

Burning on Private Lands in Mississippi

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IT IS GOOD to return to Florida and see many of my old friends and associates with whom I worked twenty years ago. My first prescribed burning started about that long ago too, and my interest has never wavered—once a burner, always a burner. My remarks here will be centered around history—fire history, that is, because of my baptism in big unmanageable fires is closely associated with Florida and the work being carried on at the present time by the Tall Timbers Research Station.

A little over thirty years ago, as a forest ranger in the U. S. Forest Service, I worked a great many CCC boys in the Appalachian Mountains of east Tennessee and north Georgia doing Timber Stand Improvement work—which I thought, at the time, was highly beneficial—not only to the trees, but to the boys as well. There I fought my first wildfires. They always ran up the mountain and in almost every case, caused a complete kill of the hardwood timber in their path. Frequently, I return to the mountains and I can see the destructive results of these fires and the productive results of the T. S. I. work.

I make reference to this early history because I left North Carolina to come to Florida and was immediately faced with a series of big, costly, and dangerous forest fires. Frankly, this series of fires made quite an impression on me because of the elaborate cost to protect the forests from fire and the difficulty of controlling some of the big ones, and of course, the damage. Some of these fires were reaching 50,000 acres in size, back in 1940. Left in their wake was nothing but absolute destruction and waste; brush replaced the pine forests simply because the task of planting was too large. Direct seeding had not, as

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yet, been attempted on a large scale. That was needed on these big fires because there were not even seed trees left on the burn.

About that time, there was some talk in north Florida about controlled burning—but the only real burning that was being carried on was for fire proofing an area before, or at intervals, during a naval stores operation. In fact, many naval stores men were raking around the trees they were working—hoping to keep wildfires off the faces of the trees they were working for gum.

Foresters, in general, were asking one another how to control wildfires and working on fire breaks and roads from which to back-fire. Grassed over roads were thought to be wide enough to stop and hold a fire, or to back-fire from. How wrong we were!

Most fires were being set by the local cattlemen in order to secure an early grazing area following the burn—there were not many improved pastures for cattle grazing and open range existed all over Florida. There was a fight on between the cattlemen and the forester—centered around the all important subject of fire—who set it and who put it out. As it developed, both parties lost—because improved pastures was the cattleman's answer; and prescribed burning will control the wildfire problem, if handled properly.

On arrival in Tallahassee in 1940, I found an old friend from my home town in Louisiana. He was a naval stores operator; his name was V. G. Phillips. He owned about 40,000 acres of land south of Tallahassee, and he was constantly fighting wildfires. He was well known to everyone in this section, everyone respected him because he was a good businessman, a Christian Gentleman and they knew he did not want fire to get into his naval stores woods. I listened to him because he had been my Scout Master and Sunday School teacher when I was a boy. The local people listened to him too, and they tried to prevent fires on his land—but they did not feel that way about the National Forest lands, which I was having to help protect. The Forest Service lands were open range subject to grazing, and of course, wildfires. We were having many fires each Spring, most of them for improved range.

The Forest Supervisor, Frank Albert, had made up his mind to control burn; Mr. Phillips was against using fire unless absolutely necessary; State Forester Malsberger and his men were in a rather weak position because they had been telling many of the landowners

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they could not grow trees and have fire—and yet, the landowners could see that it was almost impossible to protect the timberlands from wildfires. However, the agency most responsible for complete protection from fire was my own people, the U. S. Forest Service. Unfortunately, many Forest Service men still believe it is poor business to burn the woods they have long protected. It is going to take a long time, and probably never, for some of these men to agree to the use of fire. Fresh out of the mountains, I was inclined to agree—but I told everyone that I wanted more time to make up my own mind.

