

Texas Forest News

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TEXAS FOREST SERVICE

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FIRE GUARD LIST AT 1,629

By the end of 1937, the number of volunteer forest fire guards enlisted from the rank and file of East Texas citizens by the Division of Forest Protection of the Texas Forest Service in its forest protection program had reached 1,629. The land owned or rented by these volunteers covers close to 310,222 acres of forest land.

The volunteers are signed up by the forest patrolmen. In signing the agreement the fire guard agrees to help prevent forest fires and also to help fight them when fires occur. His cooperation is purely voluntary and he receives no pay for his work.

The enlisting of volunteer forest fire guards has created a feeling of good will between the forest protection men and the East Texas public. The program was started in December, 1936.

TIMBER TYPE SURVEY PROGRESSES

The acreage covered by the timber type survey crews of the Texas Forest Service at the end of 1937 had reached approximately half a million acres. The area surveyed lies in Anderson, Walker, Trinity, and San Jacinto Counties. The work is being done by enrollee crews from the CCC forestry camps operated by the Texas Forest Service in East Texas. Three foresters, three engineers, and four assistant technicians are in charge of the field work done by these crews. The work was originally started from the Huntsville and Maydelle CCC camps, but with the discontinuation of these camps, the surveying is now being conducted from the Woodville, Trinity, Livingston, and Jasper CCC camps.

Timber type mapping has recently been started in Polk, Tyler, Jasper, Newton, Hardin, Houston, and Liberty Counties.

The primary purpose of the timber type mapping is to obtain maps from which forest fires can be accu-

(See SURVEY on page 4)



The forest patrolmen of the Texas Forest Service while traveling over their districts, post the highways, county roads, camping grounds, fishing streams, and other places visited by the public with fire prevention posters.

USE OF WOOD GAS GAINS

Of all of the substitute fuels for gasoline, wood gas in European countries is today making some of the most striking gains. Since the end of last year the Italian government has decreed that all buses must be driven by producer gas generated on the vehicle or by compressed coal gas. In France, a decree was intro-

(See WOOD GAS on page 4)

TIMBER CONSERVATION COUNCIL ORGANIZED IN SHELBY COUNTY

Motto: Protect the Young, Conserve the Old.

Not from foresters, not from farmers, not from industrialists, but from the men whose work, whose livelihood, whose future depend upon the forests—the lumberjacks—came the idea and impetus to organize their own forces to conserve the forests. Such a group, the Frost Timber Conservation Council of Camp Worth, near Center, Texas, was organized in October.

The idea for such a group was conceived in the depression days, but it was not until after the Second Annual Southern Pine Loggers Meet, held September 24 and 25, 1937, at Huttig, Arkansas, that Mr. L. C. Smith, logging superintendent for Frost Lumber Industries, Nacogdoches, returning from the meeting with the determination to educate the lumberjacks in forest conservation, organized the group.

Eighty-nine employees of the company attended the first meeting. Officers in the organization include: J. W. Honeycutt, chairman, Clyde Hopkins, vice-chairman, and Hayes Smith, secretary. Those serving on the Board of Directors are: E. L. Grimes, Dan Goodman, N. Martin, Jim Sims, Bob Brown, E. Youngblood, L. Sharpton, and Tom Golden. Each department of the Frost Lumber Industries is represented. L. C. Smith is practical adviser. All officers were permanently elected.

The chief aim of the Council is effectively told in the motto: "Protect the young, conserve the old." In protecting the young timber, the group hopes to educate the sawyer to carefully fell larger trees and to be careful with fire in the woods. In conserving the old timber, twelve to fourteen-inch stumps are being cut and all the merchantable timber is being taken from the tops. In fact, a "pony" sawmill was especially pur-

(See TIMBER COUNCIL on page 4)

FRAMELESS WOODEN HOUSES SOLVE LOW-COST HOME NEED

Frameless wooden houses, to help meet the need for low-cost modern homes, are being given final tests by the Forest Service of the U. S. Department of Agriculture.

After nearly two years of investigation, the Forest Products Laboratory reports that it expects to have plans in the near future for a modern four-room house costing between two and three thousand dollars. Such a four-room house includes living room, kitchen, two bedrooms, a bath, a utility room, kitchen equipment with an electric refrigerator, bathroom fixtures, plumbing, heating plant, and electrical wiring. The construction system is equally well adapted to larger houses with corresponding reductions in unit costs.

"Such a frameless or prefabricated wooden house can be put up in a few days on the building spot selected," said George W. Trayer, chief of the division of Forest Products Research. "The house can be one or two stories, have a flat or pitched roof, and yet will be built without beams, studding, stringers, or rafters. It may be set over a cellar or on another foundation. Delivery should be as rapid as for a modern automobile."

Forest Service officials explained that instead of a framework of timbers to which clapboards are nailed on the outside and lath and plaster are applied inside, the new frameless house is constructed of prefabricated plywood panels. The plywood panels are made by glue-welding sheets of plywood to both sides of a lighter interior framework. The panels thus built will be room size with wall, partition, floor, and roof sections four feet wide. Although the wall panels are only three inches in thickness, they have strength greater than the usual two by four stud walls. Floor panels six inches thick are stronger than the two by ten joists usually employed.

The newest form of phenolic resin bonded plywood is used and tests indicate that the life of the panels in a house is comparable to the wood in frame houses which lasts for a century or more. The glue is extremely weather resistant and is said to give as strong a bond as if the wood had grown in a solid piece.

"American housing is still largely in the handicraft stage," says the Forest Service. "It is necessary to bring housing into the same economy that has made nearly all other goods and commodities cheaply available. This can be accomplished through new structural systems adapted to large scale production. The modern house needs to be one which can be put up on short notice, use low-cost material and be low in depreciation and upkeep costs, yet at the same time be acceptable to the consuming public."

BETTER LAND USE IN NORTH CAROLINA

Originally the sandhills region of North Carolina was covered with one of the finest forests of longleaf pine to be found in the state. Timber, naval stores, fish, and game made the region a rich one. That was before 1877. Then came the railroad. Then came lumbering operations. The area was cut over, much of it burned, and the land abandoned.

Further exploitation of the area for farming purposes followed, marking a gradual rather than a sudden shift from semi-industrial employment to that of full dependence upon the bare soil for subsistence. Ninety-seven families were living on the area, most of them eking out only such bare and uncertain subsistence as their poor land, supplemented by occasional odd jobs, could provide. Thousands of acres of the Sandhills area remained unused, the small second growth pine forest being continually checked by forest fires.

Then in 1936 the Sandhills Land Utilization Project was planned by the Resettlement Administration in cooperation with state agencies as part of a basic rehabilitation program for this badly depleted area. The 60,000 acres which have been purchased are primarily dedicated to the restoration of the long-leaf pine forest.

One of the leading features of the development is a 185-acre forest nursery where forest stock is being raised, not only for the Sandhills area, but for other parts of the state as well. In addition to the longleaf pine, a large number of shipmast locust trees is being raised in order to provide stock for erosion control throughout the Piedmont area.

Wildlife conservation is encouraged by the game farm containing a breeder house which will produce between two and three thousand wild turkey or quail each year. Three game sanctuaries, including a total of 26,500 acres, are being established within the project in order to provide a safe breeding ground for all forms of wildlife, which are expected to spread throughout the surrounding public and private land.

Perhaps the most significant thing about the Sandhills project is something which cannot be measured in acres or numbers. It is the stimulation which work of this nature gives to the whole movement for better land utilization and conservation of natural resources in the State. Through the establishment of this project, persons throughout the State are being helped to realize the values which can be obtained from a well-planned land utilization program.

NEW OFFICE FOR OREGON FORESTERS

Action taken by the Oregon State Board of Forestry at a meeting in Salem on November 18 assured the immediate construction of a \$31,000 office building that will house the State Forestry Department. The plans also call for the construction of a machine shop, warehouse, and machine storage. The Board, in connection with the new building, approved the purchase of a five and one-quarter acre tract of land.

Seedlings of the Logan elm, on Scippo Creek near Circleville, O., the oldest living thing in the state and scene of Mingo Chief Logan's famed oration to Colonial troops in 1774, are being distributed to perpetuate one of the earliest and most picturesque scenes in Ohio's history.

MISSOURI NAMES CONSERVATION DIRECTOR

I. T. Bode, for the past two years in charge of the Cooperative Wildlife Research Units of the bureau of Biological Survey, has been appointed Director of Conservation for the new Conservation Commission of Missouri. His appointment became effective on November 15.

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SCIENCE SEEKS NEW TREES FOR FORESTS OF FUTURE

"Since the earliest times, animal husbandmen have been familiar with the fact that the crossing of different breeds or races of the same kind of farm animals tends to increase the size and sturdiness of the offspring," writes Donald Forsha Jones in "Genetics in Plant and Animal Improvement." "This effect, known generally as hybrid vigor, and technically as heterosis, is manifested in many different ways. The individuals immediately following a cross are frequently stronger, grow larger, and mature in a shorter time than their parents. They are often notably resistant to unfavorable conditions."

The mule is one of the most common, and among the most valuable, of hybrid farm animals. Chinese swine, introduced into England several hundred years ago, were crossed with the native breeds to produce large, quick-growing animals for meat purposes, and the Poland-China is a common breed today. Generally speaking, many of the most useful breeds of cattle, sheep, and horses are of hybrid origin, and the same is true of domestic fruits, grains, and vegetables.

The ideal timber trees likewise will be a product of hybridization. They will combine, for example, the extremely rapid growth of the Monterey pine with the excellent wood quality of slash pine or western yellow pine. They will have highly efficient foliage, making for relatively few branches on the trees and a corresponding scarcity of knots in the lumber. They will have a sturdy root system. The possibilities for improvement are unlimited, and man should be no more content to keep on using inferior wild strains of trees for reforestation than he would be to return to the original wild forms of his domestic plants and animals.

SOAP FROM PULP

In line with Germany's four-year plan to attain maximum economic independence, soap manufacturers are now mixing waste sulphite pulp liquor with imported fatty acid in a ratio of thirty per cent, which it is estimated will result in a saving of from 60,000 to 85,000 metric tons per annum in Germany's consumption of fatty acids.

FORESTRY TEN YEARS AGO

Railroads Cooperating in Fire Prevention

(From Texas Forest News, January, 1928)

Some time ago Mr. R. W. Wier, president of the Texas Forestry Association, got in touch with the officials of the principal railroads having mileage in the commercial timber belt and suggested that these roads might well design posters pertaining to the importance of forest fire prevention and have such posters placed in the railway ticket offices and waiting stations throughout East Texas. This idea was heartily endorsed by the railroads and resulted in cooperative action on the part of the Southern Pacific, Santa Fe and Missouri Pacific Lines. Two fire prevention posters were designed and lithographed in three colors. The posters used by each of the railroads bear the name of that railroad. These posters have been quite generally put up in East Texas depots, and through their use thousands of travelers have been reminded that it is important to be careful with fire in the timbered part of the state.

The railroads have also given splendid cooperation in guarding against fire escaping from their right-of-way burning operations. Definite instructions along this line have been sent to all section crews by the administrative officials of the railroads at the request of the Texas Forest Service and, consequently, very few fires have escaped to privately owned lands from rights-of-way burning.

NEW STATE FORESTER IN MINNESOTA

After thirteen years of service during which time he is credited with having built up one of the most effective state forestry organizations in the Nation, Grover Conzent, on November 4, was relieved of his duties as State Forester of Minnesota by Conservation Commissioner Herman Wenzel. This action was a part of the drastic shakeup of the conservation personnel in Minnesota following the appointment of a new Conservation Commission.

Ellery Foster, until recently associated with the United States Forest Service, was named to succeed Mr. Conzent.

PINON PINE TREES YIELD HALF MILLION POUNDS OF NUTS

Tree Found in West Texas Mountains

A pinon pine nut crop of between a half million and a million pounds of nuts is reported from the National Forests and adjacent areas of the Southwestern States by field officers of the Forest Service, U. S. Department of Agriculture.

The pinon pine woodlands are found in the Southwest, chiefly Arizona and New Mexico. Considerable pinon pine areas also are found in Colorado and Utah, and to some extent in the mountains of West Texas.

The 1937 production is that of an ordinary crop, according to the reports, although the yield of pinon nuts varies greatly, ranging from less than a million pounds up to three and a half to four million pounds a year. In 1936, more than six million pounds of nuts were sold in New Mexico and Arizona alone but such a bumper crop occurs only about once in seven years.

Indians, Mexicans and white settlers all take part in the harvest of the nuts which are known in various parts of the country as "Indian nuts," "Pinyon or pinon nuts," or "pine nuts."

The pinon pines form a natural resource of great local importance in the Southwest, the Forest Service reports. In addition to the nuts, the pines furnish fence posts, fuel, short poles and piling as well as watershed protection for many areas. The pinon woodlands supply more than 300,000 cords of fuel and about a half million posts a year as well as forage for about 400,000 cattle. The value of the nuts is estimated to average about a half million dollars a year.

MASONITE INTO PORTABLE DESKS

The problem of where to get extra desks at a low cost to accommodate a sometimes necessarily increased force in American business offices today has been solved with a new portable desk recently put on the market. The desks are built of strong, noise-absorbent Masonite Prestwood on natural wood uprights. They come knocked down, each in a compact carton, for five-minute assembly. The desks are reported to sell for considerably less than a \$10 bill.

TIMBER COUNCIL—

(Continued from page 1, Col. 3.)

chased to cut crossties from the tops of trees cut for sawlogs.

The Council aims to interest farmers in growing timber as a crop. They base this on the fact that the company is a potential buyer of the farmers' forest crop.

The territory included in the Council's working area lies in Nacogdoches, San Augustine and Shelby counties and totals 70,000 acres, owned by the Frost Lumber Industries, Inc.

The Council is cooperating with the Texas Forest Service in its work in forest protection and forest management. In December, R. F. Balthis, regional forester, at State Forest No. 1 near Kirbyville, spoke to the group at Camp Worth. About 350 including many local residents attended. Following the talk, the new film, TEXAS FORESTRY, was presented. Mr. Balthis also inspected part of the company's cutting areas and showed an enthusiastic class of boys from the Camp Worth school, which is guided by R. E. Muckleroy, how to plant baby slash and longleaf pine seedlings.

This is indeed a unique group. Here are men whose existence depends on the forest, organized to recognize, protect, and conserve forest values and to perpetuate them for the generations to come.

SURVEY—

(Continued from Page 1, Col. 1.)

rately located from the fire towers. These maps when completed will show the location of all physical features of interest in the control of fires. The work is being done with a high degree of accuracy and the cruise lines are being run from base lines triangulated from U. S. Coast and Geodetic Survey triangulation stations. Secondary base lines are then run at intervals of three to five miles dividing the area between the primary base lines. It is from these secondary lines that the cruise or strip lines, one-quarter of a mile apart, are run through the woods.

Enough lumber was used on the San Francisco-Oakland bridge (30,000,000 board feet) to build three thousand five-room houses—a complete residential city of 14,000 people.

WOOD GAS—

(Continued from Page 1, Col. 2.)

duced in September under which all public transport companies with a minimum of ten vehicles will be compelled after July 1, 1939, to convert at least ten per cent of their vehicles to run on wood gas. In Italy and Germany, subsidies are offered to makers of vehicles driven by wood gas. In Germany, the subsidy is as high as \$240 a vehicle; in Italy the maximum runs to as much as \$470.

In developing wood gas, the fuel may consist of any type of wood or resin, or wood waste, preferably of low resin content, though charcoal is more satisfactory mainly because it gives a higher mileage per pound.

Wood Gas Cuts Costs

Experiments carried out have shown that 20 to 24 pounds of wood or 10 to 12½ pounds of charcoal can produce power equivalent to one gallon of gasoline. Since in most European countries gasoline is subject to heavy taxation, the use of wood gas shows a substantial saving in fuel costs, often as high as 75 per cent.

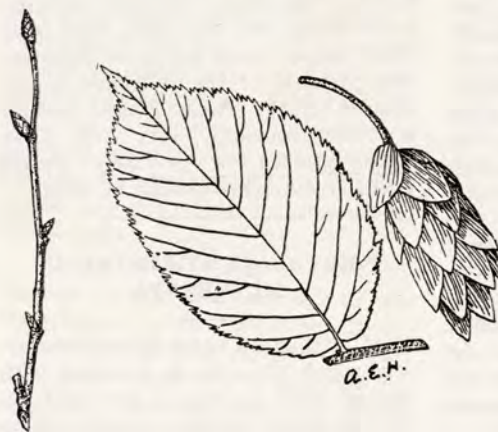
On converting an engine from gasoline to wood gas type there is a loss of power amounting to 20 to 25 per cent. This can be partially remedied by increasing the compression ratio 7:1. Another disadvantage of wood gas is the time required for starting up—five to six minutes usually. This may be overcome by using gasoline to start a car, or mixing gasoline with wood gas when additional power is required.

Germany already has a chain of "fueling" stations along main highways to supply wood or charcoal in bags of standard weight. In England, two companies are manufacturing "gasogenes." Important developments have also taken place in China and India. In China, four companies manufacture gasogenes and several hundreds of charcoal gas buses were in use in Shanghai, Hangchow and Nanking before hostilities disrupted service.—Business Week.

Forests in Central Europe have for centuries been treated as products of the soil, susceptible to renewal and management.

IRONWOOD (HOP HORNBEAM)

(Ostrya virginiana (Miller) Koch.)

**IRONWOOD**

Twig, three-fifths natural size. Leaf and Fruit, one-half natural size.

The tree gets its common names from the qualities of its wood and the hop-like fruit. It is a small, slender, generally round-topped tree, from twenty to thirty feet high and seven to ten inches in diameter. The top consists of long slender branches, commonly drooping toward the ends. It is found mostly on rather dry soils throughout the uplands of the eastern part of the state.

The bark is mostly light brown or reddish brown, and finely divided into thin scales.

The leaves are simple, alternate, generally oblong with narrow tips, sharply toothed along the margin, sometimes doubly toothed, from two to three inches long.

The flowers are of two kinds on the same tree; the male, in drooping catkins which form the previous summer, the female, in erect catkins on the newly formed twigs. The fruit, which resembles that of the common hop vines, consists of a branch of leafy bracts one to two inches long containing a number of flattened ribbed nutlets.

The wood, strong, hard, durable, light brown to white, with thick, pale sapwood, is often used for handles of tools, mallets and other small articles.

Texas Forest News

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FORESTRY COMMITTEE OF EAST TEXAS CHAMBER OF COMMERCE MEETS

Paul T. Sanderson, chairman of the Forestry Committee of the East Texas Chamber of Commerce, presided over a call meeting of the Committee at Trinity, January 19. Mr. Sanderson, who is president and general manager of the Texas Long Leaf Lumber Company, was named by E. L. Smith, president of the East Texas Chamber of Commerce, to serve as chairman of the Forestry Committee. E. O. Siecke, director of the Texas Forest Service, was named technical adviser to the committee, and the Regional Agricultural Director, Elmore R. Torn, was appointed secretary.

Others serving on the Forestry Committee include: J. W. Oliphint, (FORESTRY MEETING on Page 4)

HOW DOES SAP GET TO TREE TOPS?

New Theory Advanced

How sap gets to the tops of tall trees has always been a question more or less unsolved. Recently, however, Dr. Philip Rodney White of the Rockefeller Institute took a long stride toward solving the problem by announcing he had found enormous pressures in the roots of tomato plants, pressures high enough to serve tomato plants hundreds of feet tall. The Doctor explained and showed clearly that this root pressure could serve as an adequate explanation for sap transportation in the tallest known trees.

Dr. White proved his theory on tomato plants by attaching glass tubes carrying columns of mercury to their roots. The mercury went up until it indicated a pressure of 125 pounds per square inch, at which point the powerful roots broke the apparatus.

The American Association for Advancement of Science, which awards annual prizes to outstanding work, considered the Doctor's announcement so important that it awarded him \$1,000.



Above is a picture of the lookout tower recently completed at the Division of Forest Protection headquarters at Lufkin, Texas. The tower is built of pressure-treated creosoted timbers. The weight of the creosoted material in the tower amounts to 24,300 pounds, and the wooden material in the cab, stairs and platform landings amounts to about 1,200 pounds. The hardware, bolts, and nuts weigh an additional 987 pounds, making the total weight of the tower resting on the concrete piers, 26,487 pounds or slightly over 13 tons. The tower is 100 feet tall.

WOODEN OBSERVATION TOWER COMPLETED BY TEXAS FOREST SERVICE

First of Its Kind to Be Built in Texas

A fabricated forest fire lookout tower built of pressure creosoted lumber has recently been erected by the Texas Forest Service at the headquarters of the Division of Forest Protection, located one and one-half miles south of the city limits of Lufkin on the Houston highway. This is the first structure of its kind ever to be built by the Texas Forest Service. The tower looms some one hundred feet above the ground and can be seen for miles. The lumber in it was pressure treated by the Houston plant of the National Lumber and Creosoting Company. Approximately 6,500 board feet of treated lumber and 4,000 feet of untreated lumber were used. The treated lumber contains ten

(See NEW TOWER on Page 4)

NEW AREA ADDED FOR CO- OPERATIVE FIRE PROTECTION

The Angelina County Lumber Company has listed with the Texas Forest Service for cooperative fire protection 29,710 acres of forest land, located in northeast Polk County, bringing the total area listed by this company in protection units to 73,308 acres. By the addition of this new area, Protection Unit No. 6, which was established in 1930, now amounts to 477,307 acres gross. The other cooperators in the Unit are W. T. Carter and Brothers and the Texas Long Leaf Lumber Company. A new 100-foot lookout tower has been erected 4.7 miles south of the Neches River, on the east side of Highway No. 35. Approximately 38 miles of new telephone line are now being erected to connect the new tower with already existing towers. This new tower and four other towers and one tree cab cooperate in the detection and suppression of fires in the Protection Unit as well as areas under blanket patrol in southern Angelina, northeastern Trinity and northern Polk counties.

EAST TEXAS FOREST FIRE DAMAGE DECREASED IN 1937, REPORT SHOWS

Only 1% of Protected Area Burned

"Despite periods of excessive drought during 1937, forest fires occurring in the East Texas commercial timberbelt were held to a minimum of 130,000 acres," E. O. Siecke, Director of the Texas Forest Service, announced recently. "The State is protecting close to eleven million acres of forest land," he said, "and, although we had over 6,400 fires, only one per cent of the area burned. We almost equalled our record of 1935 when only .9 per cent of the protected area burned." The protection work is directed from the Division of Forest Protection headquarters at Lufkin, where W. E. White is chief.

In reviewing the activities of the Division office during 1937 in his annual report to the Federal government at Washington, the Director pointed to the increased support from the East Texas public. Over 3,200 civilians helped of their own free will in fighting forest fires. The value of this assistance has been conservatively estimated to amount to \$6,000 had the State had to pay for their time. In addition, almost 1,500 volunteer forest fire guards signed agreements to help prevent and fight fires.

The area protected was increased by an additional 43,774 acres. Three thousand acres were added in Houston County and 40,774 acres in Jasper County. Several private timberland owners contributed towards the cost of more intensive protection on half a million acres of their holdings in special protection units. The gross area in the protection units, which includes non-contributing acreages, amounts to over a million acres.

The educational work of the Texas Forest Service was pushed ahead with still greater effort. A total of 494 combined forestry lectures and motion picture shows were given by two motorized motion picture units in the rural communities and piney woods schools, to an attendance of 70,000 people. To fill the need of showing East Texas citizens forestry conditions as they actually existed in Texas, a special film was prepared in Texas and released to the educational units. Other public contacts were made by the patrolmen in visiting schools and interviewing local citizens.

Investigation of forest fire law violations was continued. Headed by Jeff O'Quinn, fire law enforcement agent with a special ranger's commission, 51 cases were investigated and convictions secured against 35 woods burners. "It has been noted," the Director said, "that where fire law cases have been investigated, many of the old offenders have ceased to fire the woods. We firmly believe that this enforcement work is very necessary in connection with our educational work in fire prevention."

TEXAS CCC CAMPS RANK FIRST IN SAFETY FIRST PROGRAM

Continuing on a record established over a year ago, CCC forestry camps administered by the Texas Forest Service in East Texas maintained their seemingly invincible hold on first place in Region 8 of the South, with fewest accidents to enrollees during the last half of 1937. Only three accidents to Texas CCC boys were reported during the period.

The record was held over all other State camps as well as over camps operating on Federal projects. Camps in Region 8 are located in Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, and Texas.

GEORGIA TEACHES FORESTRY TO 8,000 HIGH SCHOOL STUDENTS

More than eight thousand students in 275 rural high schools will this year participate in forestry projects supervised by the State Forestry Department, it was announced recently by C. A. Whittle, educational director for the department. Georgia was the first State to inaugurate forestry projects in rural high schools, and the enrollments have grown steadily since started in 1929, Mr. Whittle said. The projects call for a ten-acre timber tract at each school, where practical demonstration will be carried out for students, landowners and farmers in each community. Instruction under the guidance of vocational agricultural teachers already had begun in many of the schools, Mr. Whittle said. Technical assistance is provided by the State forestry division.

MAYDELLE CCC CAMP CLOSED

The Maydelle CCC camp located on State Forest No. 3, in Cherokee County, was closed on December 15, 1937. The camp was one of the oldest forestry camps in East Texas, having been in operation for four and one-half years since June 15, 1933. Such action is deeply regretted by Texas Forest Service officials who stated that the discontinuation of the Maydelle camp was part of a Nation-wide program of camp and enrollee reduction.

The work accomplished by the camp has been of high value to Cherokee and Anderson Counties mainly for the many forest protection roads which have been extended into formerly isolated timber areas. The roads, besides affording these counties with the chance of more adequate protection from forest fires, are, according to reports from local citizens, proving of great value as mail and school bus routes.

State Forest No. 3, the site of the camp, has also benefitted through the many graveled roads constructed there. Probably the greatest benefit to the Forest, however, has accrued in the stand improvement cuttings which partially covered the Forest's 2,640 acres. The products removed from the cuttings were some 24,000 eighteen-foot telephone poles, 3,000 fence posts and 3,000 cords of fuelwood. Many of the telephone poles were treated with creosote at a small demonstration plant built on the Forest. A small dam, lake, and picnic area was also improved on the Forest.

During the life of the camp, the enrollees at times lent valuable and much appreciated assistance in searching for lost people and were particularly active in the fall of 1937 in searching for the U. S. Army plane and flier which were forced down during a storm, near Grapeland.

A summary of the camp's accomplishments follows:

Miles of roads.....	155
Bridges built, 10' and over.....	290
Area stand improved (acres).....	1,744
Lookout towers erected.....	5
Miles of telephone line.....	158
Man-days fighting forest fires.....	5,291

Fires are the greatest menace to the practice of forestry.

