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# Foreword

In this, the third edition of the *Missouri Log*, we have attempted to keep pace with the progress made by the Forestry Department.

We are particularly proud to present the articles written by Missouri alumni—both old and new.

We are grateful to Mr. R. Brooks Polk for his assistance and guidance as faculty advisor. Once again we are indebted to Mrs. Stanley R. McLane for her stenographic help.

Special thanks to Mr. Peter W. Fletcher for his help in photographing faculty and students, and to Mr. K. C. Compton for his contribution of the Camp Life photos.

We now present the 1950 *Missouri Log* for your enjoyment.

The Staff.

## The Staff

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Cover by Robert D. Raisch



I. T. BODE

DEDICATION

*To I. T. Bode, one of the Nation's outstanding conservationists, who has developed in Missouri a progressive program in forestry and wildlife conservation built on a foundation of service and technology.*

- 1919-1924 Instructor and assistant professor of forestry, Iowa State College
- 1924-1932 Extension forester, Iowa State College
- 1932-1935 Director of Iowa Conservation Commission
- 1935-1936 Chief, Division of Wildlife Research, Biological Survey, Washington, D. C.
- 1936-1937 Extension Biologist, Wildlife Conservation and Restoration, U. S. Dept. Agriculture, Washington, D. C.
- 1937 to date Director, Missouri Conservation Commission

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# Pioneer Forest

ARTHUR B. MEYER

Assistant State Forester

Reprinted from the August, 1949 issue of the "Missouri Conservationist".

Of the 640,000 acres of land in Shannon County, Missouri, 525,000 acres are in forest cover. To people who know the beauty of sandstone and granite hills rolling away in every direction, the scent of shortleaf pine, the clear, cold water of innumerable springs, the splash of bass in Current river—to these people, Shannon County is the very essence of the Ozarks.

More than one resident has been credited with the remark: "You can't make any money in this country, but there's no place you can get along without it so easy."

This demonstrates a high loyalty for the country but grossly depreciates some possibilities for its future. On a long-time basis, at least, the observation is unduly pessimistic.

Just as surely as the hills of Shannon county are beautiful, so surely will the country find a future catering to the frayed nerves of modern living. The float trippers on Jack's Fork and Current rivers; deer hunters tramping through the brilliance of oak leaves in the autumn; the weekend tourist, snapping his camera; these are but the forerunners of future swarms seeking a taste of what they cannot find in urban life. They will leave money in Shannon County.

But of vastly greater economic significance is the potential capacity for *creating* wealth which is inherent in those 525,000 acres of timberland. The Federal and State governments, representing the public, think enough of this potential that Uncle Sam owns 80,000 acres of National Forest in the county and the Conservation Commission includes the entire remainder of the county in a forest fire protection district whose aim is to help private owners to grow timber, which is possible only when woods fires are kept out.



*Modern methods speed the task of harvesting timber. The chain saw has replaced the ax—but what does Paul Bunyan think about all this?*

*—Courtesy "Missouri Conservationist"*

However, the government (sometimes open to "charges" of a philanthropic, long-time viewpoint) is not the only party interested in growing timber here. There are some business men who are practicing forestry, raising trees, for profit. In fact, the biggest landowner in Shannon county is following a brand of forestry which would serve as a model to any Ozark owner. This enterprise, known officially as the "Pioneer Forest of National Distillers Products Corporation," owns 86,000 acres, reputed to be the largest hardwood forest in the country under private management. Certainly 133 square miles is a pretty big hunk of land.

Whether you practice forestry for "philanthropy" or for profit the result is the same as far as the land is concerned. It's the practice that counts. Forestry raises sound, valuable wood as the raw material for industry. As you grow this crop of trees you produce also the companion gains of increased soil fertility and greater water holding capacity (which means less drought and fewer floods), as well as the less measurable benefits of increased wildlife populations and land that is fit for recreational use. *And jobs!* Not the least of the benefits



*A crop has been harvested here—but the “forest factory” is still producing—Courtesy “Missouri Conservationist”*

of forestry is the multitude of jobs represented in the conversion of trees into lumber, railroad ties, handles, barrels and thousands of other products of wood.