At the beginning of World War II, I was appointed Supervisor of the National Forests in Florida. The U. S. Forest Service was also getting alarmed with the fire protection problem in Florida; big fires were being investigated and good men were quitting. The Southern Forest Experiment Station in New Orleans had been working on control burning for a number of years—they intensified their program. The leading advocates in this work were: Allen Bickford, Jack Currie and David Bruce. They had conducted most of their work at the Lake City Research Center—with the Osceola National Forest collaborating with them, particularly, in establishing sample burns. These experimental burns were small—usually from five to ten acres in size. Scattered around through the forest, they were beginning to show some results due to rough reduction, grazing control, seed bed preparation, and other things the land manager needed to know—we noticed they stopped a few fires too.

By then, we knew that lands protected for twenty years from fire, accumulated approximately twenty tons of fuel per acre. It was obvious what would happen when that much fuel was ignited on a dry, windy day. We were also finding out that control of wildfire was practically impossible without fire-breaks or a great deal of costly fire equipment. We were having to back-off as much as a mile or more to get a back fire in that would hold a big fast moving fire.

Also at the beginning of World War II, the Florida National Forests experienced some of the worst fires in several years—the forests had been protected for twenty years, manpower was not available, and mechanical fire fighting equipment was just in the process of becoming mobile. All of us responsible for fire protection knew that something had to happen. I remember, distinctly, talking to Lyle

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Watts, Chief of the Forest Service; C. A. Gustafson, Chief of Fire Control for the United States and Arthur Hartman, then Fire Control Chief of the region—and anyone else that would listen, about what steps we were going to have to take to control these big fires. I have always been thankful that Arthur Hartman knew enough about fire and had wisdom enough to encourage us to go ahead and burn.

We agreed to start prescribed burning on the Florida National Forests in 1942. Regional Forester Joe Kircher had to tell some of his own state and private men to “shut up,” but he told me to go ahead with my burning plans. About this time, I made some trips with Mr. Herbert Stoddard, Sr. who was also concerned with this problem. (He, of course, was concerned with fire in relation to game management.) He knew then that the forest or game manager had to use fire. We made trips to west Florida and elsewhere to see burning work others were carrying on. We talked a lot about it because we found a lot of our acquaintances rather reluctant to get mixed up in the subject. He and I were in complete agreement that a prescribed burning program must be initiated in the state of Florida, if we expected to grow timber and game; and, of course, he and I knew we had to grow both—and in many cases, on the same land.

The next year, the decision was made to prescribe burn the entire Osceola National Forest over a three-year period. We carefully prepared a pattern that would prevent any very big fires. We blocked-off the forest like a checker board. I can assure you that many serious errors were made—some of them, no doubt, resulted in setting the whole program back—but, right or wrong, the program was launched and four state foresters met with the Society of American Foresters at Lake City to discuss plans. Many people were opposed to the use of fire, but finally agreed that the Osceola tests should be made—but no publicity, whatsoever, would be given the program. Ranger Larry Newcomb (now Assistant Regional Forester in Atlanta) did the burning and he really did a fine job. Much misinformation resulted from these early burns; some excellent facts were obtained concerning the method, the time and place to burn. Actually, there are very few good days or nights for good burning. Later on, many foresters from throughout the Southeast came to Florida to see what was

happening and to study our methods and results. By then, we were also burning on the Ocala and the Apalachicola.

Instead of strengthening the research program, along about this time, the men who had been working with fire and knew the most about it, were suddenly transferred out of the South to different timber types where fire could not be used. I oftentimes wondered why this happened—I suspect that some of the severest critics of the use of fire saw some of our bad burns here in Florida and decided that prescribed burning was bad business for foresters to be involved in. However, they were too late—because too many other people faced with the problem of protection had seen the light. Land managers, many without background or experience, were using fire as a tool of management from South Carolina all along the Gulf coast to Texas. Burning was an accepted fact. I expanded the program in Mississippi and actually did some burning in the loblolly and shortleaf districts.