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FORESTRY TEN YEARS AGO Kirby Donates Forest Land to A. and M.

(From Houston Post Dispatch, Jan. 3, 1928, and Texas Forest News, February Issue, 1928)

A gift of 600 acres of East Texas forest land to Texas A. and M. College was announced by John Henry Kirby, Houston lumberman and financier, at the A. and M. Club's luncheon at the Rice Hotel Monday.

The tract may be selected by A. and M. officials from any land he owns, Mr. Kirby stated, preferably, however, in the longleaf pine belt of Tyler county, Mr. Kirby's old home.

In telling of his own youthful desire to attend the college, Mr. Kirby stated the purpose of his gift.

"It is to foster scientific study of forestry in East Texas," he said, "and to create a student loan fund for worthy boys, preferably those taking forestry courses.

"It is presented to A. and M. College to be used by the Texas Forest Service, a division of the college, for investigation, reforestation and development of forest land."

Annual Revenue \$1,500

The loan fund, Mr. Kirby stipulated, will be administered by the Association of Former Students. When the tract is developed and the ripe trees removed each year an annual revenue of between \$1,000 and \$1,500 will be available to the loan fund, Mr. Kirby said.

"As time goes on," he explained, "the price of raw lumber will increase and through development the production will become greater.

A. K. "Dad" Short, manager of the conservation and terracing department of the Federal Land Bank of Houston, suggested the gift and especially formation of the loan fund, Mr. Kirby stated.

F. M. Law, president of the First National Bank and president of the Board of Directors of A. and M. College, accepted the gift for the school.

Made Honorary Member

"In behalf of President Walton and the Board of Directors," Mr. Law said, "but more in behalf of the boys you will help and who will bless your memory, I thank you from the bottom of my heart, Mr. Kirby."

Colonel Ike Ashburn, secretary of the Chamber of Commerce and former secretary of the College's Association of Former Students, assured Mr.

Kirby the loan fund would be properly administered.

As the meeting closed Mr. Kirby was elected to an honorary life membership in the Houston A. and M. club.

ARBOR DAY, FEBRUARY 22

February 22, Washington's birthday, is Arbor Day in Texas. Arbor Day is set aside for special study and practical application of tree planting and forest conservation among the citizens of the State. Today, Arbor Day is forty-eight years old in Texas.

Arbor Day was first observed in Texas in 1890 when a law designating February 22, Washington's birthday, as Arbor Day, met with state-wide approval. The observance of Arbor Day in the State gained increasing recognition through the years and reached its highest peak in 1932, when over 400 individuals, organizations and schools combined forces to plant over 50,000 trees commemorating the Bi-Centennial celebration of George Washington's birthday, a celebration which, in passing, saw over ten million trees planted throughout the Nation.

The primary purpose of Arbor Day, or Tree Day, is to bring to attention the important part that trees play in the lives of the people and to stimulate interest in planting and preserving them. Arbor Day is becoming more and more associated with the economic as well as with the patriotic and aesthetic ideas. Its celebration is a means of doing some practical good to the community and at the same time is a stimulus to civic betterment along a multitude of lines. Trees may be planted around the home, the school, the community; they may be set out along streets and highways and around public institutions, and in larger quantities they may be planted on idle land, in slopes and gullies to prevent erosion, and in barren stretches to serve as windbreaks. In brief, "the Arbor Day tree is not only a thing of beauty and utility itself; it is a symbol, standing for the recognition of the importance of the forest in the life of Texas and the Nation."

Fires have destroyed more forests than the lumberman's axe.

STATE CONVICTS THIRTY-FIVE FIRE LAW VIOLATORS IN 1937

Violation of Texas forest fire laws brought convictions against thirty-five persons last year, the Texas Forest Service announces. Three other cases were settled by agreement between the State and the defendants. In all, fifty-one cases were investigated during 1937. Only three cases were acquitted and eight others were dismissed because of technicalities. At the end of the year two cases were awaiting court action.

Summarized by counties the fire law violations were as follows: Newton, 9; Cherokee, 8; Polk, 8; Tyler, 6; Jasper, 4; Rusk, 3; Trinity, 3; Angelina, 2; Montgomery, 2; Walker, 2; Anderson, 1; Cass, 1; Houston, 1; Nacogdoches, 1; total, 51 cases. The total fines and costs assessed in all cases amounted to \$836.85.

A State law enacted in 1925 made the intentional setting of fires on another's property or letting fires carelessly escape to another's property a misdemeanor subject to action by law. Up until 1936 the Texas Forest Service had been hesitant about applying the law, feeling that better results could be obtained by educational methods. It was only after careful study and with much reluctance that the Service, in 1936, resorted to active law enforcement to decrease the growing number of carelessly or maliciously set fires in East Texas. Fire law violations are investigated by a law enforcement agent with a special Texas Ranger's commission. Convictions were secured against eighteen people in 1936 in which thirty-seven cases were investigated.

Public sentiment is growing against burning the woods in East Texas. County courts and county officials have for the most part furnished splendid cooperation in forest fire law violation cases coming before justice courts and grand juries. It is hoped that this policy will be a means of reducing the number of man-caused fires in East Texas.

Sir Walter Raleigh introduced mahogany to England. A broken rudder on his ship was repaired in Curacao harbor with a tough South American wood from near-by jungles. Sir Walter was so pleased with it that he presented Queen Elizabeth with a table made from the same wood.

FORESTRY MEETING—

(Continued from Page 1, Col. 1)

Huntsville; H. M. Seaman, Houston; O. M. Stone, Jasper; D. C. Kenley, Diboll; E. L. Kurth, Lufkin; G. H. Zimmerman, Waco; W. B. Marsh, Dallas; Walter O'Neal, Texarkana; and J. R. Keig, Beaumont. As the work of this Committee progresses, it is expected that new members will be appointed.

The program of objectives as outlined by the Committee, which is to be submitted to the Board of Directors of the East Texas Chamber of Commerce, follows:

1. Definite action to be taken towards securing favorable consideration for more equitable taxation on timber lands, and for classification of growing timber as a farm crop.

2. Planned education and cooperative methods for forest protection and improved utilization practices.

3. Work towards freight rate adjustments.

4. Voice opposition to government regulation of forests.

Other objectives approved by committee and recommended here are:

- (1) Cooperation with State Planning Board, Texas Forest Service and all other public agencies in making East Texas forestry conscious;
- (2) Proper procedure to have East Texas counties included in Federal range program;
- (3) Use of visual education films of Texas Forest Service to impress need of proper utilization and conservation methods;
- (4) Calling on affiliated chambers for cooperation in setting up local forestry committees;
- (5) Agricultural department of regional chamber prepare consolidated report of pertinent facts on problem, using Texas Planning Board forestry report as guide.

The Federal government's policy as outlined by F. A. Silcox, chief forester of the U. S. Forest Service, in his annual report of the activities of the Forest Service was also discussed.

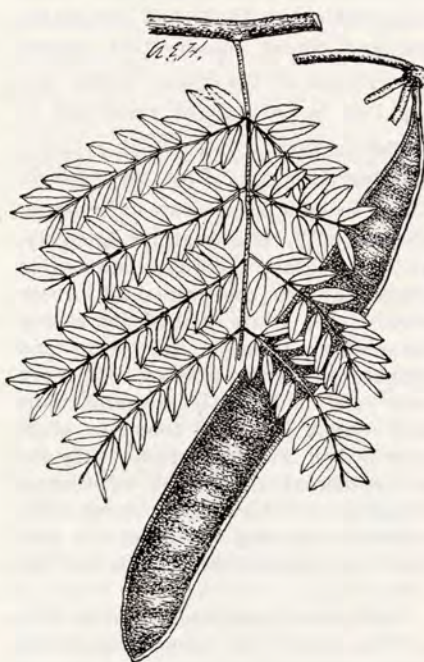
FIRST BREAD FROM ACORNS

The earliest known bread flour was made from acorns. Indeed, Indians on South America's west coast still eat acorn bread. The nuts are so bitter to the taste that they first must be thoroughly soaked in boiling water.

MIMOSA

(Leucaena greggii S. Watson)

In western Texas, (upper San Saba River to Devils River), occurs a beautiful small tree, the mimosa. It grows along the banks of streams and in moist ravines, and reaches a size of fifteen to twenty feet in height and four to five inches in diameter.



MIMOSA

(Leaf and Fruit, two-thirds natural size)

The leaves are finely and doubly compound; that is, made up of ten to fourteen featherlike branches, each containing from thirty to sixty very small leaflets arranged along opposite sides of the leaf stem, like pinnae of a feather. Each leaflet is elliptical, grayish green or bluish green, smooth, and about one-third inch long.

The white flowers are clustered in dense round heads, about one inch in diameter, borne on long stems. Each tiny flower has a protruding hairlike part which gives the head a fuzzy appearance.

The pods, or fruit, are six to eight inches long and about one-half inch wide, flat and with narrow winglike edges.

The wood is heavy, hard, close grained, clear brown streaked with red, with thin, clear sapwood.

NEW TOWER—

(Continued from Page 1, Col. 3)

pounds of creosote per cubic foot and was used for the framework and cross-beams of the structure. Untreated lumber was used for the observation cab, for stair treads, and hand rails. All lumber was completely fabricated before treatment—dabs miters, bolt holes, grooves, Teco connector rings, and exact lengths were easily handled by the machinery at National Lumber and Creosoting Company's plant. This fabricating had to be exact to within 1/32 of an inch in order for the pieces to fit in the structure. Not one piece of lumber had to be rebored or recut in erecting the tower. The tower was purchased through E. C. W. appropriations and erected by C. C. C. enrollees.

Until recently almost all towers of this nature have been built of metal, but the lumber industry was given a chance due to the great possibilities of the Teco connector rings and pressure creosoted lumber. The wooden structure has many advantages, chiefly that of low cost of materials, low construction cost, permanence, and less maintenance expense.

GAIN IN JASPER COUNTY

TIMBER SHIPMENTS

A gain of 301 cars in movement of timber and timber products out of Jasper by way of the Santa Fe during 1937 was shown in the annual report of A. I. Aden, Jasper station agent.

Shipments for the year amounted to 1,516 cars, as compared with 1,215 cars in 1936. This represented an average of 126-1/3 cars shipped each month.

Included in the shipments were 639 cars of finished lumber, 90 cars of hampers, 102 cars of bushel baskets, 236 cars of logs, 62 cars of poles, 278 cars of railroad ties, 23 cars of fence posts, 40 cars of oak staves, five cars of dogwood shuttle blocks, and 41 cars of pulpwood.

April was the banner month on shipment of these products, a total of 162 cars having moved out, while January with 96 represented the low.

The December shipments from Jasper were good, the report showing 122 cars moved.

Texas Forest News

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TEXAS FOREST SERVICE

March, 1938

SIXTY ATTEND JASPER FIRE CONTROL MEET

East Texas Law Officers Pledge Aid To Fight Forest Fires

More than sixty officials of the county, state and federal governments met at the C. C. C. camp at Jasper, Texas, on February 11, to discuss the indiscriminate burning over of woods in the East Texas timberbelt and methods of control. Those attending included San Augustine, Sabine, Jasper, and Newton county sheriffs, county attorneys, county judges, justices of the peace, constables, and deputies.

Mr. E. O. Siecke, director, Texas Forest Service, was the first speaker. He expressed the thanks of the Service for cooperation in the past and pointed out that public sentiment was now more favorable to forest protection than in the past. The indiscriminate burning over of the woods tends to give higher forest officials the impression that the citizenship of the area adjacent to Jasper is not vitally interested in reforestation work and might lead to the abandonment of the Jasper C. C. C. camp should the forest fire record of the past year continue, the Director warned. The brunt of the fire-fighting is borne by the C. C. C. enrollees and this seriously interferes with their regular program of work, he pointed out.

Newton County was shown to have the greatest number of fires last year, there having occurred 948 in which 34,143 acres were burned over, according to W. E. White, chief of the Texas Forest Service's Division of Forest Protection in Lufkin.

Jasper County had 497 fires in which 10,103 acres were burned over. The fire records of both San Augustine and Sabine Counties were low, Mr. White reported, only 114 fires have occurred in San Augustine, burning over 1,806 acres, and 98 in Sabine County, burning over 1,107 acres.

E. E. Briscoe, educational adviser of
See JASPER MEET on Page 4



Most forest fires in Texas may not attract the attention aroused by the spectacular fires of the Northwest. Their damage, however, is greater than the casual observer would believe, for in their burnings they particularly kill the young growth, which is the basis of our future forests and forest industries, damage soil fertilizers and soil values, hasten erosion, drive out the game, and injure older timber. The above picture shows a typical ground fire burning in the shortleaf pine region of Texas.

"MARCH OF TIME" TO SHOW DIXIE PAPER BOOM

The dramatic rise of the paper and pulp industry in the Old South, which is bringing new financial vigor to the coastal regions of the United States from the Carolinas around to Texas with their 200,000,000 acres of forest lands, is graphically portrayed in "Old Dixie's New Boom," one of three subjects in March of Time's latest moving picture release which opened on Feb. 25, at the Majestic Theater in Dallas, and is slated to show in other Texas theaters soon.

Key figure of the South's \$65,000,000 surge forward from its dependence on the single crop of cotton is a 70-year old chemist, Dr. Charles Holmes Herty, former president of the American Chemical Society. March of Time shows how Dr. Herty persisted despite profound discouragement in carrying on his laboratory re-

See PAPER BOOM on Page 4

EDUCATIONAL UNITS COMPLETE TWELVE YEARS OF SERVICE

During the twelve years that educational work has been conducted by the Division of Forest Protection of the Texas Forest Service in the East Texas piney woods communities through the aid of motorized motion picture units, 2,781 shows have been given to an audience of 407,771 people. The program was started in 1926 when only one unit operated part time.

Roads were bad in the early days, and it was not until 1930 that over 200 shows a year were given. By 1934 the educational program had showed such promising results that another motorized unit was equipped and is now operating in northeast Texas. The program served the greatest number of people last year with 494 shows to almost 70,000 folk. But even now with the new unit, it takes each unit
See FOREST EDUCATION on Page 3

PREVIEW OF THE FINDINGS OF THE FOREST SURVEY IN THE LOWER SOUTH

The Southern Forest Survey has now completed sufficient analysis of its cruise of 213,000,000 acres of land in the lower South to present a brief preview of some of its findings.

Three outstanding findings of the inventory phase of the Survey are: (1) that 125,000,000 acres, or 59 percent of the land surface, are in some stage of forest growth; (2) that 97,000,000 acres of this vast area of forest are in second-growth timber; and (3) that hardwood species, which are to be found in a significant proportion on 65 million acres, make up 44 percent of the total sawtimber volume in the region.

The total sawtimber volume found in the lower South, which includes the sawtimber volume in all sound pine trees at least nine inches in diameter at breast height and in all sound hardwood trees at least 13 inches d. b. h., was 264 billion board feet, of which 147 billion feet were pine and 117 billion feet were hardwood. The additional volume in under-sawlog-size trees, which includes only the smaller trees at least five inches d. b. h., is estimated to be 454 million cords net, of which 34 percent is pine and 66 percent is hardwood.

Of the 34 survey units in the lower South, thus far the net annual growth has been calculated for only 17, chiefly in the Naval Stores Region, the Pine-Hardwood Region (West), and the Delta Hardwood Region. The net annual increment in these 17 units, in sawtimber only, is estimated to be 4,411,500 M board feet of pine, and 2,452,000 M feet of hardwood, a total of 6,863,500 M board feet. Against this impressive figure, however, must be set the annual drain. The results show that sawtimber drain exceeds sawtimber growth in nine of the 17 units. Six of these were in the Naval Stores Region, where the excess of annual sawtimber drain over growth amounts to 525,000 M feet, and three were in the Delta Region, where the excess of sawtimber drain over growth (in the units shown) amounted to about 300,000 M feet. In four units in the Pine-Hardwood Region (West), however, growth exceeds drain by about 636,000 M feet.

FORESTRY TEN YEARS AGO

Beaumont Chamber of Commerce has Forestry Committee

(From Texas Forest News, December, 1927)

A decidedly encouraging action, indicating constructive interest in forestry problems, was taken by the Beaumont Chamber of Commerce some time ago when this organization appointed an official forestry committee. Beaumont has always had a large forest payroll and millions of dollars of wealth carved out of the virgin forests in southeast Texas have been spent with the Beaumont merchants or invested in the development of the city. The personnel of the forestry committee includes progressive lumbermen as well as able business men engaged in other lines of activity. Mr. Charles E. Walden is chairman of the committee while the remainder of the members are Ben S. Woodhead, J. H. Reese, P. E. Hammons, J. L. Lyons, Beauregard Pipkin, E. H. Green, and W. F. Ryder.

The example set by the Beaumont Chamber of Commerce might well be followed by every chamber of commerce of the commercial timber belt of East Texas. All of these counties have a vital land problem in stimulating the use of agricultural land for agricultural purposes and the use of timber growing land for growing successive timber crops. Many complexing problems are still to be solved before the trail to real reforestation is blazed and brushed out. Forestry committees aided by the chambers of commerce in East Texas can render a wonderful service in studying and reporting upon the situation in their counties and in cooperating with the East Texas Chamber of Commerce and other agencies in working out a forestry program for the entire East Texas region.

TWO NEW FIRE LAW AGENTS APPOINTED

In an effort to get to the source of indiscriminate woods burning, the Texas Forest Service recently added two new forest fire law enforcement agents to track down and apprehend fire-bugs, particularly in Jasper and Newton Counties where the fires started through incendiarism were high last year. The new men are Tho-

mas S. Hughes of Newton and Millard Kelley of Kirbyville. Their appointment is only temporary to cover the hazardous spring fire season.

In taking this step towards more stringent forest fire law enforcement measures, the Texas Forest Service points to the 1937 record in the above counties. In Jasper County there were 497 fires that burned over 10,103 acres and in Newton County, 948 fires that burned 34,143 acres. A total of 13 violation cases was investigated in the two counties.

Investigation of fire law cases has been handled by Jeff O'Quinn, Lufkin, fire law enforcement agent with a special ranger's commission. His work has been efficient as evidenced by the 37 cases he brought before East Texas courts in 1936 and the 51 cases in 1937. The appointment of the new men is made to bear down on woods burning in the "hot spot" of the East Texas area being protected. O'Quinn will continue to head up the enforcement work and will be given more freedom now to investigate cases in other parts of the protection area.

Since the middle of January about seventeen arrests have been made and fourteen convicted. Director E. O. Siecke, in commenting on the more intensive enforcement work, stated that arbitrary fire law enforcement is only temporary and does not solve the problem. "The prevention of woods burning in these severe sections can best be accomplished through organizing the influential citizens into groups against the few people who insist on destroying the property of others. A strong public sentiment aroused in the very heart of these areas will do more good than all our laws," the Director said.

SOUTHERN PINE IS HAILED AS BALANCE TO NEWSPRINT PRICE

Secretary-Manager Cranston Williams of the Southern Newspaper Publishers Association said on January 1, "the only definite protection that American publishers can have to prevent arbitrary price fixing (on paper) by Canadian manufacturers and Americans operating in Canada, cooperating with Canadian politicians, is to develop the Southern pine newsprint industry".

Williams expressed hope that "plans

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will be completed soon which will bring about production of newsprint at the first mill in Texas about January 1, 1939."

Reporting an increase in price of newsprint paper recently of 17.5 per cent to publishers generally and 20 per cent in Texas, Williams said: "It looks to me like the immediate effect of these increases is to cause publishers to reduce consumption. Figures already show more newsprint production and greater capacity than demand. The price has been raised without consideration of the law of supply and demand and it seems to me that publishers are going to have to reduce consumption to bring about reasonable prices".

When the speed of flowing water is doubled its eroding power is multiplied 30 times.

FOREST EDUCATION—

(Continued from Page 1, Col. 3)

about two years to completely cover its respective district.

No charge is made for the shows. They are open to all, young and old, white and colored. The evening's program usually includes a short talk by the educational assistant, the showing of the Texas-made film, "Texas Forestry", and then two comedies. The shows are not only serving a great need from the forestry education side but are offering a means of entertainment to many rural communities which otherwise have seldom access to a "movie-house." The educational assistants conducting the work are J. R. Thigpen, Huntsville, and E. B. Long, Marshall. The shows given since 1926 are summarized below:

Year	No. Shows	Attendance
1926	42	7,000
1927	95	12,800
1928	165	23,710
1929	81	10,683
1930	222	30,930
1931	238	34,986
1932	240	34,039
1933	247	36,101
1934	275	45,613
1935	235	32,689
1936	447	69,443
1937	494	69,777
Total	2,781	407,771

SOUTHERN PINE CONVENTION,
MARCH 24-25

Announcement was made recently by H. C. Berckes, secretary-manager, that the twenty-third annual meeting of the Southern Pine Association will be held in New Orleans on March 24 and 25, with headquarters at the Roosevelt Hotel. Important matters affecting the South's lumber industry and southern pine manufacturers in particular will be acted upon at this meeting, it was stated.

Preceding the annual meeting, the Department of Conservation of the Southern Pine Association will hold a conference on March 23, A. G. T. Moore, manager of the department announced. Representatives of the state and federal forest services, forest industrial enterprises, committee members, railroad executives, and private timberland owners have been invited. It is expected that important matters concerning the place of the various groups represented in the forest conservation picture will be discussed and an effort made to augment and coordinate the activities of the several groups.

CIVIC CLUBS ORGANIZE FORCES
AGAINST WOODS BURNING

As a result of recent contacts made by W. E. White, chief of the Division of Forest Protection, Lufkin, civic clubs in Jasper and Newton Counties have promised their support in a program to decrease forest fires in their respective localities. The clubs cooperating in this work are the Jasper Chamber of Commerce which has a very active forestry committee headed by Walter Smith, chairman, and O. M. Stone, member of the legislative committee of the Texas Forestry Association, and the Lions Club at Newton and Kirbyville, each of which has appointed a forestry committee.

Mr. White talked before each of these groups and pointed out the damage being done by fires. He showed how fire during the past twenty years had caused damage estimated at \$1,000,000 in both Jasper and Newton Counties; and that with ninety percent of the area of these counties in forest growth, the loss was more serious than ordinarily conceived. Timber growing is the main industry

DR. WHEELER, U. S. FOREST
SERVICE LECTURER,
SPEAKS AT A. AND M.

Dr. H. N. Wheeler, lecturer of the U. S. Forest Service, recently addressed a group of Bryan and College Station residents and A. and M. students at A. and M. College on the Nation's forests and needs of conserving them. He said that the four main reasons for conserving the forests were: economic, watershed protection, protection of wildlife, and recreational value. His talk was sponsored by the Natural History Society at A. and M., the Texas Forest Service, and the Brazos County Game Protective Association.

Dr. Wheeler has been engaged in lecture work for the U. S. Forest Service for more than twenty years and has the national reputation as a forceful and interesting speaker. Previous to his appearance at A. and M. he had given talks in Texas at Uvalde, Georgetown, Stephenville, Waco, Denton, and Dallas. He will be back in Texas again on July 6 at which time he will speak at the North Texas State Teachers College at Denton. Efforts are being made by Dr. C. H. Winkler, dean of the A. and M. summer school, and Director Siecke to have Dr. Wheeler speak before the summer school group at A. and M. sometime in June.

PINE TREE THREAT

Because it harbors a fungus causing serious root rot, buckwheat may be a serious threat to pine trees. In a New York nursery young trees sickened and died on land where buckwheat had been grown as a cover crop. Even four years after the last planting of buckwheat the fungus was still in the soil, ready to attack pine roots.

in these counties and the greater part of the population is directly or indirectly dependent upon the forests there for their income.

The newspapers in both Jasper and Newton Counties also promised their support, as did many private citizens, county officials and law officers.

R. F. Balthis, regional forester, Texas Forest Service, of State Forest No. 1, located near Kirbyville, attended the Kirbyville and Newton meetings.

JASPER MEET—

(Continued from Page 1, Col. 1)

the Jasper C. C. C. camp, said that fire also seriously interfered with the educational program as the boys are having to fight fires far into the night.

District Judge F. P. Adams stated that: "My boys, the peace officers of the first judicial district, are in favor of conserving and maintaining forest resources of East Texas and are ready and willing to cooperate in law observance and law enforcement in this regard."

Work Commended

Mr. L. L. Bishop of Houston, supervisor of the Texas National Forests, was an interested spectator and highly commended the persons responsible for the meeting for their keen interest in such a vital problem.

Mr. O. M. Stone, member of the legislative committee of the Texas Forestry Association, gave the welcome address and served as master of ceremonies.

W. P. Smith, chairman of the forestry committee of the Jasper Chamber of Commerce, called the meeting to order. Lieutenant H. M. Thatcher and Lieutenant Harry W. Copenhaver, camp officers, and John Henry Nowlin, mess steward, who were hosts for the fine meal served to the guests, were given a rising vote of thanks by the group.

In addition to Mr. Bishop, Mr. Siecke, and Mr. White, other forest officials present were Jeff O'Quinn, special forest fire law enforcement agent for the Texas Forest Service, who has done splendid work in apprehending incendiary fire setters; Martin Sylversen, forest ranger of the Sabine National Forest; Louis Whipple, assistant forest supervisor, Houston; and R. F. Balthis, regional forester, Texas Forest Service, of State Forest No. 1, Kirbyville, Texas.

EBONY

Ebony, one of the oldest of cabinet woods, is mentioned in Biblical, Egyptian and Assyrian records, and was an important article of commerce thousands of years ago. Some of it undoubtedly came from East Africa but quantities must have come by caravan or ship with spices and silks from India and the East.

RED BAY

(Persea borbonia (L.) Sprengel)

This native of the Atlantic and Gulf Coast states from Virginia to the Brazos River in East Texas is a relative of the avocado, or alligator pear. In all about 100 species of *Persea* are found in North and South America.

The red bay is a tree up to seventy feet in height and three feet in diameter, with a well-shaped head of erect, stout, dark green branches. It grows in moist rich soils along the streams and in swamps, and sometimes in drier soils along with longleaf pine, over the coastal region.



RED BAY

(Illustrations, two-thirds natural size.)

The leaves are oblong, smooth on the margin, thick or leathery, up to four inches in length and one and one-half inches in width, bright green with a narrow orange-colored midrib. They remain green over the first winter. The flowers are in small clusters and yellowish white.

The fruit is a nearly round, rather fleshy berry, ripening in the autumn, and about one-half inch in length. It is dark blue or nearly black and shiny, and contains a large rounded seed.

The wood is heavy, hard, strong, bright red, with thin, lighter colored sapwood. It is used for cabinet-making, and interior house finish, and has been used for building boats.

