

# T F NEWS

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# New Lookout Towers Loom On The Horizon

Eight new "Eyes of Texas" will soon be added to the forest fire lookout tower system in Texas during 1970. Four of the 100-foot towers have been erected and the others will be completed and manned before the end of summer.

Three of the completed towers are in the Lost Pines Region and the fourth is in Titus County. The other four towers will be erected in Henderson, Smith and Anderson counties.

The Texas Forest Service, which operates the towers, began providing forest fire protection to 161,000 acres of forested land in the Lost Pines Region late in 1969 even before those towers were erected. In addition to the assistance obtained from the public in reporting wildfires, the new towers will greatly aid fire fighters in early detection and accurate location of wildfires in the areas under their protection.

The towers in Henderson, Smith and Anderson counties will provide protection to 604,196 acres in those counties and portions of Cherokee and Van Zandt counties.

Each tower serves as the base of operations for a two-man firefighting crew. During periods when forest fire danger is high, the towers are manned from about ten in the morning until dark. When a fire is spotted, the towerman locates the fire with instruments and maps in the tower, then radios a report to his district dispatcher before leaving for the fire. While on route to a fire, and while fighting the fire, the crew is in constant radio contact with district headquarters, should additional crews or assistance be needed.

Each TFS crew is equipped with a small crawler tractor, which is fitted with a firelane plow, and a 2½-ton tilted truck unit. Both the truck and tractor are radio equipped.

The tower in Titus County was erected on a one-half acre site donated to the Service by Mr. and Mrs. George C. Wilhite of Mt. Pleasant. The site is adjacent to the Wilhite family cemetery in the Oak Grove Community on the east side of Farm Market 1402, about six miles north of Mt. Pleasant.

The first tower erected in the Lost Pines Region is located near Smithville on a one-acre site donated by A. J. Rod of Houston. The tower is on the Rod ranch, about 3½ miles southwest of Smithville on the north side of Farm Market 2571.

(Continued on Page 4)

# In Memoriam



**James Earl Rudder**

1910-1970

On Monday, March 23, 1970, Texas and the nation lost a great American patriot and public servant whose accomplishments and character serve as a standard which few men achieve in so short a lifetime.

James Earl Rudder was the 14th president of Texas A&M University. He became vice president of A&M in 1957, rose to the presidency in 1959 and was named head of The Texas A&M University System in 1965. Under President Rudder's direction, the System experienced tremendous growth in every facet of its work.

The Texas Forest Service is a part of The Texas A&M University System and although we mourn his passing, we are all the better for having known him and for having been under his distinguished leadership.

## Cover

Texas' four state forests were acquired nearly fifty years ago for the primary purpose of showing forest land-owners how their land could be used to grow trees as a crop. However, during most of the intervening years, the Texas Forest Service also has used these small forests to demonstrate the versatility of forests to provide man with such fringe benefits as bird and animal life, stream flow regulation, aesthetic values, and recreational opportunities.

Increased interest in more and better outdoor recreation has prompted the

service to put increased emphasis on this aspect of forest land use. The cover picture is an example of one of the several popular recreational areas developed on Texas' state forests.

At the W. Goodrich Jones State Forest, near Conroe, visitors will find sheltered picnic tables and charcoal grills, safe drinking water, restrooms, a well-stocked lake, and one of the finest nature trails in the state. A stroll along the many access roads in the forest often reveals sights and sounds which add up to a memorable adventure for young and old alike.

Bird and animal life, as well as plants native to each locality, are abundantly available for study on each of Texas' state forests. Accomplished and beginning naturalists too, will find the self-guiding nature trail on each state forest a fine laboratory for the fascinating study of our forest world.

The W. Goodrich Jones State Forest is about a mile west of Interstate 45 on Farm Market 1488. The E. O. Siecke State Forest is about 5 miles southeast of Kirbyville on Farm Market 82.

Texas' smallest state forest, the John Henry Kirby State Forest, is 14 miles south of Woodville on the west side of US 69-287.

The main entrance to the I. D. Fairchild State Forest in Cherokee County, is located along US 84, about 10 miles west of Rusk.

Visitors are always welcome at the state forests.

Cover photo by Hal Harris.

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John A. Haislet.....Editor

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Radio stations, television stations, newspapers and other publications are invited to use any article appearing in this publication. A credit line will be appreciated.

# Beetle Control Trials Show Promise

**A**LTHOUGH POPULATION CONTROL AND environment are receiving headline attention in our nation, a comparatively small group of businessmen, scientists and technicians are also working on these problems but their solution affects quite a different population.