With the above background and history, I now turn to the subject assigned me on this program, that is, "Burning—on Private Lands in Mississippi." To be perfectly frank, I am not very happy about the burning program in Mississippi, because not much has, or is happening much different than when I left the Forest Service thirteen years ago. As some of you present may know, for the past thirteen years I have been working in bottomland hardwood timber tracts. You immediately recognize the fact that fire cannot, and is not, used in this forest type. All of Sears, Roebuck and Company's lands which I manage are located in the Mississippi Delta and along tributary streams in that state. This timber type lends itself very well to game management because of the cover and food available—particularly for deer. Since no fire is used in our woods, I had to turn to others for much of my information for this report; again I repeat, I am not pleased with what I found.

In order to find out what was actually going on in connection with prescribed or controlled burning, I contacted the State Forestry Commission, Mississippi Game and Fish Commission, the U. S. Forest Service and many of the larger wood-using industries, who own land in south Mississippi. I somehow get the impression that the use of fire, although tolerated, certainly is not encouraged by most of the agencies and some of the industrial people I talked to. There is no use of

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fire in the central or northern part of Mississippi and I think this is a mistake.

I found that the State Forestry Commission did not have any facts or figures on the amount of land burned, or the purpose of the burns; they have no policy concerning the use of prescribed or controlled burning; and neither do they have any instructions or specifications for this type of work to inform the public HOW, WHEN and WHY they should burn their lands.

The Director of the Mississippi Game and Fish Commission says they are using fire on 14,000 acres they own and are managing for quail. He said they only burn three to four thousand acres a year. All of their burning is done in the Spring.

A combination game and forest manager at Geiger, Alabama, Wayne Attaway, is burning three to four thousand acres each year on the ten thousand acres he is managing for both timber and game—and I can assure you he has both. His work is worth your attention because it is very outstanding.

I found that the U. S. Forest Service, on the Mississippi National Forests, burned the following acreage for the various purposes outlined during 1963:

28,924 acres—Control of undesirable species
27,612 acres—Control of Brown Spot Disease
29,187 acres—Rough Reduction
2,965 acres—Seed Bed Preparation
2,367 acres—Planting site Preparation
<u>91,055</u> acres—Total Burned.

Having been Supervisor of those forests, I know they should be burning twice that much every year.

I wrote Assistant Regional Forester Douglas Craig to try and determine if many of the other southern states are using fire and was informed that this information was not available, except from the Fire Chiefs in the various states and as I stated previously, no records are kept in the state of Mississippi. State Forester Mixon told me that they are burning a whole lot more over there than in the past. They find it is good business. By the way, Craig was one of the rangers that burned for me when I was Supervisor in Mississippi. He knows the value of burning as a part of the timber management program.

From my knowledge of Mississippi, the entire longleaf and slash

pine timber types should be burned at regular intervals for several purposes. You are all familiar with the reasons and purpose for the use of fire in the coastal areas. We need to use a lot of fire for rough reduction, protection, game management, disease control and various other purposes and the thought occurs to me—why aren't more foresters using fire? Those few foresters using fire are well pleased with their results—they seem to know what they want and have achieved satisfactory results. Fire is needed in about fifteen to twenty counties in south Mississippi, and to a limited degree, can be used in central Mississippi in the loblolly and shortleaf types for the eradication of hardwoods of low value on pine sites. Actually, I estimate we should be burning about thirty-five per cent of our longleaf slash pine sites in Mississippi each year—however, it should be done by prescription and at the proper time. I find no one using fire or even experimenting with it in central or north Mississippi pine sites. Why?

One of the men doing the best job of burning in the state is Butler Brown, who is the forester in charge of the University of Mississippi forest lands. These lands are in the slash-longleaf belt. The State Forester told me Brown is using fire rather extensively, but the overall use of fire is quite limited in his section. I found that only three to four per cent of the forest lands are being prescribed burned down there. Brown said, what a shame it is that such a valuable forest management application could not be more fully used. He also stated that approximately five of the larger industries are doing limited burning and that many of the smaller private landowners are using fire to a degree. It is obvious he has done a great deal of research and study in connection with the burning he is carrying on. His closing statement is about the same as I have heard from numerous foresters and landowners—and, that is, further study should be made in reference to prescribed burning—in other words, he is crying for more research on methods, costs, and the application of prescribed burning. Jim Bryan, forester for Dantzler Lumber Company uses a lot of fire in his management program. He advocates the use of head fire to save longleaf seedlings in the grass and to eradicate brush. He does a good job with the right kind of fire.

