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# EASTERN and SOUTHERN of Agriculture NATIONAL FORESTS

Timber Farms—Outdoor Playgrounds
Watershed Protection



AN OPEN PORTAL

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UNITED STATES DEPARTMENT OF AGRICULTURE

FOREST SERVICE: EASTERN REGION

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## EASTERN and SOUTHERN NATIONAL FORESTS

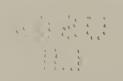
Timber Farms - Outdoor Playgrounds
Watershed Protection



Issued September, 1932

This publication shows where these national forests are, how they serve, and how best to enjoy their many advantages

UNITED STATES
GOVERNMENT PRINTING OFFICE
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#### EASTERN AND SOUTHERN NATIONAL FORESTS

Prepared by the FOREST SERVICE

#### National Forests of the East and South Welcome You

The gateways of the national forests of the East and South stand hospitably open, inviting everyone to enjoy an endless variety of scenic beauty and recreation. These national forests are not a dream of the future. Right now nearly 5,000,000 acres of public forests—real, rugged mountain and timber lands—await man's response to the call of the out



FIGURE 1.—Quiet woodland roads offer relief from crowded city traffic

F-238178

of doors. (Fig. 1.) A glance at the map in the back of this publication is convincing. There is a national forest within a few hours' ride of any home in the South or East.

The national forests are yours to use and enjoy; help take care of them. Forest destruction is quick; forest growth is slow.

#### How the Eastern Forests Were Established

In 1900, nearly 300 years after the first English settlement in North America, an awakened public consciousness of the rapid destruction of forests and the damage to watersheds occasioned by unregulated cutting and fire resulted in an investigation of these conditions in the remaining forests of the East and South. (Fig. 2.)

This investigation brought about in 1911 the enactment of the Weeks law creating the National Forest Reservation Commission and authorizing the purchase by the United States Government of lands for the protection of the watersheds of navigable streams. In 1924 Congress passed



FIGURE 2.—Destruction caused by wasteful logging and fire

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the Clarke-McNary law, which, together with its other provisions, so amended the Weeks Act that authorization was extended to the purchase of lands for the "production of timber." This made possible the creation of national forests for the purpose of timber production as well as for watershed protection.

With the first purchase in 1913 began the building up of a chain of national forests through New Hampshire, Maine, Pennsylvania, Virginia, West Virginia, Tennessee, North Carolina, South Carolina, Georgia, Florida, Alabama, Mississippi, Louisiana, Oklahoma, and Arkansas.

The trees of the forests beautify the land, regulate the water flow, influence climate, aid agriculture, and foster wild life.

There were already public-land forests in Arkansas, Florida, and Puerto Rico, which, with purchases under the Weeks law and the Clarke-McNary law, now make a total of approximately 5,000,000 acres.

Under both the Weeks law and the Clarke-McNary law there is still much to be done in completing the purchases in the established forests and in extending the purchase work into other regions where needs exist. Lands in Kentucky and Vermont are under consideration for purchase.

#### How National Forests Serve

The national forests of the East and South are protecting the watersheds and helping to control the flow of many of the most important rivers and streams; they are producing continuous timber crops; they are demonstrating to the public the technic and results of extensive practical forestry; they are great, free, public playgrounds, and they are furnishing homes and protection to game animals, birds, and fish.

#### Protecting Watersheds

Floods, washouts, homes and property destroyed, silt-laden streams, impure water supply, stream beds dried up in summer, navigation impeded by silt deposits in harbors—these are the pictures presented when forests have been stripped from the mountain sides. A steady yearly flow of crystal-clear water, green, fertile farm lands bordering the lowland rivers, wide, open channels, clear sailing—these are the contrasting pictures when streams flow from forested watersheds. (Fig. 3.)

The national forests furnish continual protection to watersheds. Falling leaves, decaying organic matter, and a network of roots in the soil hold rain and snow water as a gigantic sponge, allowing it to seep slowly and evenly into the springs and stream heads, preventing destructive floods from heavy rains or melting snows, and insuring an adequate stream flow even during the driest part of the year. This insures constant hydroelectric power which is of vital importance to eastern and southern industry. It insures water supply for domestic, agricultural, and municipal purposes. It reduces erosion on the hillsides, lessens the silt burden of the streams, and renders unnecessary costly dredging operations to keep the harbors and rivers open for shipping.