Their problem is that of controlling the population of a 1/8-inch-long bark beetle which has the ability to multiply rapidly and girdle giant pine trees. This tiny tree killer known as the Southern pine beetle, *Dendroctonus frontalis*, has plagued the East Texas Piney Woods for nearly a century and has become a problem of major concern to forest managers in Texas and throughout the South.

The earliest recorded outbreak of Southern pine beetles in Texas was in 1882. Subsequent outbreaks were reported in 1910, 1920, 1922, 1926, 1931, 1939, and 1949. The present outbreak, discovered in 1957, began as a small, 100-tree infestation in the heart of the Big Thicket near Sarasota, Hardin County. Since then, with the exception of two or three years when the outbreak subsided, the Southern pine beetle epidemic has become the major cause of

timber destruction and premature harvesting of millions of trees. It has been an economic disaster to some forest landowners and the public.

By 1968 the present epidemic had spread into seventeen counties in southeast Texas. Trees were being attacked at the rate of a million board feet (about 10,000 sawlog-size trees) per day.

Alarmed at the serious threat this beetle posed, a group of private landowners formed the Southern Forest Research Institute in 1962, which in the following several years concentrated its energies and money on three objectives: learn everything possible about the behavior, nature of attack, and survival of the several destructive bark beetles, alone and in relation to each other; determine what forces regulate tree resistance and how the beetles are able to overwhelm this resistance; and discover how the environment, including predators and parasites can be adjusted to the detriment of the beetles or the advantage of the tree.

Members of the Institute assessed themselves 2¢ for each acre of timberland they owned, and with this money constructed a research facility near Beaumont. Under an agreement with the Boyce Thompson Institute for Plant Research, a staff of competent researchers, headed by Dr. J. P. Vite, began working on the complex beetle problem.

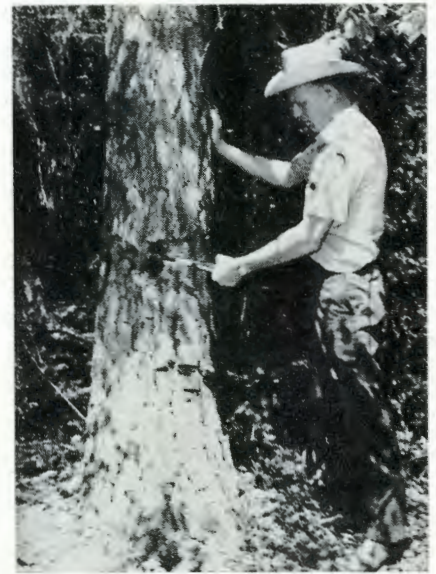
In 1967 the researchers at SFRI found that Southern pine beetles, while attacking a pine tree, released a substance called *frontalin* from their hindgut. The substance when combined with oleoresin which exuded from the pine tree proved to be a powerful attractant to other bark beetles and a mass beetle attack would soon be underway. After further research, the chemical was synthesized and named *Frontalure*.\*

Armed with this new attractant and other knowledge about bark beetle behavior and their environmental requirements, SFRI researchers developed a new beetle control technique.

Their technique was field tested at seven locations this spring just as the general spread of the present outbreak began to decline. Although the results obtained are not conclusive, they are encouraging.

The new technique is a variation of the "trap tree" method which has been used experimentally in forests on the

\*A mixture of one part synthetic frontalin and two parts alpha pinene.



Frills are cut around each bait tree to receive the cacodylic acid.



Cacodylic acid is applied to the axe frills and then enters the tree's vascular system.

West Coast. Up to six small polyethylene capsules containing Frontalure are attached to the bark of two to ten large uninfested pine trees, located near the head of an active infestation. The baited trees and adjacent pines over six inches in diameter are then injected with cacodylic acid, applied in frills cut in the tree trunks.

The acid is carried into the crowns and within three to four days, the tops of the trees begin to die and turn red. In so doing, the transpiration of water

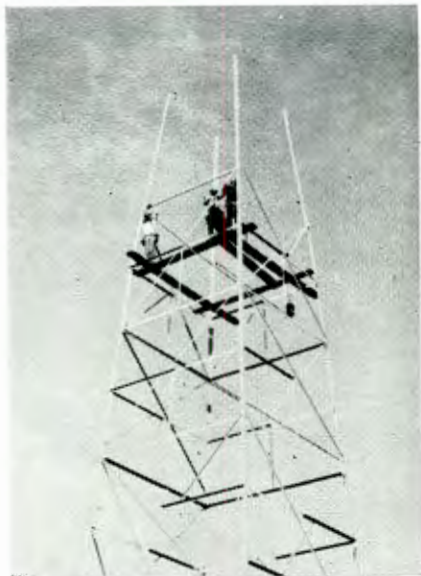
(Continued on Page 8)



The whitish blobs of resin on this loblolly pine were formed after adult bark beetles attacked the tree.