Bamboo, while truly a grass and not a tree, has more uses than any plant in the world.

PAPER BOOM—

(Continued from Page 1, Col. 2)

search, and how he finally proved that the rapid-growing Southern pines are adaptable to the manufacture of white paper as well as of the coarser paper, known as kraft.

Not since the migration to the South of the textile industry has this latest industrial development been equalled. But while the cotton textile industry was introduced gradually over a period of years, March of Time points out that the paper industry has managed in two spectacular years to double the papermaking capacity of the South from 3,500 tons to nearly 7,000 tons each day.

Laboring on the Savannah water front in an old warehouse, converted into a laboratory, Dr. Herty worked steadily in spite of first failures, and he is seen in March of Time winning over many who were at first skeptical. Aided by grants from the Chemical Foundation, the city of Savannah and the Georgia Legislature, from 1932 Dr. Herty carried on with determination, resisting all get-rich-quick applications of his findings until he felt that his research actually justified large-scale investment.

AUSTRALIA TO MAKE NEWSPRINT

Australia's problem in obtaining a domestic supply of newsprint has been chiefly chemical. Repeated experiments indicated that the native woods, such as the eucalyptus, contained too much gum to be readily assimilated in the process of making groundwood pulp, from which newsprint is produced. However, a few months ago a shipment of Australian eucalyptus wood was made to the British Columbia paper town of Ocean Falls, where Pacific Mills, Ltd., Canadian subsidiary of Crown Zellerbach Corp., of San Francisco, has long operated one of western Canada's biggest newsprint plants. Now it is announced that a way has been found to manufacture newsprint from the eucalyptus wood, and Percy Sandwell, Vancouver consulting engineer, has been instructed by a group in Australia to go ahead with plans for a \$15,000,000 400-ton newsprint mill which is to be built in Tasmania and which is expected to supply more than half of Australia's newsprint needs.

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FIFTH ANNIVERSARY OBSERVED

During the period March 31 to April 4, the 1,500 Civilian Conservation Corps camps in operation in the United States and its territories quite generally celebrated the fifth anniversary of this constructive work. Each of the six camps in which the field work is administered by the Texas Forest Service observed the anniversary to greater or lesser degree. Officials of the Texas Forest Service participated in celebrations at Camp 61-P, Livingston, and Camp 59-P at Trinity.

The official celebration at the Livingston camp was held on Sunday, April 3. Mothers, dads, sisters, brothers, and sweethearts of the enrollees began arriving during the morning hours and enjoyed "Open house" until the official program started at 2:00 P. M. Citizens from Livingston and other towns in Polk County, together with a specially invited group of farmers from all sections of the county, participated in the afternoon activities.

The Polk County Chamber of Commerce, the Army, and the Texas Forest Service cooperated in working out the details. Approximately 750 individuals were present during the afternoon. Music was furnished by the Livingston Public School band, a string orchestra and a quartet of four negro boys. President J. W. Richards of the Polk County Chamber of Commerce introduced the speakers.

Agricultural Director Elmore R. Torn of the East Texas Chamber of Commerce discussed the possibility of timber production in Polk County; Senator V. A. Collins emphasized the importance of cooperation on the part of the citizenship in the prevention and suppression of forest fires and also the interest each individual citizen had in the production of timber as a crop.

A brief review of the development of the CCC activities with special reference to the State forestry

See CCC MEET on Page 3



Area improperly cut for pulpwood. No seed trees. No crop trees. No reproduction. No income for many years. Uncut area in background.

GROWTH IN EAST TEXAS TUNG OIL TREE PLANTINGS

Records gathered by the Texas Forest Service from thirty-three cooperators who planted tung oil trees on their property in a cooperative project started in the spring of 1936 indicate that the results of the tung oil plantings as reported by January, 1938, have exceeded expectations. An average of twenty trees was furnished to the cooperators, all of whom were East Texas citizens interested in the project, in order to further the study of the survival and growth of tung oil in the State.

The seedlings that were used in the plantings indirectly date their origin back to 1907 and 1908 when four trees were planted by the Texas Agricultural Experiment Station at former Substation No. 2 in Smith County, near Troup. These trees were the first recorded plantings in Texas. Three of the trees lived until 1930 when they were killed by a temperature of four degrees below zero. Prior to their death, however, the trees

See TUNG OIL on Page 4

WINNERS ANNOUNCED IN F. F. A. FORESTRY CONTEST

First place awards in the 1937-38 Area VII Future Farmers of America forestry contests were presented to the Huntington Chapter, winner of the chapter contest, and to Morris Samford of the Paxton Chapter, winner of the individual contest, at a banquet held at the Stephen F. Austin State Teachers College in Nacogdoches on March 28. The forestry contests were conducted by the Department of Agricultural Education of Area VII, under supervision of R. A. Shaw. The Texas Forest Service assisted in the general laying out of the projects and in later judging them.

The forestry contests were the first of their kind to be conducted in East Texas. Under the rules of the contest each chapter was required to enter five or more acres of forest land for which it selected and applied a method of forest improvement which in its judgment was best suited to each particular area. This work extended over a period of one year. The individuals

See F. F. A. CONTEST on Page 3

WHAT HAPPENED TO THE SHELTERBELT?

By E. W. Tinker

(Condensed from an article in the "American Forests", January, 1938)

The Plains Shelterbelt Project, at one time the subject of great national interest and, unfortunately, heated debate, has apparently disappeared into the limbo of forgotten things. In fact the Shelterbelt, as originally conceived, no longer exists.

But out of it has grown a new plan of unspectacular character that has been and is being carried out with energy and enthusiasm by the United States Forest Service. And unlike the original Shelterbelt project, the new plan, known as the Prairie States Forestry Project, has gained, locally at least, wholehearted public support and endorsement.

This new project was outlined and legalized under the Cooperative Farm Forestry Act passed by Congress early in 1937. It provides for a planting program requiring a high degree of cooperation between the Federal Government and the landowner. The landowner's part is to furnish the land to plant, which in this agricultural territory requires considerable sacrifice; he prepares the land for planting, is required to provide fencing material to exclude livestock from the areas planted and, except under emergency conditions, is required to do the necessary cultivation work of two to four years' duration.

The government's part, in addition to supplying the trees and planting them, includes the vital functions of planning and supervision. The proper choice of planting sites, selection of tree species to be planted, proper planting methods, and the right kind and amount of subsequent care of the trees are all a part of the government's contribution.

Regardless of what may have been said in the past about tree planting in the Prairie-Plains region, the farmers in the territory are, in general, for the project. And why shouldn't they be? Shelterbelt planting, despite predictions to the contrary, has been and is highly successful. The growth of trees planted in 1935 has, in spite of adverse weather conditions, been truly phenomenal. The more rapid-growing trees in many areas by the fall of 1937 have reached a height of from twenty to

twenty-four feet and are already having a material effect upon soil movement during high winds. The entire appearance of the countryside is being changed from one of flat monotony to one of real attractiveness. The shelterbelt strips, interestingly enough, are becoming inhabited by birds.

The total mileage of shelterbelt strips that have been planted within the six states of Texas, Oklahoma, Kansas, Nebraska, South Dakota, and North Dakota amounts to 2,600. The total acreage, including farmsteads, amounts to 47,300. In all, 44,800,000 trees, involving 6,500 farms, have been planted. The average survival for 1935 plantings is sixty-six per cent; for 1936, plantings made during the extremely severe drought year, fifty-one per cent; and for 1937, planting survivals are estimated to be not less than seventy per cent.

The cost per acre of establishing shelterbelts has fallen steadily each year, and it seems safe to predict that eventually it will become stabilized at around \$30 an acre, and the farmer will bear a half or more of it. It must be understood, however, that an acre devoted to shelterbelts protects many acres of adjoining land, and that the cost should be prorated over the area affected.

Among the trees found well suited for shelterbelt planting and used extensively in the Great Plains area are the cottonwood, green ash and the Chinese elm—with bur oak, hackberry, honey locust and willows used less extensively. Shrubs chiefly used in the entire area include lilac, wild plum and Russian olive. In Texas, the black locust has been found an excellent tree for shelterbelts, and is used broadly. So is the apricot, and in some cases, black walnut, catalpa, Russian mulberry, osage orange, and the pecan are used with success. The desert willow has also proved a satisfactory shrub.

It is anticipated that as time goes on, an essential part of the economy of each farm and its management will be the maintenance of protective strips around all fields subject to blowing. If the plan is brought to its ultimate design, a new environment will have been created—an environment including a great deal of natural beauty and all the background of an area reasonably protected by forest cover.

PUBLIC CONTACT WORK CONTINUED IN TYLER AND POLK COUNTIES

Public contact work, started in January and February by W. E. White, Chief, Division of Forest Protection, in Jasper and Newton Counties, was continued and extended last month to include Polk and Tyler Counties, areas generally recognized as in the "hot-spot" of the East Texas protection area. Leading citizens, newspapers, and civic clubs in several communities in these counties were contacted, particularly in Livingston, Woodville, and Corrigan. Chief results of Mr. White's contacts were the formulation of a set of strong resolutions against woods burning by the Livingston Chamber of Commerce, and the cooperation of the Corrigan Lions Club in agreeing to work with the Livingston Chamber of Commerce on the program. Newspapers in Livingston and Woodville showed increased interest in the situation by running special articles and issuing weekly forest fire reports for the counties they cover.

MISSISSIPPI FOREST SERVICE TWELVE YEARS OLD

The Mississippi State Forestry Commission was twelve years old on March 6, 1938. About 4½ million acres of timberland are under organized fire protection there, and one lookout tower has been erected or is in transit on at least each one hundred thousand acres of gross area protected. Most of these towers, together with a thousand or more miles of rural telephone line connecting them and the protection forces, have been constructed by the three CCC camps, administered by the Commission during the past five years. Fred B. Merrill is State Forester of Mississippi.

AMERICAN FORESTRY ASSOCIATION TO MEET IN MAY

The Sixty-third Annual Meeting of the American Forestry Association will be held May 5, 6, and 7 at Old Point Comfort, Virginia. An outstanding program has been planned including field trips to such historic places as Williamsburg, Jamestown and Yorktown. Convention headquarters are the Chamberlain Hotel.

TEXAS FOREST NEWS

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CCC MEET—

(Continued from Page 1, Col. 1)

camps, together with a number of practical suggestions as to increasing the production of timber, comprised the remarks of E. O. Siecke, Director of the Texas Forest Service. Mr. W. E. White, Chief of the Division of Forest Protection, gave some interesting data as to the acreage of timberland burned over in Polk County, number of CCC man days devoted to fire fighting and the number of towers, miles of telephone line and firebreak roads constructed and used in the county. Following the program, light refreshments were served by the Army.

As a follow-up to this county-wide meeting the Texas Forest Service, in cooperation with the Polk County Chamber of Commerce, is carrying the forestry message direct to rural communities. Fifteen evening meetings at county school and church houses are being held. In addition to a talk from the Texas Forest Service educational agent and the showing of a forestry motion picture film, representative speakers of the Polk County Chamber of Commerce will make short talks. The Polk County Chamber of Commerce is to be congratulated upon its aggressive forestry program.

F. F. A. CONTEST—

(Continued from Page 1, Col. 3)

met the same requirements with a minimum of two acres of forest land. The forest improvement work done by the groups and individuals participating produced results that left but little difference between the first place winners and those who were lowest in the number of points scored. In presenting the awards, Paul W. Schoen of the Texas Forest Service complimented all participants and urged them to continue the fine work they had started on the areas entered in the contests.

Awards consisted of inscribed plaques, made of native wood, denoting the ranking attained in the contest. In addition to the plaques, useful forest tools were presented to the winners. These prizes were donated by interested East Texas lumber companies. Winners and prizes awarded are as follows:

Chapter Contest: First, Huntington

Chapter, prize, tree ring borer, compliments of Angelina County Lumber Company; second, Zavalla Chapter, prize, cruiser stick, compliments of Southern Pine Lumber Company; honorable mention, Mt. Enterprise Chapter and Shelbyville Chapter.

Individual Contest: First, Morris Samford, member Paxton Chapter, prize, woodman's axe, compliments of Frost Timber Conservation Council, Camp Worth; second, H. P. Walker, Zavalla Chapter, prize, woodman's knife, compliments of Angelina County Lumber Company; honorable mention, Ralph Ruth and Wiley Jenkins, Zavalla Chapter.

STATUTE ESTABLISHING ARBOR DAY IN TEXAS NO LONGER LAW

According to recent information received from the Attorney General's office at Austin the statute setting aside February 22 as Arbor Day in Texas is no longer a law. The ruling in reference to this, quoting in part from the letter received from the Attorney General's office, is as follows:

"The article to which you refer was passed in 1889 and read as follows: 'The twenty-second day of February of each year, the same being a legal holiday, is further set apart and designated as Arbor Day to be devoted to the planting and cultivation of forest, shade and ornamental trees throughout the State, and to be observed for that purpose in such a manner as may seem best to the people of each community.'

"This statute was carried forward in the 1911 revision of the statutes, but does not appear in the 1925 revision. Under the first article in the final chapter of Vernon's Annotated Civil Statutes, a law of general application which was not included in the 1925 revision was expressly repealed. For this reason, it is our opinion that the statute in question is no longer the law in Texas."

Arbor Day in Texas was always celebrated in the past on Washington's birthday. It was particularly popular with the school children and reached its greatest height in 1932 when over 400 individuals, organizations, and schools combined forces to plant over 50,000 trees commemorating the bi-centennial celebration of George Washington's birthday.

Arbor Day is observed in almost every state in the Union, and in most

cases laws have been enacted for its observance while in others the day is commemorated by the Governor's proclamation. Arbor Day was started in 1872 in Nebraska by the Honorable J. Sterling Morton. Undoubtedly, the Texas legislature, at its next session, will enact legislation again legalizing February 22 as Arbor Day.

CALIFORNIA NAMES REDWOOD

The redwood has been named the official tree of California by action of the State Legislature.

Speaking in behalf of the measure, Senator J. J. Hollister, of Santa Barbara, said: "It is the tallest known living thing on earth; its natural distribution is limited almost wholly to California; it has been a most important asset in the building of our state; it is being grown successfully in parks and gardens throughout most of California and in many parts of the world; it is the most distinctive, the most stately, and most beloved of all our native trees."

Mississippi has also named a state tree—the magnolia. According to Fred B. Merrill, state forester, 16,000 school children voted to name the tree, more than 9,000 selecting the magnolia. The pine was runner up, with 5,000 votes.

FOREST FIRE LAW CASES

Only one of the twenty-five forest fire law violators upon whom charges have been filed and action taken so far this year has been acquitted, according to information received from the Division of Forest Protection, Texas Forest Service. The other twenty-four "fire bugs" have plead guilty. The total fines assessed against them have amounted to \$557.00. The cases by counties are as follows: Jasper, 8; Newton, 5; Hardin, 3; Tyler, 3; Anderson, 1; Angelina, 1; Cherokee, 1; Nacogdoches, 1; Polk, 1; and Rusk, 1; total 25.

VALUE OF PULP TO GERMANY

Germany this year will produce nearly 2,500,000 tons of wood pulp—mechanical, sulphite and sulphate—nearly double the 1935 total. Under the Reich self-sufficiency plan banning many imports, the Government has encouraged chemists to use wood pulp in several industries—to make paper, to make plastics, certain ingredients for food and scores of other products.

TUNG OIL—

(Continued from Page 1, Col. 2)

had produced nuts which had been planted. Some of the seedlings raised from this crop were distributed to the Texas Forest Service and planted in the spring of 1931 at State Forest No. 1, near Kirbyville. By 1934 these trees had produced a crop of nuts which were in turn planted and which produced the seedlings used for the 1936 cooperative plantings. Four different varieties of the tung oil tree were tried and in making the original allocation of stock the attempt was made to furnish each co-operator some of each of the varieties. The original seedlings came from nuts from trees which had succeeded in remaining alive in a region considerably north of the region in which commercial planting is generally advised, and for this reason officials felt that the trees might be generally more hardy and stand a better chance to live.

A summary of the statistical information that has been gathered in regard to these plantings shows that of 624 seedlings set out, 569 had survived to January, 1938, giving a survival of 91.2%. It is noteworthy that 18 of the plantings did not lose a single seedling, 12 lost either one or two seedlings, and only three plantings lost three or more trees.

Drought combined with hot weather caused the loss of 26 of the 55 seedlings that failed to grow, or almost one-half of the total mortality. The other causes reported were: cold weather and freezing, 14; failure to catch when planted, 3; injury by goats, 3; and unknown causes, 9.

The maximum height that any of the trees were reported to have attained was 15 feet, with the average of 12 feet for the twenty seedlings planted by Cooperator A. L. Sheffield at Woodville, Texas. The average height of the 569 growing trees was 6.5 feet.

The plantings were made mostly in Tyler, Newton and Jasper Counties, but one made to the north in Angelina County, near Lufkin, by Senator J. S. Redditt, was reported with all trees alive and making a growth comparable with the general average.

It is also interesting to note that two of the cooperators, W. E. Smith

of Magnolia Springs and George Bingham of Hillister, both reported their trees having blossoms. Mr. L. L. Barrow of Kirbyville reported that in the second growing season one of his trees bore a nut.

The record of the plantings at the end of the second year since establishment presents a very fine outlook for the future growth and development of these tung oil trees. Repeated observations and measurements are expected to furnish valuable data.

The tung oil tree is not native to the United States but occurs in China, and it is from the Yangtze Valley, particularly Hankow, that tung oil is chiefly produced. Tung seeds were first introduced into this country in 1905. Tung oil is used in the manufacture of many types of varnishes and varnish paints as a water-resisting oil. It is also used in the manufacture of electrical machinery, automobile brake linings, sheet packing, linoleum, and in the water proofing of fabrics, paper, and other materials. With imports of tung oil averaging well over \$10,000,000 annually, the success of tung oil tree plantings is of vital concern, particularly with the present unsettled conditions in China.

Investigation of the possibilities of growing tung oil trees on a commercial basis in Texas is not a new thing. The work has been chiefly handled by the Texas Agricultural Experiment Station. In 1929 the Experiment Station sent small lots of seed to 114 co-operators located in 60 counties from the lower Rio Grande valley to the Panhandle. Reports from these plantings indicate that East Texas soils from Nacogdoches County south to the coastal prairie, if well drained, are generally suitable to the requirements of tung oil trees. Occasional low temperatures and late spring frosts following periods of warm weather will cause the loss of some crops in this section. In 1935 the estimated plantings in existence in the Southern States totaled 75,000 acres of which 4,500 acres were located in Texas.

Despite a popular idea that California's "big trees" thrive only in that corner of the world, such trees have been successfully planted in Switzerland and a number of other countries.

WILLOW OAK (Pin Oak)

(Quercus phellos L.)

The willow oak, also called water oak, and pin oak, occurs in the eastern part of the state to the Brazos River. It is most often found in lowlands and along the borders of rivers and swamps, but often also on rich sandy uplands. It is a beautiful and long-lived tree, and desirable for roadsides, lawns, and parks.

The slender willow-like leaves on a tree whose habit of growth is manifestly that of an oak, make the tree easy to identify in the forest. The leaves are 2 to 4 inches long and one-half to 1 inch wide, smooth, light green and shiny above, but dull and usually smooth below; alternate in arrangement on the twig and borne on a short, stout stem. The bark is generally smooth and of a reddish-brown color; with age, the bark becomes slightly roughened and divided by narrow ridges.

**WILLOW OAK**

Twig, one-half natural size.

Leaf and Fruit, one-third natural size.

The fruit, small acorns, closely set along the stem, matures at the end of the second year. The nut is a light brown hemisphere, about one-half inch in diameter, its base scarcely enclosed in the shallow, reddish-brown cup. The nuts are eaten as food by bluejays, grackles (black birds), and several other species of birds, as well as by rodents.

The wood is not separated commercially from other species in the red oak group. It is heavy, strong, rather coarse-grained, light brown tinged with red, and not durable when exposed to the weather. It is used locally for crossties, bridge planks, barn sills, and general construction.

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FOREST PROTECTION SYSTEM EXPLAINED

All Timberland Owners Benefit Alike

To understand and appreciate the forest fire protection system as conducted by the Texas Forest Service in East Texas one must first realize the fact that forest protection is the first essential in growing timber as a crop. The main damage done by forest fires in East Texas is to the young growth. The young forests are the forests that will furnish the timber supplies of the future. Continual destruction of this crop is likened to a bank account that has been constantly drawn upon until exhausted. A good banker lets his money draw interest; a wise timberland owner safeguards his forest land and for the almost negligible expenditure of time and efforts is rewarded with a growth in his timber crops that easily averages four per cent a year and in many cases exceeds six per cent.

The protection of timberlands, however, is not alone the responsibility of each individual but rests also with the State and Federal governments. It is to the State's benefit that forests be protected as an assurance of forests for the future, future industries, and future employment for citizens dependent on the timbered areas for their income. This responsibility is recognized in practically every timbered state in the Nation. In Texas the responsibility has been placed in the hands of the Texas Forest Service, and the main job of forest protection has been made a distinct division of the Service and is handled by the Division of Forest Protection, located at Lufkin. At the present, almost 11,000,000 acres of land in the East Texas pine and hardwood belt are under organized fire protection. Organized fire protection is divided into two classes known as Extensive Patrol and Protection Units.

See PROTECTION on Page 6



Over 90 members of the field personnel of the Texas Forest Service's Division of Forest Protection met with their officials in a four-day conference late in May, 1938, at State Forest No. 1, near Kirbyville, to discuss important problems in Texas forestry and to outline future fire control policies. The points chiefly brought out were the educational measures having to do with the prevention of forest fires and the various methods in locating and fighting fires which do start. Procedure in enforcing the State's forest fire laws, maintenance of telephone lines and lookout towers, methods of planting trees, and estimating timber were also discussed. The group, pictured above, represents practically all of the 29 East Texas counties in which the Texas Forest Service maintains a forest protection organization. The protection area embraces almost 11,000,000 acres in the commercial timber belt. E. O. Siecke is director of the Texas Forest Service with offices at A. and M. College, College Station. W. E. White is chief of the Division of Forest Protection located at Lufkin.

PAUL SANDERSON NAMED PRESIDENT OF EAST TEXAS C. OF C.

Paul T. Sanderson, popular East Texas lumber manufacturer, gained new honors for himself and for his industry when he was elected president of the East Texas Chamber of Commerce, at the annual convention in Longview.

Mr. Sanderson is president of the Texas Long Leaf Lumber Company, Trinity, Texas, and is executive of several of its allied milling properties, the output of which is handled by the Sabine Lumber Company, all of these units and interests being well established and widely known to the lumber trade of Texas.

See SANDERSON on Page 6

SUMMER COURSE IN FORESTRY ANNOUNCED

Three Weeks' Study to be Given at
State Forest No. 1

A three weeks' course in forestry will be given this summer from July 18 through August 6 on State Forest No. 1, near Kirbyville. The purpose of the course is to provide practical instruction in forestry for vocational agricultural teachers, county agents, students, and other interested civic leaders living in the East Texas timber region. Over fifty have already registered in the course and it is expected that total registration will reach at least seventy-five.

The forestry course, entered and approved as a new course in the See SUMMER COURSE on Page 5

FORESTRY MEETING JUNE 23 AT SAN AUGUSTINE (See Inside)

VAN ZANDT COUNTY PINES MAKING GOOD GROWTH Trees Planted By Dallas Man

Recent observations of several plantations of loblolly and slash pine located on the farm owned by David Metzger of Dallas near Grand Saline, in Van Zandt County, indicate that the trees are making an exceptional growth in light of two factors which ordinarily would be adverse to the survival of pines in this section. First, the trees have been planted outside their natural range, and second, they have, for the most part, been planted under an overstory of post oak and other inferior hardwood species. Mr. Metzger purchased the trees from the State Forest tree nurseries operated by the Texas Forest Service at Conroe and Kirbyville.

Mr. Metzger has planted over 60,000 pines on his farm. He started the planting in 1934 with 5,000 loblolly pine, and each year since has set out an average of 20,000 trees. Recently he tried slash pine. Since most of his land is covered with scrubby hardwood growth, Mr. Metzger has followed the practice of planting the pines under the overstory of hardwoods. The older trees have tended to protect the young pines during the hot summer which increased their chances for survival. After the pines are well established, the inferior hardwoods are then thinned out, and the pines, acclimated to the new environment, start rapid growth.

The earliest plantings (1934) average four to six feet in height, with plantings during the following years subsequently lower. Mr. Metzger estimates that the survival on all his loblolly plantations has been 90 per cent or better. Some of his slash pine trees, planted in an open field in 1936, are over five feet tall and about 80 per cent of the original number planted are alive.

The Metzger farm is mostly sandy soil. The land, as Mr. Metzger describes it, "is poor and isn't worth farming. The soil is thin and washes easily where the timber has been cut." The present post oak trees there are of little value other than holding the soil. "I like pine trees," Mr. Metzger said, "and it's a pleasure to me to plant them and watch them grow. I may not realize anything from the

trees myself, but I have three grandchildren who will." Mr. Metzger tends to eventually plant all his farm to pine and other trees.

MAKE CCC PERMANENT, NATION VOTES

Reprinted through courtesy of American Institute of Public Opinion, New York, and Dallas Morning News.

As Congress ponders new appropriations for the Civilian Conservation Corps designed to keep the camps at their present enrollment, the American Institute of Public Opinion has completed a Nation-wide survey which indicates wide approval of the CCC's work.

"Do you think the CCC should be made permanent?" the Institute asked a carefully chosen cross section of United States voters.

More than three voters in every four interviewed throughout the country answered "yes". The actual vote was:

Yes 78%
No 22%

Although many a new deal recovery measure has been critically assailed, the CCC has won and kept a large share of public favor. Almost two years ago, before the 1936 election, the Institute found an equally large majority in favor of continuing the camps.

Today there is no question of discontinuing the camps. President Roosevelt and CCC Director Robert Fechner have urged that they be made permanent. Original budget plans for 1939 called for the closing of about every fourth camp, however. It now seems likely that Congress will countermand the order.

FORESTRY EDUCATIONAL MOVIES SHOWN IN ETEX THEATERS

Part of the intensive educational program against woods burning conducted by the Texas Forest Service in southeast Texas counties located in the "hot spot" of the protection area has included the presentation during the period of March 1 to May 15 of forestry educational movies in the commercial theater houses in several communities of the area. The two pictures used were "Forest Fires or

Game" and "Stop Forest Fires". They were borrowed from the U. S. Department of Agriculture.

The films have been shown 63 times to an estimated audience of 10,000. The towns at which the films have been run are Cleveland, Corrigan, Hemphill, Jasper, Kirbyville, Livingston, Pineland, Silsbee, Wiergate, and Woodville.

