

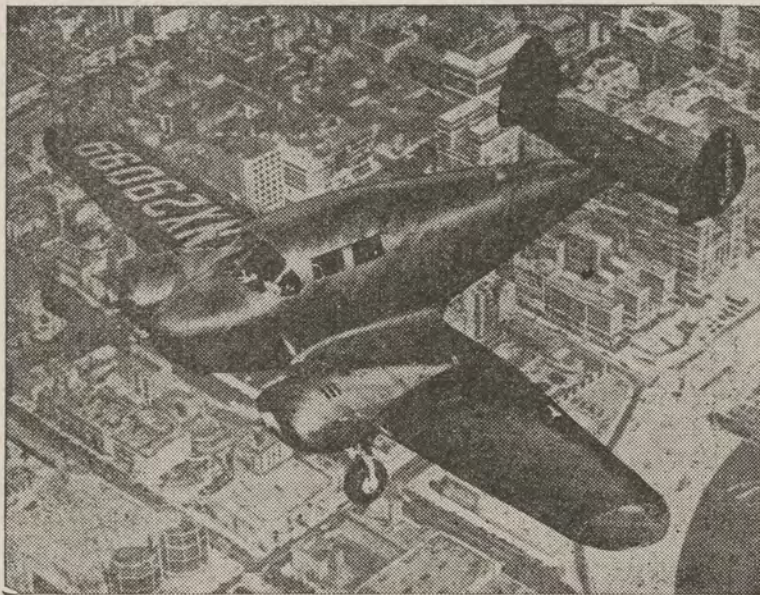
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Texas Forest News

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Vol. XXII, Nos. 3 and 4 TEXAS FOREST SERVICE, A. & M. COLLEGE

March-April, 1942



MOLDED WOOD provided the principal material used in this new-type plane shown soaring gracefully over New York City. This model was built by the Langley Aviation Corporation at Port Washington, N. Y. Other planes of the same materials are to be used by the U. S. Army for trainers. From 400 to 500 a month will be built.

New Airplane Is Built of Plywood

To Produce 400 a Month to Train Army Pilots

New help for the U. S. Army in its race to build warplanes is on its way in the form of aircraft manufactured largely of molded plywood.

A decision of the War Department to use this material, obtained in abundance from the vast American forests, in the manufacture of wings, fuselages and stabilizers for training planes, means that thousands of
(See WOOD PLANE, on Page 8)

WHERE LUMBER GOES!

United States lumber consumption for 1942 will total 35 billion board feet, with the bulk going into direct and indirect war uses and essential civilian needs, according to an estimate by the U. S. Bureau of Foreign and Domestic Commerce.

The total consumption is expected to be made up as follows:

General construction	50.9%
Boxes and crates	17.2%
Army construction	7.8%
Industrial consumption	6.3%
Navy construction	2.1%
Maritime construction	1.7%
Exports	1.1%
Aircraft	0.2%
Other consumption	12.7%

AAA Forest Plan Is Proposed for Etex Farmers

Allotment of 25 Cents For Each Woodland Acre Is Suggested.

A proposal that would add almost \$1,000,000 to the benefits received by farm woodland owners from AAA allotments is now being sponsored in 40 East Texas counties by county land use planning committees and other agencies.

The plan provides for a base allotment of 25 cents an acre to be paid to farmers who apply forestry practices to their woodlands which include improving the condition of the woodland, proper cutting of the timber crop and protection from fire.

The suggested allotment for woodlands will not affect the payments now being made by the AAA on annual crop lands or pastures, it is said. Instead, it will mean an opportunity for greater AAA allotments per farm because of the added acreage afforded by the land in timber crops.

The present base allotment from which AAA payments in East Texas are computed, is 70 cents for cropland and 11 cents for pasture. On a farm of 250 acres, with 40 acres in cropland, 60 acres in pasture and 150 acres in timber the farmer's benefits under the proposed AAA plan would thus be more than doubled.

A comparative range program is being operated by the AAA in West Texas and payments are authorized
(See FOREST PLAN on Page 6)

Texas Provides Stiff Penalties for Forest Fire Law Violators

Seventy men and women in East Texas have been convicted of illegal woods burning in the period from January 1 to March 31. Most of the fires were started accidentally from brush burning, according to records of the Texas Forest Service.

With America needing timber for the war program, county law enforcement officials are becoming increasingly strict in prosecuting those who burn timber through malicious intent or carelessness.

Fines assessed ran as high as \$65.25. State laws provide penalties up to \$300 fine and one to three year prison terms for persons convicted of wilfully or negligently allowing fire to burn over woodland or prairie not their own.

Ages of the offenders ranged from 18 to 75. The record shows 45 whites and 25 negroes among those convicted.

Nearly 70 percent of the fires were the result of brush, grass or debris burning, with malicious burning accounting for most of the other fires.

Newton county had 12 persons convicted of causing fires during the 3-month period; Cherokee County, 11; Nacogdoches County, 9; Hardin County, 6; Jasper County, 6; Polk County, 5; Angelina County, 6; Anderson County, 3; Houston County, 3; and Marion County, 2. One person was convicted in each of the following counties: Bowie, Harrison, Morris, Panola, Rusk, Shelby, and Tyler.

War Basis for Fire Protection Is Asked

Critical Areas Not Adequately Prepared, President Told

President Roosevelt has been asked to place the nation's forest protection forces on a war footing to meet imminent danger to vital war industries from forest fires set by saboteurs and by aerial bombing. The appeal was made by W. S. Rosecrans of Los Angeles, president of the American Forestry Association, in submitting to the President a resolution by the Board of Directors of that organization.

Adequate preparedness to prevent and deal with great outbreaks of forest fires, particularly in areas critical to the nation's war operations, is not now assured, Mr. Rosecrans declared. "The situation and the need of being prepared to meet it," he said, "transcends all other responsibilities of forest protection agencies—federal, state and private. It calls for their undivided effort and for emergency men and money sufficient to assure effective patrolling of critical areas and prompt location and extinguishment of fires."

Mr. Rosecrans stated that \$15,000,000 are needed for the employment of emergency forces and the purchase of equipment to meet the urgent situation confronting forest protective agencies.

Farmers Receive 50,000 Seedlings from Paper Firm

Fifty thousand forest tree seedlings were distributed without cost during February by the Texas plant of Champion Paper and Fibre Company to Montgomery County farmers who have supplied pulpwood for its mill.

The purpose of the gift was to interest farmers in growing crops of timber on their idle or poorer lands, according to E. J. Downey, forester and wood procurement manager for Champion. The trees were distributed by pulpwood contractors and were purchased from the nursery managed by the A. and M. College Texas Forest Service.

C. G. Cliburn, Montgomery county agent and Oscar Jones, chamber of commerce manager, assisted Champion's local pulpwood contractor, Reagin Smith, in distribution of the trees.

Veneer plants in East Texas convert nearly 36 million board feet of wood each year into baskets, crates, boxes, tomato lugs, and venetian blinds,

NEWTON HERALD FEATURES SPECIAL FORESTRY ISSUE

The February 12 edition of the Newton Herald featured forestry with seven special articles, an editorial and five pictures. Its editor, N. O. Burnaman, who is also a member of the Texas legislature, expressed the opinion in his editorial column that "few things could be done in this area that would be more helpful to the nation's war effort than to speed up timber conservation and timber growing."

Editor Burnaman is a vigorous forestry supporter, and has been commended for his untiring educational efforts by Texas Forest Service officials.

SCHOOL PLANTS PINE TREES

With 100 slash pine seedlings donated to them by J. M. Turner, Texas Forest Service division patrolman for the southeast Texas district, the Magnolia Springs colored school in Jasper County has started a tiny plantation in the school yard for the education of the children and of the community.

NAZIS "ORGANIZE" FORESTRY

A commission for "mutual consultation" relative to forestry and forest products questions, was created by agreement in Berlin on January 23, 1942, involving Denmark, Finland, Germany, Sweden, and ultimately other European countries according to an announcement from the Swedish Foreign Office in Stockholm. The Commission will reside in Berlin.

Fuelwood represents about 15 percent of the annual timber production in Texas.

MARCH-APRIL, 1942

TEXAS FOREST NEWS

Texas War Board Outlines Rules on Timber Cutting

Asks Farmers to Observe Forestry Practices for Duration

The Texas U.S.D.A. War Board has asked East Texas farmers to observe a set of simple self-regulatory forestry practices for the duration in order that adequate timber supplies may be assured for war use and the post war reconstruction program.

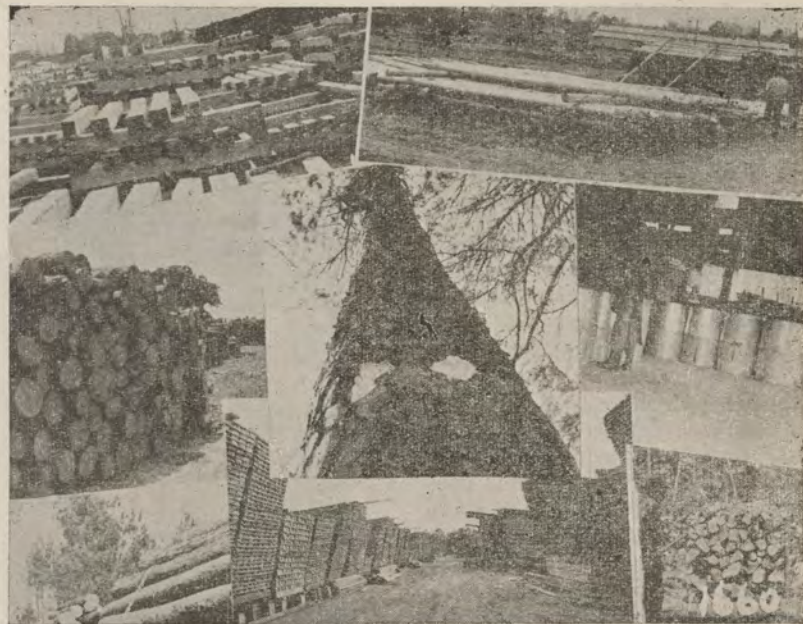
Action on the proposal was taken at A. & M. College during a recent meeting of representatives of the United States Department of Agriculture who comprise the War Board.

Four recommendations are included in the War Board's forestry program, as follows:

1. Keep fire out of the woods at all times. Fire kills young trees, damages larger ones and slows up the growth.
2. Cut limby, crooked, badly fire scarred, and low quality trees of all sizes as soon as they can be sold or used.
3. A cut for thinning should be made when the tops of trees are crowded on two or more sides. No tree should be cut for thinning unless it is large enough for use or sale.
4. Do not cut high quality trees less than 12 inches in diameter unless a thinning is needed. It is more profitable in the long run not to cut trees under 16 inches except for thinning purposes. Select and mark all trees that are to be cut. Measure diameter 4½ feet above the ground.

The practices are not mandatory and no attempt will be made to enforce them, but they are in line with other agricultural practices which the War Board has drawn up and which are being generally followed by Texas farmers.

Heavy timber cutting, particularly of small-sized trees, led the War Board to adopt and recommend the forestry practices.



FOREST PRODUCTS valued at \$50,000,000 were cut from East Texas forests last year, when industries stepped up production 20 percent over previous years in order to fill important orders for defense and war materials.

The statement appearing with the board's recommendations reads as follows:

"The farmers of East Texas are making a great contribution in helping to supply these timber needs, but the fact remains that not only will the war needs last for several years, but there will be a continued need following the war. The protection and wise cutting of timber has always been important, but in time of war it is absolutely necessary. Unless this is done East Texas cannot continue to supply its portion of forest products. To do this job it is the duty of every owner of timber to carry out the recommendations that apply to his woodlands."

Because of the preservative qualities of the cedar, the Egyptians used it for mummy cases, and it has proven wonderfully lasting. Carved figures of a supposed age of three thousand years have been taken from burial places and may be seen in our present-day museums.

Texas ranks sixth among the nation's lumber-producing states.

Auto Floor Mats Made From Wood by Houston Firm

Development of a new wood floor mat as a substitute for rubber mats which are used as floor covering in automobiles has been announced by a Houston, Texas, manufacturer.

The new mat is made of narrow slats of wood which are spaced about one-half inch apart and are held together by strips of rubber and cord webbing. The manufacturer says that the webbing used is reclaimed rubber and that he can foresee no shortage of this type of material.

The floor mat can be cut in various sizes to fit different types of cars.

Tests of the mat are being made by a number of Houston trucking firms and it is said that commercial production will be started by a Houston company in the near future.

East Texas forests furnish employment to 25,000 workmen and create wages of approximately \$25,000,000 a year.

Judging Contest Winners Named

Tree Seedlings Awarded to FFA Members

Six winners in the Angelina County FFA forestry judging contest, sponsored by the chamber of commerce and timber industries in co-operation with the Texas Forest Service, were each awarded 2,000 slash pine seedlings early in March.

The contest was held to stimulate an interest in tree planting and general forest protection among the younger boys of the county, D. W. Thompson, president of the Lufkin Chamber of Commerce said.

Forty boys from five schools entered the contest and the five winners in each school were given 1,000 seedlings each. These twenty-five youths then competed in the final round from which the six winners were picked.

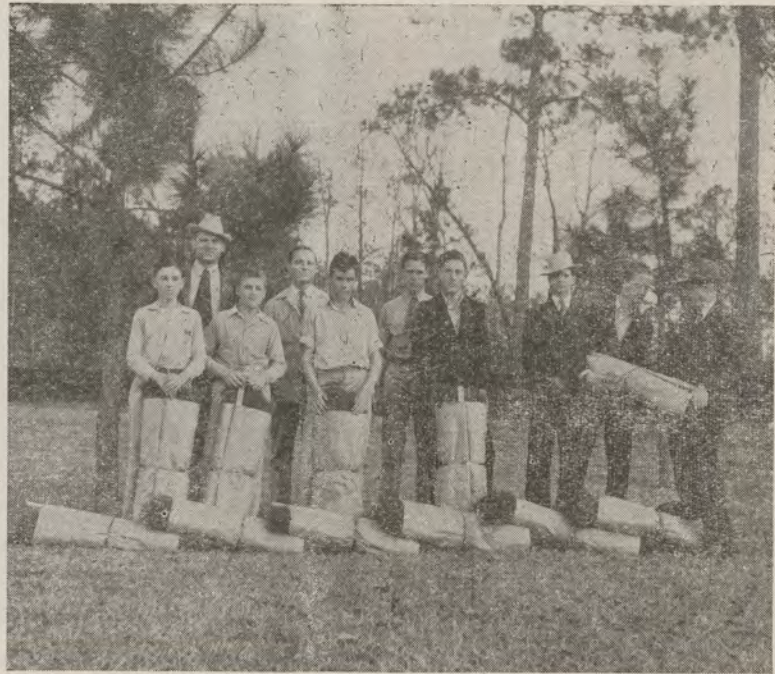
To qualify, the boys were given exercises in measuring standing timber and estimating trees to be cut by the selection method.