## Lookout Towers—

(Continued from Page 2)



The La Grange tower was built on a one-acre site purchased from Royce Noack of Austin. It is located 4 miles north of Winchester on the east side of Farm Market 448 in Lee County.

The Bastrop tower is on a one-half acre site in Circle "D" Country Acres



This completed tower is located near Winchester.

near the east shore of Lake Bastrop. The land was purchased from the Time-wealth Corporation.

One of the two towers to be built in Henderson County will be located 2 miles west of Farm Market 2010, about 4 miles northwest of Chandler. The other tower will be  $\frac{1}{2}$  mile east of Farm Market 314, about 5 miles northeast of Poyner.

The Smith County tower will be erected on a site 3 miles north of Lindale on the north side of Farm Market 2710.

The tower to be erected in Anderson County will be located  $3\frac{1}{2}$  miles northeast of Montalba, about  $1\frac{1}{2}$  miles east of State Highway 119.

All of the new towers have inside access stairways and will be open to visitors whenever the towers are manned.

## FPI Council Urges Action on Pollution

A call for "total personal and corporate dedication" to practices that will minimize environmental pollution has been endorsed by the Economic Council of the Forest Products Industry after three days of meetings on "Environment and Economics: A Challenge for Industry."

The Council is made up of nearly 90 policy-making executives from large and small companies that use wood as a raw material. Although it is an unofficial body that has met annually since 1959, its recommendations have unusual authority because of the broad influence of its members in trade associations and other industry groups.

The Council endorsed President Nixon's State of the Union call for an "age of reform" in environmental matters and emphasized the role of enlightened multiple-use management of all the nation's forest land.

It also called for strong and prompt action, where it is needed, in the areas of air and water pollution.

Normally confining itself to recommendations that call for action five to 10 years in the future, the Council this year urged immediate implementation of an industry commitment to "meet our responsibilities in the environmental area."

The Council urged companies to give strong priority to allocation of capital for pollution control, "recognizing that past performance has not always been adequate by today's standards, and certainly not for the future." In addition, it called for a strong personal commitment by principal corporate officers to

action and communication in the environmental area.

Members of the Council suggested that the industry jointly consider the possibility of making private land available for additional public recreational uses and urged corporate owners of forest land to "continue and expand landscape management for esthetic values as a major element" in ecological programs that have concentrated more on practical aspects in the past.

## News Briefs

Felony charges were filed against five Jasper County youths for wilfully setting fires which burned forest lands near their hometown of Evadale.

The youths, whose ages ranged from 17 to 23, include a 20-year-old girl.

Billy F. Eaves of Woodville and Ronald Graves of Kirbyville, Special Texas Rangers for the Texas Forest Service arrested the youths at Evadale in February. Justice of the Peace Nesmith of Jasper advised them of their rights and set their bonds at \$3,000 each.

Under the Texas law, wilful setting of a forest fire is punishable by a fine of \$300 to \$1,000 or imprisonment from one to five years or both fine and imprisonment.

Dewayne Weldon, wood technologist with the Texas Forest Products Laboratory, Lufkin, presented a paper on the Formosan termite at the 66th Annual Meeting of the American Wood-Preservers' Association.

Weldon's paper was entitled "A Review of Ecology and Control Studies of Formosan Termites." Initial data indicate that, although the Formosan termite is a serious problem, it may not be the threat that was boldly broadcast in recent years.

The Formosan termite was discovered in 1965 in a shipyard in Houston. During the next two years, several other infestations were found. The initial response to this "impossible-to-control" insect was one of emotional reaction. As time passed, most people were content to forget the "new invader." Much remains to be learned of the pest, and concerned research is now underway at TFPL and other institutions.

The sixth in a series of Texas Forestry Association Woodlands Trails was dedicated in April at the trail entrance on US 90 opposite a roadside park, four miles south of Newton.

The trail is located on timberlands  
(Continued on Page 7)

# More Additions To Big Trees Register

Big Tree sleuths were busy in Texas during the latter part of 1969. A total of 8 new National Champions and 21 State Champions have been added to the Texas Register of Big Trees since October 1969. The Register now lists a total of 97 species of which 31 are recognized as the largest in the Nation by the American Forestry Association in Washington, D. C.