It is reported that the audiences have been very receptive to these shows and that they have been favorably impressed with the need for protecting East Texas forests against fires. The cooperation of the theaters in presenting the shows has been splendid. Arrangements have been made to run the films another six weeks.

SHELTERBELT PLANTINGS FOR 1938 TO BE INCREASED

Farmers in the Plains States are asking for increased planting of shelter strips under the Prairie States Forestry Project, the U. S. Forest Service announced. They are encouraged by shelterbelts only three years old with some trees already 25 feet high and of fence post size. Plantings under this project, authorized by Congress last year, are a continuation of shelterbelt plantings begun in 1935 with emergency funds. In six states 4,300 miles of shelterbelt plantings have been allotted for 1938, about 60 per cent more than were planted in the three previous years. The mileage quotas for 1938 are North Dakota, 350 miles; South Dakota, 400 miles; Nebraska, 900 miles; Kansas, 800 miles; Oklahoma, 1,050 miles; and Texas, 800 miles. The spring planting season which began several weeks ago in Texas will end in May in the Dakotas.

TREES PLANTED ON 12,287 ACRES IN TEXAS IN 1937

State Ranks Fifth in Seedlings Set Out by Forest Service

The United States Forest Service last year planted new trees on 12,287 acres in Texas, but four other States received more seedlings.

Michigan led with 42,031 acres, followed in order by Louisiana with 21,970, Wisconsin with 20,462, and Mississippi with 19,220.

FORESTRY MEETING SET FOR JUNE 23 AT SAN AUGUSTINE

Texas Forestry Association and Forestry Committee of the East Texas Chamber of Commerce to Meet

The Texas Forestry Association and the Forestry Committee of the East Texas Chamber of Commerce will gather in a joint meeting at San Augustine on June 23. The last meeting of the Association was in December, 1936, when the group met at Lufkin to help dedicate the new office building of the Texas Forest Service's Division of Forest Protection. Since that time forestry has evidenced many changes, and it is with this in mind that a program has been worked out for this year's meeting that will present the group with a picture of the recent developments.

This will be the twenty-fourth an-

nual meeting of the Texas Forestry Association which was organized in 1914 by W. Goodrich Jones of Waco and a group of public spirited citizens who realized the need for a constructive forest program in Texas. It was largely through the efforts of the Association that the law was passed in 1915 creating the Texas Forest Service. The Association has contributed much towards forestry in the State and has been under the capable leadership of such presidents as Mr. Jones, Hon. Richard F. Burges, El Paso; R. A. Gilliam, Dallas; R. W. Wier, Houston; E. L. Kurth, Lufkin; O. M. Stone, Jasper; Paul T. Sanderson, Trinity; and J. W. Oliphint, Huntsville. H. M. Seaman of Houston is now president.

The Forestry Committee of the East Texas Chamber of Commerce was organized late in 1937 and met for the first time at Trinity on January 19,

1938, under the chairmanship of Paul T. Sanderson of Trinity. When Mr. Sanderson was elected president of the East Texas Chamber of Commerce recently, O. M. Stone of Jasper was appointed as chairman of the Forestry Committee. Elmore Torn of Longview, agricultural director of the East Texas Chamber, is serving as secretary of the Committee. The Forestry Committee now includes a membership of 22, made up of prominent East Texas timberland owners, mill managers, farmers, and other forestry-minded citizens. Much credit for creating the Forestry Committee goes to Hubert M. Harrison, vice-president and general manager of the East Texas Chamber of Commerce. The Committee has set up a number of strong objectives towards a long range forestry program for the State.

PROGRAM

MORNING SESSION

Court House, San Augustine, Texas

10:30—Welcome—

Judge R. N. Stripling, San Augustine.

10:40—President's Address—

H. M. Seaman, Houston.

Appointment of Committees.

10:50—Wood Plus Chemistry—A New Industry—

Victor Schoffelmayer, Agricultural Editor, Dallas News, Dallas.

11:20—Forestry Observations—

Jack C. Dionne, Editor, The Gulf Coast Lumberman, Houston.

11:50—Planning a Future for Texas Forestry—

Major E. A. Wood, Director, The Texas Planning Board, Austin.

12:20—Adjournment for Luncheon.

AFTERNOON SESSION

Court House, San Augustine, Texas

2:00—Forestry as Affecting the East Texas Communities—

O. M. Stone, Chairman, Forestry Committee, East Texas Chamber of Commerce, Jasper.

2:30—National Forest Program in East Texas—

L. L. Bishop, Forest Supervisor, U. S. Forest Service, Houston.

2:50—State Forestry—

Progress Report—E. O. Siecke, Director, Texas Forest Service, College Station.

Forest Fire Law Enforcement—W. E. White, Chief, Division of Forest Protection, Lufkin.

3:20—Report of Secretary-Treasurer.

Report of Committees.

Election of Officers.

The Forestry Committee of the East Texas Chamber of Commerce will meet at 9:30 A. M.

WHAT IS THE TEXAS FORESTRY ASSOCIATION?

OBJECT The Texas Forestry Association is a state wide organization. Its main purpose is to create and stimulate an intelligent forest sentiment in Texas.

HISTORY The Texas Forestry Association was organized in 1914 by a small group of far-sighted citizens who realized the needs for a constructive forest program in Texas.

RECORD The Texas Forestry Association stands today with a long record of public service behind it. It was mainly responsible for the passage of the law creating the Texas Forest Service in 1915. Through the years the Association has made possible increased state support in forestry at the hands of the Legislature from time to time.

MEMBERSHIP Membership in the Texas Forestry Association is open to those people who are interested in the objects for which it stands. Every member lends support through nominal membership dues, varying to suit the individual purse. Without the support of the public spirited citizens of Texas effective work cannot be continued in this voluntary organization.

WHAT THE TEXAS FORESTRY ASSOCIATION IS WORKING TOWARD

A FOREST SENTIMENT—Creating a public interest on the subject of forest growing within the State. **PROTECTION**—Protection of the forests of Texas from fire and destructive insect pests and diseases. **REFORESTATION**—Promoting the perpetuation by wise use and by reforestation of cut-over and abandoned lands. **GROWING TREES**—Promoting the growing of trees as one of the most valuable crops of the State. **FOREST TAXATION**—Obtaining the enactment of equitable laws for the taxation of forest growing lands. **WATERSHED PROTECTION**—Maintaining forest cover on non-agricultural lands in principal watersheds to prevent erosion and silting up of reservoirs. **FARM PLANTING**—Encouraging planting trees on farms as windbreaks and as woodlands. **CITY TREE PLANTING**—Working towards more beautiful cities by encouraging tree planting. **FISH AND GAME**—Empha-

sizing the relationship between forests and wildlife and their value to the State. **ARBOR DAY**—Creating an interest in Arbor Day observance in the schools. **LEGISLATION**—Securing passage of advisable forestry legislation and adequate support for state forestry activities.

PROGRAM OF OBJECTIVES OUTLINED BY FORESTRY COMMITTEE OF EAST TEXAS CHAMBER OF COMMERCE

1. Definite action to be taken towards securing favorable consideration for more equitable taxation on timber lands, and for classification of growing timber as a farm crop.

2. Planned education and cooperative methods for forest protection and improved utilization practices.

3. Work towards freight rate adjustments.

4. Voice opposition to government regulation of forests.

Other objectives approved by the Committee and recommended are: (1) Cooperation with State Planning Board, Texas Forest Service, and all other public agencies in making East Texas forestry conscious; (2) Proper procedure to have East Texas counties included in Federal range program; (3) Use of visual education films of Texas Forest Service to impress need of proper utilization and conservation methods; (4) Calling on affiliated chambers for cooperation in setting up local forestry committees; (5) Agricultural department of regional chamber prepare consolidated report of pertinent facts on problem, using Texas Planning Board forestry report as guide.

HIGHLIGHTS OF RECENT TEXAS FORESTRY PROGRESS

1. National Association of State Foresters meeting in Texas in October, 1937, as guests of the Texas Forest Service; largest meeting in history of Association.

2. Motion picture film on Texas forestry produced in 1937 by Texas Forest Service to show people in piney woods actual East Texas conditions.

3. Enlistment of 2,000 volunteer forest fire guards from all walks of life to help prevent fires in East Texas.

4. Timber Conservation Council organized by employees of the Frost Industries, Ltd., of Camp Worth, San Augustine County, to conserve forests; a unique organization.

5. Formation of a Forestry Committee of the East Texas Chamber of Commerce to work on a long range forestry program for Texas.

6. Increased cooperation of many timberland owners on thousands of acres of East Texas pine land both for protection and better management of their lands.

7. Strong fire control meeting called in Jasper, in February, 1938, towards decreasing indiscriminate burning of woods; attended by many county officials, peace officers, and forestry officials.

8. Stringent forest fire law enforcement program conducted by Texas Forest Service brings convictions against 36 "fire-bugs" so far this year.

9. Many civic clubs in southeast Texas offer support to Texas Forest Service to help prevent fires. Strong local forestry committees appointed.

10. Polk County Chamber of Commerce and many civic leaders hold county-wide meeting with Texas Forest Service offering help in prevention and control of forest fires in Polk County. As a follow-up, a series of twenty-five meetings were held in the rural communities of Polk County in which forestry movies and lectures were presented by the Service and representative speakers of the local Chamber of Commerce.

11. Over 90 patrolmen, smoke-chasers, and lookoutmen met with their officials at State Forest No. 1 for a four-day conference late in May.

12. Forestry meeting held at State Forest No. 2, near Conroe, on May 31 in which over 100 attended. Meeting called by Montgomery County Chamber of Commerce, East Texas Chamber of Commerce, Extension Service, and Texas Forest Service.

13. Texas Forest Service and CCC to erect structure at Forestry Festival grounds in Lufkin to house \$7,000 forestry exhibit donated by Texas timberland owners.

14. Three weeks' summer course in forestry to be given to over 60 vocational agriculture teachers, county agents, and others at State Forest No. 1.

15. The Texas Planning Board issues forty-page bulletin reviewing Texas forestry and its industries.

TEXAS FOREST NEWS

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SUMMER COURSE—

(Continued from Page 1, Col 3)

summer school curricula of A. and M. College, carries four hours of graduate credit. The course will be conducted cooperatively by the Department of Agricultural Education and the Texas Forest Service, and the details are being worked out chiefly by Professor E. R. Alexander, head of the Department of Agricultural Education, assisted by Professor Henry Ross, and E. O. Siecke, director of the Texas Forest Service, assisted by Paul W. Schoen, assistant forester.

In brief, the course will be a study of the methods of teaching the problems, practices and economics of forestry as related to the timberlands of East Texas, including general forestry facts with local, state and national background; study of tree growth, values, and identification; measurements used in forestry; forest management in growing timber as a crop; marketing, manufacture and utilization of forest products; forest protection from man caused and natural injuries; nursery and planting methods and practices; wood preservation.

As far as is known this is the first course of its kind to be offered in Texas and, it is believed, any where in the Nation. It is being watched state-wide and nationally. R. A. Manire, state director of Agricultural Education at Austin, who is cooperating on the course recently said, "I am of the opinion that this is to be the outstanding course of the summer for East Texas teachers."

**FASTER GROWING TREES
DEVELOPED IN EXPERIMENTS**

The United States Department of Agriculture is conducting a series of experiments developing faster-growing trees which may offer possibilities for use in the manufacture of paper pulp.

Work was started along this line in 1924 by a Maine paper company and continued in cooperation with the Forest Service's Northeastern Forest Experiment Station. A new type popular was produced which grows fast and is disease resistant. Nearly 250,000 cuttings have been distributed to Federal nurseries in twenty States.

One of these strains has already produced trees seven inches in diameter and thirty-seven feet tall in seven years' growth in the field.

Experiments in other parts of the country are developing new strains of longleaf and slash pine and other commercial species which are expected to be of benefit to the South's growing paper industry. The Texas Forest Service is planning to initiate tree breeding experiments on the Texas State Forests in the near future.

**FORESTRY RESOLUTION ADOPTED
BY ETEX CHAMBER
OF COMMERCE**

The East Texas Chamber of Commerce at its recent annual convention held in Longview, April 24-26, adopted the following resolution pertaining to forestry in Texas:

WHEREAS, continued need of vast quantities of forest products for home building and general construction purposes, together with the additional drain upon our forests due to the expanding pulp and paper industry in Texas, reemphasizes the importance, from the standpoint of public welfare, of encouraging in every way possible the production of timber as a crop on soils best suited for that purpose,

BE IT RESOLVED that the East Texas Chamber of Commerce reaffirm its interest and policy in actively advancing a forestry program fostering the intelligent production of timber as a crop on timber growing land on the extensive acreage in East Texas better adapted for the production of timber than for other crops.

BE IT FURTHER RESOLVED that the Texas Forest Service be commended for progress made in expanding forest fire protection activities, fundamental forestry research work and cooperation with timberland owners with regard to replacement, management and harvesting of forest crops.

**KURTH TELLS CONVENTION
OF NEWSPRINT MILL**

E. L. Kurth, nationally known East Texas lumberman, past president, and for many years a director of the East Texas Chamber of Commerce, spoke at the recent annual convention of that organization on "Newsprint from

East Texas Pine". He told of the effort sponsored by the regional organization to organize a \$7,000,000 paper mill in East Texas. Mr. Kurth has worked for more than a year on financing the project and reported nearly 90 per cent of the necessary funds have been pledged. He expressed the belief that the entire sum would be raised from Texas capital. He explained that a \$3,400,000 loan was available contingent upon the raising of \$3,600,000 through the subscription of stock. "If East Texans do not subscribe the full amount of this stock, then most certainly outside interests will put the project over at an early date," Mr. Kurth said. "This is the opportunity of a generation and one we should not let slip through our fingers."

Mr. Kurth called attention to the research work of Dr. Charles A. Herty, scientist of Savannah, Ga., who, after years of research, had developed a profitable commercial process for the conversion of Southern pine into paper pulp. He pointed out that 75 per cent of all print stock used by newspapers is imported and that such importations in 1937, the last year upon which records are available, amounted to 300,000,000 tons. Texas newspapers have pledged themselves to take the entire output of the proposed East Texas mill for five years and to subscribe stock to the amount of \$250,000. In closing, Mr. Kurth said that East Texas alone could produce enough newsprint to supply the 300,000,000 tons now imported annually and still have a surplus.

**FEDERAL PURCHASE OF MORE
FOREST LAND URGED**

The National Forest Reservation Commission announced recently that 148,000,000 acres of forest lands now in private ownership should be purchased by the government in the interest of flood control, future timber supply and propagation of game animals.

Of this total, 100,000,000 acres would be bought by the Federal Government, the rest by States. Of the 100,000,000 acres, some 30,000,000 are within boundaries of established national forests under supervision of the Forest Service.

PROTECTION—

(Continued from Page 1, Col. 1)

Extensive Patrol

In the extensive patrol area the State and Federal government pays all the cost of protection and every timberland owner, small and large, receives equal amounts of protection from forest fires. This extensive patrol area, covering approximately ten million acres, is divided into patrol districts ranging from 100,000 to 200,000 acres. The regular personnel in these patrol districts consists of a patrolman and an emergencyman who are responsible for the detection and suppression of forest fires in their district. Local citizens render voluntary aid to the regular employees on suppression of forest fires.

Protection Units

The term "Protection Unit" is applied to a forested area in which the private timberland owners pay one-half of the cost of protection, while the State and Federal government pays the other half. All the timberland owners, large and small, inside a protection unit boundary are urged to list their timberlands under this cooperative plan. At the present time there are well over 500,000 acres of woodlands listed for cooperative fire protection. In order to include all the contributing acreages, however, the boundaries of the protection units are such that they include almost an additional 500,000 acres of non-contributing lands.

Inside a protection unit boundary the fire protection personnel is much larger than on extensive patrol areas. This increased personnel is, of course, made possible by the additional funds contributed by the timberland owners. A protection unit organization consists of a patrolman in charge, smokechasers, emergencyman, lookoutmen and forest guards. The size of the organization depends on the size of the unit and the available funds. The size of the units varies from 30,000 acres upward to 200,000 acres.

The chief advantage of a protection unit is that ample funds are available to employ a protection organization comparable to the existing fire hazards. Because of the more complete organization, the size of the individual fire is kept to a minimum not attainable on extensive patrol areas. In addition, the employees have

an opportunity to do more public relations work. The regular organization is assisted by volunteer fire fighters and crews furnished by co-operating timberland owners.

Forest Protection Organization

The headquarters of the Texas Forest Service's Division of Forest Protection are in Lufkin. The field organization directly responsible for supervising fire protection and suppression activities consists of two district foresters and three division patrolmen. Under these five men are fifty-nine patrolmen, thirteen smokechasers, seven lookoutmen, seventy-four emergencyman, and sixty-three forest guards. Over 1,800 private citizens from all walks of life have been enlisted as volunteer forest fire guards. Their work in the forest protection set-up is purely voluntary. The Texas Forest Service operates sixty-eight lookout towers and five tree cabs which are used for accurately locating forest fires. These observation towers are connected by 1,500 miles of telephone lines.

SANDERSON—

(Continued from Page 1, Col. 2)

For a number of years past Mr. Sanderson has been an active factor in the affairs of the East Texas Chamber, as he has been an energetic worker in the Southern Pine Association, serving on committees and giving his time and efforts to advancing the purposes of both organizations. Mr. Sanderson, at the time of his election, was chairman of the Forestry Committee of the East Texas Chamber of Commerce and is one of the Directors of the Texas Forestry Association.

In honor of Mr. Sanderson's accomplishment, the citizens of Trinity tendered him a testimonial banquet on May 12. Over 250 attended, representing many East Texas communities. The banquet was held at the Trinity CCC camp. Lt. John M. Yarborough, commanding officer of the camp, arranged a splendid meal for the group and was commended on his efforts and also for the fact that the camp was recently judged the best CCC camp in the East Texas District. The field work of the Trinity camp is under Texas Forest Service administration, and is supervised by W. D. Haralson, camp superintendent.

HAWTHORN, HAW(White Haw, Red Haw, Thorn Bush)
(*Crataegus* species)

The hawthorn, as here treated, represents about thirty different species and varieties distributed throughout the State. Members of the group occur on the poorest and richest soils, on the shallowest and deepest, and on the limestone hills as well as on the rich bottom and swamp lands. Most of the forms have a common likeness in possessing thorns and bearing white blossoms and red or yellow fruit. Some species are planted as ornamental trees, but otherwise the group is of little commercial value.

The bark is generally thin, gray in color, and on the old stems broken up into thin, narrow scales.

**HAWTHORN**(Leaf and Twig, two-thirds natural size.)
(Fruit, one-half natural size.)

The leaves are simple, alternate, mostly oval or wedge-shaped, notched on the edges, and usually from two to three inches long.

The flowers are white, some fragrant and others with a slightly unpleasant odor; they appear in early spring. The fruit varies from globular to oblong, from one-fourth to three-fourth inch in diameter; some when ripe have a pulpy, sweet, edible flesh, surrounding from one to five bony seeds. The fruit of most species ripens in the fall, and one or two varieties yield a fruit highly prized for making jelly.

The wood is strong, tough, heavy, hard, but rarely used for any purpose.

Many species of birds are attracted to these trees and bushes, largely on account of the fruit and the protection offered for nesting.

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TEXAS FOREST SERVICE

July-August, 1938

THREE WEEKS' FORESTRY COURSE COMPLETED

The sixth of August marked the final session of the three weeks' summer course in forestry conducted at State Forest No. 1 near Kirbyville. The course, which is believed to be the first of its kind ever to be given in the Nation, carried four hours graduate credit at A. and M. College of Texas. A 200-page mimeographed manual on practical forestry for East Texas was prepared by the Texas Forest Service, specially for the course.

The instruction was given by various members of the Texas Forest Service personnel, while the teaching methods and general educational phases of the course were under the direct supervision of the Department of Agricultural Education of A. and M. College.

The work during the three-week period was so planned that the student group, starting with little or no knowledge of forestry, acquired elementary information in the skills by which they could evaluate a woodland area. As a final problem, each one was assigned a representative tract, upon which he made the decisions as to its future management. The decisions included the amount of merchantable timber and the products that might be obtained from it, the volume needing to be removed and the volume to be left, the rate of growth, the improvement work to be done, planting plans for open areas, protection measures, and values and returns at the present and in the future.

See COURSE on Page 8



View of the group attending forestry short course held from July 18 to August 6 on State Forest No. 1. Unless otherwise noted, those in the following list are vocational agriculture teachers. Reading from left to right: Front row—H. G. Swift, Zavalla; G. J. Fry, Tyler; John M. Arrendale, Jr., College Station, student; Mabern D. Humphrey, McLeod; J. E. Seamans, Garrison; Reeves Haley, Shelbyville; Clyde J. Small, Broadus; Joseph Hall, Willis. Back rows—standing—H. D. Rawlinson, Joinerville; J. V. Atkins, Mauriceville; B. H. Lowry, Houston, biology teacher, Dow Junior High School; Herman Runnels, Bronson; Jack D. Hudson, Quitman, county agent; Irving H. Webb, Houston, timber engineer; B. M. Brown, Brownboro; M. V. Stuteville, Hooks; Joe C. Frobese, Tyler; R. E. Soape, Carthage, teacher; James A. Best, Kennard; Henry Ross, College Station, Department of Agricultural Education, A. and M. College; W. R. Horsley, College Station, Texas Forest Service; Thomas R. Rhodes, Huntsville, supervisor of vocational agriculture teachers in Area 9; Chris Nelson, Jr., College Station, Texas Forest Service; Morris Farrow, Linden; Rodney F. Chambless, Buna; H. W. Elrod, Houston, principal, Jeff Davis Senior High School; M. P. Tomberlain, Atlanta; F. B. Sullivan, Woodville. Not shown in the picture but enrolled in course are: T. L. Arthur, Lindale; and Royce Wilson, Douglass.

NEW RESEARCH PROJECTS STARTED AT STATE FOREST NO. 1

Several new experimental demonstrations are being started this year by the Texas Forest Service at State Forest No. 1, Kirbyville, Texas.

One of the most interesting of these studies is concerned with the behavior of young longleaf pine seedlings growing under different degrees of competition with grasses and brush,

See PROJECTS on Page 2

FORESTRY MEETING HELD AT STATE FOREST NO. 2

Over one hundred timberland owners, manufacturers of timber products, and others attended the one day forestry meeting held by the Texas Forest Service in cooperation with the Montgomery County Chamber of Commerce, the Extension Service and the Forestry Committee of the East Texas Chamber of Commerce on May 31 at State Forest No.

See MEETING on Page 2

CASS COUNTY FARMERS VIEW FORESTRY PICTURES

Over 450 farmers attending a three-day district farmers' short course held at Hughes Springs in June saw the film "Texas Forestry" which was put on as one of the evening programs by Mr. E. B. Long, educational assistant of the Texas Forest Service. Preceding the hour-long movie, Mr. C. H. Hebert, district forester of the northeast Texas fire protection area, gave a short talk on the value of forests to the farmers in that section and pointed out the advantages of growing timber as a crop.

The program was arranged by Mr. W. L. Jones, secretary of the Chamber of Commerce at Hughes Springs, and C. R. Heaton, Marion County agent. Mr. Heaton, in commenting on the film, said: "We feel that no greater service could be rendered to the people of this east and northeast Texas area than putting on an extensive educational program in forestry work such as the Texas Forest Service is doing."

Mr. Heaton has made arrangements with the Texas Forest Service to have the same forestry picture shown at the Marion County Fair to be held at Jefferson from September 20 to 24.

MEETING—

(Continued from Page 1, Col. 3)

2, located six miles south of Conroe, Texas, to study and discuss proper methods of growing, protecting and harvesting timber crops.

A sample plot of average second growth pine timber was marked and cut for pulpwood according to good utilization and wise cutting practices. Another comparative plot was studied in which the trees were marked, but not cut, showing how trees are selected for the cutting of pulpwood, sawtimber, poles, piling, and ties, and the stand still left in a condition in which timber crops may be harvested in the future.

In the inspection of the timber plots and the discussions that followed, it was pointed out by B. Koontz, assistant forester of the Texas Forest Service, that the development of a market for pulpwood in

East Texas may be a liability or a decided asset in connection with the important problem of producing forest products on the soils of East Texas better adapted for that purpose than for any other use. The general idea presented to the group was to thin for pulpwood, leave ample trees for a future crop, grow poles, piling, sawlogs, ties, and other higher quality forest products; and under these conditions thus keep the timberland continually producing a steady income. It was pointed out further that on properly managed forest areas in East Texas, the development of the pulpwood industry presents an opportunity to the owner to market and realize an income from many trees which formerly had no value.

Besides the timber plot study, the group, led by Ivan H. Jones, chief of Texas Forest Service's division of forest management, also inspected the forest tree nursery and made a tour of the State Forest. This Forest of 1,634 acres has been under the administration of the Texas Forest Service since 1926 and a number of forestry research, management, and demonstration projects are being conducted there.

Following a noon barbecue generously tendered the group by the Montgomery County Chamber of Commerce, special speakers discussed the forestry problems of East Texas. Those leading the discussions were: Jack C. Dionne, Houston, publisher of the Gulf Coast Lumberman; E. O. Siecke, College Station, director of the Texas Forest Service, A. and M. College; E. J. Downey, Pasadena, Champion Paper and Fibre Company; O. M. Stone, Jasper, chairman of the Forestry Committee, East Texas Chamber of Commerce; Hubert M. Harrison, Longview, vice-president and general manager of the East Texas Chamber of Commerce; John Bonner, Houston; C. W. Simmons, College Station, farm forester, A. and M. College; Fred J. Peters, Conroe, farmer and member of the Forestry Committee; and Henry Grogan, Magnolia, president of the Grogan-Cochran Lumber Company.

Oscar B. Jones, business manager of the Montgomery County Chamber of Commerce, carried out the local arrangements for the meeting and the introduction of the speakers. He was assisted by G. L. Clyburn, Montgomery County Agent.

PROJECTS—

(Continued from Page 1, Col. 2)

as well as competition among the roots of the tree seedlings. Longleaf pine is an extremely interesting species to the forester because of its peculiarities of growth and its relatively high commercial value. Longleaf differs from the other southern pines in a number of ways, but the most outstanding difference is probably the slow growth of the stem during the first few years after germinating of the seed. For several years the young stem is hardly visible above the ground and the long needles are often mistaken for grass. It frequently happens that longleaf pine seedlings eight years old will have a stem height of less than 1½ inches. On the other hand, many longleaf seedlings only three or four years old may have a stem height of 6 or 8 inches. There are probably many causes for this variation in growth; one of the main points to be brought out in the present study is the extent to which grass and root competition causes such variations in growth.