Next fall, the chamber of commerce will award \$30 in cash prizes to the three youths who have the best survival of trees.

The winners of the spring contest were Frank Evans, Huntington; Arlibee Conner, Lufkin; Frank Price, Huntington; Billy Thomas, Lufkin; Joel Parott, Jr., Pollok; Benny Bonner, Hudson.

Stain Control Fails if Dipping Delayed

Long storage of logs prior to milling, and holding of green lumber before dipping in protective chemical are reported as chief reasons for the apparent ineffectiveness of some efforts to control fungus stains in seasoning lumber. In the South, green lumber should not be left untreated more than twenty-four to forty-eight hours, which is frequently exceeded when green lumber from portable mills is taken to a concentration yard for treatment and seasoning.



WINNERS OF THE FORESTRY CONTEST staged in Angelina county by the chamber of commerce and timber industries are presented 2,000 forest tree seedlings each by W. E. White, vice-director of the Texas Forest Service. The contest was held among the FFA schools in the county and the contestants were given problems in timber estimating and selective cutting.

Wood Gas Supplies Power to Operate Vehicles in Sweden

At least 100,000 wood gas generators were in use in Sweden in August 1941, operating tractors, trucks and automobiles.

A sensational increase in the use of generators to displace gasoline occurred after April 1940, when only 1,500 were in operation.

The basic principle of the gas generator is to heat the wood, cool and filter the resulting gas, and mix with proper amounts of air before passing into the motor. Such gas has a lower power factor than gas from gasoline or kerosene. Engines using wood gas develop from 65 to 75 percent of their normal power.

About 11,500 cords of Texas wood are used each year in producing barrel staves.

MISSISSIPPI GROUP BACKS FORESTRY HARVESTING ACT

The Mississippi Forestry and Chemurgic Association endorsed the proposed forestry harvesting act for Mississippi in a meeting at Jackson on February 12.

The act if passed by the Legislature, will insure leaving seed trees of desired species on all acres of forest land now bearing growth, and will set minimum regulations to prevent stripping or denuding lands of young growth which must be depended upon for future timber supply.

The locust tree is said to have provided thorns for the crown of Christ. The Buddhist, to whom it is sacred, burns its wood on his altars; and a species of it, known as the sami, is used by Hindus in the ceremonial begetting of fire for sacrifices.

Lots of Paper Is Needed In Uncle Sam's Big Boats

Planning and building a battleship of the huge Massachusetts class requires the use of 100 tons of paper, according to information painstakingly amassed from authoritative sources by the Chemical Paper Manufacturing Company, of Holyoke, Massachusetts.

The weight of blue-prints alone, including tracing paper used in original layouts, is approximately sixteen tons. To this is added the tremendous amount of paper used by the thousands of sub contractors involved in the construction of the vessel. There is also a vast amount of contract and sub-contract work and of cross correspondence.

Among the many uses of paper are letterheads, carbon copies, envelopes, contract paper, contract copies, engineering tracing paper, note paper, paper used for departmental and inter-office communication, graph paper, stencil and mimeograph paper, black-and-white or other process prints of preliminary sketches and of tracings, notebook paper, paper used in intricate processes of accounting and finance, paper used in production, for routing cards, charts, and time cards, paper used in crating, packing, and shipping and finally a small amount of paper which is actually used in construction.

FOREST FIRE LEAFLET ISSUED

The Southern Pulpwood Conservation Association of Atlanta, Georgia has released a small six page colored leaflet on forest fire prevention which is being distributed throughout the southern pine states.

Forest Fires the South's Great Enemy, the leaflet is called, has been highly praised by forestry officials who are particularly impressed with the color photographs illustrating burned and unburned woods.

Five thousand of the leaflets were given the Texas Forest Service, and these are being distributed from the lookout towers in East Texas.

Pine Tar Extraction Becomes an Important Wartime Industry

Pine tar extraction from southern pine knots and stumpwood has become an important war industry.

The tar is used in large quantities in the manufacture of rubber tires and in building wooden boats. Turpentine and rosin may also be distilled from the stumpwood.

One area in Louisiana is reported supplying from 12 to 15 carloads of stumpwood a week for pine tar distillation, with sales prices varying from 50 cents to \$1 an acre of stumps.

As yet there is no commercial utilization of stumpwood in East Texas. Texas Forest Service reports indicate, however, that there is an ample supply of stumps available in the long-leaf pine area of southeast Texas for use by such an industry. The amount

of suitable stumpwood is estimated at about two million tons. It is estimated that there is enough long-leaf pine stumpwood to furnish an industry 78,000 tons yearly for 25 years.

A process for making pine tar locally by the simple method of putting the wood in piles, covering with dirt and charcoaling the wood, is being followed by one Louisiana resident. A trench under the wood pile carries the tar to a pit in the ground from where it is ladled into barrels. The charcoal is sold at 40 cents per pit, and 30 to 40 barrels of tar is secured from a 30 cord pile of wood. The tar secured by this process is said to command a premium price on the market, although there is a loss of the products that can only be saved by distillation.

California Pledges Large State Fund for Disaster Use

The California state legislature has made a special appropriation of \$4,022,750, as a part of the state disaster master plan, which has been turned over to State Forester M. B. Pratt for administration, and will be used in connection with protecting forest resources from fire and in cooperation with U. S. Army in aircraft warning service. The funds can be used in any part of the state, either within or outside municipalities. Many lookouts in the state have already been manned in the intercept or service and salaries are being paid out of this fund. Six hundred thousand dollars of the appropriation was earmarked for equipment purchases and these orders have already been sent in. This appropriation is in addition to any of the regular funds that are made available to the department.

About 1½ billion board feet of wood are used in Texas each year.

HYBRID TREE PLANTATION IS MAKING RAPID GROWTH

One-year-old hybrid poplars planted at State Forest No. 1 in Newton County have grown from five to seven feet since last February, the Texas Forest Service reports.

Twelve varieties, amounting to 574 trees, were set out and only four have died. The plants were furnished by the Dow Chemical Company, which is experimenting with various trees to find a fast-growing cellulose producer.

Hybrid poplar is related to southern cottonwood, which is native to Texas. It is valuable for paper pulp, veneer, excelsior, and cellulose for plastics.

NATIONAL FORESTS PLANTED

A total of 145 million trees were planted on national forests during 1941 to reforest 151,337 acres, according to U. S. Forest Service reports.

The 1941 planting brought the total amount of national forest land reforested to 1,157,000 acres, of which 61,365 acres are in the southern pine region.



POST OAK FORESTS like the one above occur in all or parts of 53 central East Texas counties, occupying 40 percent of the land on an area of nearly 12 million acres. The timber is highly important as a source of fuelwood and materials for general farm use. It has high potential value for plastics and other chemical products. The total volume is estimated to run 33 million cords.

Lumbermen Invent Blackout Sprinkler

Lumbermen on the West Coast have developed an inexpensive sprinkler system that will completely blackout sawmill refuse burnings in less than five minutes.

The blackout effect is created by releasing sprays of water under pressure on the fire which immediately forms a blanket of steam and smoke over the burning material. Five minutes after the water is turned off the refuse again burns, it was reported.

Information on the blackout sprinkler may be obtained from the Willamette Valley Lumberman's Association, Eugene, Oregon.

Such items as battleship decking, motor torpedo boats, laminated airplane propellers, structural sections for training planes and boxes and crates for bombs and shells are made of wood, that magic material of the forest.

FOREST PLAN—

(Continued from Page 1)

for conservation practices on range type lands.

If the plan is adopted, it will mean that almost 4,000,000 acres of farm owned timberland which is approximately one half the total farm area of the piney woods region will qualify for the AAA allotments. At the present time this land area is not directly included in the AAA program though the importance of good forestry is recognized through certain payments which may be earned for forestry practices as part of the soil building program. This proposal is viewed as bettering a situation which has until now worked against the farmer who owns much timberland.

The Texas State Land Use Planning committee at its October meeting adopted a resolution endorsing the proposal and submitted a copy of the plan to the Secretary of Agriculture, Claude Wickard. Similar action has been taken in several other southern states, it is reported.

Smith County Boys Plant 125,000 Trees

4-H Clubs Organize Reforestation Program on Farms

Smith County 4-H Club boys and their dads planted 125,000 forest tree seedlings during December and January. The credit for this accomplishment is largely due the boys, who organized a campaign to interest their dads in cooperating with the reforestation program of the Texas Forest Service and in taking advantage of the AAA allotments for tree planting.

The Texas Extension Service and other agricultural workers in the county gave planting demonstrations and assisted in the planting program.

About 90 percent of the trees planted were slash pine, which has been proved to make excellent growth in Smith County. During the preceding planting season of 1940-41, about 10,000 of these trees were set out with a survival of from 75 to 85 percent at the present time.

It is estimated that the trees planted this year will be worth several thousand dollars in 1960 if fire is kept out of the plantations and the products are harvested properly.

Visitors Interested in Lookout Towers

The Texas Forest Service reports that 1,100 people visited the fire observation tower at State Forest No. 1 during 1941.

Visitors included citizens from surrounding communities, groups using the camp facilities on State Forest No. 1, and a number of people from various parts of the state.

The other 72 lookout towers operated by the Texas Forest Service also report a number of visitors, indicating that the towers are of interest to Texans.

Many people, after inspecting the towers, sign volunteer forest fire guard agreements, in which they pledge their cooperation in the fire protection activities of the Service, towermen report.

MARCH-APRIL, 1942

TEXAS FOREST NEWS

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Experimental Plantings of Cork Tried by Texas Forest Service

Fifty cork oak seedlings furnished by the Crown Cork and Seal Company of Maryland are being planted by the Texas Forest Service at State Forest No. 1 in Newton County as part of a long range project designed to determine the adaptability of this foreign tree to Texas soils.

Cork oak is important as the commercial source of cork, a shortage of which is causing concern in parts of the government's rearmament program.

The tree resembles the Texas live oak, but is not native in the United States. It grows within a limited area along the coast of the western Mediterranean. Successful plantings have been made in California which yielded 10,000 pounds of cork in 1940.

Acorns from these trees, sent to Texas from the University of California early in the year, were planted by the Texas Agricultural Experiment Station and the seedlings will be distributed to experiment station farms and state forests.

Cork is used by the Army to make gaskets and washers for engines, in airplanes, motor vehicles and tanks,

for cartridge plugs and bomb parts, and for cold storage insulation. The Navy also uses it for life preservers and to prevent sweating in submarines.

The bark can be harvested from trees as young as 15 years old, but the suitable stripping age is nearer 20 to 30 years. The bark is harvested every six to eleven years. Young trees generally produce the best quality cork.

In the United States about 69 percent of the cork utilized goes into refrigeration on account of its being a poor heat conductor.

Cork is used widely for gaskets and washers for engines, which account for about 15 percent of the total consumption.

Another 11 percent goes into linoleum.

Other uses for cork include bottle stoppers, life preservers, buoys, floats and inner soles for shoes.

In 1940, the United States bought 318,336,000 pounds of unmanufactured cork, but imports fell sharply in the first quarter of 1941 with the blockade of many European ports.

In June, the OPM took over control of the industry because of the serious cork shortage.

Better Utilization Of Timber Crop Is Recommended

The Texas Forest Service recommends more complete utilization of the timber which is cut in East Texas, as a means of increasing the income from forest lands.

The Service advises cutting tree stumps as low as practical—12 inches or less. This will give the owner that much more clear wood.

The owner should utilize all of the tree possible. Logging tops, crooks, and slabs are often left to rot in the woods. By using these "left-overs" for posts, pulpwood, and fuel, the owner can increase his cash income.

Farmers and timberland owners are urged to do as much of their own woods work as possible. Then they will be certain that they are getting the most valuable products from their timberland, and at the same time are not damaging the young growing stock. Work in the woods will also provide a profitable use for the farmer's spare time, as he will be earning the labor wages himself rather than having someone else get them.

Extension Service Urges Fire Control

District Agent George W. Johnson of the Texas Extension Service is lending the Texas Forest Service some valuable assistance in forest fire prevention.

He recently sent letters to all his East Texas county agents asking them to start organized group action in their counties which would have as its aim the elimination of careless methods of burning fields and new grounds.

The action was taken following an outbreak of a number of woods fires which had started from burning fields.

District Agent Johnson is entirely familiar with the forest protection work having been in charge of this activity for the Texas Forest Service when it was first started in 1916.

Folding Barracks Is Designed for Army

Plywood "folding barracks," designed by a San Francisco architect, may be adopted by the U. S. Army to serve as quickly erected, portable housing for troops.

The barracks use only 6 standard units, including a hinged roof. The units are made in 3-foot sections so that any number may be bolted together to make a room of the desired length. For example, three sections will make a room 9 feet long; ten sections will make a room 30 feet long.

The buildings may be easily erected by two men. The roofs are double with space for insulation so the bar-

FIRE DESTROYS SAWMILL OF J. S. HUNT COMPANY

Fire destroyed the sawmill of the J. S. Hunt Lumber Company at Wilis, Texas, on February 14.

Damage was estimated at more than \$35,000. The mill was partially covered by insurance. New machinery and equipment will be installed immediately, according to J. F. Muller, mill superintendent.

The mill, built in 1926, had a capacity of 40,000 feet daily.

racks can be used in the tropics or snowy areas.

Cost of the portable barracks is said to be only \$1 a square foot, as compared to \$3 or \$4 a square foot for stationary barracks.

3,500 Students Are Entered In Contest

School Youths to Submit Forestry Posters and Essays

Thirty-five hundred boys and girls enrolled in schools in Angelina, Newton, Jasper and San Augustine Counties, are competing for defense stamp prizes to be offered for the best posters and essays submitted on the place of forestry in the war.

Prizes, valued at more than \$200, include defense stamps and wooden plaques inscribed with the poem "Trees."

The contest in Angelina county is being sponsored by the Lufkin Chamber of Commerce, and by the Lion's Club in Jasper, Newton and San Augustine Counties. School principals are arranging the details of the contest within their schools and have appointed judging committees.

The contest is divided into three groups according to school grades. Children in group one, which includes grades one to five, will submit posters. So will those in group two, which covers the sixth to eighth grades. Students in high school make up group three and they will enter essays.

The purpose of the contest, according to its originator, J. O. Burnside, assistant fire protection chief of the Texas Forest Service, is to promote a better understanding of the place of forest products in the war and thus to encourage care in preventing woods fires.

It was started in Angelina and San Augustine counties in 1941. More than 1,000 children entered these two contests.