Latest additions to the Register of Texas' National Champion Big Trees are a *Longleaf Pine*, *Texas Sophora*, *Black Tupelo*, *Allegheny Chinkapin*, *Pyramid Magnolia*, *Western Soapberry*, *Water Tupelo* and *Bluejack Oak*.

The *Longleaf Pine* replaces the former champion which was in Alabama. The new champion measures 111½ inches in circumference at 4½ feet above ground level, is 134 feet high, and has a crown diameter of 34 feet. It is located in a roadside park on State Highway 184, about 5 miles northwest of Hemphill, Sabine County.

The *Texas Sophora* (Coral Bean) is on the Kaolin Ranch, about 4½ miles west of Leakey off Ranch Road 337 and is owned by Lewis A. Casey of Leakey.

The *Black Tupelo*, which replaces the former champion in Mississippi, is located on the east bank of Eight Mile Creek near the Harrison-Panola County line. It is owned by J. Philip Wandel of Houston.

The *Allegheny Chinkapin* replaces the former Texas champion in the Daingerfield State Park. It is located about 10 miles northeast of Crockett at the S. D. Anderson residence on Farm Market Road 2022.

The Champion *Pyramid Magnolia* (*Magnolia pyramidata*) is in Newton County, behind the Newton Wildlife Kingdom office, about 10 miles southeast of Newton near the Jasper County line. Although this species can be found in other southern states, this section of Texas is believed to contain the largest concentration of *Pyramid Magnolia* to be found anywhere. The tree is owned by the Newton Lumber Company.

The *Western Soapberry* in Navarro County has been replaced by a tree located about 2 miles east of Farm Market Road 1414, 6½ miles southeast of Burkeville, Newton County. The tree is owned by Jerry Knighton of Newton.

The *Bluejack Oak* replaces a Texas

Champion in Freestone County that has reigned supreme since 1964. The new champion is at the corner of E. Court and N. Davison Streets in Newton, in the yard of its owner, J. D. Sartain.

The *Water Tupelo* is also located in Newton County and replaces the former National Champion on the Alabama-Coushatta Indian Reservation. The new champion is about 12½ miles northeast of Bon Weir near the Sabine River and is owned by the Southwestern Timber Company of Jasper.

All but six of the 21 State Champions have replaced former state champions. The six newest species to be recorded are a *Bitternut Hickory*, 12 miles north of Bon Weir, Newton Co.; a *Carolina Laurelcherry*, 8 miles north of Burkeville, Newton Co.; an *Overcup Oak*, 7 miles from Martinsville, Nacogdoches Co.; *White Fringetree* near Magnolia Springs, Jasper Co.; and a *Silktree* and a *Black Locust* in the city of Jasper.

Other State Champions are: *Southern Red Oak*, Angelina Co.; *Black Cherry*, Jasper Co.; *Hercules Club*, Austin Co.; *Sweetgum*, Van Zandt Co.; *Osage Orange*, Bowie Co.; and *Loblolly Pine*, Rusk County. The remaining nine species are in Newton County; *American Beech*, *Eastern Hophornbeam*, *Chinaberry*, *Mockernut Hickory*, *American Hornbeam*, *Swamp Chestnut Oak*, *Post Oak*, *Yellow Poplar*, and *Red Maple*.

Purpose of the Big Tree program, which is conducted by the Texas Forest Service, a part of The Texas A&M University System, is to locate outstanding examples of the more than 200 tree species growing in Texas; obtain the tree owner's cooperation to protect and preserve the trees as landmarks for future generations to enjoy; and to stimulate interest in and a greater appreciation of trees.

Only about half of Texas' native tree species are listed in the Texas Registry and new listings are especially welcomed. A list of the State and National Champion Big Trees of Texas, contest rules and nomination forms are available on request from the Texas Forest Service, College Station 77843.

## Three Receive 1970 Smokey Citations

Houston Boy Scout Douglas Hamilton; KTAL-TV, Shreveport; and radio station KALT of Atlanta, Texas, received Smokey Bear Citations for their outstanding contributions to forest fire prevention in Texas during 1969.

Paul R. Kramer, director of the Texas

Forest Service, College Station, and John H. Courtenay, supervisor, Texas National Forests, Lufkin, presented the awards on behalf of the Cooperative Forest Fire Prevention program. The award is a part of the national CFFP program which is conducted jointly by the U. S. Forest Service, the state forestry agencies and the Advertising Council.