Another project now being started also deals with the reasons why longleaf seedlings grow so slowly during their first few years. There is a needle blight disease which commonly infests the young trees and kills a large per cent of the needles. This disease undoubtedly reduces the vigor and retards the growth of the struggling seedlings. If this disease were eliminated, would the young longleaf seedlings grow faster? And if so, how much faster? The results of this experiment are expected to supply the answer. The seedlings on a sample plot will be sprayed with Bordeaux mixture once each month during the spring and summer. The spray will kill the needle blight and the growth of the sprayed trees can be compared with untreated trees of the same size in check lots. After several years of this treatment, the effects of the needle blight should be clearly shown.

Other new projects are to show the advantages or disadvantages of thinning and pruning in loblolly and slash pine plantations. A test of the durability of fence posts treated by the recently developed "tire-tube method" with zinc chloride preservative is also in progress.

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**FORESTRY MEETING HELD AT
SAN AUGUSTINE JUNE 23**

The twenty-fourth annual meeting of the Texas Forestry Association and a meeting of the Forestry Committee of the East Texas Chamber of Commerce were held in a joint session at San Augustine on June 23. Over 125 people attended. D. C. Kenley of the Southern Pine Lumber Company, Diboll, Texas, was elected president. Other officers elected were: A. W. Henderson, Jefferson; J. R. Keig, Beaumont; and Victor Schoffelmayer, Dallas, as vice presidents. S. L. Frost, College Station was reelected secretary-treasurer. Members appointed to the Legislative Committee of the Association were: O. M. Stone, Jasper, chairman; Hon. Carl Bergman, Corrigan; E. J. Fountain, Jr., Houston; E. L. Kurth, Keltys; J. W. Oliphint, Huntsville; Paul T. Sanderson, Trinity; and E. O. Siecke, College Station. W. Goodrich Jones of Waco, who was instrumental in organizing the Association, serves as its president-emeritus. Arrangements for the comfort and entertainment of the visitors were in charge of Judge R. N. Stripling and the San Augustine Lions Club, and a delightful fried chicken dinner was served by the church ladies of the city.

Meeting in the spacious court house at San Augustine, the delegates were first addressed by Judge Stripling, who turned the task of welcoming the visitors over to Joe Fisher, county attorney for San Augustine County. President H. M. Seaman formally opened the meeting. He mentioned that next year the Association would celebrate its twenty-fifth year and an appropriate program would be arranged. He pointed out that the Texas Forestry Association is not an East Texas organization but a state-wide body in which all sections should take an interest. He remarked on how greatly interest in forestry has developed in the last few years, and that this came about more or less as a result of the passing of many of the largest sawmills. Mr. Seaman, in closing, said that the forestry program must be fair, and to be fair it must take into consideration the rights of everyone.

He called upon E. J. Downey of the Champion Paper and Fibre Company of Houston, a representative of an in-

dustry that is almost daily becoming a greater factor in the forestry program of the State, who spoke briefly upon the relationship between the two industries. He said that there was a great field for future development in Texas and that everyone interested should do his share of the task involved in promoting this development, either as an active worker or as a good missionary.

New Fields for Wood

Highly informative and interesting was the paper of Victor Schoffelmayer, agricultural editor of the Dallas News, whose topic was "Wood Plus Chemistry—A New Industry." The text of his discussion was that new sources of income must be found for the farmers of Texas, that cotton and forestry are very closely related and that the agricultural problem in Texas is a major problem for cotton income is definitely down. He said that there is no market, except exports, for nine out of every ten bales of cotton produced in Texas and that the State has lost 50 per cent of its former cotton income. Mr. Schoffelmayer mentioned some of the many by-products that forestry research has developed, such as agrol cellulose, cellulose lignan, dextrose and others that will be produced by new industries—that these by-products are essential raw materials, and that the establishment of these new industries will produce great wealth for the State. He concluded with the thought that action is needed to bring these new industries into being.

Newsprint Mill for East Texas

Mr. E. L. Kurth of Keltys, vice-president and general manager of Angelina County Lumber Company, told about the progress of plans for establishing a newsprint mill in East Texas. He discounted published reports that construction of a plant at Lufkin would be started in July but conceded that chances for its establishment in the near future were brighter now than at any previous time. He remarked that he had felt for the past ten years that the newsprint industry ought to come to Texas, that it was a natural development of Texas resources, and that after the first plant is established and proved successful, it will be followed promptly by the construction of similar plants to supply the market.

Forestry Festival

Ed. C. Burris, secretary of the Lufkin Chamber of Commerce, was invited to tell something of the plans for a Texas Forest Festival to be inaugurated this fall at Lufkin, and to be made an annual event. "The purpose," Mr. Burris said, "is to awaken the general public to the importance of conserving and protecting forest lands." He called attention to the fact that citizens and legislators from other parts of Texas do not know the needs or problems of forestry, and that they should become acquainted with them.

Taxes on Timberlands

Major E. A. Wood, director of the Texas Planning Board at Austin, reviewed in detail the history of forestry development in Texas, the march of early pioneers across the country and how in those pioneer days the forests were looked upon as enemies, as obstacles to progress. He showed how the attitude has changed and that today the forests and the trees are man's friends. Major Wood said that any program of forest planning would require proper legislation embracing an annual tax on forest land at a nominal valuation and a tax on the forest crop when harvested. In all events, a fair and equitable method of taxation must be found, he concluded.

Indifference to Forestry Costly

Speaking informally during the noon luncheon, Paul T. Sanderson, Trinity, president of the Texas Long Leaf Lumber Company and recently elected president of the East Texas Chamber of Commerce, urged a co-ordination of all efforts to the work of conserving Texas' natural resources. He said that indifference to the problems of forestry was developing a situation that would soon find us importing necessities to the State which can and should be produced here.

Value of Texas Forests Cited

Mr. O. M. Stone, chairman of the Forestry Committee of the East Texas Chamber of Commerce, in speaking of the value of East Texas forests said, "Perhaps some of you here have been wondering why our soil doesn't produce; it's been because we've destroyed our humus and soil values with fire. We wouldn't be confronted See FORESTRY MEETING on Page 7

TEXAS FOREST NEWS

MANY RESOLUTIONS ADOPTED
AT JUNE 23 FORESTRY
MEETING

At the forestry meeting held jointly by the Texas Forestry Association and Forestry Committee of the East Texas Chamber of Commerce at San Augustine on June 23 many resolutions important to forestry were adopted. They are as follows:

Regulatory Forestry Legislation

We pledge our cooperation in the consideration of advisable regulatory measures to secure the practice of forestry on a sustained yield basis on privately owned land to the end that an abundance of raw material may be produced to support forest industries on a permanent basis. However, we hold to the opinion that public agencies should first redeem their responsibilities as regards a reduction of the forest fire hazard and the passage of advisable forest taxation legislation. After such stimulus and encouragement are accorded private timberland owners the proposition of regulatory measures can be more appropriately considered. We hold that any regulatory provisions considered necessary should, in the main, be applied through State rather than Federal laws.

Enforcement of Forest Fire Laws

BE IT RESOLVED that the Texas Forest Service, county officials, chambers of commerce, and civic clubs be, and are hereby, highly commended for the successful joint effort they have made in greatly reducing the number of incendiary fires through educational campaigns and through the arrest and conviction of individuals who have persisted in starting fires on property belonging to others, and further, that we pledge our active support in behalf of this campaign.

Support for State Forestry

WHEREAS, the appropriations for the support of the Texas Forest Service have never been commensurate with the importance of forestry in Texas and have not been sufficient to adequately develop important phases of public forestry responsibility, such as protection from forest fires, fundamental forest research, cooperation with timberland owners in the management of forests, the utilization of forest products, and maintenance

of roads and other improvements constructed by the C. C. C.

THEREFORE BE IT RESOLVED that we request the Texas Legislature to make available a minimum of Two Hundred Thousand Dollars (\$200,000) per annum for the Texas Forest Service to the end that the State's just and proper responsibilities may be more fully redeemed.

Federal Cooperation

BE IT RESOLVED that we endorse the following policy statements relative to cooperation in forestry activities between the State of Texas and Federal agencies:

1. Thanks are extended to the Congress for increasing to \$2,000,000 per annum the Federal appropriation to be used in cooperating with the States and timberland owners in forest fire protection work. It is regretted, however, that the full amount of \$2,500,000 authorized by the Clarke-McNary Law, and approved by the Senate, was not granted. State and private forest protection agencies throughout the Nation spent \$5,379,316.00 while the Federal allotments to the states totaled only \$1,604,231.00. It is generally recognized that the most effective forestry expenditures under present conditions are those made in behalf of forest fire protection and, therefore, both Congress and the Department of Agriculture are urged to increase the authorization embodied in the Clarke-McNary law, and to appropriate Federal cooperative funds at least equal in amount to the funds spent each year in behalf of forest fire protection by State and private agencies.

2. The Fulmer Law, enacted by Congress in 1935, authorizes loans to the extent of \$5,000,000 to be made to the states for the purchase of State Forests on a self-liquidating basis so as to insure a properly coordinated effort and responsibility as between State and Federal agencies in developing a forestry program for each state. Congress has so far failed to appropriate funds under the provisions of this act. Meanwhile during the past four years more than \$45,000,000, from emergency relief funds and other sources, have been made available to the Department of Agriculture for the purchase of additional National Forests. It is strongly recommended that Congress appropriate the \$5,000,000 authorized

by the Fulmer Law. It is further recommended that, pending the next session of Congress, the Texas Forestry Association, the East Texas Chamber of Commerce, The State Planning Board, and the Texas Forest Service unite in an effort to secure an allotment from the federal emergency relief appropriations for the purchase of State Forests under the provisions of the Fulmer Law. Such purchase areas should comprise cut-over land in need of tree planting thereby affording a field for utilizing Civilian Conservation Corps and W. P. A. labor in a most constructive manner.

3. Hearty approval is again accorded to the construction work of the Federal Forest Products Laboratory at Madison, Wisconsin. Its highly technical research activities are of great value to all forest products industries and also to timberland owners, both farmers and the owners of larger forest tracts. It is urged that Congress make available at least \$1,000,000 per annum for the Laboratory in order to eliminate the present curtailment of its activities.

4. It is definitely recognized and admitted by private timberland owners and Federal and State forestry agencies that strong and aggressive state forestry departments and constructive State forestry legislation are necessary to attain desired forestry objectives. Therefore, we urge the Federal forestry agency to work with and through the Texas Forest Service on activities dealing with State and private forestry.

5. We pledge our active support and cooperation to the Joint Congressional Forestry Committee authorized to investigate the forestry situation in the United States and to recommend a constructive forestry program to be developed jointly by public agencies and private timberland owners.

Timber Theft

WHEREAS, the stealing of timber is becoming more prevalent in East Texas.

AND WHEREAS, penalty now existing against such thefts is so small as to amount to almost no penalty.

NOW THEREFORE, BE IT RESOLVED by the Texas Forestry Association that we earnestly urge the Legislature to adopt a law or so

See RESOLUTIONS on Page 7

TEXAS FOREST NEWS

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BISHOP LEAVES TEXAS

L. L. Bishop, forest supervisor of the Texas National Forests since 1934, was recently promoted to the position of Assistant Regional Forester in charge of Recreation and Lands of Region 8 for the U. S. Forest Service. He left for his new office in Atlanta, Georgia, early in August.

On July 31, members of U. S. Forest Service, Texas Forest Service, and many East Texas citizens gathered at Ratcliff Lake in Houston County to honor Mr. Bishop. He and his family received a sterling silver service set, a gift from his employees who had worked with him for the past four years.

In his farewell address to the group, Mr. Bishop thanked his employees for their fine cooperation. He also spoke on the fine spirit of cooperation that had existed between the U. S. Forest Service and the Texas Forest Service. Since 1934 almost 630,000 acres of land have been acquired for National Forest purposes in Texas.

In a letter to Mr. Bishop congratulating him on his new appointment, E. O. Siecke, director of the Texas Forest Service said, "The Texas Forest Service appreciates your action in emphasizing on all proper occasions that the Federal forestry program and the state forestry program are two units of a responsibility and that both units working together comprise a logical and wholesome forestry set-up. You have been a splendid representative of the U. S. Forest Service in Texas, and you should look back upon your record with a great deal of pride and satisfaction. You are leaving Texas with the genuine respect, not only of the personnel of the Texas Forest Service, but of the timberland owners with whom you have had official contact. We wish for you abundant success in your new work, and are glad that your new duties should bring you back to Texas from time to time."

GREATER FOREST PROTECTION URGED

Amendment of the Clarke-McNary Law to provide annual authorizations of \$9,000,000 for cooperative protection of forests from fire, as well as \$1,000,000 for protection from insects and diseases, was recommended by

a group of forestry and conservation organizations meeting in Washington, D. C., on June 27 to consider plans for cooperation with the newly appointed Joint Committee on Forestry. This would be in accordance with recent findings of the Forest Service that adequate protection of the 494,000,000 acres of privately owned and state forest lands in this country will cost in excess of \$18,000,000 a year.

Other recommendations for authorizations and appropriations by Congress included the appropriation of \$2,500,000 under the Norris-Doxey Act; an authorization of \$500,000 a year to provide for federal, state and private forest cooperation; and the early appropriation of \$5,000,000 for the purchase of land for state forests as authorized in the Fulmer Act.

FORESTRY FIELD DAY HELD AT STATE FOREST NO. 1

To encourage interest in practical forestry among the East Texas county agents, H. H. Williamson, director of the Texas Extension Service, called a special one-day meeting at State Forest No. 1 on August 2. Attendance totaling 52 was made up of the following: Jack Shelton, vice-director of the Extension Service; Louis Franke, associate editor for the Extension Service; C. W. Simmons, farm forester; District Agents T. B. Wood, George W. Johnson, and M. T. Payne; fourteen county agents; nineteen farmers; eight timbermen; and four vocational agriculture teachers. Mr. D. C. Kenley of Lufkin, president of the Texas Forestry Association, and Senator and Mrs. W. R. Cousins of Beaumont also attended.

The group observed the work of the forestry short course, being held for three weeks on the Forest. They were then led on a tour of the State Forest area to inspect the many demonstrations in practical forestry being conducted there. During the afternoon a number of talks, led by members of the Texas Forest Service, Extension Service, and others of the group, centered around the possibilities of forestry in East Texas and its relation to farm prosperity. Mr. Shelton, in adjourning the meeting, complimented the Service for the work that had been done on State Forest No. 1, and in emphasizing the many de-

sirable features of growing timber as a crop urged that plans be made for a larger and more elaborate field day next year, covering two days' time with an estimated attendance of 500.

SUMMER CONSERVATION COURSE HELD AT N.T.S.T. COLLEGE

Enthusiastic endorsement and a big attendance marked the six weeks' course in conservation of natural resources which was given this summer at the North Texas State Teachers College at Denton. More than 30 of the leading scientists, editors, publishers, writers, and educators in the United States took part in the lectures.

The course, the first of its kind ever to be held in this country, was arranged by Dr. B. B. Harris, dean of the school. Approximately one thousand were registered in the course. The subjects presented and discussed were minerals, water and soil, wildlife, forestry, human resources and recreation, and needed legislation. Lectures in the forestry section of the course were handled by E. O. Siecke, director of the Texas Forest Service; L. L. Bishop, forest supervisor, U. S. Forest Service, Houston; Dr. H. N. Wheeler, forestry lecturer, U. S. Forest Service, Washington, D. C.; and E. L. Demmon, director of the Southern Forest Experiment Station, New Orleans, Louisiana.

The Texas Forest Service, as its part on the program, presented the motion picture film, "Texas Forestry," which was preceded by a brief discussion of the forests of Texas and the need for conserving them. It was estimated that over 800 students saw the picture.

CONGRESS NAMES FORESTRY COMMITTEE

A Joint Congressional Committee on Forestry of ten members was created by Congress during the closing days of the last session. The members named on the committee are as follows: Senators: William Gibbs McAdoo, California; Ellison D. Smith, South Carolina; James P. Pope, Idaho; John H. Bankhead, Alabama; Charles

See COMMITTEE on Page 6

COMMITTEE—

(Continued from Page 5, Col. 3)

L. McNary, Oregon; Representatives: Hampton P. Fulmer, South Carolina; Wall Doxey, Mississippi; Walter M. Pierce, Oregon; Daniel A. Reid, New York; Harry L. Englebright, California.

The creation of this committee fulfills the request of the President in his special message to Congress of March 14, that a joint committee of the two Houses be appointed to study the forestry situation and to formulate remedial legislation for consideration at the next session of Congress. With an allotment of \$10,000 the committee is authorized to hold hearings in Washington and in the principal forest regions of the United States. Authorization is also provided for the printing of a report to Congress which must be submitted by April 1, 1939.

The committee is authorized to study the present and prospective situation with respect to the forest lands of the United States, its condition, ownership, and management, as it affects a balanced timber budget, watershed protection, and flood control, and social and economic benefits which may be derived from such lands, with a view of ascertaining:

1. The adequacy and effectiveness of present activities in protecting public and private forest lands from fire, insects and diseases and of cooperative efforts between the Federal government and the States.

2. Other measures, federal and state, which may be necessary and advisable to insure that timber cropping on privately owned forest lands may be conducted as continuous operations, with the productivity of the land built up against future requirement.

3. The need for the extension of federal, state, and community ownership of forest lands and of planned public management of them.

4. The need for such public regulatory control as will adequately protect private as well as the broad public interests in all forest lands.

5. Methods and possibilities of employment in forestry work on private and public forest lands and possibilities of liquidating such public expenditures as are, or may be involved.

6. The need for additional legislation of authorizations, appropriations,

research and other measures to insure adequate administration and development of the forest lands in federal ownership.

COMMUNITY FORESTS

Much attention has been focused recently on the community forest plan in which the idea is that towns and cities establish such forests adjacent to their communities that "pay as they grow." The plan, although comparatively new in America, has been practiced successfully in Europe for generations, and in many communities local citizens have been receiving a bonus check from the operation of their local forests instead of a tax bill. The average net profit from many European community forests has been reported at about \$5.00 an acre annually.

It has been estimated by the U. S. Forest Service that about 1,097 town and county forests, totaling 2,900,000 acres, have been established in twenty-seven states in this country. Most of these represent the northern and eastern states. Texas reports no community forests. The forests have been established in various ways. Some have been set aside from the original land grants; others have been purchased; some are composed of tax delinquent land; some have been given by public spirited citizens as memorial forests. In some states school districts are operating community forests.

"The development of a town or community forest offers a means of putting both idle men and idle acres to work at an undertaking which will be self liquidating and in which the original cost of the investment is relatively insignificant," the U. S. Forest Service states in a recent publication on community forests. In addition, there are opportunities for community recreation, protection of watershed, protection of wildlife and wild flowers and production of such forest crops, besides timber, as nuts and berries.

The paramount idea in starting and managing these community forests is service to the people who own and operate them. These services are direct profits as well as the many other services that are at once apparent in the woods. The plan is one that should merit the consideration of many Texas communities, especially those in the East Texas timber belt.

FENCE POST PRESERVATIVE TREATMENT PROJECT

Fence posts are being treated in Europe by replacing the moisture in the sapwood portion of round posts with a solution of zinc chloride. The process consists of placing the posts in a slightly sloping position and then keeping a solution of zinc chloride in contact with the tops of the posts until gravity gradually forces most of the sap from the posts, causing the penetration of zinc chloride to replace the sap. Finally, the preservative completely flows through the entire sapwood portion of the post, the treatment ranging anywhere from 8 to 24 hours.

In the research project being conducted by the Texas Forest Service the bark is peeled from 3 to 5 inches from the large end of the post. Over this end a section of discarded inner tube about 2 feet long is fastened, the upper end of the tube being secured to a railing so as to hold it in vertical position. The tube is then filled with the zinc chloride solution.

Round, green posts of pine, gum, and other species, the wood of which is not durable in contact with the soil, are being used. This project is being conducted on State Forest No. 1, near Kirbyville. Chromated zinc chloride which is claimed to be more resistant to leaching and to give greater protection against decay than zinc chloride is also being used in the experiment.

Careful records will be kept as to the durability of the posts when treated by this process. Obviously a number of years must elapse before reliable information becomes available as to the added years of service resulting from the treatment. The treatment may produce satisfactory results in the New England and the Lake States and yet be less successful in Texas. Fungi which are responsible for the decay of wood are much more numerous and active in the southern portions of the United States than they are further north due to increased humidity and temperatures. In view of this situation, the treatment can not be definitely recommended to Texas landowners and others until the research work now being conducted makes reliable information available.

TEXAS FOREST NEWS

7

FORESTRY MEETING—

(Continued from Page 3, Col. 3)

today with a destitution of our natural resources if we had not been so neglectful in the early days. If everybody twenty-five years ago had felt like they do today we would be much better off. It's heartening to see the group assembled here today, representing all walks of life, join hands in forwarding a Texas forestry conservation program." Mr. Stone also stated that Texas forests are valuable for many purposes such as production of wood products useful for man, soil and water conservation, recreational use, and as a home for wild life. He said, "We must start planning a long way ahead to have a new life in our forests. If we can come to that day our East Texas forests will support a much greater population. The forests of East Texas mean a livelihood for that section of the state."

Work of U. S. Forest Service

Mr. L. L. Bishop, forest supervisor of the U. S. Forest Service and in charge of the Texas National Forests, spoke on the general program conducted on these areas. The National Forest purchase program in Texas was started in 1934. The gross area of the four units covers about 1,600,000 acres, and today about 630,000 acres have been purchased. Bishop said, "We are working out many forestry principles on these lands. We are also working for the development and social welfare of the residents living within the boundaries of the Forests. Our National Forests involve a land-use program. Timber growth on the 630,000 acres is now figured at 150 bd. ft. per acre, per year. This, we hope, can be increased twice or three times with better forestry practices. We are most concerned with the balanced social use of the forests. Education is an important feature being developed." Bishop went on further to say, "We look for a rounding out of our purchase units. They will be handled as local projects for the benefit of the local people in the areas wherein the forests are located."

Work of Texas Forest Service

Mr. E. O. Siecke, director of the Texas Forest Service, briefly outlined recent progress made in the State

forestry program. He said, "With the coming of the CCC camps in 1933, with the increased general nation-wide interest in forestry aroused by President Roosevelt's attitude, forestry in Texas has made its greatest progress since any time in its history. We have more than doubled our appropriation in the past six years. This indicates an increased interest on the part of our citizens and our legislature." Mr. Siecke mentioned that the Texas Forest Service will need additional support for the State to redeem its responsibility to the people of Texas in forestry. Mr. Siecke told of the summer course in forestry to be given this summer on State Forest No. 1, primarily for the vocational agriculture teachers and county agents of East Texas. The three weeks' course will be handled jointly by the Texas Forest Service and the Department of Agricultural Education at A. & M. College. Speaking of the value of the course, Director Siecke said, "It means that the story of forestry will be instilled in the minds of these men who are enrolled in it. They will go back and start forestry projects in their community through their F. F. A. students. It is a big thing and will carry forestry to many thousands of East Texans." Director Siecke, in closing his talk, commended the employees of the Frost Lumber Industries, Inc., of Camp Worth, located in San Augustine County, for organizing the Frost Timber Conservation Council, the principles of which are to conserve the forests.

Forest Fire Law Enforcement

Mr. W. E. White of Lufkin, Chief of the Division of Forest Protection, Texas Forest Service, told of this Division's work in protecting almost 11 million acres of East Texas timberland. He showed how incendiary fires accounted for at least 30 percent of the fires that had started during the last few years. He said that education had done much to cut down on the number of fires in East Texas but that the more stringent method of forest fire law enforcement had to be resorted to to apprehend the relatively few individuals who still insist on wilfully burning the forests. A forest fire law enforcement program was started effectively in 1936, continued in 1937 and in 1938. Mr. White said, "We still need to do more of this law enforcement. Our pushing this pro-

gram and the cooperation we have received from many East Texas county courts have done wonders to cut down on the incendiary fires in the 'hot spots' of the East Texas timber belt." Mr. White also gave some figures on forest fires in East Texas during the past few years which showed how they had been gradually decreasing in area burned.

Forestry Committee Meets

The Forestry Committee of the East Texas Chamber of Commerce met prior to the general session of the meeting in order to consider ways and means of conducting forestry work under the auspices of the East Texas Chamber of Commerce.

RESOLUTIONS—

(Continued from Page 4, Col. 3)

change the existing law as to put an effective stop to timber depredation in Texas.

Statement of Confidence In The Texas Forest Service

BE IT RESOLVED, that this Association again reiterates its confidence in and continues its support of the Texas Forest Service under the efficient supervision of E. O. Siecke, director, and the entire personnel for their continued splendid work on behalf of Texas forestry.

Cooperation With Other Conservation Agencies

BE IT RESOLVED that we fully appreciate close relationship of forestry with other conservation factors such as wildlife and water conservation, prevention of soil erosion, and recreation, and, therefore, extend our own cooperation to all agencies interested in such conservation activities.

Appreciation for Hospitality Extended by Local Agencies

BE IT RESOLVED, by the Texas Forestry Association at its twenty-fourth annual meeting at San Augustine, that we offer to our hosts, Judge Stripling, the town of San Augustine, members of the Lions Club, and the ladies of the Methodist Church, who so thoughtfully served the delightful meal and made it a most enjoyable visit, a rising vote of thanks.

When the speed of flowing water is doubled its eroding power is multiplied 30 times.

COURSE—

(Continued from Page 1, Col. 1)

The purpose of the course was to furnish the basic information which any woodland owner can apply to his property in order to place the woodland in better condition to secure the maximum returns in products and income over a continuous period of time.

The instruction consisted of a minimum of lecture and class work and a maximum of field work with practical problems. State Forest No. 1 served as an ideal field laboratory for much of the outdoor work. Special trips were made to pine and hardwood sawmills, to a creosoting plant, and to a logging operation. These trips served to complete the picture of forestry as presented by the course.

A series of special programs was arranged for one or two evenings a week during the school. The first of these was the showing of the Texas Forest Service movie, "Texas Forestry," by E. B. Long, who is in charge of one of the motorized educational moving picture units, which operate continuously throughout East Texas.

On another evening H. H. Williamson, director of the Extension Service of A. and M. College of Texas, addressed the students and visitors on the subject of "Timber as a Farm Income," emphasizing that there is an urgent need for more forestry minded farmers, especially in East Texas, and that they should realize that timber is a crop that will produce an important part of the farm income. Mr. R. E. Callender, specialist in Wild Life Management for the Extension Service, spoke on the same program, showing the relation between forests and wild life.

P. F. Lawson, publicity director of the Beaumont Chamber of Commerce, principal speaker on the evening of July 28, told of the importance of forestry in relation to water supply. Mrs. W. Henry Herndon of Kirbyville provided a program of musical and dance numbers the same evening Mr. Lawson spoke.