Other East Texas counties are reported to be organizing contests this year.

Details on the contest may be obtained by writing the Texas Forest Service, Lufkin, Texas.

One factory in East Texas produces 20 percent of the Nation's broom handles. Most of the material comes from slabs and edgings of a local sawmill.

TFS-15-10M-11-36

TEXAS FOREST SERVICE

VOLUNTEER FOREST FIRE GUARD AGREEMENT

Realizing that forest fires lower the value of woodlands by damaging mature timber, by impoverishing the soil and driving out game, I, therefore, agree to take the best measures to protect my woodlands against forest fires, as well as preventing forest fires.

1. I will aid in forest fire prevention work.
2. I will practice the instructions for preventing forest fires as outlined on back.
3. I will take immediate steps to extinguish fires occurring on my woodlands.
4. In the event of a forest fire on my place that cannot be controlled with the help of my own forces, I will immediately notify the nearest employee of the Texas Forest Service.
5. Whenever possible I will assist the Patrolman in extinguishing fires.

I own 100 acres of forest land in J. R. Brown County Angelina State TX

I rent — acres of forest land in — County — State —

I do not own or rent any land (Check X) X Business Farmer

Address Lufkin, TX

Signature John Smith Date —

Forest Service Employee —

VOLUNTEER FIRE GUARDS enlisted by the Texas Forest Service in the pineywoods sign agreements similar to the one above in which they offer help in controlling forest blazes. Four thousand, mostly farmers, have signed up so far.

WOOD PLANE—

(Continued from Page 1)

tons of aluminum which otherwise would have been required for these craft, can be diverted now to other war uses. At least 400 plywood planes are to be produced monthly, according to the American Forest Products Industries.

A series of tests have shown that molded plywood is stronger than aluminum on a basis of equal weight. Much of this strength is accounted for by recent improvements in synthetic glues used to bind together the cross-layers of thin wood strips which form the basis of plywood construction. These modern glues, laboratory tests have proven are water proof, permanent, and stronger than the wood itself.

Another technological factor is the discovery of improved methods for molding these glue and wood materials into almost any shape or form desired.

Some leaders in the aviation industry even go so far as to predict that within the next few years molded plywood will almost entirely supplant the use of metals for the frame-

PICTURE UNIT SETS RECORD

John R. Thigpen, Texas Forest Service educational assistant, made an educational record on January 22 by giving four forestry motion picture programs before a total audience of 1,575 people in Conroe and Montgomery.

During the month of January, Mr. Thigpen gave 36 lectures and motion picture shows in Montgomery County before 6,446 people.

Just prior to the Battle of Waterloo, the English paid \$3,000 for a single walnut tree for gunstock use; the French, a few months earlier paid \$6,000 for one and placed an embargo on all shipments of this wood.

work of not only the small planes but also the giant transports and bombers.

The known ability of the forests to supply abundant and inexpensive materials, they say, may prove to be the deciding factor in the postwar years in realizing the long-heralded age when "airplanes will be almost as common as automobiles."

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Vol. XXII, Nos. 5 and 6 TEXAS FOREST SERVICE, A. & M. COLLEGE

May-June, 1942

Rubber Source Scouted In West Texas



RUBBER CAN BE OBTAINED from this guayule plant which grows wild in West Texas. Above the average, it measures 30 inches high and from 6 to 10 ounces of rubber could probably be extracted. It was photographed by a party of A. & M. College and U. S. Department of Agriculture scientists who conducted a joint survey of the Trans-Pecos region of Texas to determine if there was enough guayule there to warrant plants to extract the rubber.

Faster Drying of Hardwoods Sought

Study in Chemical Seasoning Started at Lufkin

Forest products technicians of the A. and M. College Texas Forest Service have started a study in cooperation with the East Texas lumber industry

aimed at shortening the time required to season hardwood lumber, consistent with a minimum amount of destructive effects, so that greater quantities of this material may be turned out quickly for war use.

The project was launched in May at the Forest Products Research laboratory maintained by the Texas Forest Service at Lufkin and E. W. Stark, chief of the division, states that positive results should be obtained within six months.

(See HARDWOODS on Page 7)

Cooperative Survey Is Made of Guayule Area

Approximately 2,500 tons of guayule (pronounced "why-you-lee"), North American rubber producing shrub, are located in the Trans-Pecos region of West Texas, according to the findings of a survey conducted in April by the United States Department of Agriculture, with Texas A. & M. College cooperating.

Arrangements for the survey were made with the USDA by Dr. T. O. Walton, president of A. & M. College and William C. King of San Antonio.

Details of the survey were outlined under the direction of E. O. Siecke, director of the Texas Forest Service. C. K. Cooperrider of the United States Forest Service had charge of the field force. The Texas Forest Service was represented on the field explorations by D. A. Anderson, chief of the division of silvicultural research.

Other branches of the college participating in the survey included the Extension Service and the Agricultural Experiment Station. Assistance was also rendered by the Soil Conservation Service of the USDA. Several citizens familiar with the Big Bend area were called in and the help of ranchers in the region enlisted.

The greatest concentrations of guayule were found generally south of U. S. Highway No. 90 which runs through Marfa, Alpine and Marathon but areas of the shrub were also discovered as far north as Ft. Stockton.

(See GUAYULE on Page 6)



Courtesy U. S. Forest Service.

Wood Goes to War

Winning a war is the nation's big job today. America's forests, like America's people, are all-out for furnishing the needed wood materials.

Lumber for construction of barracks and other buildings; timber and wood products for ships and planes; and the many by-products of the forest such as paper, plastics and wood cellulose are just a few examples of the thousands of ways in which wood goes to war.

Probably more than three-fourths of Texas timber production is being turned into war use and some companies report that as much as 90 per cent of their volume is slated for this purpose. This is a tremendous quantity considering that last year's tim-

ber cut for the state reached an estimated 2¼ billion board feet, the highest cut recorded since World War 1.

Some authorities have reasoned that aside from other favorable factors it is logical to assume that Texas timber resources and sawmill facilities were significant points in locating so many military camps in the state.

To keep the war machine moving is undoubtedly causing a heavy drain on East Texas pine and hardwood forests. Both foresters and industrial operators are concerned over how long this drain can last at the present rate without seriously impairing the future producing capacity of the timber belt. To help offset this drain they recommend a complete "blackout" of forest fires and the use of cutting practices that will

Bark From Trees, Wool From Sheep Make New Cloth

California's giant redwoods, biggest living things in the world, have been hitched to sheep by the ingenuity of the industrial scientist to produce a new cloth—a mixture of sheep's wool and redwood bark. Discovery that redwood bark short fibers interfelt and intermat with wool fibers was made by the research staff of Pacific Lumber Company.

The process was taken to the American Woolen Company, which produced fabrics using 30 to 40 percent bark, similar in appearance to woolen fabrics. The cloth was said to be lighter weight than regular woolen suiting and blanket material. Hats can be made of the blended fibers. The lumber company officials said they believed that was the first time any vegetable product had been found to possess felting characteristics.

Cars in Germany Drive on Wood Gas

In Germany it is reported that 231,000 cars burn wood instead of gasoline. The latest Nazi engines will even run on soft, wet wood, instead of the hard, pre-dried variety necessary a few years ago. More than 1,000 "filling" stations sell chips in 30 to 60 pound packages and 25 pounds give about the same mileage as a gallon of gas. Sweden and France also run cars on wood. In France wood is so scarce that it is rationed and to fuel their trucks Paris officials have even cut down the famous trees in the Bois de Boulogne and ripped up the wooden paving blocks in the Place de la Concorde.

avoid as much waste possible consistent with supplying the needed amount of timber.

Pulpwood Buyer Issues Leaflet

Tells Farmer How to Cut Timber Profitably

A four-page circular outlining suggested ways to harvest and sell pine pulpwood has recently been prepared and issued by C. Y. Townley, Walker County, timber contractor, whose wood goes to the Champion Paper and Fiber Company at Houston.

The circular prepared at Mr. Townley's own expense is intended, he says, to help guide farmers and other timberland owners in his territory in the proper ways of selling their timber.

Mr. Townley advises in his circular to cut pulpwood selectively stating

that "unless trees are cut today with concern for the future and timberlands are protected from fire our forest industries will be short lived and the money from their pay rolls will cease to flow in our local towns and villages."

Another suggestion Townley offers is that farmers sell their timber by actual measure rather than by lump sum.

"If the lump sum purchase is based on a fair and accurate estimate basis, this system is satisfactory; otherwise the timberland owner stands a good chance of selling his wood for far less than it is worth. It is strongly recommended that stumpage or wood be sold only on a cord or unit measure based on the actual amount cut," he said.

It is estimated that more than 100 technically trained foresters are now employed in the Lower South by private companies.

School Children Are War Stamp Winners

San Augustine Sponsors Second Annual Forestry Contest

Forty-five dollars in war stamps were recently awarded twelve San Augustine County boys and girls who had been judged outstanding among 1,000 school pupils taking part in a forest fire prevention poster and essay contest sponsored by the San Augustine Lions Club, County Judge R. N. Stripling reports.

The presentation ceremonies were conducted in the district court room April 17 and was the second annual forestry contest sponsored by the San Augustine Lions Club throughout San Augustine County. So much interest was shown by the students in the contest that the club plans to continue it annually.

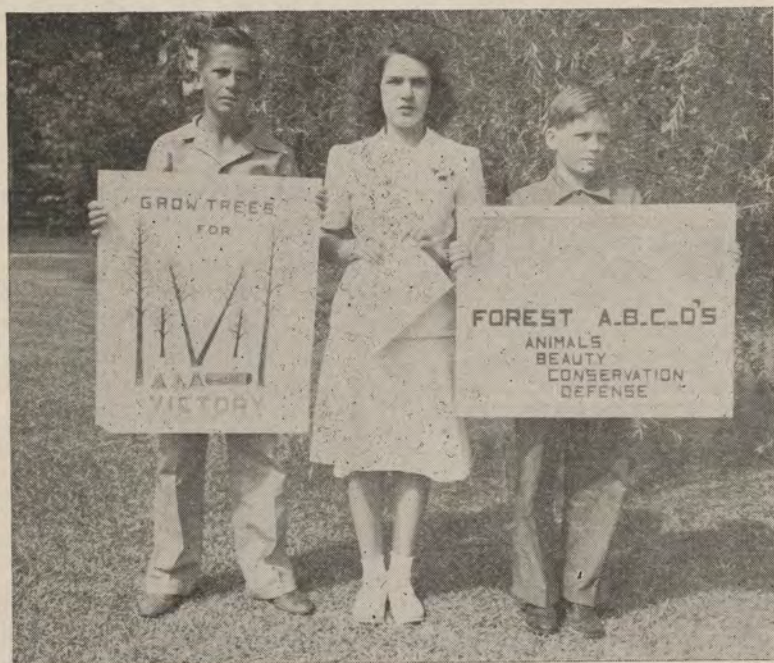
Companies owning timber in San Augustine County and the Texas Forest Service and U. S. Forest Service cooperated with the San Augustine Lions Club and county school officials in conducting the contest.

Forest Management Publication Issued

H. H. Chapman, professor of forest management at the Yale School of Forestry, is the author of a new bulletin, "Management of Loblolly Pine in the Pine-Hardwood Region in Arkansas and in Louisiana west of the Mississippi River." It represents the findings of 25 years of research by the author, who believes that most or all of the recommendations can be applied to forest stands throughout the loblolly pine range in the South.

The bulletin may be obtained from the Yale University School of Forestry, New Haven, Connecticut, at \$1 per copy.

Southern farm woodlands com-South occupy 12 times as much land as does cotton.



WINNERS IN A FORESTRY essay and poster contest sponsored in Angelina County schools by the Lufkin Chamber of Commerce in cooperation with the Texas Forest Service are shown above. Left to right are Doyle Kuehl, Huntington, (poster); Stella Francis Jennings, Lufkin (essay); R. P. White, Huntington, (poster). More than 1,000 school children took part in the contests. Prizes included \$45 in war saving stamps and wooden plaques with the poem, "Trees."

Wood Could Help Relieve Sugar Shortage

Simple Process Converts Sawdust Into Ethyl Alcohol and Sugar

American forests may soon make another contribution to United States security by helping to relieve the shortage of sugar.

The chemical process for producing sugar from wood is a simple one. Already increasing numbers of wood sugar factories are operating in Europe.

The present rationing of sugar is largely due to the wartime demand for alcohol, which is produced mainly from the more common sugars. The production of alcohol from wood sugar would release large quantities of cane and beet sugar for table use.

Wood sugar is fermented with yeast to produce ethyl alcohol. This is not the same alcohol obtained by distilling wood, but is identical with that produced from grain, fruit or molasses. It has wide industrial and wartime use.

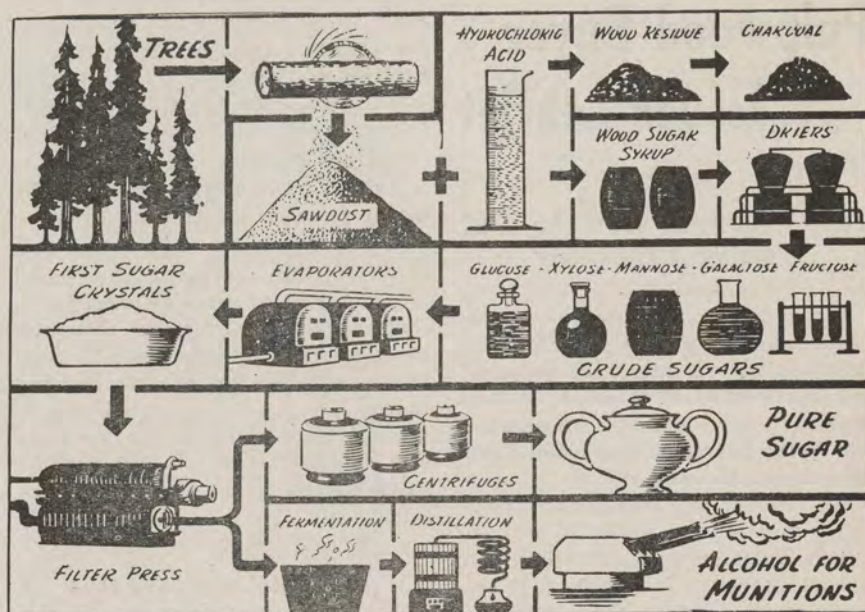
Sweden Makes Cattle Feed

The yeast preparations developed during the fermentation is also valuable. Its high nutritive value has led to its use as cattle feed. In Sweden 300,000 tons of wood cellulose are treated and used for stock feed each year. Plans are under way to use this method to preserve many Dutch and Danish cattle which were formerly fed imported rations.