A lot of people have worked at one time or another on this Pioneer Forest or in the mills which converted its wood into usable forms. The name Pioneer has stuck with the land. Until recently it was the property of Pioneer Cooperage, a well known St. Louis firm with almost a century of barrel and keg manufacture under its belt. For a long time Heinz pickles came out in Shannon county white oak kegs; as well as beer, white lead, sauerkraut, and many other products requiring moisture-proof kegs and barrels. National Distillers has not only taken over the ownership of the land but is intensifying the scientific forest management practices which Pioneer Cooperage originally started. The name *Pioneer Forest* is an ideal one, tying its past history to the cooperage company whose conservative use of the land

made it possible for the forest now to be a going concern without a long period of building up timber volume on the land. Of a pioneer nature, too—for the Missouri Ozarks—is the intensive management practices with which National Distillers is now handling the forest.

### *The History Of A Forest*

The history of the forest begins about a quarter of a century ago when 50,000 acres of virgin timberland was purchased by the cooperage company from the old Current River Lumber company. A lot of this land then supported ancient stands of shortleaf pine and of white oak: pine on the ridge tops and dryer sites, white oak on the cool, fertile north and east slopes. Most of the original pine was sold off by the cooperage people, whose interest was in the white oak for barrels; occasional on-the-stump sales were also made of other species. But some of this original virgin white oak still remains, tall, stately, almost majestic, with a size and form reached during a time when the land of Shannon County was not subject to abuse.

The fact that some of this old white oak still stands is the result of conservative business; the desire to stretch the raw material of its industry as far as possible. It ignored, however, the fact that forests are not static. Old trees died; the barrels they represented were lost and young trees sprang up to fill the gap. Like any other crop, timber must be harvested on reaching maturity or it will become over-ripe, then decadent, finally worthless.

The company's operations on some of their other areas, which contained less white oak, were more typical of general Ozark forest history. All the merchantable trees were cut off and then the land was re-cut periodically as the standards of merchantability were gradually reduced, and as the residual trees grew.

And so the company had some land which had not been cut enough to even harvest the growth—and a considerably greater proportion of other land where excessive cutting had greatly depleted the growth! On all of it, in former years, annual fires left their mark in damaged timber and decreased soil fertility. But the stave mills turned out the curved boards of which barrels are made.

As time progressed the value of timber kept rising; it increased steadily through depression and boom *in relation to the buying power of the dollar*. White oak of the high quality necessary to make tight cooperage became more and more scarce.

The company was in the business of manufacturing barrels. They



*Ripe shortleaf pine has been harvested; tiny pines cover the dry, sandstone ridge to insure future cuts.—Courtesy "Missouri Conservationist"*

did not consider themselves to also be in the tree-growing business. However, as good business men, they possessed an underlying concept which is also present in conservation thinking—to use resources conservatively, wisely. They bought white oak from other owners, when possible, to save their own standing timber, their raw material. During the latter part of the war period this interest in their property led to hiring a forester to inspect their land, inventory the timber and report on its condition.

#### *Trained Foresters Come In*

This chap, named Ed Woods, didn't have time to get very far into the timber inventory work. In short order he produced some suggestions with regard to woods operations and milling which meant greater efficiency and therefore more profit from the operation. The company put him in charge of "Production" and hired other foresters, Gus Hoyer and Charles Kirk, to proceed with the inventory.

Up until this time the company had assumed that it was uneconomical to cut in any given area of land unless they cut, while they were there, all material of sufficient size to make stave bolts. While they were so engaged in one limited area, cutting big and small trees, mature white oak scattered over hundreds of other acres had a high rate of mortality. When a white oak dies or is blown down it rapidly develops the tiny worm holes which render it unfit for first class cooperage. The trees which died were lost as far as barrel-making was concerned.

The forester pointed out this loss. A new cutting policy was started, based upon tree maturity rather than upon specific areas. The timber inventory was pushed ahead as rapidly as possible. Records were tabulated by land section (640 acres) showing the volume by species and the condition of the timber. Harvest cuts were planned to skim over the sections which contained the greatest proportion of mature white oak and to cut those trees which would be lost through mortality if not cut.

The company did not cut anything except white oak for its stave mills; occasionally it made sales of standing timber to tie or timber companies of the other species of trees present on the land. At the time forest management was inaugurated, it had a sale underway of the last of the virgin shortleaf pine. The sale had been made for "all merchantable pine," which generally amounts to *all* pine. The foresters were able (by persuasion and a piece of luck) to arrange to have seed trees left on the ground to re-seed the area to pine. Their foresight has resulted in millions of tiny pine seedlings now on the land to assure future cuts.