Douglas is Junior Assistant Scoutmaster of Troop 232 and received his award at a regional meeting of key scout leaders and representatives from Texas' 28 scouting districts.

Hamilton was praised for his personal interest and initiative in promoting, through others, the prevention of forest fires. As a staff member at Camp Strake, Hamilton instilled in other scouts a greater appreciation of forests and the need to prevent their destruction by wildfire by personal example, discussions, programs with Texas Forest Service personnel, and visits to the state forest.

On presenting the KTAL-TV award to Station Manager H. Lee Bryant, the station was praised for its issuance of daily forest fire danger and forest fire weather forecasts, fire prevention reminder spots, and periodic forestry and fire prevention programs which have kept its viewers informed about the hazard and dangers of wildfire. A very high degree of cooperation also was given to forestry agencies in publicizing Texas Forest Fire Prevention Week, and through its use of forestry and forest fire prevention topics on its daily farm program, RFD-6.

George Wommack, station manager of radio KALT, accepted the award on behalf of his station and its personnel during the Jean Wright Program.

KALT was praised for its deep interest and initiative in seeking and reporting timely information about fire hazard during the fire seasons which kept its listeners apprised of fast changing hazardous conditions. Its cooperation with the forestry agencies, through the regular use of fire prevention reminders and other educational messages on forestry, have helped its listening audience to become better informed on the dangers and detrimental effects of wildfire.

Nominations for the Smokey Bear Citation are submitted annually by district rangers of the USFS and district foresters of the Texas Forest Service. Contributions made by each nominee to the cause of forest fire prevention in Texas are evaluated. Awards are made only to individuals, organizations and news media that have made outstanding contributions.

## Those Incredible Power Poles

**W**HETHER YOU KNOW IT OR not, they really turn you on. They save you money, brighten your home life, and give you something to count on a long, dull bus trip. Yet, like most people, you're probably in the dark about those omnipresent but little-known landmarks—power poles.

Without them, Thomas Edison's inventions might truly have been the "electric playthings" ridiculed by his critics. To go any significant distance in those early days, electricity had to travel over thick, expensive wires requiring equally thick and expensive supporting poles. As a result, Edison's first electric station could "pump" only 5000 feet!

Higher-capacity wires and chemically treated poles outlined the shape of the future—and power marched across-country, carried on wooden crossarms.

Today, over 90% of the nation's electricity travels along a vast skyway of 100 million utility poles. Laid end to end—an idea that would have shocked Thomas Edison—those poles would stretch more than half a million miles, or over twice the distance to the moon!

One down-to-earth reason is the low cost of utility poles. Even in these inflationary times, the average pole costs only about \$35—and it lasts some 40 years, through everything from April showers to tornadoes.

"Low overhead" means low-priced power. Electricity rates actually dropped from 1955 to 1965, making them one of the few remaining bargains in a world of soaring prices.

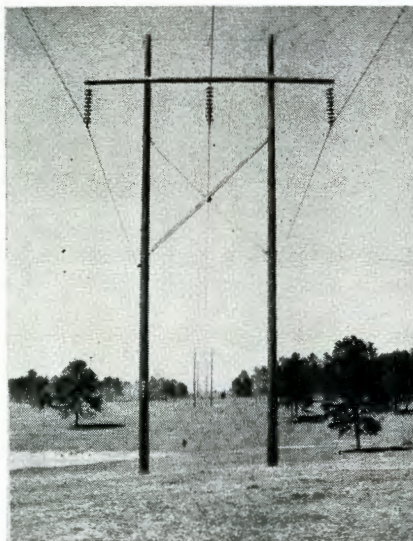
These figures help to explain why utility companies have so far sunk more than \$26.6 billion into overhead systems. It sounds astronomical—yet the cost of replacing overhead wires and poles with underground cables has been estimated at *ten times* that amount.

For consumers, "digging in" could more than trip'e the average monthly electrical bill. Some homeowners might have to pay as much as \$74 extra per month. Even the cost of new homes would be affected, since builders must pay about \$300 more per dwelling unit for underground electrical installations. Who would have thought that a mere piece of timber could have such a powerful effect on your budget? Let's take another look at that "plain, ordinary" pole.

The average utility pole is 35 feet high, planted six feet into the ground.

It weighs only 1000 pounds — but throughout its life span maintains a support strength of 64,000 foot-pounds!