Recently organized to manufacture yeast from waste sulphite pulp liquor under a new process, an eastern corporation plans early construction of a number of plants for this output, to be situated at strategically-located sulphite pulp mills in different parts of the country.

Utilize Sugars From Pulp Waste

These plants will operate under what is known as the "Heijkenskjoid"



—Courtesy of the "Timberman."

WHEN WOOD CHIPS are immersed in hydrochloric acid a soluble sugar results, leaving a solid residue which can be converted into pure charcoal. The sugar solution drawn off, dried and purified contains five wood sugars. These can be treated to produce either pure table sugar or a high grade of ethyl alcohol.

process for utilizing wood sugars extracted from sulphite liquors, for which American rights have been secured. From the same foreign source, other processes have been obtained for the manufacture of plastics, glue and fertilizer from paper mill waste, and by-product mills for this purpose will be a later development.

Two Yeast Plants Operate

Two of the yeast plants have already been constructed and placed in operation in Canada.

It is estimated that a ton of pine mill waste will yield approximately 65 gallons of ethyl alcohol. Although oak wood produces only about half as much alcohol as pine, Texas has 10,000,000 acres of non-commercial wood in the post oak region which might well be utilized for the production of wood sugar and alcohol, besides the sawdust and other materials from more than 400 sawmills in East Texas.

More than 13 million acres of industrially owned timberland in the South are being managed with the objective of continuous production.

Million Seedlings Is Alto Nursery Goal

Approximately one million forest tree seedlings are being grown at the Texas Forest Service nursery near Alto for planting next fall and winter.

Slash pine seedlings will make up the greater portion of the production, seed having been sown to grow 850,000 trees.

Other species include: longleaf pine, 50,000; black locust, 75,000; red mulberry, 25,000; catalpa, 30,000; black walnut, 50,000; and russian olive, 2,000.

The trees will be ready for planting in November. They will be sold at cost to farmers and other timberland owners who desire to start timber or fence post plantations on their properties.

Washington State's school principals recently endorsed a proposal to form a forest guard of high school students to protect the state's forest reserves against war time sabotage.

1943 Forestry AAA Practices Given Approval

Few Changes Made in 1942 Program; Add Measure on Firebreaks

Unanimous approval to continue last year's Texas AAA forestry practices during 1943 with one new additional practice has been announced by the state AAA committee. At its meeting of April 20 and 21 the committee endorsed the new program with minor changes and sent it on to Washington for final approval.

The new practice provides a payment of 10 cents per 100 linear feet for the construction of firebreaks around farm woodlands. The firebreaks must be at least 6 feet wide and must divide the woodland area into blocks of not more than 20 acres nor less than 10 acres. The area around which the firebreak is constructed must not be burned during the year for which payment is made to the farmers.

Practices Are Listed

Other farm woodland practices already in the AAA program and which were recommended to be continued in 1943 include:

Planting forest trees. Payment at the rate of \$4.50 for planting pine trees and \$6 for planting hardwoods. Special \$15 allotments may be secured for each farm without penalty to other soil building payments.

Cultivating planted trees. A payment of \$3 per acre is recommended for cultivating, protecting and maintaining forest tree plantations. This was increased from the \$1.50 allowed in 1942.

Improving forest trees. A payment at the rate of \$3 per acre is recommended for cutting practices designed to improve the quality of the timber on the farm woods by removing poor quality trees, thinning

Slides Show Texas Forests in Color for Lecture Use

Miniature color slides showing East Texas forests, industries and forestry activities in the state are being assembled for lecture use by technical employees of the Texas Forest Service. A series of 85 slides has already been prepared and these will be added to in the future.

The slides are made on natural color film, mounted in glass and are approximately 2 inches square. They are used in a small projector which is easily carried and set up and only weighs nine pounds. No special training is required to operate the machine.

It is intended that the slides will be used in lectures to civic groups, at schools, general meetings, farmer gatherings and for technical conferences.

A number of showings already given by members of the Texas Forest Service have been favorably received.

TEXAS IS SECOND HIGHEST USER OF FUELWOOD IN U. S.

Annual fuelwood consumption in Texas is estimated to total about six and a quarter million cords. Only North Carolina shows a higher consumption. Total fuelwood used in the country in a year's time amounts to more than 100 million cords.

crowded stands and pruning limby timber.

Woodland Base Approved

The state AAA committee also approved the resolution already adopted by 40 East Texas county AAA committees to establish a woodland base of 25 cents an acre for forestry practices conducted on farm-owned forest lands in the pineywoods region.

These recommendations have been sent to Washington where they will be given careful consideration in the preparation of the 1943 Texas AAA Handbook, which goes into effect on the first of December.

Tree Book Used in Survey of Great Etex Oil Fields

Forestry played its part in defining the boundaries of East Texas' great oil field, Arch Clark, chief engineer, Sun Oil Company, Dallas, tells the Texas Forest Service.

Mr. Clark reports that four surveying units of his company have been using "Forest Trees of Texas", a bulletin issued by the Texas Forest Service, for years as a guide in identifying witness trees in surveys of the oil field.

At the time the company first applied for a copy of the bulletin several years ago, the supply was exhausted, except for one copy. He had this photostated for his survey crews.

Recently, Mr. Clark sent the Texas Forest Service one of the photostatic copies made by his company with the following comment: "To illustrate the high regard that the manual has, I should like to ask you to inspect and keep the copy we have used through the years. It is one of the four copies made at the beginning of the East Texas oil field."

Director Siecke has placed the bulletin in the museum of historic publications maintained by the Texas Forest Service at A. and M. College.

"Forest Trees of Texas" has been one of the most popular bulletins issued by the Texas Forest Service. It contains descriptions of 92 of the most common 225 different tree species in Texas. It was revised in 1937 and copies may be obtained at a cost of 15 cents singly or 10 cents each in lots of ten or more. This charge is made to help cover printing costs.

SOUTH HAS 20 NURSERIES

Approximately 20 forest tree nurseries, operated principally by public agencies, are situated in the Lower South and are producing more than 120 million trees each year. In terms of public expenditures and in public interest, the production of nursery stock ranks high among southern forestry activities.

Timber Growth on Pineland Is Studied

Annual Rate of 233 Board Feet Found in Farm Survey

Timber growth of pine on Angelina County farms averages 233 board feet an acre each year, according to a survey by E. A. Heers, project forester of the Angelina County forest farming project.

Rate-of-growth measurements were taken on 21 pine tracts by Mr. Heers during the last 18 months in connection with his regular work with farmers on his project. The timber varied from heavily cut-over stands to better-than-average stands on good soil, although none of them were fully stocked. Annual growth on the timberlands ranged from 83 board feet to 386 board feet an acre with one tract of old field pine on bottomland showing an annual increment of 601 board feet to the acre.

In the entire East Texas pine region, average growth on areas with a fairly good stocking ranges from 100 to 150 board feet an acre a year; and on the better areas where fires have been kept out, growth may average between 200 and 300 board feet an acre. With increased protection from fire and better cutting practices, Mr. Heers said, the growth rate can be materially increased on the better timberland thereby adding to the owner's income.

Mr. Heers said that the following four factors determine the amount of income which owners can receive from forest land: soil and site conditions which influence rate of growth; number of trees established on the acre; size of trees; and the amount of labor income the owner earns by marketing his own timber.

The Angelina County forest farming project is conducted through cooperation of the Texas Forest Service and the Texas Extension Service of A. and M. College, and the U. S. Forest Service, with the project forester administratively responsible to the Texas Forest Service.

Southern farm woodlands comprise fully 30 percent of the forest acreage of the South.

Texas Bois d'Arc Wood Supplies Army With Dye for Uniforms

(Article and photograph furnished through the courtesy of the Dallas News.)

Because the growing United States Army needs more and more uniforms for its men, Red River County farmers have found a new source of income. They are selling their bois d'arc wood to the American Dyewood Company of New York City for processing into olive drab dye for the soldiers' dress.

Walter L. Gibbons, veteran lumberman at Clarksville is handling the movement of the timber, buying it from the farmer delivered or in the tree. He pays \$6.50 per 2,400 pound ton if the wood has been peeled, \$4.50 in the rough and \$1.50 standing. Twenty-nine carloads, or approximately 900 tons, have already gone out, and ten more cars are being contracted.

Only timber no less than six inches in diameter and not longer than seven and a half feet is acceptable. Before shipment, which is made to a plant in Chester, Pa., the material

must be barked and sapped, which means that all the bark must be trimmed and the sap or outer growth cut off until only the heart remains.

At the processing plant the wood is pulverized to extract the dye contents and the residue pulp used in manufacturing explosive and airplane plastics. Thus, an Air Corps pilot from here may sometime be wearing, shooting and riding on the bois d'arc tree that once grew in his home county.

Mr. Gibbons, who probably has purchased more of it than any other dealer in northeast Texas, says that only in this section is bois d'arc, which literally means "wood of the arc", known by that term. It is ordered as osage orange wood from him, but he goes ahead and delivers it as bois d'arc.

(Editor's Note: Bois d'arc is native over east and central Texas and reaches its largest size in the Red River Valley in the northeast part of the state.)

GUAYULE—

(Continued from Page 1)

Guayule factories for this region would not be a new thing. A plant operated at Marathon as early as 1909 and according to reports about 600 tons of rubber were produced there in 1909 and 1910. The mill ran at intervals until 1926 when it was closed because it could no longer compete in price with rubber from the Far East and because the available supply of guayule near the mill was exhausted.

Guayule is the only present known important source of vegetable rubber in the United States, and the only place it has been found growing wild in this country is in the Trans-Pecos region of Texas. Its range continues south into Mexico where it extends over a much greater area in western Coahuila and eastern Chihuahua.

Mexican guayule rubber production first started early in the 1900's and has been continued up to the present, despite competition from Far East rubber. Four factories are now producing more than 5,000 tons of

guayule annually and the capacity of some plants is being increased.

Guayule is a desert shrub, resembling sage. It grows best on limestone soils in an area of about 15 inches annual rainfall. Wild plants produce between 6 and 10 percent of their weight in rubber.

The survey of guayule in the Big Bend disclosed that the first rumors of "millions of acres" of guayule were unfounded. This was mostly based on the mistaken identity of mariola, a shrub resembling guayule but with a very low rubber content, and a number of other plants.

It was indicated that on some areas sheep, goat and rabbit damage to guayule was found to be severe in the Big Bend.

Early American Indians first exploited the possibilities of guayule when they chewed the plant to get the rubber for bouncing balls in their games.

National and state forests constitute approximately 7 percent of the total forest area in the lower south.



Pulpwood Cutting Methods Are Seen at Field Meeting

Proper methods of harvesting pine pulpwood were demonstrated at a field meeting held in Tyler County recently by the Southland Paper Mills, Inc. of Lufkin, and the Texas Forest Service.

Three one-acre tracts were selected near Woodville and the timber on each harvested by a different method. Timber on one acre was cut down to sizes of five inches in diameter, to seven inches, but leaving six seed trees on another plot, and was cut selectively on the third tract.

These side-by-side areas made an outstanding demonstration and drew considerable comment from those attending the meeting.

The plots have been marked and may be visited and studied at any time by interested persons.

Among those attending the demonstration was Frank Heyward, general manager of the Southern Pulpwood Conservation Association of Atlanta, Georgia.

The demonstration was in charge of R. S. Haralson, timber contractor at Colmesneil, and Harvey Sprott, forester for Southland Paper Mills.

New Fire Protection Chief Is Appointed

Appointment of Perry A. Thompson as chief of the Forest Service's Division of Fire Control has been announced by the U. S. Department of Agriculture. He succeeds Roy Headley, veteran forester, who has just retired from a position he has held since 1919.

Thompson will have direct supervision of all fire prevention and suppression work on the 160 National Forests and will cooperate with other agencies in the extension of organized fire protection throughout the forest lands of the country. His work also will include supervision of war-time emergency fire control work on the National Forests.

PEELING BOIS D'ARC LOGS — In the processing of bois d'arc wood to obtain the olive drab dye now in great demand for soldiers' uniforms, nothing but heartwood is utilized. All bark and outgrowth must therefore be removed before shipment. Here is a pile of Red River County bois d'arc, which workmen are preparing for shipment to an eastern dye company, where its dye contents are extracted and the residue pulp used in the manufacture of explosives and plastics for airplanes.

HARDWOODS—

(Continued from Page 1)

The "speed-up" drying schedule, which is based upon the use of a chemical as an aid in seasoning should reduce the combined air seasoning and kiln drying time of oak and gum lumber by an amount of time more than sufficient to pay for the cost of the chemical and its application, Stark says.

Green lumber of white oak, red oak, and red gum will be dipped in a solution of urea and then subjected to controlled drying conditions in a modern dry kiln. The lumber for these tests is being furnished by Southern Pine Lumber Company of Diboll, and it is expected that from 10,000 to 12,000 board feet will be needed for the first phase of the study.

Urea, also known as carbamide, is a white crystalline solid resembling sugar in appearance. Its value as an aid in the seasoning of wood was long ago discovered by Moravian farmers who followed the practice of seasoning green oak timber in manure. In 1936, after urea began to be produced on a large scale at low cost, the United States Forest Products Laboratory began seasoning tests with it.

A large number of forest-land-owning companies in the South revealed that those whose sole purpose is the production of raw forest products are spending more than 12 cents an acre annually, on the average, for forest management activities, including fire protection.

Marshall Has Active Forestry Committee

Chamber of Commerce Pushes Farmer Tree Planting

Marshall's chamber of commerce forestry committee has made an outstanding contribution to forestry in Harrison County, according to a report recently issued by Walter P. Lane, chairman of the committee.

Interesting farmers to plant more than 226,000 forest tree seedlings in the county last fall and winter was cited by Mr. Lane. Harrison County led East Texas for the second year in this type of farmer planting it was indicated.

The committee also reported activity on the Marshall community forest which was started a year ago. An open area was planted by high school students with 20,000 pine seedlings.

The chamber of commerce also co-operated with the Texas Forest Service in holding a timber cutting demonstration in 1941, Mr. Lane said.

Patrolman Plants Trees to Interest Folks in Forestry

Texas Forest Service patrolman Sam Colburn who lives near Deadwood in Panola County is doing something unusual to interest people in trees.

Last year he started in a small way to transplant around his home as many of the native tree species as he could find. He now has more than seventy species growing within sight of his house, including a half acre of slash pines which he planted as an experiment in 1936. Mr. Colburn has studied about the uses and characteristics of the trees and he passes this information on to interested visitors.

With the war, Mr. Colburn is putting his tree planting campaign to a new purpose. For each boy that leaves his community for the armed forces, he plants and dedicates a tree. Mr. Colburn says his motto is "Trees for the Living."