Gradually, as the foresters sold their ideas, the operations on Pioneer Forest were adjusted, trimmed or increased to fit the land. Crews of cutters who work on a contract basis use chain saws to fell the trees which the foresters have marked as ready for harvest. The felled trees are sawed into bolts 39 inches long and are then split, usually into quarters, into the final bolts. These are then hauled by company trucks into the mill, where they are sawed into tapering, bowed, barrel staves, which are then stacked in the yard to air-dry before being shipped off to the plants which join them into barrels.

### *Pioneer Plans For The Future*

The company now has two stave mills, Kenyon and Himont, located at widely separated locations on the property. Under normal conditions, only one of the company mills is operated at a time, de-

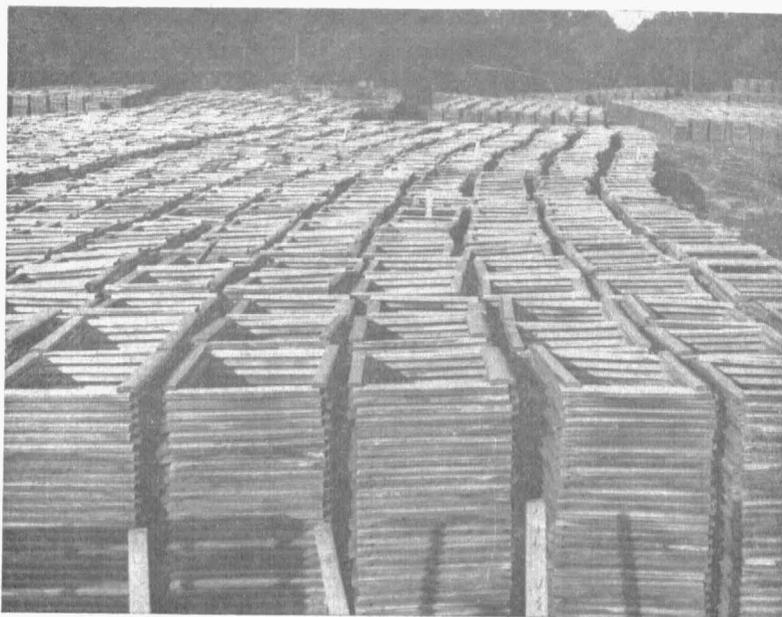
pending upon the location of the woods operations. One of these mills in a year will cut up approximately 2 to 3 million board feet of white oak. Ed Woods figures that there is enough over-ripe material in the forest to supply a mill at full operation for about two years. After the completion of this salvage type of cutting, the growth of material on the land will take care of half to three-fourths of the yearly requirements of the mill. The annual cut will then not exceed the annual growth from company land and they will buy from other owners sufficient material to fill out the quota for that year. However, long-range plans call for the acquisition of neighboring timberlands, which addition will eventually make it possible for Pioneer Forest to grow enough white oak in a year to operate a mill independent of outside sources of supply. This is sustained yield—an industrial forest enterprise geared to the productive capacity, the growth, of the land. The annual harvest of this growth under proper forestry practices will condition and improve the forest factory. Directed cutting, based upon a knowledge of trees and land, adjusted to the requirements of the milling end, will produce the maximum amount of the best possible wood.

Up to 100 men are required in the "milling" department. Some of these workers live in company-owned housing at the mills, but 50 to 75 per cent of the labor is secured from local part-time farmers.

Two full-time foresters, along with three rangers and one helper, handle the "Protection and Timber" department. In addition to the progressing inventory, they plan future cuts, mark all trees that are to be harvested, supervise the cutting operations, keep the boundary lines established and work energetically to protect the timberlands from fire. This job would be impossible without the help of the fire protection organization of the Conservation Commission, whose Eminence and Deer Run Fire Districts include all of the company's land. Nor is protection from timber trespass (called theft in some circles) a small job on 86,000 acres. Clearly marked boundary lines and continual patrol are necessary.