#### **Producing Continuous Timber Supplies**

The national forests of the East and South, scattered through a vast territory from New England to the Gulf of Mexico and from the Atlantic coast to Oklahoma, with Puerto Rico for good measure, include a great variety of forest types. The commercial forests range from the spruce and fir of New Hampshire through the oak, chestnut, and poplar forests

There is abundant land for farm, pasture, and forests. Put every acre to its most profitable use; make it yield its maximum crop.

of the southern Appalachians, the open, parklike pine forests of the coastal plain, to the rolling, hilly, shortleaf pine forests of Arkansas.

Of the 5,000,000 acres in these national forests only a small part is virgin timber. (Fig. 4.) Even the timber stands of the public domain forests, which have not been subjected to unregulated cutting, have been repeatedly damaged by forest fires. Such is nature's resistance, however, that there is still in these forests over 5,000,000,000 board feet of saw timber, as well as quantities of tanbark, telephone poles, mine props, pulpwood, and other products, in all, a total of approximately 9,000,000,000 feet.



FIGURE 3.—A mountain river protected at its source by a national forest

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About 25 per cent of these stands is overmature and decadent, 40 per cent is fully mature and is no longer growing at a profitable rate, and the remainder, approximately 35 per cent, is immature.

When one tree crop is mature it must be removed to make room for the growth of another similar crop. So the timber is not left to decay after it becomes mature, but is sold as soon as it is ripe for the axe. The harvesting is now in progress and will continue indefinitely, gradually

<sup>&</sup>quot;The man who plants a tree becomes a partner with God in a creative act, for we can not build trees—we can only preside at the mystery of their growth."

increasing as the forests recover from the past treatment, until the highest attainable sustained annual yield of lumber and timber products is reached. (Fig. 5.)

With the exception of small sales, of a value of less than \$500, all national-forest timber is sold on the basis of competitive bids. When timber is ripe, it is placed on sale and advertised. Every tree must be marked or designated for cutting by a trained forester, provision always being made for leaving enough young trees or seed trees to insure a future crop. Fortunately, in this region careful cutting and fire protection will usually insure a second crop without planting.

Of the total area in the national forests of the East and South, there are about 205,000 acres which will not reproduce naturally and must be



FIGURE 4.—On a southern Appalachian national forest

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planted. These areas are largely the burned spruce and hardwood lands in West Virginia and Pennsylvania, the burns in the southern pine areas, and the abandoned farm lands in the southern Appalachian Mountains. To provide the trees for this work, a nursery with an annual capacity of 2,000,000 trees has been established at Parsons, W. Va., (fig. 6) and another of 1,000,000 trees a year capacity on the Ozark National Forest in Arkansas.

Fire destroys lumber, injures labor, kills industry, robs the community, and increases taxes.

Although these national forests of the East and South will continuously produce large quantities of valuable timber, they can never be expected to supply all of the timber needs of the portion of the country they serve, for the 60,000,000 people within this region use as a whole some 20,000,000,000 feet of lumber each year. Most of this must come from other millions of acres of timberland in State or private ownership.

The national forests, however, will develop the technic and pave the way for successful management of these private lands on a permanent basis. Each national forest will become for its particular region a living, growing example of forestry.

Receipts from the sale of national-forest timber are gradually increasing. Twenty-five per cent of all receipts is prorated on an acreage basis



FIGURE 5.—A sawmill cutting national-forest timber on Natural Bridge National Forest

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and distributed to the counties in which the forests lie, to be used by the counties for road and school expenses. Ten per cent of the gross receipts is used by the Forest Service in the improvement of roads and trails in and near the forest. During the fiscal year ended June 30, 1930, receipts from the national forests in Virginia, for example, were sufficient to return to the counties in which national forests occur an amount equal to something over 2 cents an acre for each acre of national-forest land. In many cases this exceeds the revenue in taxes formerly received by the counties on the same land before it was purchased by the United States. With continued, careful protection these public timber-producing farms will eventually pay a considerable profit to the owners—the American public.