Substitute for Soap

WILD CHINA (*Sapindus drummondii*)

This species, sometimes called Indian soap plant, grows on moist clay soils or dry lime stone uplands. It ranges through eastern Texas to New Mexico and the Rio Grande, becoming a tree 40 to 50 feet high and 1 to 2 feet in diameter,

with usually erect branches, and branchlets at first slightly many-angled.

The name, "soap-berry", refers to the cleansing qualities of the pulp of the fruit of this tree, which, when rubbed between the hands in water, forms a lather and can be used as a substitute for soap. The botanical name, *sapindus*, means "Indian soap", and it is said the natives of the West Indies once used it for soap.

The bark is broken into long narrow plates which in turn are broken on the surface into small red-brown scales.



Leaf two-fifths natural size. Fruit one-third natural size.

The leaves, appearing in March or April, bear 4 to 9 pairs of alternate, opposite or both, lance-shaped leaflets which are pale, yellow-green, about $2\frac{1}{2}$ inches long and $\frac{1}{2}$ to $\frac{2}{3}$ inch wide. The leaves fall in autumn or early winter.

The flowers are whitish, in large, dense clusters. The fruit, ripening in September and October, does not fall until spring; yellow with dark brown seeds.

The wood is heavy, strong, close-grained, light brown tinged with yellow. It splits easily into thin strips and is used for cotton baskets, and the frames of pack saddles.

HIGH SCHOOL ANNUAL USES FORESTRY PICTURE FEATURE

The "Pine Burr", 1942 year book of the Cleveland, Texas, high school paid a tribute to East Texas forests with a display of nine large forestry scenes which were called "the glorification of East Texas forests."

A brief introduction in the year book called attention to the value of forests both in peace time and in war and urged "guarding our forest heritage now for the generations to come."

The pictures were furnished by the Texas Forest Service.

"Wooden Iron" Is German Product

So-called "wooden iron" or "homogeneous wood," is a new building material reported to have been developed by German technicians. It is claimed that this new material can be melted and poured into any desired shape and can be standardized the same as metals; that it offers advantages of a homogeneous fiber structure and is entirely free of knots; and that this new wood substance can be used for floors, for joinery and for other new purposes, and that it is free from decay.

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E. O. Siecke Retires From Forest Service

Approval Given on FFA Forest Course

Three Year Plan of Instruction To Be Tried Out

Robert A. Manire, state director of Vocational Agriculture, has given his approval to an expanded program of forestry instruction for the vocational agriculture students of East Texas during the 1942-43 school year.

In reviewing the proposed course of study which was prepared by the Texas Forest Service, Mr. Manire stated that increased emphasis on the teaching of forestry is not only in line with the war demand for forest products, but also will prove invaluable toward increasing the amount that the forest crop may contribute to the cash income of the farm.

The course of study is set up on a three year basis covering the three grades in which vocational agriculture instruction is given. A year's work will consist of fourteen lessons, of 90 minutes each, making a total of twenty-one hours of class room instruction each year. An additional amount of time will be spent working out projects in the woods.

"The Manual of Practical Forestry for East Texas" will be used as a text and page references will be furnished for each lesson. This manual is specially useful since it was prepared by the personnel of the Texas Forest Service mainly for the use of vocational teachers and since it applies directly to the forests and forest conditions of East Texas.



RETIRED DIRECTOR, E. O. Siecke



NEW DIRECTOR, W. E. White

W. E. White Is Appointed by A. & M. College Board

E. O. Siecke, director of the Texas A. & M. College Forest Service since 1918, retired from active duty October 1 and W. E. White, former vice-director and forest fire protection chief was appointed in his place by the A. & M. College board of directors.

In tendering his resignation to Dr. T. O. Walton, president of the college, Mr. Siecke said that his decision was necessitated by the illness of his wife who is receiving treatments from specialists in Omaha, Nebraska. He will make his home at Wisner, located close to Omaha.

A. & M. College board chairman, F. M. Law of Houston, speaking in behalf of the board expressed regret over Siecke's leaving and the board sent a letter to the director commending him for his "faithful and meritorious service."

Chairman of the A. & M. College Board of Directors, F. M. Law, wrote E. O. Siecke a letter in behalf of the board and the college from which is quoted in part, as follows:

"... You have done a wonderful job and all of us who have kept up with your work know that you have earned the appreciation and respect of every friend of forest conservation in Texas. It really is a great shock that we are having to lose you. I doubt if there is a man in the country that could have done such an outstanding job. . . . Every man of us feels that we are deeply indebted to you."

Came to A. & M. in 1918

Mr. Siecke came to Texas A. & M. College to take charge of state forestry (See SIECKE on Page 6)

"Careless Matches Aid Axis" Is Slogan of Fire Campaign

Fire, the proverbial enemy of Texas forests, is facing an all-out blitz attack. The initial blow was delivered on October 1, which marked the beginning of a nation-wide wartime forest fire prevention campaign.

The Texas A. & M. College Forest Service and Extension Service, the U. S. Forest Service and all other public and private forest fire control agencies have adopted the technique of modern warfare by coordinating their separate energies into a solid front for a knock-out blow, aimed at cutting down the losses from woods fires.

The slogan adopted for the campaign is "Careless Matches Aid the Axis."

In cooperation with banks, libraries, REA cooperatives, county officials and lumber companies, fire prevention leaflets and bookmarks are being distributed to East Texas citizens. Newspapers and magazines are using articles, pictures and ads. Posters are being displayed in public places throughout the pineywoods belt. Forest essay contests have been initiated in schools.

Billboards along highways have been posted. Radio stations have sponsored special fire warning broadcasts. Volunteer forest fire guards are being signed up to help report and fight forest blazes. Soon a program will get under way to organize local forest fire fighter crews under the Office of Civilian Defense.

New Movie Pictures Forest Fire Drama

Paramount studios have released the first full length movie of forest fires in a technicolor romance starring Fred McMurray, Paulette Goddard and Susan Hayward in "The Forest Ranger." Filmed in the West, the picture shows how Uncle Sam protects the timber supplies in the national forests. Actual forest fires add realism to the film, with action by parachute fire fighters one of the high points.

The recent survey of the South's forest resources has shown that southern forest lands are producing at less than half their potential capacity. This can be attributed in large part to wasteful and destructive cutting practices and widespread burning in the past.

Home Grown Pines Save Farmer \$100 on Barn Building

For an expenditure of \$23.34 in cash and 60 hours of labor, one Nacogdoches County farmer has figured a way to build himself a new barn out of home-grown pine timber at a saving of approximately \$100.

G. N. Stripling, cooperator on the Nacogdoches Farm Forestry project who built the barn, made full use of the timber in his own woods and his own labor to the best advantage. The only cost included logging, hauling and sawing the lumber at a local mill.

The barn is 30 by 54 feet and made of pine lumber cut from an old field tract on Stripling's farm which he intends to turn into pasture in the future.

Forestry officials point to this to show the high rate of return to the farmer from labor expended in his woodlands.



MECHANIZED EQUIPMENT counts in forest fire fighting as in war. This plow easily transported to forest blazes on a small trailer can often spell the difference between a costly fire or getting it under control while it is small. The Service has five plows like the one above which will be used in keeping forest fire damage to a minimum in the pine and hardwood forests of the state this fall and winter.

SEPT.-OCT., 1942

TEXAS FOREST NEWS

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Free Seedlings Is Smith County Plan

Paper Firm to Aid Farmers Reforest Farms

Smith County farmers who plant 2,000 or more forest tree seedlings this winter will get an additional 1,000 trees free, according to County Agent C. R. Heaton, who is initiating plans for an intensive reforestation program to take place in the county within the next few months.

Heaton says that arrangements have been completed with the International Paper Company and other pulpwood interests in northeast Texas to furnish up to 75,000 free seedlings. On this basis he estimates that a minimum of a quarter of a million trees will be planted by farmers in the county this season.

A mimeograph circular describing the program and outlining details on how to plant trees has already been prepared and released to farmers by Heaton and R. E. Ferguson, Smith County AAA secretary.

Farmers who have not received copies and are interested in planting trees on their land should get in touch with Heaton or Ferguson immediately.

Mr. Heaton has been commended for his efforts by officials of the Texas Forest Service. While county agent of Marion County he was also active in promoting good forestry practices and the forest service is glad that his interest is more active than ever.



The appointment of J. O. Burnside, Lufkin, as chief of the division of forest protection of the Texas A. & M. College Forest Service has been announced by Director W. E. White.

Mr. Burnside, formerly Mr. White's assistant in the forest protection division, started work with the Service in 1936. His previous experience included work with the U. S. Forest Service in Colorado, Wyoming, Arkansas, and Texas. He is a technical forestry graduate of Colorado State College.

He will have charge of the biggest and at present most important division of work of the Texas Forest Service, according to Director White.

The protection of nine million acres of timberland, mostly private-owned, in East Texas from fire will be under his supervision.

More than 80 per cent of all the fires occurring in the United States are reported from the southern states.

Texas Christmas Tree Tests Show Favorable Growth

Spruce pines, planted by the Texas Forest Service on State Forest No. 4 in Tyler County in January, 1942, showed a 96 percent survival when checked in September.

The pine is not native to the State but occurs in other sections of the South where it is highly valued for use as Christmas trees because of its shape, short stiff needles and branches and general resemblance to trees shipped in from the West Coast.

The tests being made by the Texas Forest Service are for the purpose of determining if spruce pine will grow in the state and if it can be developed as a possible source of local grown Christmas tree stock.

Oil Company Will Radio Fire Warning

Timely forest fire warnings will be broadcast by the Humble Oil and Refining Company during their popular broadcasts of southwest conference football games this fall, according to information received at Texas Forest Service headquarters from A. B. Penny, assistant publicity manager of the company. The Humble company also plans to run a forest fire article in the magazine they publish for their employees.

ALL FOREST FIRES ARE ENEMY FIRES

Every fire in our fields and forests this year is an enemy fire. It makes no difference if a great forest blaze has been started by enemy action or by the carelessness of a loyal American. In the end, lives and property are destroyed, timber and soil resources needed for victory are lost. . . . The men who are fighting and preventing fires in our forests are giving great service to the nation, but they need the help of every patriotic American. They need the assurance that citizens will be careful with matches, with their smoking material, with fire in any form, when they go into the woods.—Secretary of Agriculture Claude R. Wickard.

Timber Sales Lead in Farm Income Study

Returns from Crops and Livestock Compared With Timber

Eighteen representative farmers in Angelina County received \$560 more cash for timber products from their farms last year than they did from annual crops and livestock products combined, a survey by E. A. Heers in charge of the Angelina Forest Farming Project reveals. The farms studied varied in size from 50 acres to 2,300 acres with woodlands occurring on between 30 and 1,900 acres on individual farms.

Cash from timber sales totalled \$14,996 as compared to livestock and crop sales of \$14,436 for the 18 farms.

In order to make his survey fair, however, Heers reduced his timber figures to an annual basis. In other words, he computed that last year's timber yield was equal to the growth over a three years period on trees on the farms studied. This reduced last year's timber income by two-thirds.

On this basis, Heers estimated that the timber income was equivalent to approximately \$1.18 an acre as compared to \$4.91 per acre for livestock and annual crops, after deductions had been made for production costs.

"Production costs were what surprised me most," Heers said. The farmer was required to spend only 12.6 cents an acre to earn his timber income, as compared to \$10.16 per acre to earn his livestock and crop income. This, he said, represented a 10.6 percent return from the timber based on production costs, as compared to 4.8 percent from livestock and crops.

He pointed out that with scarcely any outlay of cash, farm timberlands had earned their owners a substantial income. Few farmers have suf-

ficient woodland acreage to make their living entirely from their timber, but they could materially increase their income from that source with more care and attention given to better practices in growing and harvesting farm forest timber crops. It should be possible, he indicated, to raise this source of income to nearer \$3 an acre annually.

The Angelina Forest Farming project was established in 1940 under the direction of the Texas Forest Service, the Texas Extension Service and the U. S. Forest Service. Heer's administrative duties come under the jurisdiction of the Texas Forest Service.



A TEST RUN of redgum lumber is shown piled in front of the dry kiln at the forest products laboratory of the Texas Forest Service where it has been dried under carefully controlled conditions. The lumber was previously dipped in a chemical solution. It was furnished by the Southern Pine Lumber Company as part of a project attempting to find ways of drying lumber faster without serious defect for war use.

GERMANS FOR REORGANIZING WORLD'S FOREST INDUSTRIES

The Tenth Annual Convention of the German Wood Technology Committee is reported to have discussed means of reorganizing forestry and forest industries all over Europe and later throughout the world. The group is said to have decided "that in the future the world's forest industries will cooperate intimately along the principles of organized production and exchanges and will see to it that the valuable forest products will be sent to the very regions where they are most needed and can best be used."

THE VOICE OF THE PRESS

FORESTRY EDITORIALS IN TEXAS NEWSPAPERS

Husbanding a Resource

An alarming increase in forest fires is reported by the Texas Forest Service. This is a peculiar phenomenon in a section that depends very largely on timber for its economic welfare. Much of it is caused by carelessness, some malicious incendiarism, and some just plain "don't give a damn." All three are equally dangerous and difficult to understand.

East Texas counts as a vital natural resource its growing trees. To see them ravaged by flames is to see cold hard cash disappearing in smoke. The citizenship would rise in wrath if plunderers destroyed crops or blasted industrial plants. Yet they placidly witness the destruction of timber, worth just as much as anything else we possess.

Cooperation on the part of all will halt this needless dissipation. Simply because we are blessed with an abundance of timber is no sign it should be thrown away. It is to be hoped the people of Angelina county and all East Texas will more carefully husband a treasured resource.

—Lufkin Daily News

Forest Sabotage

Though they do not realize the fact, those careless persons who toss out a cigarette or match, or leave a campfire burning, and thus set the woods afire are helping their country's enemies. That striking statement is made by W. E. White, Texas Forest Service's director.

Mr. White points to the 2,200 forest fires on record that burned over 117,000 acres of privately owned East Texas pineland during the first half of 1942. Few, if any, such fires were set by saboteurs; but the effect was the same. President Roosevelt has directed the F.B.I. and local Civilian Defense organizations to keep watch against enemy agents who may try to burn woods, as well as crops, houses and war industries. A pending amendment to the Anti-Sabotage Act (1918) defines "forest

products and suitable standing timber" as war material.—San Antonio Express

Serving the Nation

Texas is glad that it can be of service to the Nation during this emergency in supplying timber for war purposes. Lumber is an important ingredient of victory. Texas is putting the Nation's needs first in the utilization of its forest products.