Another problem which worries the foresters is protection from excessive grazing damage. Somehow or other, hogs and cattle seem to gravitate toward the company's stands of nice timber, preferring them to some of the neighboring lands that are annually burned and heavily cut—a preference which some cattle owners might ponder!

There are about 2,000 acres of old fields sprinkled through Pioneer Forest. Some of this will rapidly convert to forest cover; that which does not do so in a reasonable time will be planted to young



*White oak staves at the company mill, drying in the sun before final processing into barrels. The stave industry is important in Missouri.*

*—Courtesy "Missouri Conservationist"*

trees. Over 15,000 seedlings have been planted in such tracts.

### *Forestry's Diversified Crops*

Another vital function of the foresters is to conduct timber sale to sawmills and other companies who want sawlogs and ties. A second cutting follows after mature or defective white oak has been harvested on an area for the company's stave mill. A healthy hardwood forest grows diversified crops. If all the white oak were removed and the associated species left standing the forest would quickly support a heavy preponderance of these other species with little prospect of future white oak cuts. Neither would it be very smart business to fail to convert these other species into cash when trees reached maturity or became defective. So, following the white oak harvest, comes another harvest of other species. This is done by making sales under contract to sawmill owners, also done on a marked-tree basis and in accord with the precepts of good forestry.

What Ed Woods and his helpers have done is to develop a farm—

a farm which produces wood. They want to raise white oak for staves wherever it is possible, and a lot of the land is good white oak site, but they do not disregard the other products grown. They raise what crops are best suited to the land and see that they are utilized, are turned into useful products, and that the land is neither allowed to become stagnant by lack of cutting nor rendered non-productive by over-cutting of the growing stock. There are many details involved, but this is the essence of forestry.

What does all this mean to the businessmen behind Pioneer Forest? The maximum amount of white oak grown that is commensurable with the capability of the land; the efficient utilization, turning into profit, of other species; the integration of the manufacturing end of the enterprise with the growing of raw materials. This adds up to sound business; business built upon a foundation of stability.

What does it mean to people who are interested in our forest resources? It demonstrates that in the Ozarks an area renowned for its forest devastation, forestry can and is being practiced on a basis whose justification is profit. It demonstrates that wise conservation practices pay, not only in the long-time outlook but also here and now.

I leave to your judgment an opinion as to what this Pioneer Forest, 86,000 acres, devoted through wise management to the perpetual production of the raw material of industry, will mean to the future of Shannon county. There is no wealth to compare with good land, properly used, growing the crop for which it is best suited.



### THE TREE PLANTER

Whoever planted rows of trees  
Beside the roads and lanes,  
God rest his soul in Heavenly peace  
And bless him for his pains;  
For he who gave of time and toil,  
Who gave of heart and hand  
To nurse the tender shoots that were  
To shade the ways of men,  
Was quite as great as those who built  
Of stone and minted gold—  
No need to cast his name in bronze,  
His deeds need not be told.

—Stanley F. Bartlett.

## FIREFIGHTING ON THE PAYETTE

WILLIAM B. SENDT

*The writer, now a forester senior at the University of Missouri, learned basic rules for battling crown fires while working with the U. S. Forest Service in the Inland Empire.*

On August 2, 1949, I got my first real opportunity to fight a forest fire. The blaze, later known as the "Huntz Gulch Fire," had its origin in rugged topography along the Salmon River on the Payette National Forest in Idaho. Because the rough terrain slowed our rate of travel, some 200 acres had burned before we were able to reach the area. We arrived at night and immediately began building a fire line along one side of the encroaching burn. The next day flames jumped the line, and we had to retreat. In a couple of days the fire had grown to 2,000 acres, so more overhead and personnel were brought in. The men were split up into units and crews, each unit or units being given a sector of the fire. Our sector was located along rocky Long Tom Creek.

We brushed out along the stream and were holding the fire nicely—we thought. That afternoon a snag dropped across the creek behind us, and almost simultaneously the fire spotted across the water ahead of us. That put us precariously between two fires, and we had to scamper through smoke, falling branches, and flying debris to safety.