#### Affording Varied Outdoor Recreation

In the field of recreation, as in all other activities, the national forests are managed for the greatest good to the greatest number in the long run. The production of timber and the protection of watersheds do not preclude the use of the national forests as playgrounds. Each year more and more people are seeking relief from congested centers by vacationing in wooded hills. (Fig. 7.) Recreation in the forests is free, and the public may come and go at will.

Within these national forests is some of the most picturesque scenery in the country—the highest peaks east of the Rockies, broad expanses of unbroken forests, quiet, secluded nooks beside mountain streams, nature



FIGURE 6.—The forest-tree nursery at Parsons, W. Va.

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at her best at any time of the year, and all made accessible and more enjoyable through the development of roads, trails, camp grounds, and other facilities.

The Forest Service realizes the recreational importance of these millions of acres of national forests and is developing for each unit plans which take into consideration the factors bearing upon recreational values and demands to be met. Following study, certain areas are set aside as camp grounds. These areas are fireproofed, as far as possible; water supplies are insured against contamination; rustic tables, fire places, and sanitary facilities are provided; and sometimes simple shelters are built.

Boy Scouts, Girl Scouts, and other similar groups are encouraged to develop their camps in the forests. Hundreds of miles of motor roads

connecting with the principal national and State highways have been built through the forests. In addition, there are some 3,000 miles of foot and saddle trails leading from the motor roads back into the remote places that satisfy the exploring instinct of the seasoned woodsman.

Most of these roads and trails have been built for the control of forest fires, for the removal of timber and other products, and to make the forests more accessible for administration. Few of them were built purely for recreational purposes, but that they serve this purpose is evidenced by the increasing thousands visiting the forests each year.

Visitors must use great care with fire to prevent the destruction of their playgrounds by the forest's worst enemy—fire. Visitors are not per-



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FIGURE 7.—Enchanting combinations of water and hills in the White Mountain National Forest

mitted to cut green trees or otherwise damage the forest. They are required to leave camp grounds clean and to pick up and destroy all lunch papers or other material that would render the camp ground unsightly. (Fig. 9.)

For the tenderfoot there are numerous stopping places—attractive hotels, mountain and shore resorts. For the more hardened campers, there are millions of acres in which to choose a camp site far from civilization. Dead wood for fire may be had without cost. One may hike, ride, swim, join the thrilling sport of a fox chase or bear hunt, climb to the heights and command a view of striking beauty, or just stay in camp and rest. And the cost—as little or as much as desired. The forest rangers and forest guards will advise as to camping places and equipment,



FIGURE 8.—Girl Scouts in the camp-fire circle

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FIGURE 9.—Good camp sanitation

F-232958

and furnish maps and other information to make a visit pleasant and profitable. They will demand care with fire and explain other forest regulations, and give help in case of emergency.

#### Other Uses of the Forest

In purchasing these broad expanses of mountain land, small areas of abandoned farm lands sometimes with small log cabins or other buildings still habitable, have been included. The buildings are leased at reasonable rental as homes for fire fighters and other laborers necessary for the protection and development of the forest.



FIGURE 10.—Curious, interested, and wary

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Cattle, horses, and sheep are allowed to graze on the national forests under permit and at reasonable rates. Great care is exercised to limit the number of animals grazing in the forests so as to prevent damage to the growing timber.

The game laws of the several States apply in the national forests, and the rangers cooperate with State authorities in enforcing these laws.

Death walks where campers are careless with fire; death to the forest, to forest life, and sometimes to the campers.

Streams are stocked with fish. On some of the national forests there are State or Federal refuges which are stocked with game of many kinds and serve as breeding places from which the surrounding areas are supplied with game for the hunters. (Fig. 10.) Hunting and fishing (fig. 11,) are, as a rule, good in the national forests as a result of careful administration and protection from fire.

Under necessary regulations, prospecting, mining, quarrying of rock and gravel, operation of stores, hotels, resorts, and other commercial enterprises can be carried on within the forests. In short, the national forests are for use, the aim of the Forest Service being to insure that each acre of public forest land is used for the purpose for which it is best adapted so as to return the highest net value to the general public.



FIGURE 11.—A protected trout stream on Pisgah National Forest, N. C.