It goes without saying that the war has placed a tremendous new responsibility on the lumbering interests of the State, and also the forestry agencies. Upon the one is the responsibility of supplying the lumber of the kind needed and when needed for the prosecution of the war. Upon the other is the responsibility, in the face of this demand, to carry on a program of forest conservation and to encourage reforestation, to the end that East Texas shall not lose permanently an asset that for many years has been one of the greatest in that section.—Houston Post

Helping the Axis

Firebugs, careless smokers and others who start blazes in the woods are helping the Axis and harming America's war effort. With the demand for timber greatly in excess of the normal growth, every forest fire wastes valuable resources needed for victory. In the first half of this year, 2,200 fires raged in the piney woods of East Texas, destroying trees on 117,000 acres. Many of the trees burned were of merchantable size.

Abolition of the Civilian Conservation Corps, part of whose work was preventing fires, makes it more important than ever for everyone who lives in a timbered area, or who travels through one, to use precautions against starting fires. A cigarette butt tossed from a car may start a fire of calamitous proportions. A measure now before Congress would apply the law against sabotage to the destruction of standing timber and forest products.

Forest fires tend to offset our efforts at salvage and bond-buying. Their prevention should be one of the primary aims of Texas' civilian defense program.—Dallas News

Forests Worst Enemy

Worst enemy to Texas forests is the "flipper" who thoughtlessly tosses a match or cigarette-stub into dry grass or pine needles at the roadside. That is the cause of numerous fires which destroy timber needed alike for the war-effort and normal trade. Lumber from Texas pines and hardwoods goes into battleships, merchant vessels, factory buildings, Army camps and war-workers' dwellings. Other timber supplies woodpulp for newsprint and white paper, rayon, plastics, high explosive and various material.

Never before have Texas trees, and particularly pines, been more in demand, or served a greater variety of useful purposes than they serve today. Those trees are far too valuable to burn carelessly or wantonly—as many a "firebug" still does. The person who sets woods afire just to see them blaze, or to drive out rabbits for shooting, or in the mistaken notion that the grass will grow better after the dry leaves are burned, is a public enemy and should be so considered. Texas Forest News (College Station) gives this counsel to every citizen:

Prevent forest fires yourself; see that your neighbor prevents fires; help bring the incendiary to justice.

The fact to keep in mind is that Texas no longer has trees to burn.—San Antonio Evening News

JONES LEAVES FOR

ALASKA FOREST JOB

Ivan H. Jones, chief of the division of industrial forestry has resigned his position with the Texas Forest Service and has accepted employment on the Alaska Spruce Log Program at Ketchikan, Alaska. Mr. Jones will be engaged by the U. S. Forest Service in his new work.



SLASH PINE SEEDLINGS in the forest tree nursery of the Texas Forest Service near Alto are sprayed with copper sulphate to help ward off disease and insects harmful to the little trees. Planted as seeds in March, these pines will be set out in plantations by farmers and other timberland owners starting in December.

SIECKE—

(Continued from page 1)
 istry activities in March, 1918. He had previously been associated in forestry work since 1905 in Iowa, Washington and Oregon.

His 37 years experience in forestry work has been equalled by only a few other men in the United States and only one other state forester has served longer than the 24 years that he directed forestry activities in Texas, Dr. Walton revealed.

"I want to express my appreciation and debt of gratitude for the very distinguished service you rendered A. & M. College as director of the Texas Forest Service. Your services are genuinely appreciated by me and all of your former official associates, as well as by the people of Texas who know of your work and who have an interest in forestry," Dr. Walton told Mr. Siecke on his retirement.

Under Mr. Siecke's leadership, the Texas Forest Service has made steady progress and it is recognized

as one of the outstanding organizations in the country, according to officials of the federal government with whom he has been associated in administering certain cooperative forestry funds.

Service is Division of College

In 1926 the board of directors designated the state forestry department as the Texas Forest Service, made it one of the four main divisions of A. & M. and gave Siecke the title of director.

To comply with the original state law which authorized a program to conserve the state's forest resources, Mr. Siecke molded the Texas Forest Service into a unified organization with divisions of work centering on fire protection, industrial forestry, state forests, farm forestry, research tree planting and education. The personnel includes 17 technical foresters and more than 200 other employees who are engaged mainly in protecting nine million acres of forest land in East Texas.

Siecke Honored Nationally

He has been honored nationally by his membership on the Charles Lathrop Pack Forest Education Board. In 1930 he was elected president of National Association of State Foresters. He is a senior member of the Society of American Foresters. For 18 years he served as secretary of the Texas Forestry Association.

Mr. Siecke told Dr. Walton, "It is an emotional tug on my heartstrings to leave the Texas forestry work after all these years. Texas and the splendid people have been mighty fine and have rewarded me beyond what I deserve."

W. E. White, who succeeds Mr. Siecke, has been with the Texas Forest Service for fifteen years, serving as chief of the division of forest protection until 1940, when he was also appointed vice-director. Previously he was employed by the U. S. Forest Service in Oregon, Washington and Arkansas. He received his technical forestry training at Michigan Agricultural College.

NEW COATING PROTECTS LOGS

A solution of starch-thickened urea has been found to offer an effective means of protecting ends of logs and boards from splitting and checking during drying, according to research chemists of the DuPont Company. Six percent of starch added to a 40 or 50 percent solution of urea in water, allowed to set an hour and then applied by trowel or brush to the ends of green wood material, is the recommended procedure.

BUILD WAR WORKERS HOUSE

Prefabricated homes for war workers that can be turned out at the rate of one every half hour has been announced by the E. L. Bruce Co. Each house will contain an average of 3,500 board feet of southern pine lumber, which is in addition to the outer and inner walls which are to be constructed of plywood. Bruce has an order for 1,525 of the houses and states that the government is asking them to take on additional orders.

Forestry Course Set up for Texas School Children

Claimed as Most Important Conservation Program in Recent Years

More than 30,000 children in 100 Texas schools will study forest conservation this year under trial conditions which are to form the basis for a unified system of forestry teaching to be initiated in all public schools of the state starting in September, 1943, it is announced by E. C. Dodd, director of curriculum, State Department of Education, Austin.

Under the direction of the State board of education, a committee of Texas educators headed by Dr. A. W. Birdwell, recently retired president of Stephen F. Austin state teachers college, have been busy for several months with members of the Texas A. & M. College Forest Service, working out the proposed course and it has been assigned to selected schools located in every section of the state for a year's test. The most intensive test is being made in Shelby County, where all the schools will teach the subject.

The plan calls for associating forestry instruction with standard subjects such as reading, writing, arithmetic, and history, rather than making it a separate course. Instruction will start with kindergarten and continue through high school grades.

Forestry material for the course was compiled, arranged by grades and tied into the standard school curriculum by Paul W. Schoen of the Texas Forest Service. Lessons for each of the 12 public school grades were worked out by Dr. Birdwell and Professor V. B. Glazener, and E. C. Dodd, of the State Department of Education prepared a series of references for use by the teachers.

Initiation of the forestry conservation course has been made the re-



FINAL PLANS for a forestry teaching course in 100 Texas schools this fall are discussed by Paul W. Schoen, chief of the division of forest management, Texas Forest Service, (left) and E. C. Dodd, director of curriculum, State Department of Education. Rated as one of the most important conservation steps in recent years, the course will be given in all Texas schools next year.

sponsibility of the deputy state superintendent of schools who is cooperating with teacher training schools in each test area. The course is being tried in city schools, consolidated schools, rural grade schools, and one-teacher schools. Based on the results of this first year's trial, the course will be modified and put into statewide use next fall, Mr. Dodd said.

Pine Tree Chemical Is Insect Killer

A new insect-killing chemical, derived from Southern pines, promises to increase American independence of war-pinched imports. The substance, discovered in the course of research on turpentine and pine oil, can be substituted for pyrethrum and rotenone in fly-killing sprays used in homes and dairy barns. It is stated to be effective against such domestic pests as flies, mosquitoes, roaches, moths, mites, silverfish, bedbugs, centipedes and spiders.

Document Records 'Early East Texas' Lumber History

Hoxie H. Thompson of Trinity, newly elected president of the Texas Forestry Association and member of the oldest lumber family in Texas, has presented to the Texas Forest Service a historical document on the early history of his family as pertains to the lumber industry of East Texas. The document is a reprint from the *AMERICAN LUMBERMAN* of 1908 and contains many splendid illustrations of East Texas forest stands, the Thompson Company sawmills and logging scenes.

Mr. Thompson had the publication bound in leather and embossed with gold leaf letters with the name of the Texas Forest Service. It will be placed in the historical library of the service along with a number of other early documents that are now being assembled.

Marshall Sponsors Farm Tree Planting

Goal of 200,000 Pine Seedlings Set By Forestry Group

Continuing a reforestation project inaugurated two years ago, the forestry committee of the Marshall Chamber of Commerce next December will sponsor planting of 200,000 pine seedlings on Harrison County farm lands. The seedlings will be purchased from the Texas Forest Service nursery, and the Chamber of Commerce will transport the seedlings to Marshall in order to help keep costs to a minimum.

County Agent B. M. Browning and Don Young, district forester of the Texas Forest Service, will assist land-owners in deciding what acreage to plant. The project last year resulted in planting of 226,000 trees while 132,000 were ordered and set out the previous year.

Leaflet Tells How To Stop Farm Fires

"Prevent Farm Fires" is the title of a recent leaflet issued by the Texas Extension Service and now being widely distributed to farm families in the state. Primarily intended for use in checking and correcting fire hazards in farm homes, the leaflet also contains some timely suggestions about protecting farm woods and pastures against burning.

SOUTHERN PINE ASSOCIATION APPOINTS TOLER FORESTER

Brooks Toler, State Forester for Alabama since 1939 has been appointed forester for the Southern Pine Association, effective October 1. He will be headquartered at New Orleans, but will spend much of his time traveling among the mills and visiting with state and federal forestry organizations.

WHITE HICKORY (*Hicoria alba*)

The mockernut, white or bigbud hickory, is common on well-drained soils in the eastern part of the state. It is a short limbed tree up to 60 feet high and 1 to 2 feet in diameter.



Leaf, one-fifth natural size. Twig, two-thirds natural size. Fruit, one-third natural size.

The flowers are of two kinds on the same tree; the male in three-branched catkins, the female in clusters of 2 to 5. The fruit is oval, nearly round or slightly pear-shaped with a very thick, strong-scented husk which splits nearly to the base when ripe. The nut sometimes has 4 to 6 ridges; light brown, very thick shelled with a small, sweet kernel.

The wood is heavy, hard, tough and strong; it is white excepting the comparatively small, dark-brown heart, hence the name white hickory. It is used in the manufacture of agricultural implements, tool handles, carriages and wagons, and makes the best of fuel.

The bark is dark gray, hard, closely and deeply furrowed, often apparently cross-furrowed or netted. The winter buds are large, round or broadly egg-shaped, and covered with downy, hard scales. The recent shoots are short, stout and more or less covered with a downy growth.

The leaves are large, strong-scented and hairy, composed of 7 to 9 obovate to oblong, pointed leaflets which turn a beautiful yellow in the fall.

Fire Signs Posted on Timbered Area

An example of the increased interest of East Texas people in protecting their timber is cited by Texas Forest Service officials.

Mr. A. N. Beasley of Tyler, Texas, recently wrote to the Texas Forest Service for a supply of the signs "Help Prevent Forest Fires" to post around his timberland.

Mr. Beasley owns a 348-acre tract of land near Tyler which includes about 150 acres of timber. He has been protecting this timber from fire and doing other forest improvement work. Now, says Mr. Beasley, it is beginning to attract attention.

Well satisfied with the growth of his timber, Mr. Beasley is considering planting pine seedlings on the poorly-stocked areas.



LEAD TITLE for the new 16mm film produced by the Texas Forest Service is shown above. A sound picture, it shows uses of wood in the war, forest fires and their prevention. It is loaned out free on request.

To help farmers store their grain this year on their own farms, the Commodity Credit Corporation has contracted for the construction of wooden bins to store approximately 100,000,000 bushels of grain.

POSTMASTER: If undeliverable For Any Reason, notify the sender, stating reason, on FORM 3574, postage for which is guaranteed.

U. S. POSTAGE
PAID
PERMIT No. 12
Sec. 562, P. L. & R.
College Station, Texas

Texas Forest News

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Vol. XXI, Nos. 11 and 12 TEXAS FOREST SERVICE, A. & M. COLLEGE

Nov.-Dec. 1942

HEADQUARTERS EIGHTH SERVICE COMMAND

SERVICES OF SUPPLY
OFFICE OF THE COMMANDING GENERAL

FORT SAM HOUSTON
SAN ANTONIO, TEXAS
NOVEMBER 1, 1942

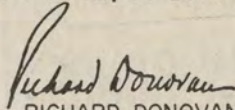
SABOTAGE

SABOTAGE IS THE WRONGFUL DAMAGING OR DESTRUCTION OF ANY MATERIAL OR SUPPLY DEEMED SUITABLE FOR THE USE OF THE UNITED STATES OR ITS ALLIES IN CARRYING ON THE WAR.

LUMBER (INCLUDING STANDING TIMBER) IS CONSIDERED ONE OF THESE SUITABLE MATERIALS, AND ACCORDINGLY MUST BE PRESERVED AGAINST ANY ACTION THAT MIGHT LEAD TO ITS LOSS TO THE UNITED STATES OR THE ALLIED NATIONS.

ALL PERSONS ARE URGED TO EXERCISE GREAT CAUTION THAT THEY DO NOT CAUSE OR TOLERATE FIRES WHICH MAY DAMAGE OR DESTROY OUR FORESTS.

WARNING IS HEREBY ISSUED THAT ANY PERSON WHO WILLFULLY INJURES OR DESTROYS, OR ATTEMPTS TO INJURE OR DESTROY, WAR MATERIAL (INCLUDING STANDING TIMBER) OR WAR PREMISES (INCLUDING FORESTS) BY FIRE OR OTHER MEANS, WITH INTENT TO INTERFERE WITH THE EFFORTS OF THE UNITED STATES OR ITS ALLIES IN CARRYING ON THE WAR, OR WITH REASON TO BELIEVE THAT HIS ACTION MAY DO SO, IS LIABLE TO PROSECUTION UNDER THE FEDERAL SABOTAGE ACT (50 U.S. CODE, SECTIONS 101-106), AND, IF CONVICTED UNDER SUCH ACT, IS SUBJECT TO A FINE OF UP TO TEN THOUSAND DOLLARS OR IMPRISONMENT UP TO THIRTY YEARS, OR BOTH.


RICHARD DONOVAN
MAJOR GENERAL, U. S. ARMY,
COMMANDING

Reproduced above is a copy of the order issued by Richard Donovan, commanding officer of the Eighth Service Command, which describes the act making the willful injury of standing timber and lumber an act of sabotage. Two thousand of these posters were sent to the Texas Forest Service by the Army with the request that they be given wide distribution in the East Texas timber area. The posters have been sent out to forest industries producing material for the war.