The visit to the school of over 50 county agents, farmers, timberland owners and workers on Tuesday, August 2, was a high spot in the final week of the course. The student group joined with the visitors in a

tour of State Forest No. 1, observing research projects and demonstrations of correct forest practices and management.

On Wednesday, August 3, the work done and the part played by the National Forests in Texas were described by L. L. Bishop, forest supervisor of the United States Forest Service. Mr. Bishop pointed out that the U. S. Forest Service believes that service to the community in which National Forests are located should take precedence over strict adherence to exact forest practices.

The valedictory of the course was given on the final evening of the school by R. A. Manire, state director of Agricultural Education, who impressed upon the men that they had prepared, through the course, to do better work as teachers, county agents, and leaders in their home communities. He stated that they have a real opportunity which they should recognize, that forestry is vital to the future of East Texas, and that they should use the knowledge they acquired to build for that future.

It is expected that the vocational agriculture teachers attending the forestry course will be able to use the principles taught them to a great advantage in conducting their forestry teaching work among their Future Farmers of America students. Plans are already under way whereby the East Texas vocational agriculture teachers will start teaching forestry to their F. F. A. students as soon as possible. It is expected that the students will establish many small demonstration tracts on their farm woodlands and practice forestry on them.

STATE FORESTERS MEETING TO BE HELD IN IDAHO

Four days of discussion of cooperative forest protection and management and a 350-mile tour of the Boise, Payette, Idaho, Challis, and Sawtooth National Forests in Idaho are scheduled during the annual meeting of the Association of State Foresters from August 29 to September 2, inclusive. The meeting will convene at the State Capitol in Boise on August 28 where the first session will be held.

RIVER BIRCH (Red Birch) (*Betula nigra* L.)

This is the only native birch found at low elevations in the South. It occurs in East Texas, where, as the name implies, it is at home in the deep, rich soils along the borders of streams, ponds, lakes, and swamps.

The bark provides a ready means of distinguishing this tree. It varies from reddish-brown to cinnamon-red in color, and peels back in tough papery layers. These layers persist on the trunk, presenting a very ragged and quite distinctive appearance. Unlike the bark of our other birches the thin paper layers are usually covered with a gray powder. On the older trees, the bark on the main



RIVER BIRCH

Twig, natural size.
Leaf and Fruit, one-half natural size.
Male flower, one-third natural size.

trunk becomes thick, deeply furrowed, and of a reddish-brown color.

The leaves are simple, alternate, two to three inches long, more or less oval in shape, with double-toothed edge. The upper surface is dark green and the lower a pale yellowish green.

The flowers are in catkins, the two kinds growing on the same tree. The fruit is cone-shaped about one inch long, and densely crowded with little winged nutlets that ripen from May to June.

The wood is strong and fairly close-grained. It has been to some extent used in the manufacture of woodenware, in turnery and for wagon hubs. However, this tree is scattered in its distribution and does not figure much in commercial lumbering, but is cut chiefly for firewood.

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TEXAS FOREST SERVICE

September-October 1938

TEXAS FOREST FESTIVAL

Elaborate preparation for the first annual Texas Forest Festival to be held at Lufkin, October 11-15, is being made by the Texas Forest Festival Association. Four exhibit buildings to contain the forestry and agricultural exhibits are being constructed. The Texas Forest Service and the C.C.C. have erected a building, part of which will be used to display the Texas forest products exhibit arranged by Tex-

as timberland owners originally for the Texas Centennial at Dallas. Other portions of the building will be used to house a special collection of many Texas woods which has been gathered by the Service during the past two years, photographs of Texas forests, and other exhibits pertaining to forestry in the State. All buildings are located on the permanent grounds of the Association. Mill managers are working in their respective communities to arouse interest in the Festival.

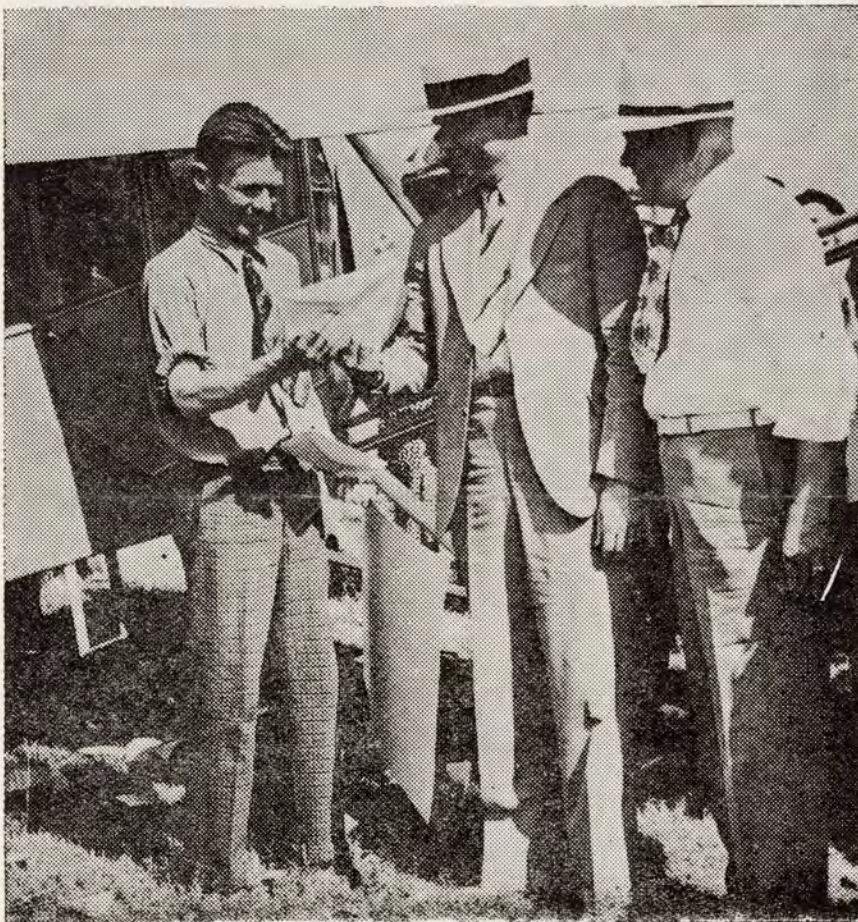
Educational exhibits will be developed by the various forest services, vocational agricultural teachers and county agents. In addition to these constructive phases, the Association is arranging a program of entertainment in keeping with the industry it represents.

The organization is being supported by the Texas Mill Manager's Association, has the approval of the Texas Forestry Association, and the lumbermen throughout East Texas are manifesting their interest through taking out a membership in the Association.

Realizing that timber is the basic commodity for Texas' second largest industry, its organizers have created this Association with six principal objectives: (1) to properly publicize Texas forests to the State and the Nation; (2) promote timber growing as a cash crop to the landowner and a basic raw material for industry; (3) to do educational work in fire protection, reforestation and conservation; (4) to work for a more equitable taxing system on timberland so that continued private ownership on a profitable basis may be possible; (5) the Festival will be put on at Lufkin every year as a medium of contact for the members; (6) aid the Texas Forest Service when possible.

The officers of the Association for the current year are Jean Shotwell, President; Ed. C. Burris, Managing Director. In commenting on the new organization, Mr. Burris said, "We are not altogether unselfish in the creating of this organization. We realize that our community, as well as that of many others in the commercial timber belt of East Texas, is either directly or indirectly dependent upon timber and timber dependent industries for livelihood. Each of us, whether we be a banker, merchant, a retail store clerk, or an industrialist, is in a measure dependent upon forests for our income. For illustration, were

See FESTIVAL on Page 3



The above picture shows Douglas Corrigan, immediately following his landing at the Lufkin airport in his \$900 airplane in which he recently made his "wrong way" flight across the Atlantic Ocean, receiving a lifetime membership to the Texas Forest Festival Association. He is being presented the membership by Ed. C. Burris, managing director of the Association, while C. L. Du Puy, another director in the organization, looks on.

TEXAS FOREST FESTIVAL AT LUFKIN, OCT. 11-15

STATE FORESTERS MEET IN IDAHO

At the nineteenth annual meeting of the National Association of State Foresters, held at Boise, McCall and Sun Valley, Idaho, from August 28 to September 2, Rutledge Parker, Montana state forester, was elected president to succeed F. C. Pederson, state forester of Virginia. Other state foresters elected as officers were: vice-president, J. O. Hazard of Tennessee; and secretary-treasurer, O. A. Alderman, Ohio. The Executive Committee appointed included, besides the three new officers, F. C. Pederson of Virginia and Frank Heyward, Jr., of Georgia.

The resolutions adopted by the Association at its meeting, a brief summary of which follows, provided that:

1. The U. S. Forest Service include in its budget an appropriation of five million dollars for the fiscal year 1940 for the acquisition of state forests as authorized by the Fulmer Act.

2. The Clarke-McNary Act be amended to increase to nine million dollars the authorization for cooperative fire protection activities with the states.

3. The appropriation of \$2,500,000, authorized by the Norris-Doxey Act, be endorsed and supported by the Association in view of information furnished by Chief Forester Silcox and Assistant Forester Tinker that 70 percent of the amount involved has been earmarked for allotment to state forestry agencies.

4. The development of a statewide program of community forests under the leadership of the state forester as a means of furthering the practice of forestry.

5. If and when forest legislation measures are deemed necessary they should be prepared within and by the states and such measures should be written in the State law only as they have been proved practicable by actual trial.

6. The U. S. Forest Service is urged to make known at an early date its proposed recommendations to be made to the Joint Congressional Forestry Committee to the end that the states and other interests may have opportunity to study the federal program.

TOM GILL VISITS TEXAS

Mr. Tom Gill, Washington, D. C., secretary of the Charles Lathrop Pack Forest Education Board and editor of the Forestry News Digest, was in Texas during the latter part of August conferring with E. O. Siecke, director of the Texas Forest Service and member of the Pack Board.

The Pack Board is interested in awarding a fellowship of approximately \$7,500 annually, for a period of two or three years, for the purpose of studying fundamental factors relative to the production and harvesting of forests in the Southern pine region on a sustained yield basis. Mr. Gill and Director Siecke spent two days in East Texas conferring with a number of timberland owners and other interested citizens.

Aside from being a professional forester, Mr. Gill is also an author of note, having written a number of novels and short stories with a forestry and timber background. The initial installment of his latest novel, a story of the California redwoods entitled "Firebrand", appeared in the September issue of The American Magazine.

CAMP AT STATE FOREST NO. 1 PROVING POPULAR

The camp at State Forest No. 1, near Kirbyville, has been in big demand during the summer as a meeting place for a number of organizations. It is estimated that over 1,000 people attended. The groups which have engaged the camp this summer are as follows: Mrs. Henry Herndon's Fine Arts Camp for girls, Camp Fire Girls of Kirbyville, Beaumont Chapter Reserve Officers Association, vocational agriculture teachers' forestry summer course, 4-H Club girls of Jasper County, Baptist Young People's Union of Beaumont, 4-H Club boys of district county agent T. B. Wood's district, county agents' meeting, St. John's Lutheran Church of Port Arthur, Orange High School football team, and the Texas Forest Service Patrolmen's conference.

The Texas Forest Service developed the former CCC camp, turned over to the state by the federal government when the camp was terminated, as a rural meeting and educational center for southeast Texas. The camp will accommodate up to 200 persons

and has ample kitchen and dining room facilities. A 60 x 100 foot assembly hall provides excellent accommodations for large gatherings. In order to secure maintenance funds, a nominal fee for the use of the camp is charged, coupled with an additional daily fee for each individual.

TIMBER VALUED IN EAST TEXAS OIL FIELDS

Timber in the East Texas oil fields is a valued crop both by the timberland owners and the oil companies, according to reports received by the Texas Forest Service's Division of Forest Protection. Many of the small landowners who have leased acreages to oil companies are deeply concerned with the protection of their timber and want to grow it as a crop on the uncleared acreages.

Only four forest fires were reported in the Conroe oil field in 1937. Two of these fires resulted from incendiary causes, one by road workers or smokers, and one was authorized. The Humble Oil Company has taken an active interest in its timber in the Conroe oil field. According to Mr. H. Gallimore, who lives near Waukegan and has charge of Humble's timber holdings in the Conroe field, the Humble Company respects its timber wealth as much as it does its oil. When the company sells timber, it lets nothing be cut under twelve inches, and if tops fall in the well site clearing or pipe lines, the contractor must clean up all tops that might cause a fire hazard to wells or timber lands. In the case of fire in the woods, whether on company holdings or adjacent lands, Mr. Gallimore stated that he would send men to help suppress the same.

Cleve Beeson of Conroe, caretaker of the Southwestern Settlement and Development Corporation's timber holdings in the Conroe field, said that his company owns a large acreage of timberlands there, and that it thinks as much of its young timber as it does the oil wells on its holdings. Mr. Beeson said that his instructions were to fight and report all fires and depredations on company holdings. Both companies stated that they were ready to cooperate with the Texas Forest Service in every way possible.

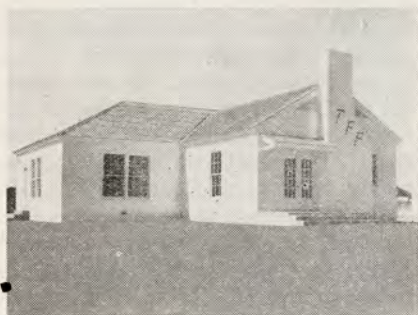
TEXAS FOREST NEWS

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FESTIVAL—

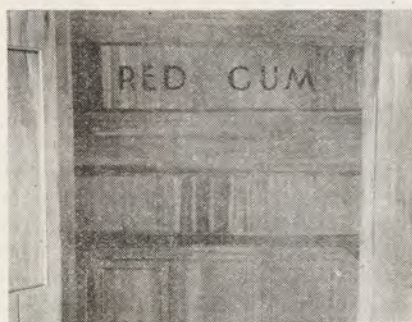
(Continued from Page 1, Col. 3)

it not for the forests of East Texas there would not be nearly so many retail merchants in this area as now exist, and jobs for clerks would be limited."



FOREST PRODUCTS BUILDING

View of the building at the Texas Forest Festival grounds at Lufkin which will house the Texas forest products exhibit donated by Texas timberland owners. The building was constructed by the Texas Forest Service and C. C. C.



WOOD PANEL EXHIBIT

Nine such booths, representing as many different woods, will be on display in the Texas Forest Products building showing the public the rich beauty, value and use of Texas woods when made into paneling.

PLYWOOD IN HOME BUILDING

Built-up plywood panels with two faces glued to either side of structural members have produced very strong low-cost prefabricated houses. The box girder produced in this way is weatherproof, may be insulated readily against sound, heat and cold, makes a place for electric wires. The glue makes a stronger joint than would be possible with nails. This construction makes a stronger job with 2 x 6 structural members than the usual 2 x 10 floor joists.

TENTATIVE PROGRAM
TEXAS FOREST FESTIVAL,
LUFKIN

Tuesday, October 11th—Opening Day

10:00 A. M. Gate opens (Festival Grounds)
12:00 Noon Parade of Forestry
6:30 P. M. Band Concert
7:30 P. M. Forestry Pageant and Coronation Before Grandstand

9:00 P. M. Battle Royal
10:00 P. M. Queen's Ball
Dee Lang's Famous Shows on Midway
Wednesday, October 12th:

Texas Legislature and State Official Day—Texas Forestry Association Day—Pioneer Day—Foresters Day—Nacogdoches County Day.

10:00 A. M. Gate opens (Festival Grounds)
10:00 A. M. Foresters Meeting—Hotel Angelina

10:30 A. M. Judging Exhibits
2:30 P. M. Old Fiddlers Contest
3:00 P. M. Woodsmen's Contest—Axes, Saws, etc.

4:00 P. M. Inspection of Forest Exhibits and State and Federal Forest Building
5:30 P. M. Barbecue—Legislative and forestry groups. At Texas Forest Service division headquarters. Short talks by Texas forestry leaders.

6:30 P. M. Band Concert
7:30 P. M. Burton's Rodeo (State Officials as Guests)
9:00 P. M. Battle Royal

Dee Lang's Famous Shows on Midway
Thursday, October 13th:

Polk County, Trinity County and Cherokee County Day.

10:00 A. M. Festival Gates Open
10:30 A. M. Judging completed
2:30 P. M. Special Negro Entertainers

3:30 P. M. Amateur Musicians Contest (Entries should write to the Texas Forest Festival)

4:30 P. M. CCC Axemen Contest
6:30 P. M. Band Concert
7:30 P. M. Burton's Rodeo
9:30 P. M. Battle Royal

Dee Lang's Famous Shows on Midway
Friday, October 14th:

Official School Day—All School Children Admitted Free; Joy Night, Stunt Night—Costumed persons Admitted Free.

Houston County, Jasper County, Tyler County, San Augustine County

Day.

10:00 A. M. Festival Gates Open
2:30 P. M. School Children—Special Rodeo

4:30 P. M. School Children Musical Contest

7:30 P. M. Burton's Big Rodeo
9:30 P. M. Battle Royal
10:00 P. M. Clown Parade and Contest in Front of Grandstand—Prizes offered for best Clown.

Dee Lang's Famous Shows on Midway
Saturday, October 15th:

Farmers Day — Lumberjack Day — Mill Managers Day — American Legion Day.

10:00 A. M. Gates Open at Festival Grounds

2:30 P. M. Farmers Hog Calling Contest (Prize offered)

3:00 P. M. Mill Managers' Business—Hotel Angelina

3:00 P. M. American Legion Peace Drill

5:00 P. M. Mill Managers—Competitive Program

6:30 P. M. Band Concert
7:30 P. M. Burton's Big Rodeo
9:30 P. M. Battle Royal

Dee Lang's Famous Shows on Midway

HUMAN SKELETONS ARE
FOUND SEALED WITHIN
LIVING TREE TRUNK

A mystery of the jungle is disclosed in the colonial office's report on the State of Brunei, Borneo, for 1936.

The bones of about four persons were found completely enclosed in an artificial cavity in the living trunk of a tree. The tree, which was about four feet in diameter, had fallen in the ordinary course of Nature when the discovery was made by a sawyer.

The age of the bones was estimated at about 50 years, and an examination of the tree suggested that not less than 50 nor more than 100 years ago a panel six feet in length had been removed from the side of the tree and the heart hollowed out to contain the bones, the panel being then replaced and regrafted on to the tree again.

METEOR STARTS FIRE

A forest fire lookout in Idaho reported recently that a meteor started a fire near his tower. He said the meteor was a piece of heavy metal about the size of a football and was found lodged in a tree.

COMMERCIAL PROCESSES OF PULPING WOODS FOR PAPER

Five processes are commercially used in making paper pulp from wood. One of these is the mechanical or groundwood process, in which the wood is reduced to pulp on a grindstone. The four other processes, namely, sulphite, sulphate, soda, and semichemical, depend upon the dissolving action of chemical reagents which remove the lignin and leave the cellulose fibers in a fairly pure state. This is accomplished by digesting the wood chips with the proper chemical under steam pressure.

The mechanical process is the cheapest and returns the highest yield of pulp. The strength of this pulp, however, is low and consequently it is usually mixed with some of the stronger chemical fibers before conversion into paper. News, cheap magazine, and cheap catalog papers are composed largely of groundwood pulp. A few fiber and building boards are also made mostly of groundwood. Only a few species of wood are employed in the mechanical process. The favored ones are the long-fibered, light-colored spruces and balsam. Some of the pines and hemlocks are also used to a small extent. Very little hardwood is consumed in groundwood manufacture because of the shortness of the fiber and the large amount of energy required per unit weight of pulp produced.

Sulphite pulp is used largely in certain grades of book, wrapping, bond, and tissue papers, and also in combination with groundwood in numerous products, of which the most noteworthy is newsprint. An acid chemical (calcium bisulphite plus sulphurous acid) is employed; the pulp yield is only about half that realized from the groundwood process. The pulp is much stronger, however, it can be bleached. Long-fibered, low resin content softwoods, such as spruce, balsam, and hemlock, are largely employed in producing sulphite pulp, although some aspen, birch, and southern yellow pine is also used.

Kraft or wrapping paper and some fiber boards are made from sulphate pulp. This process is applicable to any long-fibered wood and as the chemical used is alkaline (a mixture of sodium hydroxide and sodium sulphide) it suffers no disadvantage from the presence of resins, waxes, fats, or other alkali-soluble materials. Sul-

phate pulp is usually used unbleached, but the Forest Products Laboratory has found that strong bleached pulps can be made from it. This development extends the use of the sulphate process and add such woods as southern pine to the manufacture of high-grade book, magazine, and writing papers.

Book, lithograph, and envelope papers are often made from a mixture of sulphite pulp and pulp made by the soda process. The latter employs alkaline caustic soda as the pulping agent and can be used in the reduction of practically all hardwoods. Aspen, cottonwood, basswood, beech, birch, and gum are the woods usually reduced by the soda process. Soda pulp is sometimes used alone in the manufacture of bulky papers, such as blotting, where the strength requirements are not high.

The semichemical process is a recent development; it utilizes neutral sodium sulphite as the pulping agent. It is called semichemical because the chips are merely softened by the chemical and then reduced to pulp by mechanical action. The main use at present is in the production of corrugating board stock from extracted chestnut chips. A variation is the "sodite" process in which caustic soda and sodium sulphite are the active chemicals, and no mechanical reduction step is required.

WOOD FLOUR

Wood flour is finely ground wood. As it comes from the mill it resembles ordinary wheat flour in appearance, hence the name. Wood flour produced in this country is made chiefly from sawdust, shavings, slabs, edgings, and trimmings. It is manufactured by many methods, most of which center around either grinding the wood between huge stone or steel discs, or "beating" it to pulp in a steel shaft. Following this process, the flour is sifted through screens to get the fineness desired.

Color and weight considerations limit to a large extent the species that may be used for making wood flour. The woods chiefly employed are white pine and spruce. Various kinds of poplar, birch, maple, and oak are also used. Woods containing excessive pitch, gum, oil, or resin are not satisfactory for use in wood flour manufacture.

Wood flour has many uses, main one of which is the linoleum industry accounting for over half of the annual United States consumption. Wood flour is one of the principal absorbents for nitroglycerin in the manufacture of dynamite. Wood flour is also used as a filler in making phenol resins (one of which is bakelite) and similar products. Starch, sodium silicate, resin, glue, and other materials are used to bind pressed wood flour into a number of other products such as doll heads, picture frames, tenpins, bowling balls, phonograph records, etc. Composition flooring utilizes wood flour. "Oat meal" wallpaper is made partly from wood flour.

The production of wood flour is centered in the East and has averaged in the past few years around 24,000 tons annually. In addition there is consumed about 6,000 tons of imported product yearly. Present prices of wood flour, f. o. b. mill, are reported to range from \$23.00 to \$50.00 per ton depending on the grade.

DE-INKING NEWSPAPERS

Process Converts Newspapers to Pulp Again

Scientists have now figured how they can detour the travels of a newspaper from home to the trash pile by de-inking it, converting it to pulp, and finally to newsprint again. The process converts an ordinary waste product into one which can compete in the open market with standard news. Experiments have been conducted by the Forest Products Laboratory of the U. S. Forest Service, Madison, Wisconsin, using benzonite, a very fine clay found in Wyoming, as a de-inking agent. It was found that the clay particles were so small that they could gather up the ink and still pass through the ordinary washing screen.

One ton (2,000 pounds) of pulp can be recovered from 2,500 pounds of old newspapers by this de-inking process. In Chicago alone it is estimated, 325 tons of waste newspapers might be economically collected daily and converted into approximately 260 tons of de-inked pulp. This would mean a daily saving of about 300 cords of wood and the annual saving would be equivalent to the cut on about 4,000 acres of 100-year old spruce fir forest.

TEXAS FOREST NEWS

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MISSISSIPPI HAS PROGRAM TO ENCOURAGE CONSERVATION

Substitution of a state severance tax for the present property tax on timber and other natural resources of the state is proposed in a series of eleven bills drafted by a joint conservation committee of the Mississippi House and Senate.

The proposed forestry legislation, which has the endorsement of Lieutenant-Governor J. B. Snider, would revamp Mississippi's conservation law "to encourage reforestation, conservation of wild life and natural resources and prevent destruction and waste in the forests and fields."

The severance tax bill sponsored by the committee would take all ad valorem taxes off standing timber and substitute a flat tax of 20 cents per 1,000 board feet for sawn timber or logs removed from the forests. The bill would also place a tax on poles and piling of 25 cents for 1,000 board feet and 10 cents per standard cord on pulp and distillate wood; 25 cents per 1,000 board feet on cooperage and veneer stock; 10 cents per ton on pine stumps; 20 cents per standard cord on shuttle blocks and furniture dimension stock and 10 cents per barrel of 400 pounds on turpentine (crude gum). Brick, pottery clay, sandstone, limestone, and petroleum would also be taxed under the proposed measure. The severance taxes, imposed as a privilege excise, would not apply to persons using natural resources from their own premises for their own use.

Other bills drafted by the joint legislative committee are as follows:

1. Authorize county boards of supervisors to contribute not over two mills of assessed county valuation for fire protection and reforestation.
2. Authorize the forestry commission to reimburse the federal government with profits derived from a federal forestry project.
3. Authorize the forestry commission to dispose of property.
4. Require any person or corporation responsible for a forest fire to pay for damage.
5. Make it a misdemeanor for any forestry employee to fail to investigate or report forest fire or violations of forest protection laws.
6. Create a public land use commission composed of the governor, state forester, and conservation director, empowered to designate and set aside

state-owned lands for parks, conservation or reforestation.

THE PLACE OF TIMBER FARMING IN MODERN AGRICULTURE

Excerpts from an address by Harry L. Brown, Assistant Secretary, Department of Agriculture, before the Forestry Section, Association of Southern Agricultural Workers, at Atlanta, Georgia, Thursday, February 3, 1938.

"To agricultural workers the fundamentals are clear. Forests are crops. The basic processes involved are those applied in modern agriculture. Exploitation and neglect are out. Instead, the soil must be conserved, the crop must be reproduced, it must be tended and protected during growth, it must be harvested, and it must be marketed. Only as these fundamentals are observed can any cropland serve owner—and the social fabric—as it should.