Next day we tried to cut the fire off in a draw. Unnoticeably, however, it had burned across the draw a considerable distance ahead of us. The intense heat loosened rocks and boulders, and before we knew it we were in the midst of an avalanche. Everyone scattered in an effort to avoid injury. Fortunately, only two men were hurt. That incident taught me lesson number one in fire fighting—*stay out of draws.*

No one on the fire was making much progress, so it was decided to change tactics. Although the policy on the Payette National Forest is to build a fire line as close to the fire as possible, backfiring seemed to be the only means of control. The next day we pulled back about half way up an adjacent ridge facing the fire, built our fire line, and

started backfiring. Everything went fine until a heavy wind sprang up, causing big flames to crown out over our line. Seeing that it was impossible to outrun the fire up hill, we worked our way into an old burn. This close call taught me lesson number two in fire fighting—*backfire from the top of a ridge*; this assures an easy means of escape.

After we had almost given up hope of stopping the conflagration, the weather got cooler and about one-half inch of rain fell. That slowed the rate of combustion sufficiently to allow us to mop up along the edges and check any further advance. After six days of mopping up the fire was out. Seven thousand acres had burned.

A second fire began on August 16. Like most forest fires in the Northern Rocky Mountains, this one was started by lightning during dry weather. Given the name of "Circle End Fire," it was located along the South Fork of the Salmon River in some of the roughest territory in the area. By the time we arrived on the scene the blaze had spread over about 20 acres. Because there was little fuel, we figured we could have the fire under control within a day. That afternoon, however, the wind reached a velocity of 40 miles per hour, and it seemed as though everything was burning, including the rocks and earth.

Flames leaped the South Fork River, and the biggest fire in the history of the Payette National Forest was under way. Within two days the charred area had increased to 3,000 acres. Two more days passed, and the fire spread over 6,000 acres, with the wind continuing to blow. More firefighters were brought in until a force of 2,000 had been built up.

It was thought the increased number of men would give us a good chance to gain control. We held our line the first day and were making progress. Next day we moved up to a very dangerous section. The fire was moving slowly down a precipitous ridge. At the bottom was a small creek with another steep slope breaking off opposite the fire's edge. In order to avoid rolling logs and falling rocks, it was decided to build a fire line on the side of the creek opposite the advancing flames.

We made good progress, but then the unexpected happened. The fire jumped the creek about a mile ahead of us. Part of the men were sent to head it off, but they could not hold it. Leaving a few men behind to patrol the line we had built, the rest of us went up to try to hold the fire's advance.

About the time we reached the other men, the wind again started to blow. The fire began crowning, and spot fires were developing all around us. An old burn on an adjacent ridge offered the only possible means for escape. We had trouble getting there, but finally made it with no casualties. That was lesson number three in fire fighting—*always have a planned retreat before moving into an area.*

In the days that followed, little progress was made, so once more the Forest Service reverted to backfiring. At this stage not too much concern was given to how much line was built and backfired; rather, emphasis was placed on holding what was done. The system worked pretty well, and after six days we met the crew coming from the opposite direction. Our task then was to patrol and mop up. The area burned amounted to 20,000 acres.

Mopping up is slow, tedious work, and there is plenty of time for conversation. Among older men on the fire the general opinion was that forest fires don't do much damage to the timber; moreover, they contended that burning greatly improves forage for livestock. Something should be done to alter this complacency towards the forest fire problem, and it appears that any marked success must be accomplished through the younger generation. If the conservationists' viewpoints can be imbedded in the minds of the youngsters, we may make considerable progress in the prevention and control of forest fires in the future. Until then, however—and after—man must continue to perfect his fire-fighting techniques.

Whether new or old, any techniques employed must depend upon past experience for safe and efficient execution. This seems as good a place as any to briefly summarize my Idaho experiences. When battling a hot fire in rough terrain, three rules for personal safety should be remembered: (1) Stay out of draws, (2) do any backfiring from ridge tops, and (3) always plan a retreat before moving against a burning sector.



**FORESTERS! OUR ADVERTISERS HAVE HELPED US, NOW  
LET'S PATRONIZE THEM.**

# TAXES AND THE SMALL SAWMILL

CHARLES R. FRITSCHLE

Sawmill Owner, St. Louis, Missouri

In operating a small sawmill, as in running any little business, success depends to a great extent upon an adequate knowledge and a practical consideration of our present tax structure. Taxes in any industry are many and varied; both directly and indirectly they constitute a substantial part of the cost of doing business. Without further mention of the numerous indirect or so-called hidden taxes that combine to heavily burden private enterprise today, we can see through an examination of direct taxation how tax policy often tempts or modifies the conduct of business. Examples could be drawn freely from the effects of levies on such items as real estate, personal property, telephone and telegraph messages, sales, and profits. It is our purpose, however, to examine the unemployment tax as a case in point.