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The national forests of the Eastern Region have still another important mission to fulfill. They are functioning as practical laboratories where the Forest Service is working out problems in timber growing and land management. There are three experiment stations in this region, each with its corps of men trained in research, seeking for new facts to be applied to growing eastern tree species. The problems solved furnish a large fund of information available to the public. Publications covering many phases of the forest problems are distributed, and the forest officers

If you don't know, ask the forest ranger.

and members of the regional forester's office are glad to supply information and, as far as possible, answer questions on any phase of forest management.

#### How Your Forests Are Handled

Visitors will enjoy meeting the forest ranger. He is the man on the ground, and that is where most of the business of the forests is handled. He has a district of 50,000 to 200,000 acres under his protection and management.



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FIGURE 12.—Ranger scaling logs on a national forest timber sale

He marks the timber for sale, scales the logs after they are cut (fig. 12), supervises road and trail construction, builds telephone lines, cares for public camp grounds, protects the forest from trespass violations and, above all, from forest fires. He must organize his fighting crews and see that they are properly equipped with tools, food, and transportation. He must instruct and train his lookout men and guards, and keep himself

A town without trees is cheerless, A country without trees is hopeless. on the alert and ready day and night. In case of fire, he is the commander of all fire crews in his district, and, like a general in charge of an army, directs the attack to the finish.

The ranger works under the general direction of the forest supervisor, who has under his care several ranger districts making up a national forest. The supervisor may also have other special assistants needed to handle certain phases of the work or unusual problems of timber growing, appraisals or survey for land purchases, or road construction.

All of the forests in the Eastern Region are under the direction of the regional forester, whose office is in Washington. He, with a corps of assistants, plans and directs the work for the region as a whole. In Washington also is the central office of the Forest Service, the Forester's office, from which all the work of the service throughout the Nation is directed.

#### Controlling the Red Enemy

Foremost in the hearts and minds of the forest officers is the task of saving the forest—the mature timber, the young trees, the trees of to-morrow—from destruction by forest fires. Fire has always been the arch enemy of the forest, and until the general public is sufficiently aroused from its apathy to realize the enormous damage resulting yearly from forest fires, the task of fire control will remain one of large proportions. Undaunted by the seeming public disregard, the Forest Service has made and is making rapid progress in fireproofing the national forests. The number of fires and fire damages are gradually decreasing.

Fire prevention is the most important part of fire control. Nearly all the fires in the Eastern Region are man-caused—most of them thought-lessly caused—and therefore preventable. Here the task is to so awaken the public consciousness to fire danger and damage that the tourist, the camper, the hunter, the fisherman, the lumberman, the farmer with his brush fire—in fact, all, who for any reason are in or near the forests—will exercise the same degree of caution with matches, smokes, and fires as they would in a powder or gasoline storage house.

Federal laws and the laws of various States provide penalties for carelessly or willfully setting fire to the forests. Any information which might lead to an arrest and conviction in such a case will be adequately rewarded not only in money but in the satisfaction of helping to protect the public property.

#### **Everybody Loses When Timber Burns**

Careful preparations are made by forest officers to detect and suppress forest fires that get started in spite of efforts to prevent them. In the national forests of the East and South 77 lookout towers, 13 lookout

Burned forests pay no wages, build no homes.

houses, and nearly 3,000 miles of telephone lines have been built. The towers are located on high peaks where large areas of forest lands are in view, and the telephone lines connect these observatories with the rangers, fire guards, and suppression crews. The lookout man, trained in the details of the fire-suppression organization with which he is in contact, lives in quarters right at the tower (fig. 13) and is on the alert every dry day and often far into the night to detect at the moment of its first



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FIGURE 13.—The lookout man scans the horizon for signs of fire

appearance any wisp of smoke—the indication of a potentially disastrous fire.

His telephone immediately communicates information on signs of fire to the ranger, fireguards, and trained suppression forces, who are dispatched without delay to the point of danger. They go equipped with tools, food, and supplies (fig. 14) to enable them to stay until the enemy is conquered and every spark, each a potential cause of renewed disaster, has given up its last breath of heat. So far as possible, they go in automobiles and motor trucks. Often the fires are far beyond the end of the motor road, and the fire fighters must walk over trails, or perhaps miles through trackless forests to reach the blazes. Miles of roads and trails, constructed each year in all of the eastern and southern national forests, are making more and more of these remote areas accessible by rapid transportation. Many more miles are needed, and the work is going ahead as fast as funds are provided.