"Foresters, who in the last analysis are timber farmers, say these basic processes may profitably be applied to most forest lands and woodlands in the South. They point out that although forests take longer to mature than most other crops, they will reproduce themselves, perpetuate the cycle, and yield continuous returns if harvesting is made a selective process instead of cutting the crop all at once, as is done with corn. Nature has been so kind that it pays, they say, to plant trees on poorer land which because of previous exploitation is now idle or poorly stocked. This will help keep those lands productive and help protect the soil from erosion. Growth can be increased, they point out, by light selective cuttings repeated at relatively frequent intervals. These will improve both quality and value of the remaining stand, and, with the many wood-using industries and markets now available in the South, can often be done at a worthwhile, immediate profit, provided the growing crop is adequately protected from fire. And cleared strips planted to carpet grass furnish feed for cattle as well as assist in the problem of fire control.

"During these intermediate harvestings, as well as in later ones, owners of farm woodlands can often get greater cash returns by using lower grades of forest materials themselves, and selling the higher grades. And foresters advise that all sales be made on a unit basis—by the

thousand feet of logs, the standard cord, or some other designated unit—rather than on an area basis. This practice will, they say, save many dollars.

"The South is exercised by what has been called The Menace of the Pulp Mills. As a member of the Department of Agriculture, and as a Southerner, let me assure you that if timber farming on a sustained-yield basis is practiced generally in the South, and if pulpwood requirements are supplied so far as possible from stands handled under light cuts, with integrated utilization of the timber removed and coordination with the need of existing timber-using industries, the Department believes the pulp expansion as now planned in the South can be a constructive, economic force in bringing added and permanent prosperity."

LIGHTNING DAMAGE TO TREES

"Don't stand under a tree during a lightning storm!" That age-old adage is just as sound today as it ever was and for proof of the statement the Texas Forest Service has made some observations on the 1,700-acre State Forest No. 1, near Kirbyville, that seem to bear out the fact. The Service has found that in the three months from May 3 to August 3, this summer, lightning has struck 22 trees on the Forest. The greatest number of trees struck during any one storm was four.

Whereas the lightning did not result in actually killing the trees, it so weakened them that they were all infested with beetles within three to five days after being struck. Once the beetles get to work, a tree is usually killed in from two to ten days, depending on its size.

The Service has found it a wise policy to remove any beetle-infested tree as soon as it is discovered. Left uncontrolled, the beetles multiply and spread to other trees and will in time cause serious damage and loss of many trees. Since in the larval stage, the beetle has the peculiar habit of eating in the cambium or growing layer of wood just beneath the bark, and since it requires moisture to survive, control is simple. The tree is cut down, and the bark peeled from the trunk and exposed to the sun. This causes the bark and wood to dry out and results in the beetles' death,

ONE HUNDRED YEARS OF WOOD PRESERVATION

The year 1938 marks the 100th anniversary, and a century of progress, in the science of the preservative treatment of timber by the pressure process. John Bethell, in 1838, secured from Great Britain the first patents for pressure treatment with creosote and zinc chloride. The year 1938 also marks the 73rd anniversary of the erection of the first creosoting plant in the United States, at Somerset, Massachusetts, by the Old Colony Railroad.

Timber preservation in America secured its early development and expansion from the railways, the first industry to recognize the economy of preservatively treated timber made durable at moderate cost. With the expansion of the industry, increasing quantities of railroad ties, piles, bridge timbers, poles, and other materials were treated. The service records of these products have proved the value of preservative treatment by standard methods developed in the industry.

The latest available statistics for the United States, prepared by the United States Forest Service in cooperation with the American Wood Preservers' Association, show there were 200 treating plants in active operation during 1936. Of these, 136 maintain pressure equipment; 48, non-pressure (open tank treatment for poles) equipment; and 16, both pressure and non-pressure equipment. During 1936, a total of 222,463,994 cubic feet, the equivalent of over two and one-half billion feet board measure, of wood was subjected to preservative treatment, an increase of 24 per cent over 1935. A total of 154,712,999 gallons of creosote, 22,624,318 gallons of petroleum (used as an admixture to creosote for cross tie treating), 4,127,886 pounds of zinc chloride, with the addition of 1,804,976 pounds of miscellaneous salts and 4,485 gallons of miscellaneous liquids, were used by the wood preserving industry in that year. Preliminary estimates indicate that statistics for 1937 will show a substantial increase over 1936.

Wood preservation offers a large opportunity for the expansion of our timber sales, and to regain lost markets. In many types of construction,

in the past, when untreated wood was improperly used, it decayed and was repeatedly replaced with more untreated wood, or the structure was rebuilt with some of the more durable and highly advertised materials. If the lumber markets thus lost are to be regained, and new outlets for lumber found, not only must lumber be made more durable by proper preservative treatment, but the public must be more thoroughly informed regarding the value and uses of properly preserved timber as a durable structural material.

NEW FEATURES IN LOW COST HOMES

Frank Lloyd Wright is known to architects as a genius in original design. To many he is known as the "architect of the Century." He has recently turned his remarkable talent to the field of low cost homes with the result that represents a challenge to the fraternity. His ideas and ideals found expression in a \$5,500 house built for a Madison, Wisconsin, newspaper man. With complete disregard for conventional methods and designs, he has achieved by the use of wood a result at once practical, unique, and artistic.

Perhaps the most radical departure from conventional building methods is found in the walls. There are no sills, studding, lath and plaster, but instead of all of these structural elements, he has used simply three thicknesses of inch lumber, the outer and inner boards being applied horizontally and the core vertically, fastened with the use of splines. The outer walls are of knotty pine alternating with redwood, providing a color contrast. The same type of construction is used for interior partitions. Many ingenious built-in conveniences, made of wood, feature the interior. The artistic arrangement and design of the home is equally as individual and original as the construction method, in which strength and economy in construction have been combined with artistic effect and enduring charm.

It is a matter of intense interest to lumbermen to know that the remarkable accomplishment of this widely known genius was achieved through the use of wood, "the most universally useful material known to man."

TEXAS FOREST FIRES DECREASE IN 1938

Information recently compiled by the Texas Forest Service's division of forest protection indicates that East Texas forest fires have not only decreased in area burned but also in number for the first seven months of 1938. The report shows 2,297 fires burning over 61,113 acres during the period January 1 to August 1. On the eleven million acres under protection, this equals about $\frac{1}{2}$ of one percent of the protection area burned. Comparison of this year's fire records with those for the first half of 1937 reveals that the number of fires has been decreased 1,630 and the area burned by 24,812 acres.

1937 LUMBER CUT INCREASES

The production of lumber by selected mills in the United States in 1937 increased 5% as compared with the production of the same group of mills in 1936, according to a preliminary report issued by the Bureau of Census, Department of Commerce. This report was compiled from returns made by 1,018 mills which contributed 52.2% of the total cut of all mills reporting for 1936. The cut of these mills—each of which sawed at least two million board feet, either in 1937 or 1936—amounted to 13,347,924,000 feet in 1937 as against 12,717,070,000 feet in 1936. Increase in 1937 in the lower Mississippi States, including Texas, amounted to 6.2%.

WHENCE CAME THE TOOTHPICK?

The original toothpick man is said to have been Charles Foster of Maine. He whittled the first box of Yankee toothpicks, but he copied the art from natives of South America, when there on a trip. Foster sent a box to his wife in the United States as a curiosity. A hotel man got hold of them and sent to Foster for a box, and the latter whittled them out and filled the order. More orders came and pretty soon he had natives whittling out toothpicks for hotels all over the Nation. He moved home and in 1860 began making toothpicks by machinery. The first year he sold sixty-five cases, containing 250,000 toothpicks each.

WASHINGTON LEGISLATURE TO GET TIMBER TAX BILL

The Washington State Tax Commission is sponsoring a mature timber tax bill that is to be presented to the 1939 session of the Washington Legislature. In its announcement, the Commission states that it advocates a gradual transition over a period of years from the present method so as to permit a gradually increasing amount of the tax burden to be deferred. This, it holds, will allow the timber owners and the governmental agencies time in which to gradually adjust themselves.

"Under the act," states the Commission, "the land and the timber thereon must be assessed separately. The tax on the land is not affected. The assessed value of the timber, as fixed by the assessor, may be changed in any even numbered year. Beginning on the first year after classification, the annual total tax on the timber is segregated into current tax and deferred tax. For the first year the former is 92½% and the latter 7½%. In the second year the percentages are 85 and 15, and so on, the current tax gradually reducing and the deferred tax gradually increasing at a constant rate until the current tax reaches a minimum of 25% and the deferred tax 75% of the total annual tax on the timber."

Interest is paid on the deferred taxes at the rate of 3% a year so long as the timber stands. The total amount of the deferred taxes cannot exceed 25% of the assessed valuation of the timber. The counties have the authority to borrow up to 50% of the amount of the deferred taxes.

SUNDAY WORST DAY FOR FOREST FIRES

Sunday is just another day in the week to the Texas Forest Service's forest protection personnel; in fact, it is just a little worse than any other day in the week as far as the number of forest fires is concerned. Saturday, on the other hand, is the easiest day, if there is such.

Reports gathered by the Division of Forest Protection during 1937 indicate that 18 percent of the fires occurring during the week start on Sunday, whereas only 12 percent start on Saturday. The same proportion

does not hold for the number of acres burned over. Whereas Saturday is still lowest with 10 percent of the area lost, Monday and Tuesday are highest, both with 20 percent. Sunday, on the other hand, shows a 16 percent loss.

Several of the protection personnel ventured the opinion that many East Texas woods burners hold to the creed of "Remember the Sabbath Day to keep it holy, and also set as many fires as possible".

The percentage summaries of number of fires and area burned by the different week days during 1937 follow:

Day of Week	No. of Fires Occurring % of Total	Acres Burned % of Total
Sunday	18	16
Monday	16	20
Tuesday	15	20
Wednesday	13	12
Thursday	14	11
Friday	12	11
Saturday	12	10

CEDAR REVIVAL UNDERWAY IN HILL COUNTRY

Product Finds Wide Use on Farm, Ranch enterprises in Texas, New Mexico

A marked revival in the cedar industry is underway in the hill country along the Colorado River and its tributaries, resulting from the increased demand for the product on new farm and ranch enterprises in Texas and New Mexico.

About twenty to thirty carloads are shipped monthly from the Chappel and Bend communities in San Saba County. One-tenth of the population of the county derives a major portion of its income from cedar. It is also a source of revenue in Lampasas, Mason, Gillespie, Kimble, Kerr and Blanco Counties.

Cedars range in diameter from two to twelve inches and are used for constructing culverts, cattle guards, holding pens at stockyards, corrals, fence posts, and supports for telegraph and telephone lines. Because it is so durable, the heart of the red cedar is in great demand.

During the last few years cabinet makers have sent here for large logs to make high-grade bedroom furniture, cedar chests, linings for closets and drawers for dressers.

Trimmings from trees have a diversity of usage. Cracked leaves make a floor sweep; oil of cedar from aromatic wood is used for polishing, mixing paints and medicinal purposes. Shavings and bark from the tree are placed in bags to protect clothing from moths.

Bulk of shipments from San Saba and adjacent counties goes to Abilene, Anson, Lubbock, San Angelo, Austin, Kerrville, San Antonio, Dallas, Fort Worth, and Temple. Some cedar cutters work the entire year, but most of the activity is in the late fall and winter months.

TEXAS GROUP SEEKS TO FORM STATE-WIDE CONSERVATION COUNCIL

Not only calling for the formation of a State-wide conservation council, the Texas Federation of Nature Clubs also urges the teaching of conservation in schools, cooperation with all agencies doing research in the work, enforcement of all game laws, zoned regulations, control of petroleum, exploitation of waterways, establishment of State Parks, establishment of universal hunting and fishing license laws, and installation of the merit system civil service for the personnel of the Texas Game, Fish and Oyster Commission.

The Federation is now studying ways of bringing about the objectives outlined and a report on the solution of part of the program is expected soon, it was announced recently by Dr. Leo T. Murray, Waco, president of the organization. Jerry Stillwell, Dallas, is secretary.

The Texas Academy of Science in its meeting last summer also adopted a program aimed toward the study of nature and conservation in the public schools of the state.

The means of defense against raging water need not be so exclusively as now, a matter of building masonry and earth defenses down streams, higher and higher. In the uplands, where the floods form, Nature teaches a lesson by throwing across practically every foot of land under forest or natural grass cover an interlacing system of tiny dams. A dead leaf, a blade of grass or a root tangle can stop a rain drop from running, hold it back; and floods are made up of raindrops, infinitely multiplied.

LOVE FOR A TREE

By Angelo Patri

(Through the courtesy of the Bell Syndicate)

It is easy to love a tree because it is so gracious and so beautiful. Its stately stem holding its noble branches aloft lifts the eye and the spirit upward, toward the sky. The very beauty of its structure, its arches and its interlacing framework brings the spirit of religion into our heart. Its voice is the voice of an intimate friend, whispering consolation, singing songs of gladness, sighing soft nothings to pass the pleasant hours. In sunshine and storm it stands stanchly, a very pillar of strength that doubts nothing, gives everything, lives gorgeously and gaily.

I have a friend like that in my garden, and often it talks to me. Higher than the housetop, it rises toward the sky and its wide arms sweep the earth. It was very young when George Washington sat down beside it one day to eat his lunch and rest an hour before starting on his march. It is still young, still handsome, still growing in spite of the experiences of the passing years. It spoke to Washington in lilting soprano, the song of youth untouched by time, but to me it speaks in organ tones deepened by the power that noble living must bestow.

Winter threatened my tree, but it only took on a deeper tone, braced itself against the wind, reared its head more grandly. Then, loveliest gesture of them all, it lifted the tips of its branches toward the sky so that each became a pointing finger. And now, spring comes; each finger is tipped with scarlet and the old tree stands glorifying God, a tower of strength, a shelter in storm, a friend unfailing.

In its honor I have planted many little trees in the hope that they will pay my debt to it. I commend the thought to you.

The American Forestry Association (A. F. A.), 1727 K Street, Washington, D. C., the oldest national conservation association in America, was founded in 1875. Its objectives are the protection of fish and game, perpetuation of forest recreation, adequate forest fire protection, planting of trees, etc., and it publishes American Forests, the only popular national magazine of forestry.

WILD CHINA (Soapberry)
(*Sapindus drummondii* Hook. & Arn.)

This species, sometimes called Indian soap plant, grows on moist clay soils or dry limestone 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, usually with erect branches, and branchlets at first slightly many-angled.

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

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 2-1/2 inches long and 1/2 to 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.



Wild China (Soapberry)
Leaf, two-fifths natural size
Fruit, one-third natural size

VOLUNTEER GUARD LIST GROWS

At the first of September, 2,650 volunteer forest fire guards had signed agreements in which they agreed to help prevent and fight forest fires in East Texas, the division of forest protection reports. The land owned or rented by the guards totals almost half a million acres.

The work of signing up East Texas citizens as volunteers is carried on by the Texas Forest Service forest protection force. The unique plan, originated in 1936, has met with good success and has drawn much favorable comment from other out-of-state forestry departments. It has tended to create a feeling of good will between the public and the forest protection men.

PREVENT SOIL EROSION

A new product which is an ace in combatting soil erosion has recently been put on the market by Bemis Brothers Bag Copmany. It is called "Lenonet Soil Fixation Material."

Lenonet is an open-mesh fabric made from spun, rot-resisting paper. When applied to the ground it prevents the washing away of soil until grass and other cover crops have grown and formed a sod. By this time the fabric has disintegrated.

This new material has already been used to some extent by soil conservation agencies. It has met with considerable success on highways and railroad rights-of-way. Home owners have found it very useful, especially on banks and terraces.

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TEXAS WOMEN'S CLUBS DEDICATE FOREST AREA

In keeping with their interest in the conservation of natural resources the Texas Federation of Women's Clubs at their annual State convention held in Austin on November 11 formally dedicated a 30-acre forest tract on the Texas Forest Service's State Forest No. 3, near Maydelle, in Cherokee County, to the cause of conservation of forest resources. The tract was named the Mewshaw Federation Forest and will be developed as a symbol of the Federation's interest in the aesthetic, human and best use values of Texas forests.

Mrs. Richard J. Turrentine of Denton, immediate past president of the Women's Clubs, conceived the idea. She visioned the selection and dedication of a forest area to serve as a living example of the Federation's interest in trees. In consultation with E. O. Siecke, director of the Texas Forest Service, Mrs. Turrentine selected the Mewshaw tract for this purpose.

The immediate plans for the further development of the area call for the collection and planting of as many species and varieties of native trees, flowering shrubs and ornamental plants as possible, the idea being to establish an arboretum of such plants native to Texas.

The Mewshaw Federation Forest, comprising 30 acres, is part of 2,360-acre State Forest No. 3, located near Maydelle, which is about nine miles west of Rusk and twenty-three miles east of Palestine in Cherokee County. The entrance to the Forest is on State Highway No. 22. State Forest No. 3 is administered by the Texas Forest Service for forest demonstration and research.

The Mewshaw tract is admirably adapted for use by the Women's Clubs. The name "Mewshaw" comes (See CLUB FOREST on Page 2)

LUFKIN NEWSPRINT MILL ASSURED

Construction to Start Early in 1939

Announcement recently by the Southland Paper Mills, Inc., that a \$6,000,000 newsprint mill would be constructed in Lufkin in 1939, brought to a climax years of hard work, plus realization of long dreams, for converting East Texas pine forests into newsprint. E. L. Kurth of Keltys, prominent East Texas lumberman and president of the enterprise, stated financing was complete, contracts let, and within a year the plant would be converting southern pine into 50,000 tons of newsprint annually.

Southern newspaper publishers, in subscribing to stock in the plant, further cooperated by contracting for the plant's entire output for five years at prices now paid Canadian mills. This was done to insure profitable operation of the Texas mill as well as to further foster development of timber as a cash crop for the South. Mr. Kurth was high in his praise for the backing given the project by the Texas newspaper publishers, especially lauding E. M. Dealey, publisher of the Dallas Morning News, about whom he said: "Mr. Dealey, from inception of the idea three years ago, has by his counsel and influence helped in every conceivable way to put this picture together successfully and is entitled to highest praise."

Future cooperation was secured from the Champion Paper and Fiber Company of Houston to furnish its chemical pulp to the new mill at a satisfactory price, which made a \$1,000,000 reduction possible from the original specifications.

Mr. Kurth, to whom publishers and others interested wholeheartedly credit as the one who really put over the newsprint mill project, will head the company as president. Other officers are Arthur Temple of Texas (See NEWS MILL on Page 8)

IMPORTANT FORESTRY MEETING HELD AT LUFKIN

Members of the Texas Planning Board, the State and Federal forest services, the Texas Forestry Association, the forestry committee of the East Texas Chamber of Commerce, and nearly a score of visiting legislators heard various phases of forestry in the State discussed at a meeting called by the Texas Planning Board at Lufkin on October 12. The meeting was arranged as part of the official program of the Texas Forest Festival Association. It was pointed out that cooperative action must be taken to remove obstacles now confronting the forest industries in Texas.

Members of the Texas Legislature were introduced and all expressed keen interest in the forest program and its problems. They pledged support in furthering the work over the State. Mr. W. M. Massie of Fort Worth, chairman of the Texas Planning Board, officially opened the meeting and then turned the chair over to E. L. Kurth of Keltys, vice-president and general manager of the Angelina County Lumber Company, who presided over the remainder of the meeting and introduced the speakers.

E. O. Siecke, director of the Texas Forest Service, praised the work of Senator John S. Redditt and the late Senator I. D. Fairchild of Lufkin in furthering forestry for the State. "Forestry groups of Texas have a warm spot in their hearts for Lufkin, for this is the home of two men who have played prominent roles in improving the forest service," he stated. He said that an attempt to stage a Forest Festival in Texas ten years ago would have caused ridicule. "The Texas Forest Festival shows that things have changed. W. Lee O'Daniel, governor-elect, has as one of his major platforms the industrial expansion of Texas, and he will find (See MEETING on Page 2)

MEETING—

(Continued from Page 1, Col. 3)

that the field for expansion of the forest products industry is unlimited."

Senator Redditt said that the State legislature is realizing the importance of forestry in the State's conservation program. He pledged his continuous support to the forestry movement and paid tribute to the Texas and U. S. forest services.

O. M. Stone of Jasper, chairman of the forestry committee of the East Texas Chamber of Commerce, stressed the fact that additional funds are needed for the State to redeem its forestry responsibility. He said, "forestry is just getting started in the State and we've a long way to go yet." He discussed the evils of timber theft and proposed that such a misdemeanor be punishable by fine; also he pointed out that the limitation law was antiquated and should be reworked, setting up a definite limitation period. He also asserted, "the incendiary forest fire law needs strengthening as we are entirely too lenient with those who fire the woods."

J. W. Oliphint of Huntsville, member of the forestry committee of the Texas Planning Board and past president of the Texas Forestry Association, spoke on forest taxation legislation, pointing out that when it is realized that taxes on cut-over lands today are twelve times as great as on virgin timber it is time to get busy and tackle the problem and seek adjustment.

P. F. W. Prater, forest supervisor, U. S. Forest Service, with headquarters at Houston, said he was greatly concerned with the taxation problem. He predicted a greater expansion of Texas forest industries and said that with these new industries private forest practice would rightfully assume the position of importance it deserves.

The afternoon's program included an inspection of the exhibits at the Texas Forest Festival grounds and at 5:30 P. M., the Texas Forest Festival Association graciously tendered the group a barbecue at the Texas Forest Service's Division of Forest Protection office. Preceding the barbecue the guests had a chance to inspect the Division office building.

Among those attending and groups

represented were: **Texas Planning Board**, W. M. Massie, Fort Worth, chairman; E. A. Wood, Austin, director; Edward Clark, Austin, secretary; **Forestry Committee of the Texas Planning Board**, J. W. Oliphint, Huntsville; E. O. Siecke, College Station; E. L. Kurth, Keltys; O. M. Stone, Jasper; Senator John S. Redditt, Lufkin; **Texas Forestry Association**, W. Goodrich Jones, Waco, president-emeritus; D. C. Kenley, Lufkin, president; S. L. Frost, Bryan, secretary-treasurer; Hon. Carl Bergman, Corrigan, director; A. W. Henderson, Jefferson, vice-president; E. J. Fountain, Jr., Houston, director; C. K. DeBusk, Jacksonville, secretary, Sabine-Neches Conservation District; E. C. Durham, Lufkin; Fred J. Peters, Conroe; W. E. White, chief, Division of Forest Protection, Lufkin; R. F. Balthis, Kirbyville; W. R. Horsley, College Station; Chris Nelson, Jr., Bryan; E. A. Harris, Houston; B. Koontz, Bryan; P. W. Schoen, Bryan; W. A. Norman, Bryan; J. O. Burnside, Lufkin; M. V. Dunmire, Lufkin; Don Young, Lufkin; W. O. Durham, Lufkin; C. H. Hebert, Linden; R. E. Erwin, Lufkin; C. F. Ballard, Lufkin; and M. E. Brashears, Rusk; **Legislators**, Hon. George H. Harper, Jefferson; Hon. R. Lee Brown, Nacogdoches; Hon. Mason D. Harrell, Smithville; Hon. Ottis E. Lock, Zavalla; Hon. R. Emmett Morse, Houston; Hon. James Spencer, Athens; Hon. Robert H. Wood, Marshall; Hon. DeWitt Kinard, Port Arthur; Hon. W. J. Galbreath, Wharton; Hon. E. R. Wright, Huntsville. **Others** attending were: Roy B. Davis, Houston, member, board of directors, A. and M. College; Carol E. Kenley, Groveton; Edwin Tillery, Nacogdoches, member of the forestry committee, East Texas Chamber of Commerce; M. T. Gipson, Lufkin; J. B. Perry, Lufkin; Mr. and Mrs. L. A. Brauer, Lufkin; Mr. and Mrs. Cary Trevathan, Lufkin; Mrs. A. M. Bracket, Fort Worth; Mrs. W. M. Massie, Ft. Worth; Mrs. Gertrude Jowers, Austin; H. E. Rogers, Lufkin; R. M. Feagin, Lufkin; A. P. Boyett, Burnet; Ernest Boyett, Junction; Lester Roe, Marshall; Hubert M. Harrison, Longview, general manager, East Texas Chamber of Commerce; Mrs. W. J. Galbreath, Wharton; Mrs. J. A. Williams, Woodville; Mrs. E. H. Hroch, Wharton;

Judge C. H. Kenley, Groveton; K. W. Denman, Lufkin; J. B. Forse, Newton; Curtis W. Fenley, Lufkin; J. E. Sturrock, Austin; and Ed. C. Burris, Lufkin, manager, Texas Forest Festival Association.

CLUB FOREST—

(Continued from Page 1, Col. 1)

from an old sawmill in operation there over forty years ago. Most of the area is composed of a forty-year old stand of second-growth shortleaf pine, interspersed here and there with some of the original 150-year old virgin trees. A small lake which formerly served as a log pond for the Mewshaw mill was rebuilt by the C. C. C. in 1935 and, surrounded by tall pines, makes a beautiful setting. One pine bordering the lake is 30 inches in diameter and 112 feet tall. A picnic grove, with fire places, adjoins the lake. Women club members were particularly pleased with a two-year old slash pine plantation located at the head of the lake, since this planting represents one of their ideas of planting new tree species in their Forest.

WOMEN'S CLUB FOREST



View of the recreational area on the Mewshaw division of the Maydelle State Forest (No. 3) in Cherokee County. Through the cooperation of the Texas Forest Service, the tract, embracing 30 acres, was officially selected and dedicated by the Texas Federation of Women's Clubs on November 11 as a symbol to their interest in forest conservation in Texas.

Balsa, lightest wood in commercial use, one-half as heavy as cork, is becoming increasingly popular in the United States. The ocean liner Manhattan was lightened 150,000 pounds by using balsa cores in all cabin partitions. Balsa trees grow rapidly, 65-footers being but 5 years old.

TEXAS FOREST NEWS

3

TEXAS FOREST FESTIVAL

Through a week of clear blue skies and nights made beautiful by a full southern moon the first Forest Festival ever to be staged in Texas successfully closed on Saturday, October 15, after having been attended by citizens estimated between 60,000 and 70,000 in number.

Although Lufkin was chosen as the city for the Festival because of its central location to the far-reaching East Texas pine belt, the Festival was by no means local in nature. It drew people from all parts of the State and from across the borders and enjoyed the cooperation, not only of those very hospitable citizens of Lufkin, but of many other East Texas counties as well.

The Forest Festival, well planned and executed as it was, was however, merely the show presented from October 11-15 by an organization that was started a year ago mainly to publicize the importance of Texas forests. Officials of this organization, called the Texas Forest Festival Association, are particularly concerned in pointing out this fact. Ed C. Burris, managing director of the Association, emphasized this point when he said, "The exhibits and entertainment features of our program are more or less secondary. Our real purpose is to gain widespread publicity for the forest industry, to encourage the raising of timber as a cash crop, to advocate a more equitable system of taxing timberland, and to cooperate with the forest agencies charged with the conservation of the State's forest resources. We hope to promote the Forest Festival as an annual event."