One of the larger items of expense in the operation of a small manufacturing business is the cost in wages. Any tax on these wages can materially affect the small margin of profit that is possible with good management under present economic conditions. The small sawmill operator, as well as the management of larger industries, has to contend with this cost. The only difference is the proportionate amount each must pay, with some few exceptions, one of which is the amount levied under the Federal Unemployment Tax Act, which states in effect:

“Every employer shall pay for the calendar year 1939 and for each calendar year thereafter, an excise tax, with respect to having individuals in his employ, equal to three per centum of the total wages . . . paid by him during the calendar year. The term ‘employer’ does not include any person unless on each of some twenty days during the taxable year, each day being in a different calendar week, the total number of individuals who were employed by him . . . for some portion of the day . . . was *eight or more*.”

In general, this means that any employer who hires eight or more employees must pay on each employee a tax of three per cent of the individual's total wages for the year. Small employers who have seven or less employees, however, do not have this tax to pay. At first glance, this seems to favor the small operator, and it does favor those who employ seven or less.

It probably would be conceded by most of us that there are thousands of proprietors of little businesses, including a great many sawmill operators, who need eight or perhaps nine employees to carry on their establishments more efficiently. Before making such minor additions in personnel, however, these entrepreneurs must weigh the advantages against the necessity of having to pay the three per cent unemployment tax on all employees. Let us see to what extent the tax burden would be increased.

Under the Fair Labor Standards Amendments of 1949, all employers engaged in interstate commerce (and interpretation of this Act exempts very few industries) must pay a minimum hourly wage of seventy-five cents for a forty-hour work week.

For example, if a small employer had four laborers who were being paid seventy-five cents per hour, each would receive thirty dollars per week for forty hours, or \$1,500 annually for fifty weeks. Another two employees at eighty-five cents would each receive thirty-four dollars weekly, or \$1,700 for fifty weeks. A seventh employee at one dollar per hour would receive forty dollars per week, or \$2,000 for fifty weeks, making a combined total in wages of \$11,400. This represents an employer with seven employees, the maximum number allowed before coming under the provisions of the Federal Unemployment Tax Act. In this instance, the operator would not have to pay the three per cent unemployment tax.

Now, let us assume that the employer could obtain sufficient business to warrant hiring an additional employee. As soon as he engages another or eighth man, he automatically comes under the provisions of the Federal Unemployment Tax Act and, accordingly, will have to pay the three per cent unemployment tax. In this case, if he adds only the one employee at the minimum wage of seventy-five cents per hour, or a yearly wage of \$1,500 for fifty work weeks, his total combined wages for the eight employees will be \$12,900. Three per cent of this, \$387, will make up the year's unemployment tax for this employer. The amount would, of course, increase with any overtime pay. In comparison, one might note that \$387 is about what the owner of a \$35,000 home would pay yearly for personal and real estate taxes in the Clayton, Missouri, area.

Thus, just for hiring one additional or eighth employee, the small employer would increase his monthly taxes \$32.25. In a sense, he would be penalized for increasing employment. In practice, many (and perhaps most) employers would try to find some way to operate

without the eighth employee. A thorough investigation would probably disclose thousands of small businesses that could employ one or more additional persons, if it were not for the apparent penalty in the Unemployment Tax Act. Minimum wage conditions have been used in this example, but there are numerous industries in our large cities where wage scales are much higher, even twice those used above.

In conclusion, it would seem that a more equitable and fair unemployment tax would be one in which all employers (with no exceptions) were taxed; or, if a definite exemption of seven employees were provided, the first seven employees *in all industries* would be completely exempted, and the three per cent tax would start with the eighth employee. In this way, the employer of eight or more would pay the unemployment tax only on the eighth and succeeding employees.



## OUR NEW EXPERIMENTAL FOREST

LEE K. PAULSELL

The University of Missouri's newly acquired Weldon Springs Experimental Farm stretches over the rugged river hills and rolling meadows of St. Charles County. More precisely as to location, its southeastern corner touches the new Daniel Boone Bridge on U. S. 40-61, the Missouri River forming its southern boundary. The area is approximately 30 miles west of St. Louis and about 15 miles southwest of St. Charles.