Could the public fully realize that all this effort and expense is necessary because of human carelessness or maliciousness, it would go far toward making every person careful with fire in the woods and turning the hand of society against the criminal who deliberately fires the forest.



FIGURE 14.—Trained fire crew ready for battle with forest fire

#### Other Enemies Need Watching

Tracking down and destroying the horde of insects and tree diseases that battle for supremacy in the forests is less spectacular than fighting forest fires, but it is a very necessary and important activity. Whole pine forests have been destroyed by the bark beetle. Chestnut blight, an incurable disease of the chestnut, has destroyed practically all of this species. An effort is being made to dispose of large quantities of blight-killed chestnut in the forests of the southern Appalachians. In the Northeastern States the white-pine blister rust threatens one of America's historic and most valuable tree species. Fortunately this disease can be controlled by the eradication of an alternate host, the various currant and gooseberry bushes. A far-flung battle line of determined and scientifically trained men has met this pest at its front line. It will be controlled.

#### Each National Forest Has Its Peculiar Attractions and Value

Thus far consideration has been given only to the Eastern Region as a whole, but it is necessary to understand each of the national forests in order to understand the region. Each national forest, though much like its sister forests in organization, fundamental purposes, and service, has its peculiar points of interest, its own high lights of scenic beauty, its own service to the public, particularly to the people living within its immediate zone of influence. The map in the back of this publication shows the location of these individual forests. A map and descriptive literature of any one or all of these forests may be obtained from the forest supervisor in charge, the local forest ranger, or the regional forester, Washington, D. C.

Consult the following directory in connection with the map to get in touch with the nearest forest officer.

WHITE MOUNTAIN FOREST.—In the heart of New England's vacation land. The scenic appeal of this region and its invigorating climate afford the recreationist a wide range of outdoor interest and enjoyment.

Area: 534,736 acres in New Hampshire and Maine.

Headquarters: Laconia, N. H.

ALLEGHENY NATIONAL FOREST.—On the Roosevelt Trail midway between New York and Chicago. Within this forest are many beautiful and interesting places, among which is the justly renowned "Heart's Content," composed of 120 acres of fine virgin pine and hemlock. There are good fishing streams and deer, bear, and small game are abundant.

Area: 371,201 acres in Pennsylvania.

Headquarters: Warren, Pa.

Monongahela National Forest.—On the crest of the Allegheny Mountains, offering with its rugged beauty the refreshing coolness of high mountain country. Delightful camping places and excellent trails are found. Many streams afford good fishing. The "smoke holes" in the forest is an isolated fairyland, with its fantastic rock formations and mysterious caves.

Area: 274,840 acres in Virginia and West Virginia.

Headquarters: Elkins, W. Va.

George Washington National Forest (formerly the Shenandoah National Forest).—Flanking the historic Shenandoah Valley for 75 miles on the east and the west. Enchanting mountain and pastoral scenery are found here and the extensive forest road and trail systems lead into regions replete with outdoor attractions.

Area: 452,418 acres in Virginia and West Virginia.

Headquarters: Harrisonburg, Va.

NATURAL BRIDGE NATIONAL FOREST.—A magnificent area of wild, unbroken mountain forest land which offers every facility and opportunity for an ideal vacation whether one's idea of a vacation is a quiet nap in the shade of the whispering trees or the thrilling exertion of a bear hunt. Peaks of Otter in the southern end of the forest are justly far-famed: good fishing and public camp grounds are additional attractions.

Area: 168,794 acres in Virginia. Headquarters: Lynchburg, Va.

UNAKA NATIONAL FOREST.—A picturesque region of fertile valleys and towering hills at the meeting place of three States—Virginia, Tennessee, and North Carolina. Every resource of this forest is for wise use and public enjoyment.

Area: 209,507 acres in Virginia and Tennessee.

Headquarters: Bristol, Tenn.

CHEROKEE NATIONAL FOREST.—In the land of the Cherokees—a land of wonderful streams and beautiful trees. Three hundred miles of roads and trails lead to the crest of the mountains. Its timber, water, wild life, scenic, and recreational resources are administered for public use and enjoyment.