Power poles are able to take 40 years of continuous pressure because they have been chemically preserved *under* pressure. Poles are loaded onto a special rail car and rolled into a giant pressure cylinder, where chemical preservatives such as creosote and pentachlorophenol are forced deep into the wood.



Oddly enough, this process indirectly helps conserve our forests! Because wood lasts about five times longer when chemically preserved, fewer trees have to be cut down. The amount of timber conserved since 1909 would be enough to build 55 million seven-room houses!

When long-range transmission was made possible around the turn of the century, engineers looked for three things in the delivery system: economy, easy serviceability, and adequate protection against electricity leakage.

Part of the economy of an overhead system—besides the low initial cost of poles—is the ease of servicing it. Homeowners benefit not only by lower rates, but by quicker repairs if there is a power emergency.

In addition, wood is an excellent natural insulator—the engineers say it has favorable "dielectric" properties. As if that weren't enough, utility poles carry porcelain or glass insulators to make doubly sure that electricity won't leak from wires.

Currently on the horizon are wood power poles that blend utility with beauty. Southern California is basking in "sun-bursts" — a bold new design with

pole-top equipment displayed like the sun's rays. Detroit has a new "see-through" pole—laminated wood members separated by a narrow slit. Florida is giving a warm reception to stream-lined poles painted in colors that blend harmoniously with natural or residential landscapes.

The best in current thinking has also produced trimmed-down pole-top equipment and "super-wires" with capacities of a half million volts. These new wires minimize the amount of overhead wiring needed—and because of them, an estimated 50% of utility poles will be delivering high power in streamlined high style by 1975.

All this, say the experts, goes to show that good looks and low-cost efficiency are not necessarily poles apart. One more reason why the powers-that-be prefer to string along with the good old (and now brand-new) utility pole.

(Reprinted from *The Texas Lawman*)

## 1969 Cone Crop Is Below Average

Although cone production in Texas Forest Service seed orchards was poor this year, a limited number of certified seedlings will be available from the state nursery for the 1970 planting season.

One hundred bushels of seed-bearing cones were collected from the loblolly seed orchards on the Fairchild State Forest near Maydelle and the Jones State Forest near Conroe. The slash pine seed orchard at Magnolia Springs yielded but 50 bushels.

The slash pine seed production area, on the Siecke State Forest near Kirbyville, produced 200 bushels of cones. The stand of drought-hardy loblolly pines, located northeast of Bastrop State Park, produced 150 bushels. A smaller quantity of drought-hardy loblolly pine cones were also collected from the Arthur Temple Sr. Research Area at Fastrill.

In a good year, production should average one to two bushels of cones per tree, according to Don Young, head of the Forest Management Department, College Station. This past year, collections averaged less than half a bushel per tree in the special cone production areas.

All but a small amount of certified seed collected from the seed orchards has been planted at the Indian Mound Nursery near Alto. Cost of certified seedlings will be higher than regular seedlings but all will be sold to the public on a first-come, first-served basis.

## Anderson Named Outstanding Forester

David A. "Andy" Anderson of College Station has been named Texas' Outstanding Forester by members of the Gulf States Section, Society of American Foresters.



Last year's honoree, E. R. Wagoner of Lufkin, presented the 1970 award for Distinguished Service to Forestry in Texas to Anderson at the 44th Annual Meeting of the Section in Biloxi, Mississippi, May 7.

The Gulf States Section includes more than a thousand professional foresters from Mississippi, Louisiana and Texas. Each state annually selects one of its members to receive this award.

Anderson has been active in SAF affairs since the early 1930's, is one of the pioneer foresters in Texas, a founder of the Texas Chapter, and has served as vice-chairman and secretary-treasurer of the Gulf States Section. He is author of numerous professional articles and publications. Anderson was a member of the planning committee which led to the development of the Society's *Forestry Handbook*, and provided leadership in publishing the Texas Chapter publication on forestry as a career.

## Wood Technologist

Clifford P. Isaacs, a native of San Antonio, was employed recently by the Texas Forest Service to provide a greater degree of assistance to Texas' forest and wood-using industries. His headquarters are at the Texas Forest Products Laboratory, Lufkin.



Isaacs was previously associated with U. S. Plywood-Champion Papers Inc. at Cleveland. He received his bachelor and masters degrees in forestry and forest products technology from Louisiana State University.

He will assist Texas wood-using industries in the development of new wood products and will assist them in improving production techniques.

Isaacs is a member of the Forest Products Research Society and the Society of Wood Science and Technology.