To summarize—substantiated by the facts and figures I was able to collect—I believe that approximately one quarter million acres of land is being burned in Mississippi. Some of the work is well planned

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and some of it is quite careless in application. In fact, the only instructions for prescribed or controlled burning that I have found, that seem to be in use in these southern states, are those in use here in Florida. As I stated previously, the Mississippi Forestry Commission does not have a policy pertaining to the use of prescribed or controlled burning, nor any instructions for this type of work available to the people in Mississippi.

There has been quite a bit of original material prepared in connection with prescribed burning. Arthur Hartman and I both prepared articles for publication in the *Journal of Forestry* and the *Yearbook* (1949). These articles dealt primarily with reasons and purposes of burns and how to plan and organize for burning large acreages of land. This information pretty well follows the prescription and recommendations used by the Florida Forest Service and covers the purpose and methods of burning, costs, and other data.

I feel that additional study and research is needed in the use of fire—not only in Mississippi, but in many of the other southern states. Just who is going to do this research, I am not sure—probably the best results will come from men like Butler Brown, who need to use fire and who go ahead with their burning program and get their information by “trial and error.” Perhaps, the Tall Timbers Research Station will be willing to take the lead and work up this information for those badly in need of it. Probably the real reason why I am here this year, is the intense interest I worked up when learning to use fire as a tool of land management. I was sent and read all of your proceedings because I believe in the use of fire all along our coasts from North Carolina to Texas. You believe in that too, but I also believe in the careful use of fire, fully armed with all the facts as to WHY, WHEN, and WHERE. There must be a purpose. Men learn by burning, seeing what happens and why. I read with interest the article, “The Team Approach to Forest Fire Research” by K. W. McNasser in your report of last year. I will even go a bit further than he does and point out that the researcher can do his best work observing wildfires and prescribed fires handled by a good fire man like Butler Brown. I’m afraid the man doing the burning and the fire research man are not working close enough together and then making available their combined findings. I say this because the word is not getting around to all the states and all the men faced with fire prob-

lems. Forest Management in the slash and longleaf pine belt must have two ingredients to be successfully handled. That is prescribed burning and fire law enforcement, carefully combined and executed. I find foresters and land managers seeking additional information about burning the lands they are charged with managing. As one man stated, the people that are doing prescribed burning are going about it quietly in order to avoid any public disturbances due to the use of fire. Is he correct? Another forester wrote me, and I quote, "The major deterrent to adopting a program of hazard reduction burning is one of community relations, fear of unsolicited assistance, coupled with relatively low wildfire incidence in recent years." In other words, be careful and don't let anyone know you use fire. Men, that is what I am afraid of—we wait—we think people won't burn our land for us—we become complacent—and we wake up one fine windy day and it's all over! We have been burned out of timber by big wildfires set by our neighbors.

I know that you fellows here at this station recognize that much more work and research is needed in the use of fire as a part of forest and game management. These ideas are best reflected in the purpose of this conference—as printed on your program. If we do nothing more than influence the people in attendance here that there is a place and a purpose and a reason for the application of fire in land management—then, we will have accomplished the objectives of this conference. We certainly need to get busy because the burning program is at least ten years late right now in Mississippi, and perhaps as much, or more, in your state. Have you looked lately?

I am not trying to be critical of any person or group who have been concerned with this problem, but I insist that prescribed or controlled fire is not being used nearly enough by land managers here in the South. This is brought about by several factors—I will list them:

- (1) A natural fear of fire and its destructive forces,
- (2) The lack of research to support managers in the use of fire,
- (3) It costs to do a good job,
- (4) Pure laziness, burning is hard work!

Clear up these four major problems and more prescribed burning will be used in the future! I assure you we should be using more fire than we are at present.