multiple burns to get the result of an open condition in timbered areas. Back in the days of the American Indian, the open areas and grasslands of Alabama were due to repeated burning without concern for market prices on sawtimber. Their goals were access and keeping areas open. Property boundary lines did not exist. They used fire without the benefit of bulldozers to create fire breaks. They were not interested in selling timber, and the price for sawtimber had no bearing on their management. Nor did they care about the quality of hardwood timber.

The wide-open quail plantations in South Georgia place an emphasis on fire to maintain an open condition, based on an objective of recreational use for hunting quail, not growing timber for long-term income. The burning regime on these quail plantations is 'annual' burns rather than prescribed burns every three to five years. Repeated burning will certainly create a more open understory. Repeated burning will also create lower quality hardwood timber.

In conclusion, it is all about your goals. Are you growing quality hardwood timber, or is your objective to grow more deer? Fire can create good habitat for deer. Selective logging can also create good habitat for deer. Prescribed burning is a useful tool, but it depends on what you want from your forest.☺

steep terrain. Recently I had an opportunity to evaluate the damage from this particular fire from more than a year ago. During the fire, the flames were not intense, yet there are multiple mature oak trees that were damaged or have died due to the fire. I spotted one large oak, 20 inches dbh [trunk diameter at breast height, or 4.5 feet above the forest floor], DEAD, without any noticeable problem except the scorch marks on the trunk. The burned-over area sprouted out well last summer after the fire, but this spring, herbaceous material is sprouting out heavily and is very dense. If the "goal" had been to enhance wildlife habitat, this fire would have been very useful. However, the fire was an accident and the landowner received a visit from our law enforcement division shortly thereafter.

Most of the timberland in Jackson County and the oak/hickory forests of North Alabama are hardwood forests. These hardwood forests add to the beauty of our state. Not that a pine plantation in central Alabama is not pretty; I see dollars growing