Anderson is beginning his third term as Mayor of College Station, and previously served three terms as a City Councilman and two terms on the city's Planning and Zoning Commission. He is a director on numerous county boards, and serves on the Taxation and Revenue Committee of the Texas Municipal League.

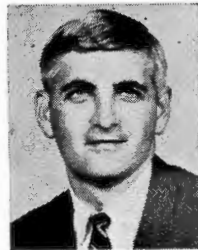
Past honors and awards include the Presidential Citation Award from Texas Garden Clubs, Inc.; Honorary FFA State Lone Star Farmer; Honorary Modern Farmer Degree from Prairie View A&M University; named Outstanding Citizen in 1969 by the College Station Kiwanis Club; and named Outstanding Citizen in 1969 by the Brazos Valley American Legion.

Anderson is a deacon and past chairman of the Board of the First Presbyterian Church, is active in Masonic work, and is currently serving as chairman of the Brazos Valley Shrine Club. He is a member of the Bryan-College Station Chamber of Commerce, and is a member and former secretary of the Texas Forestry Association.

Previous Texas awardees include Ted Silker, A. D. Folweiler, Don Young, Lud King, Nathan Canterbury, Raymond Gipson and Laurence C. Walker.

## TFS Employs Entomologist

Robert N. Coulson of Athens, Georgia, joined the staff of the Pest Control Section, Texas Forest Service, as principal entomologist, June 1.



Coulson will replace Garland Mason as head of the Section in September, when Mason takes Faculty Development Leave for extended study at Texas A&M University.

In addition to his duties with the Service, Coulson is on a joint appointment with the Texas Agricultural Experiment Station and Texas A&M University. His work is expected to broaden the Service's present forest pest control program in Texas.

Coulson, a native of Dallas, earned the MS and PhD degrees in entomology at the University of Georgia and has been a post-doctoral fellow with the Institute of Ecology and a faculty member of the Department of Entomology at the University of Georgia.

## News Briefs—

(Continued from Page 4)  
owned by the Southwestern Timber Company of Jasper.

Meandering through a dogwood festooned area for about a quarter mile, visitors will find the trail typical of the pine flatwoods which are common along the Gulf Coast. Various native tree species are identified along the trail to give the more studious visitor an opportunity to test his ability to identify the trees by common and scientific name.

All TFA Woodland Trails are selected for their scenic values and suitability for hiking and walking. All are self-guiding and are open to the public free of charge.

Georgia-Pacific, a timber industry manufacturing complex, which recently announced plans to build a \$2 million small-log sawmill at New Waverly, Texas, has been awarded a 1970 Gold Medal by the Sports Foundation, Inc.

G-P was one of five Class I finalists in national competition to receive top honors for its "outstanding achievement" in controlling water pollution. The Foundation is a national group dedicated to the development and protection of recreational resources.

Vice president of the Crossett Division, Jack E. Meadows, said his division's pollution control activities are part of a more than \$20 million nationwide program "that will bring our plants up to or above the latest federal and state water pollution control requirements."

Thirty-four Texas Forest Service foresters and supervisors participated in an administrative management course conducted by the U. S. Forest Service, at Lufkin, April 27-30.

(Continued on Page 8)

The Ecological Aspects of Insects Affecting Seed Production of Southern Pines was the subject of Coulson's dissertation. His recent work at the Institute has been on the aspects of canopy insect communities on the Coweeta Hydrologic Laboratory watersheds at Otto, North Carolina.

Dr. Coulson is co-author of numerous publications on forest insects and has presented several papers on his research at regional and national meetings of the Entomological Society of America.

He is a member of Sigma Xi, Gamma Sigma Delta and Alpha Mu Epsilon. He also is a member of the Entomological Society of America, the Entomological Society of Canada and the Ecological Society of America.

## Beetle Control—

(Continued from Page 3)

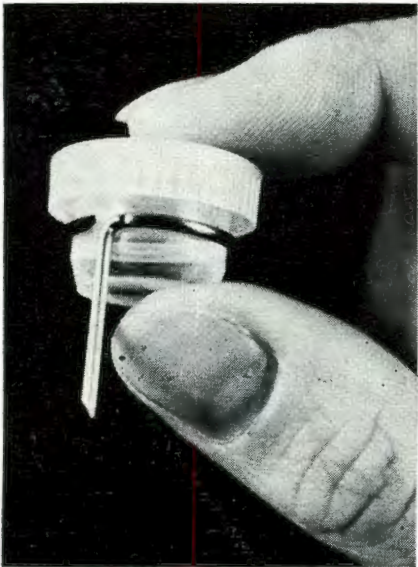
from the crown ceases but the roots continued to pump water into the tree's system which maintains a high sap pressure.