Fire Fighters Organizing in Timbered Belt

7,000 Expected to Join Volunteer Corps in 36 Counties

More than 7,000 volunteer forest fire fighters are being enrolled into a solid front in the East Texas commercial timber region to combat fire hazards which have been greatly increased by the war impact.

The organization, which is known as the Forest Fire Fighters Service, is a branch of the Office of Civilian Defense and units are in the process of being set up in most of the timbered sections of the Nation.

Governor Coke Stevenson as chairman of the national defense committee for Texas, is coordinating all activities of the forest fire fighters service and has appointed W. E. White, director of the Texas Forest Service, as state coordinator to head up the new service.

Plans have been worked out with Director H. H. Williamson whereby the Texas Extension Service is using the facilities of their organization to enlist crews from the community and neighborhood agricultural victory councils. County agents, who have been appointed local coordinators, have held a series of meetings in 36 East Texas counties and have picked a number of squad leaders in each county. Each squad leader is in charge of a fire fighting crew of 8 fire fighters.

Small individual squads of from 8 (See FIRE FIGHTERS on Page 7)

Scorched Earth for the South?

Shall we have a policy of "scorched earth" for the South?

The Chinese, when they retreated before the advancing Japanese in the war of the last few years, pursued the policy of "scorched earth." They set fire to the fields, so that they would yield nothing to the invaders. So did the Russians when the Nazis invaded the Ukraine last summer. So did the British as they gave up Malaya.

It is considered the most terrible thing you can do to the enemy, and the greatest sacrifice you can make for victory, is to burn up your own land so that the enemy cannot live on it.

Yet it is this thing we have been doing here every year, though no enemy has invaded our South, and none will. What others have done to spite and harm an enemy we have done to ourselves. We have burned up the land we have to live on. We have scorched the earth that is our home, our living, our wealth, our health.

We have put the flames to our own fields, to our own woods, and made a charred wreck of nature's riches. We have burned up the stalks, grass and leaves that should have made rich, fertility-creating humus for our soil. Not only have we devastated our fields, but we have let the fire escape into the woods—sometimes even set fire to the woods—and crippled for life or killed our growing trees and wiped out our game.

We have done this sometimes through carelessness, sometimes through the mistaken belief that it does good. But it does no good; it does evil.

Fire is a destroyer. It has destroyed the richness of our soil. It has taken off the cover, and the rains have come and washed away the earth and made gullies.

Let's have no "scorched earth" policy for the South. Let's save our land to raise food and fiber for our soldiers and our citizens. Let us not turn loose consuming fire, fit only to be a weapon against an enemy, to destroy our own fair land.

Let all the forces of organized agriculture, schools, churches, civic clubs and governments be turned to prevent the annual disaster this year. Let every community organize to prevent and put out field fires.

Let's turn the grass under, not set fire to it. Let's protect the woods, not burn them. Let's stop the criminally careless who throw burning cigarettes out of car windows. Let's not permit them to do the same things to us that the Japs would like to do with incendiary bombs. Let not our homeland become "scorched earth"!—Memphis Press-Semitar.

CRIME DOESN'T PAY

Proof that "crime doesn't pay" was forcibly demonstrated in a tragic nature drama discovered by Texas Forest Service men on State Forest No. 1 near Kirbyville recently.

While checking on a research project they found two glass eggs beside the skeleton of a snake. One of the foresters remembered that his wife had complained of the loss of the eggs from her chicken house. He concluded that the snake had swallowed them and then crawled off and died.



Many Companies Use Forest Ads

Sixteen Try Out Plan in Local Papers

Many East Texas forest industries are helping in the wartime forest fire prevention program to stamp out woods blazes in the pineywoods region by using their local newspapers to run stories of forestry advertisements on forest fires and timber cutting, and reports reaching the Texas Forest Service indicate that other companies are considering the project.

Those who have been using the ads and have sent them to the Texas Forest Service office include:

Texas Long Leaf Lumber Company, Frost Lumber Industries, Inc., Grogan Manufacturing Co., Edens-Birch Lumber Co., Rusk County Lumber Co., Kelley Lumber Co., Southern Pine Lumber Co., Cobb-Holman Lumber Co., T. D. Little, J. L. Bagley Lumber Co., Champion Paper and Fiber Co., Whiteman-Decker Lumber Co., Edwards Brothers Lumber Co., Neches Lumber Co., New Birmingham Development Co., Southwestern Settlement and Development Co.

The idea of using forestry ads is credited with having been started by Paul T. Sanderson, president of the Texas Long Leaf Lumber Co. at Trinity who first started using four column full page ads more than a year ago. He has continued the series once each week in the Trinity Standard since that time.

Many of the ads being used are prepared from mats worked out and furnished by the American Forest Products Industries.

In a Swiss process, the cheapest woods and scrap lumber form the source of a new motor fuel with a high octane rating. Large scale production is said to be feasible with commercially important by-products.

1943 AAA Forestry Practices Listed

Four forestry practices are included for payment among the 41 production practices outlined in the 1943 AAA program for Texas. The same forestry practices are approved for 1943 as were included in the 1942 program with the addition of one new practice allowing payment for the construction of fire breaks. The forestry practices are given as quoted from the AAA handbook:

36. Planting forest trees (including shrubs in protective plantings)—\$5.00 per acre.

(1) The planting of forest trees is recommended on old fields and on other areas on which there are insufficient seed trees present to reseed naturally the area to desirable species of forest trees.

(2) When planting in plowed furrows, the plowing should be done along contours. Preparation of the site is otherwise unnecessary, except where there is a heavy covering of brush which would seriously compete with, or render unsuccessful, any attempt to establish a stand of forest trees. In these cases the brush should be grubbed from the entire area qualifying for payment.

(3) Spacing of planted trees: For windbreaks, one row of shrubs spaced not more than 4 feet apart, together with two or more rows of trees spaced not more than 8 feet apart, with a space between rows of not less than 6 feet nor more than 12 feet, with a minimum survival of 65 percent will be required. For woodlots and forest plantations, a semi-regular 6 by 8 foot spacing, or approximately 1,000 trees per acre, for pines, and an 8 by 8 foot spacing, or approximately 700 trees per acre, for hardwoods, is required, with a survival of 65 percent.

Maintaining a good stand by replanting will not qualify under this practice but may qualify under practice 37.

Trees purchased from a State nursery may qualify under this practice. No payment will be made for

the planting and protection of forest trees planted under a cooperative agreement entered into in connection with the Prairie States Forestry Project.

37. Cultivating, protecting, and maintaining a good stand of forest trees planted between July 1, 1939, and the beginning of the 1943 program year (or before July 1, 1943, if under a cooperative agreement with a governmental agency)—\$1.50 per acre. (This practice is applicable only west of the 30th meridian).

Cultivation must be as often as is necessary during the open season to assure satisfactory growth. Each cultivation must be in accordance with approved tillage methods. Burning and harmful grazing must be prevented. There must be maintained by replanting if necessary, an adequate stand of forest trees, with a minimum survival of 450 well-distributed trees per acre when planted as woodlots. For windbreak plantings, a minimum survival of 430 well-distributed trees and shrubs per acre, shall be considered adequate. Payment under this practice will not be made for cultivating, protecting, and maintaining pine trees, except in windbreaks.

38. Improving a stand of forest trees—\$3.00 per acre.

A representative of the county committee must inspect the areas on each farm on which it is proposed to carry out this practice under the 1943 program and the practice must be approved in writing by the county committee prior to its institution.

(1) The county committee shall not approve this practice unless the area on which it is to be carried out has one or more of the following:

(a) Dead, diseased, insect-infested, crooked and limby trees, and undesirable species which need removing, and when removed will leave a minimum of 100 trees of stump diameters 6 inches and up well distributed over each acre. Deadening undesirable trees by girdling may be substituted when removal of the trees

is not practicable or economically justified.

(b) Desirable species of young trees which are overtopped or shaded by undesirable species which upon removal will release the young trees.

(c) A crowded stand of trees in need of thinning. A simple rule to determine the amount of thinning needed and the spacing of the trees which should be left is to add the diameters in inches of the two adjacent trees being considered and divide by two; to this figure add four and the result will be the desired distance in feet between trees.

(2) In order to qualify for payment, the following practices must be applied to areas approved as meeting the stand conditions outlined in either (a), (b), or (c), above:

(a) Either dead, diseased, insect-infested, crooked and limby, and the undesirable species shall be removed or girdled as stated in (a), or overtopped or shaded undesirable species be removed as stated in (b), or thinning must be done as stated in (c). On some areas, a combination of these three operations is necessary.

(b) Approximately 100 trees per acre should be selected for pruning as a future crop of sawlogs, poles, piling, and other high quality forest products. At least 17 feet of the main stem of the trees selected shall be pruned, provided the trees are 34 feet or more in height. Any trees less than 34 feet in height will not be pruned more than two-thirds their total height. The pruning shall be done so that the limbs are cut off flush with the bark.

(c) Fire must be kept out of the area at all times. Payment will not be made for any area which is burned during the program year.

(d) The leaving of certain trees suitable for food and shelter of wildlife will not disqualify an area under this practice, provided they do not detract from the primary purpose of growing timber as a crop.

(Continued on next page)

Excellent Seed Crops Reported

Shortleaf and Loblolly Pine Yield Best in Years

Bountiful seed crops from shortleaf and loblolly pine trees with which to start new forests to help replace the timber cut for war needs have been reported this fall to the Texas Forest Service from various sections of northeast Texas.

Many old timers said that the dropping of seed from the cones during windy days in October resembled the beginning of a snow storm. Roads and trails in several sections were reported to be literally covered with fallen seed.

It is believed that the chance for a good "catch" of new seedlings next spring is excellent. Weather conditions have been "just right," with the right amount of rain.

Foresters and timberland owners were keenly delighted over the seed crop, since it will mean that many forests which have been overcut to meet the timber demands of the army, will be able to restock with a new crop of seedlings.

The shortleaf and loblolly pine belt in East Texas covers approximately six million acres, about two-thirds of the commercial timber region. No reports have been received of the longleaf pine seed crop in southeast Texas, although it also is believed to be favorable.

Pine trees do not bear a crop of seed every year. The last favorable crop in East Texas occurred in 1935.

SOMETHING NEW ADDED

A Pennsylvania justice recently passed out something new in the line of a penalty for setting a forest fire. Seventeen-year-old boys were involved, and the judge ordered them to secure one thousand pine seedlings and replant the burned area under the supervision of a state forest service official.

Strength Tests of Sweetgum Plywood Near Completion

Strength tests of sweetgum plywood, made at the forest products laboratory of the Texas Forest Service in line with developing the use of plywood for aircraft construction, are nearing completion and it is expected that a report will be published on the findings within the near future.

F. E. Hanson of the Texas A. & M. College engineering experiment station who has been conducting the tests says that he is very well pleased with results so far and that he hopes to be able to present a series of strength figures that aircraft manufacturers can use. He complimented the laboratory for the fine workmanship on the veneer.

AAA PRACTICES (Continued from Page 3)

(e) A given area may qualify for payment under this practice only one time in each 5-year interval.

39. Construction of firebreaks for the protection of farm woodland—15 cents per 100 linear feet.

The land to qualify under this practice must have prior approval of the county committee. The firebreaks must be at least 6 feet wide and cleared to mineral soil of all inflammable material. These woodland areas must be divided into blocks of not more than 20 acres, nor less than 10 acres, each by firebreaks constructed under this practice. The areas protected must be unburned during the year for which payment is made. Areas qualifying for payment under practices 36, 37, and 38 will not qualify.

The number of new cones already observed on shortleaf and loblolly pines led foresters to predict that 1943 would be another good seed year for these species.

Increase Is Sought for Protection Fund

McNary Amendment Before Congress Asks \$10,000,000

Senator Charles L. McNary of Oregon has recently introduced an amendment, Senate Bill 2629 to the Clarke-McNary Act of 1924 to give Congress authority to appropriate up to ten million dollars for cooperative forest protection under the existing act, which now limits the Congress' authority to appropriate up to \$2,500,000.

Of this authorization, \$9,000,000 is for fire prevention and \$1,000,000 for insect and disease control.

The original Clarke-McNary act was adopted 18 years ago and has been the legislative charter under which the states, the federal government, and private owners have cooperated in guarding the nation's forests outside those in federal reservations.

The increased appropriation has been recommended in view of the urgency in protecting forest resources, needed in the war, against unnecessary depletion. Proponents of the amendment point out that the original statutory limitation of \$2,500,000 has been in effect 18 years when hazards and problems of forest protection were less critical than they are now.

The interest which many civic organizations are taking in forestry was demonstrated in a meeting held by the Woodville Rotary Club on October 29 when all members attended to hear John Foster of the Texas Forest Service speak on the value of forests in Tyler County.

He pointed out that 84 percent of the land in the county is timbered and that the main support of the county is derived from its forest products and forest products industries. A six point program for keeping the forests productive was outlined.

Prune Pines For Extra Farm Profits

Trees which form timber crops on the farm woodlands of Texas are like any other farm crop; the better the quality the larger will be the cash return when the crop is sold. Clear sawlogs from pruned trees bring two to three times more income than knotty lower quality logs and take no longer to grow.

Pruning has not been widely practiced in East Texas, but it has many possibilities. As the available quantities of clear logs become limited, trees which have been pruned will be a valued source of such material. Since clear lumber can't be produced in a year, the time to start pruning is right now so that Nature can begin to do her part of the job.

Pruning should generally be done during the winter when there is less danger of insect and disease damage and when other farm activity is at a minimum. It is a spare time job that will pay real dividends.

Pruning is best done when the trees are from 3 to 8 inches in diameter, although larger or smaller trees may be pruned under certain conditions. It is easier and cheaper to prune small trees, because the branches are small and scars heal faster. Young trees have the added advantage of also having a longer period to add growth free of knots on the pruned portion of the trunk.

It is not necessary to prune all the trees in a farm wood land area, only those which will make high quality products such as sawlogs, poles, piling and veneer logs. Trees should be carefully selected as to general appearance of being healthy, straight and promising good growth. By such selection it will not be necessary to prune poorer trees which will later be removed as fuel, ties, posts and cordwood. Probably from 100 to 300 trees per acre, depending on the number of trees growing on the area will be the number selected to be pruned. (See Figure 1).

In most cases it is desirable to prune 17 feet of the trunk so as to

By Paul W. Schoen, Chief, Division of Forest Management, Texas Forest Service

This is the first of a series of articles to be prepared on the subject of growing timber as a crop on the farm woodland. They are intended for two purposes: first, as general information articles; second, as lesson sheets for the patrolmen and other field personnel of the Texas forest service and for other readers of the "News" who can pass this information on to the farm woodland owners in their locality. Suggestions as to how these articles can be more helpful and as to subjects to be discussed will be welcomed.