Mr. Jean Shotwell of Lufkin is president of the Association.

Parade Opens Festival

Several thousand persons lined the downtown streets of Lufkin on October 11 to witness the most elaborate parade ever staged in that city as a three-mile long spectacle of beautifully decorated floats and cars, bands, mounted horsemen, bicycles, and childrens' pets proceeded through the business district to officially inaugurate the first annual Forest Festival in Texas. The parade was headed by President Jean Shotwell of the Forest Festival Association, Mayor

FESTIVAL PARADE



The three-mile long parade, officially opening Texas' first Forest Festival, thrilled the thousands of spectators who gathered at Lufkin on October 11.

W. M. Glenn of Lufkin, and Jerry Sadler of Longview, state railroad commissioner-elect, all three on horseback. Next in line was the Lufkin High School band, followed immediately by the Queen's float carrying Queen Sylva I, Miss Juanita Terry of Lufkin. The various princesses and duchesses, selected for the Festival and representing many East Texas counties, were next. Then followed a number of beautifully decorated floats prepared by various Lufkin and Angelina County merchants. Mounted horsemen from Burton's Rodeo and the carnival calliope brought the long procession to a close.

The Lufkin Telephone Exchange was judged winner of the float division with the Cash Drug Store and Taylor Hardware entries winning second and third places, respectively. Six high school bands furnished the music for the procession, with the Nacogdoches band being adjudged best, and for this honor will be the official Festival band to lead the parade next year. Conroe was given second place.

Pageant Tells Story of Forests

On the evening of the opening day a forestry pageant was presented at the rodeo arena on the Festival grounds. Presented in cavalcade form, the pageant titled "The Forest Primaval," depicted the development of the East Texas timber area from 1690 to the present day of the industrialized lumber industry.

Produced entirely with local talent with the exception of two guest artists, Albert H. Wiggins, Jr., of Houston, organist, and Louis Durst, Jr., Tyler and Hollywood tenor, and including a cast of 200, the perform-

ance moved smoothly and was praised highly by those witnessing the show. The entire musical score was played by Wiggins on the small portable electric organ and lent much to the touching and sweeping atmosphere of the pageant. The pageant was written and directed by T. O. McDonough, Mrs. N. D. Shands, Sr., and Mrs. Howard Trout.

The stage setting of pine trees provided a beautiful background for the show. The coronation ceremony highlighted the event with the crowning of Miss Juanita Terry as Queen Sylva I of the Texas Forest Festival. Mr. Robert Lang was proclaimed King of the Forest. In the royal court were three princesses and eighteen duchesses. The coronation ceremony ended with the singing of "Trees" and "Sylvia."

Forestry Panorama

The second part of the pageant was devoted to a panorama of forestry in East Texas, opening with the territory in the time of the Indians and next showing the arrival of the Spanish soldiers and the establishment of the missions. Colonization of the area was portrayed with pioneers riding in an oxen-drawn wagon.

Homage was paid to nine men who pioneered lumbering as an industry in East Texas with the establishment of the first sawmills. The characters represented were J. H. Kurth, Sr., Charles Keltys, S. W. Henderson, Sr., Sam Weiner, G. A. Kelley, E. A. Frost, T. L. Temple, W. T. Carter, and A. J. Peavy.

The pageant was brought to a close with an impressive finale "Texas Under Six Flags," the flags being carried on to the field by uniformed soldiers and the audience singing the national anthem as the United States flag was unfurled.

Queen's Ball

Following the coronation ceremony and pageant at the Festival grounds, Queen Sylva I and members of her royal court were honored at the Queen's Ball to bring to a fitting climax the Exposition's opening day program. As the orchestra played "The Eyes of Texas" each of the eighteen East Texas duchesses and three princesses walked with her escort the length of the ballroom floor to the stage which was beautifully

decorated with a background of pine trees and moss covered thrones for the King and Queen. Each member of the royal family was announced by the blast of a trumpet. The Queen, wearing a white satin gown with a long train covered with gold and silver leaves, entered with the King of the Forest Festival.

Exhibits Attract Many

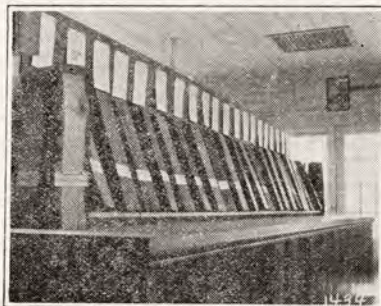
Throughout the week of the Festival many thousands of people were attracted to the Festival grounds to view the many exhibits on display there. The Festival grounds comprise twenty-seven acres on which were built three permanent buildings to house the exhibits. One building was used entirely for commercial booths. The other building resembling it was devoted to general exhibits such as agricultural products, art, textiles, community activities, F. F. A. exhibits, wildlife exhibits, Boy Scout handiwork, and a large supply of canned goods. The Texas forest products building, constructed by the Texas Forest Service and C. C. C., contained part of the Texas Mill Managers Association's woods exhibit that was formerly displayed at the Centennial at Dallas. This building presented visitors with perhaps what was one of the most beautifully arranged forest products exhibits ever shown.

The large main entrance room of the forest products building was paneled in shortleaf pine. The floors were of Texas red oak. On the walls of this room were exhibited some delicately painted East Texas forest scenes, prepared by Mrs. Beulah Watts of Lufkin, and an educational panel depicting the objectives of the Texas Forestry Association. The main entrance room led into a huge central room. In the center of this room was constructed a modern living room paneled in longleaf pine and beautifully furnished with period furniture. The entire rear portion of this living room was paneled in figured red gum. Around the walls of the central room nine different booths were built, each of a different Texas wood. These booths were attractively lighted by lamp stands made out of the same wood the booth represented, and a variety of cigarette trays, also of the same wood, were displayed in the booths. At one end

of the center room a wood creosoting exhibit was presented. At the other end of this room the activities of the Texas Forest Service were shown on a six-foot panel by use of enlarged photographs. One wing of the panel showed the location of the different Texas forest regions, while the other wing showed some photographs depicting the value of Texas forests. The activities of the Division of Forest Protection in fire prevention were represented through a small forest model and a forest fire scene-in-action display sign.

The rear wing of the forest products building contained a variety of different exhibits. In the center portion of the room an exhibit of fifty-one different Texas woods was displayed, each wood section being two feet long and four to six inches in diameter with one face of the section sawed off and finished to show the nature of the wood. Over each wood specimen was placed a description of the tree taken from Bulletin No. 20, "Forest Trees of Texas." Other exhibits in the rear room were a pulp and paper display furnished by the Herty Products Laboratory of Savannah, Georgia, exhibit panels of the U. S. Forest Service, a collection of tree oddities gathered in Texas and from all parts of the world by J. H. Allen of Chester, a display of woodenware novelties made by Mr. Roy Kurth of Keltys, and a display of the many different kinds of fruit seed grown on Texas trees.

TEXAS WOOD SPECIMENS



Partial view of the 51 different specimens of Texas woods gathered, seasoned and finished by the Texas Forest Service and placed on display for the first time in the Forest Products Building at the Texas Forest Festival. The collection will be added to this winter.

The entire building lent great dignity and warmth to the Texas Forest

Festival. One could not help but notice the exclamations, wonderment, and awe with which the many visitors marveled at the beauty of the many Texas woods and at the hugeness and importance of the Texas forest products industry.

Many Other Attractions

Besides the exhibits, there were many other features to attract the crowds. Special "county days" were set aside to honor other East Texas counties and those so recognized responded by sending many delegates to represent their communities. "Children's day" was a hilarious one, as was "colored folks day," the latter causing many an old couple to leave their little huts deep in the piney woods to journey to Lufkin by horse and wagon or Model-T Ford. Chopping contests brought forth talented woodsmen to display their might and precision with the double-bit ax. The cream of East Texas fiddlers, in a stirring fiddlers' contest, revived old times again with their touching and quaint melodies. The crowd responded mightily as one after another of the contestants (most of them old men) stepped forth to play his piece. Though for the most part the contest was one of gaiety, there were moments when many an eye was tearful as some old time piece brought back memories of those "days gone by," of romance, of youth, and of the barn dance. But as touching was the fiddlers' contest, so the opposite was the hog calling contest. The display of lung power was enormous as the hills and woods echoed with that "Heah . . . pig - pig - pig!"

During the week of the Festival special meetings were called by the Texas Planning Board and East Texas Mill Managers Association.

IMPORTANCE OF U. S. WOODS

While there are more than 1,100 known varieties or species of trees within continental United States, only about 180 of them have assumed commercial importance. Research and new uses will unquestionably bring other species into this realm. The hardwood group alone accounts for over 100 species used commercially.

TEXAS FOREST NEWS

5

ZAVALLA F. F. A. CHAPTER
WINNER AT FOREST
FESTIVAL

The Zavalla F.F.A. Chapter under the direction of H. G. Swift, teacher of vocational agriculture, won first prize for its booth at the Texas Forest Festival at Lufkin by making a total score of 975 points. The competition which was between all the F.F.A. Chapters of Angelina County required some phase of forestry to be the theme of the educational exhibit.

The preservative treatment of fence posts was the subject of the display by the Zavalla F.F.A. boys. The background neatly and concisely presented the question as to whether treating posts would pay and stated the cost of treatment. A model of a farm illustrated the method for home treatment of posts, and the entire display was fenced partly by untreated posts and the rest by treated posts. The untreated posts were shown as decayed and needing replacement after a very short period of service, while the treated posts were in excellent shape after a long period of service.

Hudson Second

The F.F.A. Chapter under the leadership of R. E. Evers, vocational agricultural teacher at the Hudson school, placed second with a display that illustrated the difference in growth between a burned and an unburned area. The background for the exhibit was probably the most striking of all the group, showing by an illustrated chart the growth between trees on burned-over land and unburned land coupled with the statement that "A Burned Child Never Forgets, A Burned Seedling Never Recovers." The foreground showed two miniature forest areas, one burned and one unburned.

Diboll, Huntington, Central Consolidated, Lufkin, and Wells, the other participating F.F.A. Chapters, were scored in the order named.

County Exhibit

The entire group of F.F.A. Chapters in Angelina County joined in preparing a general forestry display 30 feet in length. The central section consisted of a miniature representation of an average woodland area. To the left, poor forestry practice was illustrated by two sections of

the display. The first showed the area practically denuded by the owner having cut every salable tree for immediate returns with no thought of the future. The adjoining section pictured the same area five years later, still remaining in practically the same poor condition because no provision for restocking the area had been made when the cutting was done.

To the right, the proper cutting procedure was likewise shown by two sections. The first was a selective cutting that served to improve the stand and provide for the future timber crop, while the second showed the same stand five years later making a splendid progress in growth as a result of correct cutting practices.

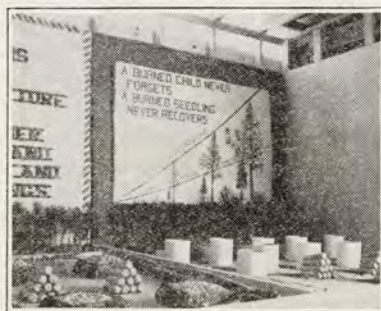
Both the individual chapter displays and the general display indicated a fine appreciation by the F.F.A. boys of the importance of forestry and forestry practices in East Texas.

WINNING F. F. A. EXHIBIT



Headed by H. G. Swift, Zavalla, Angelina County, vocational agriculture teacher, the F. F. A. boys of that community prepared the above exhibit on treating farm fence posts. The judges selected this as the best of six F. F. A. exhibits, based on presentation of subject matter.

SECOND PLACE EXHIBIT



Unique handling of a popular East Texas forestry subject won Hudson, Angelina County, F. F. A. boys second place prize. The Hudson boys are guided by R. E. Evers, vocational agriculture teacher.

TEXAS FOREST SERVICE EXHIBITS AT SOUTH TEXAS STATE FAIR

The Texas Forest Service this year at the South Texas Fair in Beaumont carried as its general theme the work of the Service, including such activities as fire protection, forestry research, reforestation by planting, and forestry education, with particular emphasis on industrial forestry.

The production of forest products is the second largest industry in the State and if industrial development is to go forward, the timber industry, which depends on a renewable natural resource, must play an important part.

One portion of the exhibit was devoted to a rapidly growing field, namely, the chemical utilization of wood fiber from which are produced such products as alcohol, paper pulp, rayon, explosives, plastics, and numerous other articles. Ground wood pulp from southern pine, from which newsprint is manufactured as well as the chemical pulps for kraft paper and higher grade products, was displayed. Samples of commercial species native to Texas, finished off in natural color to show the richness of the grain and figure, were on display.

Space was devoted to demonstrate the cooperative activities of the Service made available to private timberland owners. Such activities include preliminary management plans, growth studies, selective logging plans, pulpwood demonstration cuttings, and other steps to encourage growing timber as a crop.

VOLUNTEER FIRE GUARDS

Two hundred and twenty-five East Texans, owning or renting 28,832 acres of land, were signed up as Volunteer Forest Fire Guards by members of the Division of Forest Protection during the past two months.

With these new members, the total number of volunteers in this unique organization now stands at 2,875. They own or rent almost a half million acres of forest land.

Since passage of the Weeks law in 1911 providing for Federal forest purchases, some 16,000,000 acres have been bought, of which 629,649 are in Texas.

TYLER COUNTY CHAMBER OF COMMERCE FORESTRY MINDED

The Tyler County Chamber of Commerce at its annual banquet held at Woodville on November 9, reviewing activities and accomplishments during the past year, placed great emphasis on the importance of the county's 659,000 acres (85%) of forest land. The message of President L. M. Feagin on this subject read as follows:

"A sympathetic interest in the county's major industry has been shown throughout the year. Only recently a committee was appointed to assist the Texas Forest Service in teaching forest fire prevention in the schools and in giving the matter of forest conservation publicity."

It was also interesting to note that F. B. Sullivan of Woodville, secretary of the Chamber, attended the three weeks' forestry school held at State Forest No. 1, near Kirbyville, this summer.

Among other accomplishments listed during the year was completion of a tax survey of the county by Curtis Morris of the East Texas Chamber of Commerce. Worthwhile results are expected from the effort.

One of the main objectives listed by the Tyler County Chamber for 1939 is: "Help to teach our citizens the value and principles of proper management of forestry as a crop."

TEXARKANA LIONS STRESS FOREST PROTECTION

The Texarkana Lions Club, that wide-awake civic organization in Texarkana, is really interested in the forests surrounding its city and it is taking steps to see that they are protected in a manner that is unique and well thought out.

In the first place the club is cooperating with the Texas Forest Service and Arkansas Forestry Commission. Each year it holds a special meeting at Texarkana featuring forestry and honoring these organizations. This fall, through a number of various industries represented by members in the club, over 7,000 specially prepared fire prevention pamphlets were enclosed with the monthly bills and correspondence sent out by these industries.

The citizens up in that territory are pretty much concerned about forest fires also. Numerous fires have been reported to telephone company operators by local residents. Now arrangements have been made whereby such fire calls as are reported to the telephone company are in turn relayed to the Texas Forest Service or Arkansas Forestry Commission district foresters in that region, depending on where the fire is located. This same cooperation is also being extended by Texarkana's fire department.

The International Creosoting and Construction Company has printed on each of its pole orders the following notation: "Forest fires injure mature trees and destroy young trees. Prevent forest fires and you will increase the number of trees which will make acceptable poles."

Surely the above steps indicate the interest which the members of the Texarkana Lions Club have taken in the protection of the forests of that territory. The cooperation and interest afforded by this club are showing results, too. Today fewer fires occur in the northeast Texas region than in any other part of the East Texas protection area. That's a record to be proud of.

TEXAS D. A. R.'s URGE TREE CONSERVATION

By Miss Annie Celeste Cutter, State D. A. R.
Chairman of Conservation

The Texas Daughters of the American Revolution are doing some splendid work in conservation—both of natural resources and human. During their past fiscal year they ranked second in their national organization with an expenditure of \$11,927.95 for conservation work. They maintain a state forest of 150 acres near Buna, Texas. It consists mainly of longleaf and planted slash pines. Part of it is set aside as a bird sanctuary.

Realizing the aesthetic and utilitarian value of trees, this organization planted during the year 6,384 trees. The sum of \$1,061 was expended on tree surgery. One chapter is planning to mark the trees in its city park soon so that visitors and nature study classes may be able to distinguish the various kinds.

Some of the historic trees in the State have been marked and their

pictures, together with a brief history of each, have been sent to the Washington headquarters where they are kept on exhibition in a revolving frame. One very large old oak tree was registered with the Oak Tree Society of Louisiana last year by the Victoria Chapter.

Through broadcasts, newspaper articles, and otherwise arousing public sentiment the Daughters of the American Revolution have been able to check somewhat the wanton destruction of our native trees and shrubs that are used so much for Christmas decorations. They are aware of the fact that a wilful waste makes a woe-full want and are doing all they can to prevent our Nation's suffering want of one of its greatest assets—trees.

FOREST CONSERVATION MOVIES

The program of showing short educational films on the value of forests, started early this year by the Texas Forest Service in the public theater houses of East Texas, has been continued through the summer and is meeting with much success. Two standard 35 millimeter films have been shown at 95 different shows before an audience of approximately 12,500 people, during a three-month period ending November 15, in Kirbyville, Hemphill, Jasper, Newton, Pinedale, Wiergate, Humble, Cleveland, Livingston, San Augustine, Silsbee, Corrigan, and Woodville.

Public theaters in these towns deserve a great deal of credit for their willingness to cooperate in this program of forest conservation.

NEW FOREST PRODUCTS INDUSTRY

The White Wood Products Company, manufacturers of broom and mop handles, has recently constructed a large plant in Diboll, Angelina County, and will employ some 100 to 150 people, according to the Lufkin Chamber of Commerce. The new company will be known as the Temple-White Manufacturing Company. Its main office will be located in Lufkin shortly after the first of the year.

DEMONSTRATION PLOTS ESTABLISHED ON STATE FOREST NO. 3, NEAR MAYDELLE

Four, ten-acre demonstration timber harvesting plots are being established on the Texas Forest Service's State Forest No. 3, located near Maydelle and twelve miles west of Rusk in Cherokee County. The purpose of this project is to demonstrate, by comparison, various systems of cutting timber crops as used in East Texas today.

The forty-acre site selected for the demonstration is a uniform, well-stocked area of second-growth short-leaf pine. The tract has been divided in four plots of ten acres each, on each subdivision of which different cutting systems will be applied. The systems to be used are as follows:

Trees on three of the ten-acre plots will be cut to specified diameter limits of 8, 12 and 14 inches, respectively. That means that all timber above 8 inches in diameter (breast height) will be cut on the 8-inch diameter limit plot and so on for the 12 and 14-inch limit plots. Under the diameter limit selection system, increasingly more timber is left on the area with the increase in the minimum diameter size.

Selection System

The fourth plot will be cut by the individual tree selection system. Since no diameter limit is observed, this system offers a great deal of flexibility in applying forestry practices aimed at improving the stand and increasing growth by removing defective trees or trees crowding better quality trees. The selection system is representative of the best known and most profitable method of cutting timber in the Southern pine region for highest returns over a long period of time when operating on a continuous or sustained yield program.

Close utilization and proper marketing will also be emphasized in the demonstration project. Each tree will be cut, depending on its size, condition and form, into the product bringing the highest returns. Products cut will include poles, piling, sawlogs, ties, pulpwood and fuelwood. Tops of sawlog and tie trees will be cut into pulpwood.

The Texas Forest Service plans to keep careful records on each plot,

noting especially amounts of timber removed, timber left and rate of growth of remaining trees. From these records, future predictions on returns possible from each of the four systems can be made.

Cutting will start on January 9, 1939, continuing for about two weeks. Anyone interested in the project is invited to the State Forest to view the operations.

COOPERATIVE SLASH PINE PLANTATION INSPECTIONS

The Texas Forest Service has since 1929 cooperated in the establishment of experimental plantings of slash pine throughout East Texas. In 1931, 1936, and 1937 special emphasis was placed on this activity with the result that at the present time between forty and fifty plantations have been established. These were inspected by Chris Nelson, Jr., assistant forester of the Texas Forest Service, during the latter part of October, 1938.

The purpose of the inspection was to secure information as to growth and growth conditions which will aid in determining the future use of slash pine for planting in East Texas. The results of the measurements, observations, and investigations made during the inspection are being summarized and will be published in a later issue of the Texas Forest News.

Slash pine is not native to Texas, its range being confined to the Gulf Coast States east of the Mississippi River. Slash pine is a fast growing tree, valuable for lumber, pulpwood, and naval stores. The Texas Forest Service has been pioneering in the field of establishing many plantations of the pine throughout East Texas in the attempt to determine the range and adaptability of this important species to East Texas. Because of its fast growth the species is valuable for replanting cut-over areas that are not naturally restocking and abandoned and worn-out farmland. The best example of the possibilities of slash pine in East Texas is the plantation set out in 1926 on State Forest No. 1, near Kirbyville. When last measured in 1937, trees averaged 35 feet high and 5.7 inches in diameter, breast high, with the tallest tree recorded at 46 feet high, and the tree with the largest diameter, 9.7 inches.

LUMBER MARKETS IMPROVING

The demand for lumber for the past three months has shown a decided increase over the previous three months. Mill men report orders on the increase and firmer prices. The industrial demand which has been very weak in the past showed signs of strengthening, and this is very encouraging to the lumbermen. The lumber industry, which is the second largest employer of labor in the State, contributes enormously to the welfare of Texas. Texas, with 24 billion board feet of saw timber available for conversion into lumber, will no doubt be able to maintain an annual production of a billion board feet on a perpetual basis. The latest figures available, which were for the year 1936, gave Texas eighth rank among the lumber producing states of the United States and third rank among the yellow pine producing states of the South. The lumber production for that year, as reported by 213 sawmills, was 941,883,000 board feet. Many small mills, cutting from 5,000 to 15,000 board feet per day, were not included in that report.

WAGES AND HOURS IN LUMBER INDUSTRY

Texas industry is more favorably situated in relation to the Fair Labor Standards Act of 1938 than is generally supposed. From special tabulations prepared by the Bureau of Business Research of the University of Texas it was found that no industry canvassed in connection with the regular employment and pay roll survey showed average earnings below the twenty-five cents an hour minimum set by the law. The average hourly wage for manufacturing industries in the State is 59.2 cents; hours of work average 40.7 a week.

In the forest products group, the Bureau reported "that planing mills lead with an average of 48 cents an hour. Caskets, with 46.2 cents, and furniture, with 45.8 cents, complete the upper bracket in this group. Sawmills average 32.2 cents, and a group comprised of wooden baskets, boxes and barrels averages 25.8 cents an hour."

NEWS MILL—

(Continued from Page 1, Col. 2)

kana, vice-president; S. W. Henderson, Jr., of Lufkin, secretary; and Albert Newcombe, of New York City, treasurer. Directors are E. L. Kurth, Temple, and Newcombe; J. H. Kurth, Jr., of Lufkin; E. M. Dealey, of Dallas; E. K. Gaylord of Oklahoma; Paul T. Sanderson of Trinity; W. C. Trout of Lufkin; and Alex F. Weisburg of Dallas.

The Southland Paper Mills plant at Lufkin will be the first mill to manufacture newsprint on a commercial scale from Southern pine. The late Dr. Herty of Savannah, Georgia, made many tons of fine newsprint of the southern pines in his laboratories, which was used successfully by various newspapers in trial runs. Although he encountered many disappointments, he did live to see his dream materialize when a committee of the Southern Newspaper Publishers Association drew together the intricate threads of financing and persuaded Mr. Kurth to head the enterprise.

F.F.A. CHAPTERS FEATURE FORESTRY AT SOUTH TEXAS STATE FAIR

Eighteen chapters of the Future Farmers of America had forestry exhibits at the South Texas State Fair. The exhibits were prepared by the F.F.A. Chapters and their teachers with subjects dealing with the practical application of growing timber as a crop on the farmsteads of East Texas.

Zavalla Chapter Repeats

The Zavalla Chapter (Angelina County), which placed first at the Texas Forest Festival, again won first place at the South Texas Fair. Its subject was "Treating Pine Saplings with Creosote for Home Use." H. G. Swift is teacher of the Zavalla Chapter. Central High (Angelina County) was awarded second place, being assigned the subject dealing with the proper "Harvesting of Sawlogs." Justus Smith is teacher of the Central High Chapter.

Judging Difficult

The judges report that the forestry exhibits were all so well planned and carefully executed that to award first prize was a difficult task. The

DOUGLAS FIR

(Pseudotsuga taxifolia Britt.)



DOUGLAS FIR

(Fruit and Leaves, one-half natural size.)

This very valuable timber tree of the western United States reaches its extreme southeastern limit in the mountains of west Texas. It is a small tree locally but in the Pacific northwest it reaches a height of 200 feet and a diameter of 10 to 12 feet, although usually smaller.

The leaves are linear, about an inch in length, yellowish or bluish green, and arranged closely in spirals around the stem. They remain on the twigs for many years.

The fruit, a cone, hangs downward and is easily identified from those of all other trees by the protruding bracts, or "straws." The mature cones are 2 to 4 inches

long, and brownish red.

The wood is moderately light, reddish tinted and surrounded by nearly white sapwood. It varies widely in respect to density, quality and width of sapwood. In British Columbia, Washington and Oregon it is extensively manufactured and sold under the name of "Oregon Pine." The bark is sometimes used in tanning leather.

subjects assigned to each chapter explained by demonstration some practical method to be applied in the protection, harvesting, marketing, and utilizing for home use timber grown on the farm woodlot.

Practical Forestry Demonstrated

The following forestry problems were assigned to the F.F.A. Chapters having exhibits at the South Texas State Fair:

Problem

Treating pine saplings for post. (Zavalla)
Proper harvesting of saw logs. (Central)
Growing black locust for fence posts. (Lufkin)
Protecting longleaf pine seedlings from hogs. (Newton)
Protecting longleaf pine seedlings from fire. (Hudson)
Cooperating with Texas Forest Service in fire protection. (Warren)

Proper thinning the stand of trees. (Broadus)

How to select good poles and piling. (Mauriceville)

How to harvest pulp wood. (Diboll)

How to get a stand on clear cut land. (Wells)

Will it pay farmers to inventory their woods? (Orangefield)

How should selective logging be carried on? (Silsbee)

How can a farmer tell when his woods are making money for him? (Jasper)

The place of a tree nursery in the local community. (Colmesneil)

Properly setting out seedlings. (Chesster)

Controlling timber insects. (Woodville)

Production of "lightered" posts. (Buna)

What is a fair share of the National income for the farm forest crop? (Huntington)