Beetles which have been lured to the baited and acid-killed trees attack and begin tunneling and feeding on the tender inner bark and lay their eggs. In a normal situation, this tunneling activity would soon kill the tree, sap flow would cease, and the environment for the beetle larvae that hatch in 5 to 6 days would be ideal. However, in an acid-treated tree, the sap pressure is maintained and the young larvae are literally drowned as they hatch. The acid itself does not kill the beetles.

The beauty of the Frontalure-cacodylic acid control technique is that it com-



Capsules which contain a minute quantity of Frontalure are placed at 6-inch intervals around each bait tree.



Close-up of a polyethylene capsule filled with Frontalure.

plements natural biological controls. Only the developing Southern pine beetle larvae are killed after they hatch. The adult beetles, which may live from 40 to 60 days, are not killed but neither are their natural enemies—the clerid and ostomid beetles which are also lured to the baited trees. Instead of attacking and feeding on the pines, the predators feed on the bark beetles as they attack the trees and the predator's larvae, which hatch from eggs laid by the adults, feed on the Southern pine beetle larvae.

One of the previous control methods, which involved cutting each infested tree and spraying its bark surface with benzenehexachloride (BHC), killed the adult bark beetles as they emerged from the tree and also killed the clerids and other predators. When a tree is felled, it is no longer attractive to Southern pine beetles, which attack only vertical objects. The predator beetles, however, are not so particular and will continue to come to a tree in any position and are killed on contact by the BHC. The results of this method were therefore detrimental to the buildup of natural enemies of the bark beetles.

Control and not eradication of Southern pine bark beetles is the goal of SFRI research. Although results of the first field trials look promising, early detection and immediate salvage and utilization of infested trees is still the tree farmer's first line of defense against these destructive insects. Even after the attractant technique is perfected, it may well be reserved for use as a survey tool and for the control of inaccessible infestations and spots where the amount or size of infested trees is uneconomical to log and utilize.

Nevertheless, the control of Southern pine beetles which tree farmers have been hoping for is near, and the future of profitable tree farming appears much brighter than it did less than a decade ago.

## News Briefs—

(Continued from Page 7)

The course, held at the Cudlipp Forestry Center, covered all major management areas and was designed to give foresters a firm foundation in a field which few received with their technical training at the college level.

Instructors for the course were Bruce Courtright, employment development specialist; Ira Bray, public information office, Southeastern Area, State and Private Forestry; Howard Burnett, management analyst; and Robert M. Minor,

long range planning specialist. All four instructors are headquartered in Atlanta, Georgia.

W. A. "Bill" Smith, forestry specialist with the Texas Agricultural Extension Service, College Station, was elected Chairman of the Southern Extension Natural Resource Specialists at their recent meeting held in Atlanta, Georgia. The group represents Extension specialists in the fields of forest management, forest marketing, wood utilization, outdoor recreation and wildlife management in 13 Southern states. Smith's term as Chairman will run through 1973.

"Texas Wood Fiber Harvesting in the Seventies" was the theme of the 1970 Spring Meeting of the Texas Forestry Association which was held in Stancil Memorial Park, Cleveland, on May 6.

W. B. Bromley, executive vice president of the American Pulpwood Association, New York, was the featured speaker. The meeting also featured an outstanding display and demonstration of forestry equipment.

Charles Arnold, Lufkin, and Edwin Smith, Cleveland, received TFA awards for the Outstanding County Agricultural Agent and Vocational Agricultural Teacher, respectively.

Earl Stowe, owner of the Stowe Lumber Company and a long-time City Councilman, of Crockett was named a state champion in the field of Forestry Conservation.

The honor was bestowed on the lumberman in May at the 25th Annual Texas Conservation Awards program sponsored this year by the Fort Worth Chamber of Commerce and 23 co-sponsors. Stowe's entry was submitted by the Davy Crockett-Trinity Soil and Water Conservation District.

U. S. Plywood-Champion Papers Inc. presented the Greater Houston YMCA a gift deed to a 446-acre campsite on Lake Livingston.

Champion operates a large paper mill in Pasadena and owns extensive timberlands in Texas.

The thickly wooded land and the facilities to be built on the site will be used by the YMCA to give youngsters an opportunity to enjoy their rich outdoor heritage. The facility will also be available for use by other publicly supported organizations which provide programs for education, recreation and development of good character in youth.