Area: 417,068 acres in Tennessee, North Carolina, and Georgia.

Headquarters: Athens, Tenn.

PISGAH NATIONAL FOREST.—In the land of the sky. Each year there is an eager response to the call of its cool green mountains, deep refreshing coves, sparkling streams, and winding trails, and in spite of its closeness to centers of population the region produces a delightful illusion of remoteness.

Area: 317,445 acres in North Carolina.

Headquarters: Asheville, N. C.

NANTAHALA NATIONAL FOREST.—In the beautiful Nantahala Mountains; gateway to the Appalachians from the South and East. The forest interiors, panoramas of great sweep from high places, and vistas from roads and trails, give infinite variety. Camp sites are provided, and there is good fishing.

Area: 348,459 acres in North Carolina, South Carolina, and Georgia.

Headquarters: Franklin, N. C.

ALABAMA NATIONAL FOREST.—A meeting place of the trees from the North and the trees of the South where they fraternize and grow with surprising vigor. Good roads open up many areas of natural charm. The region is rich in Indian history; arrowheads and spear points can still be found and scattered through Lawrence County are Indian mounds.

Area: 134,535 acres in Alabama.

Headquarters: Athens, Tenn.

Choctawhatchee National Forest.—On Santa Rosa Sound and the Great Choctawhatchee Bay. Traversed by Florida's new Gulf Coast Highway, its piney woods, crystal clear streams, and salt-water bayous provide good hunting, fishing, and bathing.

Area: 252,531 acres in Florida. Headquarters: Pensacola, Fla.

Ocala National Forest.—On the Ocala-Daytona Highway in the "lake region" of Florida. The region is noted for its bass fishing and deer hunting. A large Federal refuge assures protection and perpetuation of game.

Area: 184,503 acres in Florida. Headquarters: Lake City, Fla.

Ouachita National Forest.—In the shortleaf pine country. It includes most of the Ouachita Mountain region to which the people of Arkansas and near-by States go for summer vacations. It is a land of noble hills, high and cool when the lowlands swelter. It has pure and plentiful water; shady woods in splendid variety; and its highways and byways lead to numerous points of interest.

Area: 905,626 acres in Arkansas.

Headquarters: Hot Springs National Park, Ark.

OZARK NATIONAL FOREST.—The land of the white oak. The name Ozark is famous both in song and story and is associated with a mountain wonderland. The dwellers in the shadow of the Ozark Mountains are proud of the natural beauty of the rugged skyline. Four national game refuges afford safe breeding grounds for wild life; roads and trails, built and maintained by the Forest Service, reach all parts of the forest.

Area: 444,783 acres in Arkansas. Headquarters: Russellville, Ark.

KISATCHIE NATIONAL FOREST.—In north-central Louisiana in a country representing optimum conditions for the growth of longleaf pine. Established to determine and demonstrate growth methods for handling this species primarily for timber production and also for naval stores.

Area: 85,850 acres in Louisiana. Headquarters: Alexandria, La.

OSCEOLA NATIONAL FOREST.—At the North-South, East-West crossroads. Established to determine and demonstrate correct methods of timber and turpentine management.

The home of the Forest Service Naval Stores Experiment Station and of the turpentine laboratory of the Bureau of Chemistry and Soils.

Area: 147,761 acres in Florida. Headquarters: Lake City, Fla.

#### SIX RULES FOR PREVENTION OF FIRE

- 1. *Matches.*—Be sure your match is out. Break it in two before you throw it away.
- 2. **Tobacco.**—Be sure that pipe ashes and cigar or cigarette stubs are dead before throwing them away. Never throw them into brush, leaves, or needles.
- 3. **Making camp.**—Before building a fire, scrape away all inflammable material from a spot 5 feet in diameter. Dig a hole in the center and in it build your camp fire. Keep your fire small. Never build it against trees or logs or near brush.
- 4. Breaking camp.—Never break camp until your fire is out—dead out.
- 5. Brush burning.—Never burn slash or brush in windy weather or while there is the slightest danger that the fire will get away.
- 6. How to put out a camp fire.—Stir the coals while soaking them with water. Turn small sticks and drench both sides. Wet the ground around the fire. If you can not get water, stir in earth and tread it down until packed tight over and around the fire. Be sure the last spark is dead.