Figure 1—Selecting trees to be pruned. The five straight, thrifty, promising trees (P) should be pruned for growing high-quality products; the four small trees (N) are naturally pruning themselves; and the other three trees (F, for forked, C, for crooked, and W for wolf or very limby) should be cut as soon as practicable and used for ordinary crop products, such as rough lumber, pulpwood, or fuel wood.



Figure 2—Pines can be pruned safely to a height of about two-thirds of the tree or to remove about one-third of the live top. The shaded trees have been pruned.

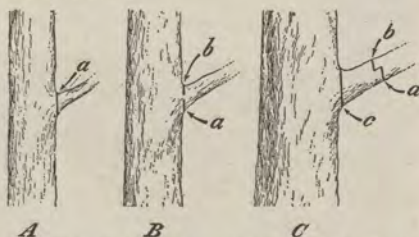


Figure 3—How to prune. A. Cut off small branches with one cut. B. With branches 1" to 2½" it is safer to make an undercut (a) followed by an overcut (b)... C. If branches over 2½" are pruned two cuts are best. Cut (a) and (b) will cause the branch to be removed leaving a stub and then the cut (c) will give the smooth cut desired without injury.

secure one clear log 16 feet in length. However, pruning need not be limited to the one log length, although this is the most common practice. With some trees it may be profitable to prune up a length amounting to one and one-half or two logs of the trunk.

Ordinarily the pruning may be done in one operation, but sometimes with smaller trees and longer cleared lengths, two or more prunings will be needed to stay within limits for safe pruning. For pine trees in Texas this safe height is not over two-thirds of the total height of the tree or not more than one-third of the live branches. Where there is more than one pruning operation, they should follow each other at from three to five year intervals. (See Figure 2).

Several types of cutting tools can be used for pruning. A curved blade pruning saw or some type of pruning shears give the most satisfactory results. An ax should not be used as it is very difficult to get a close cut without ripping or tearing the bark and thus damaging the tree.

On high pruning, a pole saw works best, and can be used up to about a 17 foot height. A ladder and hand saw may be used instead of a pole saw, or a person may even climb the tree when other methods cannot be practiced.

The actual work of pruning is the most important step. The branches should be cut off even with the trunk so that no stub is left and so that the tree is not injured. (See Figure 3). Branches should be pulled from the base of the trunk to avoid possible avenues of entry of insects which will work on the branch to the live tree.

It is suggested that East Texas farmers inspect their pine woodlands and young pine plantations to see if a pruning operation can be started this winter. Early pruning will help start trees to producing clear wood which in turn means increased profits that can later be received from the farm woods.

Lufkin Community Forest Shows Progress During Two Years Time

On October 9, 1942 the Lufkin Community Forest became two years of age. While at present the war is temporarily delaying the completion of certain projects, the two years that have passed have seen noteworthy progress in placing the area under a profitable plan of forest management.

The forest is owned by the city of Lufkin and includes 123 acres of forest land, 10 acres of old fields and marshland, and two lakes of 47 acres. It is administered by a non-political board of nine members who are business and professional men of the city.

Three Objectives Outlined

Three main objectives on which the forest is operated include growing crops of forest products, using the area for recreation, and conducting demonstrations of recommended forestry practices.

One of the first projects was the grading of 1.3 miles of road to make the work on the other projects more accessible. This was followed by improvement of 119 acres of the forest stand through the cutting of crooked, defective and unmerchantable timber. As much as possible of this material was salvaged for use in recreational construction, and the tops were prepared as firewood.

Four acres were reserved for special demonstrations of timber cutting methods. Fire lanes have been constructed around the outside boundaries of the entire community forest. Open spots in the forest and four acres of open fields have been planted to tree seedlings.

Fishing Pier Completed

The recreational development of the Lufkin Community Forest has been accomplished principally through the use of the material salvaged in the forest stand improvement work. Some of this material was used directly from the cutting while some of it was exchanged for sawed lumber. The main construction project is a fishing pier 800 feet in length.

Though the forest has not produced a cash return to the city as yet, it has supported the work done with the exception of supervision, which was provided by the Texas Forest Service, the Lufkin city manager. Labor was furnished by the Lufkin N. Y. A.

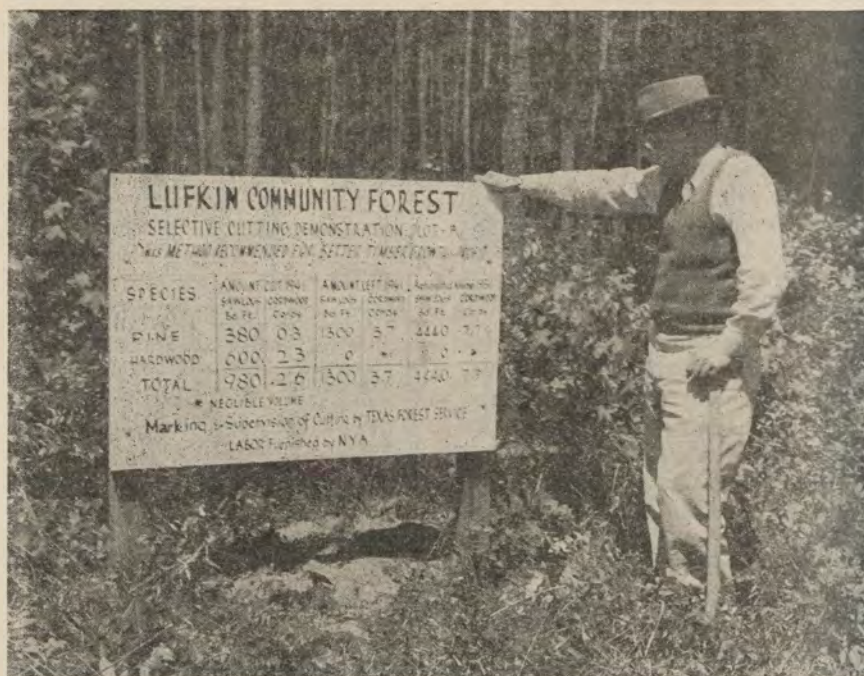
Plans for the future include a continuation of the forestry work and completion of the recreational projects.

Bois d'arc is our principal native dying material in the United States. The Army is the biggest user for uniforms. Other dye woods used to a limited extent include sumach, yellow wood, mesquite, alder, red gum, blue wood, and dog wood. Black walnuts and butternuts are also used occasionally.

Bank Dedicates Annual Statement to Local Sawmill

In honor of the Frost Lumber Industries, whose sawmill at Nacogdoches has contributed much to the welfare and prosperity of Nacogdoches and surrounding counties, the Commercial National Bank of that East Texas city dedicated its annual bank statement to the company. A description of the Frost company and several pictures of the mill appeared in the bank's publication.

One interesting part of the article was the mention given to the forestry conservation efforts of the company. The mill has been operating since 1904 and has produced close to a billion feet of lumber. Practically all its entire output today is going into war contracts.



TIMBER CUTTING DEMONSTRATIONS have been made on the Lufkin community forest to show local timberland owners some of the good and bad examples of woodland management. Each area is labelled with a sign such as the one shown above which describes a selection cutting made in the plot behind it. W. E. White, Texas Forest Service director, inspects sign.

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TEXAS FOREST NEWS

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Dogwood Needed by Textile Firms

Farmers Asked to Scout Land for Trees

Farm woodland owners who have commercial size dogwood trees in their timber stands suitable for shuttle blocks can help prevent bottlenecks in the textile industry by marketing dogwood timber now, the U. S. Department of Agriculture advises.

War requirements for military cloth and war-use textiles have increased the needs for dogwood shuttles to the point where the assistance of farmers and other timberland owners is necessary to insure an adequate supply.

Dogwood is superior to all other native woods for use in shuttles. Although many substitutes have been tried, no wood has been found having the same combination of hardness, fine texture, toughness and smooth-wearing qualities. Dogwood bolts four inches in diameter and up are acceptable. The bolt lengths bought by mills vary considerably, usually between 18 and 54 inches. Prices paid for dogwood bolts have advanced rapidly and in many localities they are twice what they were a few years ago.

Timberland owners having marketable dogwood are asked to contact a block mill or dogwood buyer and arrange for the sale and delivery of available material. Before actual cutting is done, information on prices, acceptable bolt sizes and qualities should be obtained from the buyer to make sure the bolts meet specifications. A cord of dogwood will produce 400 shuttle blocks. Four hundred shuttles will supply 100 looms on full time production for about a year.

Southern farm woodlands comprise fully 30 percent of the forest acreage of the South.

New Circular Will Show Ways to Burn

Circular No. 14, "Brush, Field and Rubbish Burning Hints," worked up by members of the division of forest protection of the Texas Forest Service is now being printed and will be ready for distribution in January. The small six-page leaflet describes methods of burning fields, trash and brush so that fires of these kinds may be kept from damaging timber, fences, pastures and farm homes. It will be amply illustrated.

January, February and March are the time of the year when fires from these causes are most prevalent and the Texas Forest Service is using this as one method to help curb these destructive fires. Copies of the circular may be obtained by writing the Texas Forest Service, College Station, Texas.

FIRE FIGHTERS

(Continued from Page 1)

to 10 men are now being organized in approximately 900 communities and it is expected that enrollment will eventually reach 7,500 volunteer fire fighters.

Training of the crews will be under the direction of local patrolmen and other members of the Texas Forest Service, except that fire fighting experience may be substituted for the necessary training period. In national forest areas, the U. S. Forest Service will assist in training crews.

The organization of the forest fire fighters service will make available a reserve manpower for emergency periods but it is intended that volunteers will be called to fight only fires which cannot be satisfactorily handled by the regular state and federal forest protection forces.

Governor Stevenson has pointed out that the entire organization of the FFFS is being fitted into the civilian defense plan and that county judges, as county defense coordinators and the mayors as munic-

School Children Write for Prizes

War Bonds and Stamps Are Offered on Fire Essays

Thousands of East Texas school children are competing in a forest fire prevention essay contest being sponsored by county superintendents, chambers of commerce, civic clubs, forest industries, banks, boy scouts and merchants in cooperation with the Texas Forest Service. The theme of the contest on which the students must write not more than 100 words is, "I do not believe in allowing the Texas woodlands to burn because..."

County awards, which are being sponsored by local groups, include war stamps for the first five essays in both elementary grade groups and high school groups. Winning essays in each county will be judged for the grand awards and these include a \$50 and a \$25 war bond and \$15 in war stamps for the three best essays in each of the two school groups.

The grand awards are being offered by the Texas Forestry Association and will be presented in January.

The Texas Forest Service is making a canvas of principal book match manufacturers in the country to enlist their cooperation in interesting East Texas firms who purchase book matches for advertising purposes to include a forest fire prevention suggestion on them. Replies so far received indicate that the match companies are willing to lend their aid on the program.

ipal defense coordinators in East Texas have been asked to coordinate the activity.

R. E. Smith, regional director of the civilian defense program at San Antonio has been using the facilities of this organization to help get the service started.

Angelina Boy Wins Planting Contest

Slash Pines Show Best Growth of 24 Prize Plots

Joel Parrott of Central school, Angelina County, recently was awarded first place for the best one-year-old plantation of slash pine among 24 similar plantings set out by school boys in the county last winter. Erwin A. Heers of the Texas Forest Service who helped inspect the plantations said that 93 percent of Parrott's trees were living.

The contest was sponsored by the Lufkin Chamber of Commerce and Angelina County forest industries and is a carry-over from a contest held last year in which tree seedlings were given to boys who demonstrated their ability to properly estimate pine timber.

Twenty-four boys were given 1,000 or more pine seedlings each as winners in this contest, and of this group, six were judged to have successful plantations when the trees were inspected this fall.

Plastics Made of Pine Sawdust at Texas Laboratory

The foundations for a future wood using industry in the state were laid at Lufkin recently, when the forest products laboratory operated by the Texas Forest Service, turned out its first all-wood plastics, which were also the first wood plastics to be made in Texas.

Small discs, dark brown in color, 2 inches in diameter and $\frac{3}{8}$ of an inch thick were pressed out under a pressure of 4,000 pounds per square inch, from pine sawdust previously ground to the consistency of flour. The plastic disks were hard and shiny. Testing for strength, flexibility and durability will be carried on as soon as a quantity of the various types of plastic are fabricated.

WATER ASH (*Fraxinus caroliniana*)

The water ash is common in shaded swamps, to the valley of the Neches River. It forms a tree, rarely more than 40 feet high, with a trunk some-

times 12 inches in diameter, and has small branches, making a narrow, often round-topped head.

The bark is thin, light gray, marked by large irregularly-shaped round patches, which separate into small thin close scales.

The leaves are compound, 7 to 12 inches long, with 5 to 7 leaflets each on a short stem. The leaflets are opposite, ovate to oblong, coarsely toothed, 3 to 6 inches long, 2 to 3 inches wide, dark green above, and paler smooth downy below.

The flowers are small, male and female



Leaflet and Fruit, three-quarters natural size.
Leaf one-quarter natural size.

occurring on different trees, appearing in February or March. The fruit is ellipitic to pear-shaped, to three-quarters inch wide. The wing extends below the seedbearing part and usually narrows into a stalk-like base.

The wood is light, soft, weak, close-grained, nearly white, sometimes yellowish, with thick lighter-colored sapwood. It is used chiefly for fuel.

Cork Oak Acorns Planted in 22 South-Central Texas Counties

South-central Texas farmers and other citizens planted more than 3,000 cork oak acorns in December, co-operating with the Texas Forest Service in a project to determine the suitability of this area of the state for this important tree.

D. A. Anderson, chief of the division of silvicultural research, who has been in charge of the project reports that 77 small cooperative plantings were set out in 22 counties with the assistance of county agents of the Extension Service.

Another 1,000 acorns were planted at A. & M. College and on three state forests in East Texas, Mr. Anderson said.

Cork oak seedlings which were planted a year ago on two state forests have indicated survivals of

from 60 to 80 percent, and show a height growth of between 7 and 9 inches, he stated.

Other cork oak tests are being conducted by the Texas Agricultural Experiment Station at the college and on a number of their substation farms in widely separated parts of the state.

Cork oak is not native to the United States, growing only in a limited area along the Mediterranean. It yields cork, an important war item.

Tests by the Crown Cork and Seal Company which furnished the acorns for Texas have shown that the tree is adapted to certain sections of this country and for this reason the company is extending its experimental plantings to Texas, where it believes the tree stands the best chances of making its optimum growth in the South.