This 7,900-acre tract was formerly a part of the Weldon Springs Ordnance Works, manufacturer of explosives during World War II. What was then a wild, protected, and carefully patrolled area has now become a work center for research in various aspects of land management. The Department of Animal Husbandry is making preparations for the maintenance of an extensive beef herd on land adaptable to pasture and crop agriculture. Most of the tract is best suited to timber production. Accordingly, some 6,000 acres have been placed under the administration of the Forestry Department.

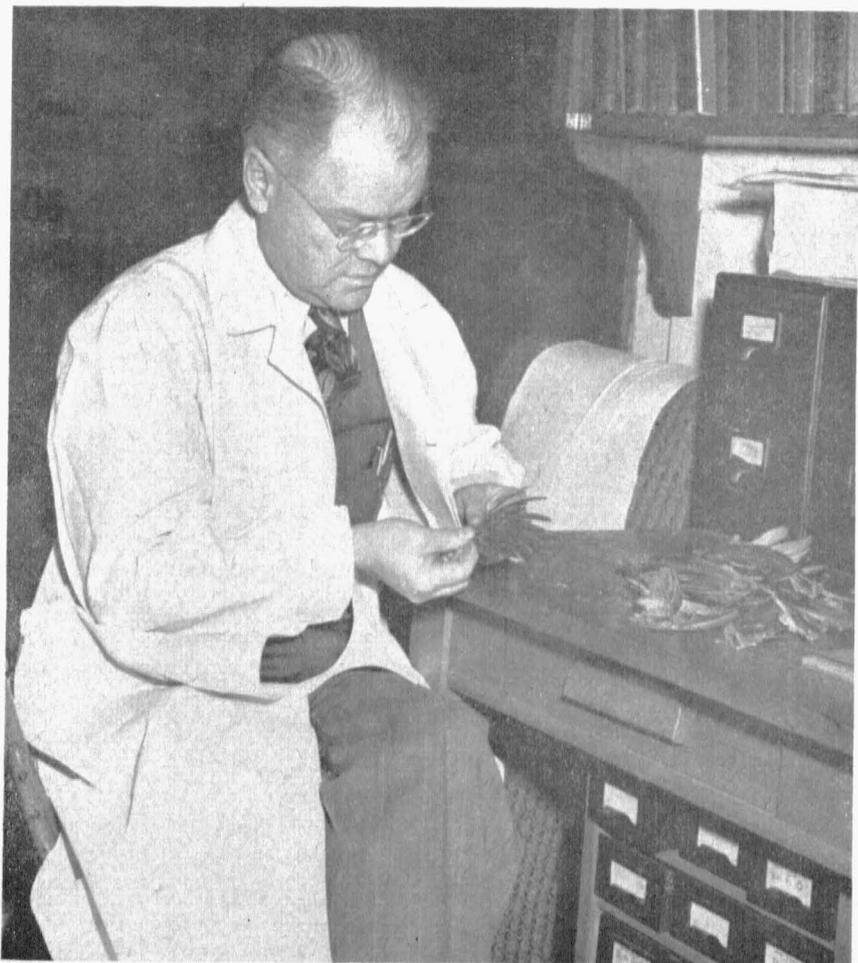
A great variety of conditions contained in this forest land makes the area ideal for the sort of research and demonstration work needed in the overall program of rehabilitating and improving the forests of our state. Numerous hardwood cover types and silvical habitats are found on the rough to somewhat rolling topography. Twelve soil types are represented—eight on the uplands and four in the bottomlands. In general, these soils are representative of those supporting trees over much of Missouri.

Stand conditions too are typical of those found generally within the Central Hardwoods Region. A wide variety in age classes, density, and species composition gives an excellent basis for experimentation in the silviculture and utilization of native timber. While some stands have deteriorated under bad management, portions of the timber are of sufficient high quality to rank with the best in the state; in between these two extremes are many gradations in stocking and quality.

In setting up a working research program on an area of this kind, many aspects must be considered; many problems must be solved. Through a cooperative agreement with the Missouri Conservation Commission, preparation has been made for protection of the area. A good system of major roads helps to increase the accessibility of otherwise remote stands, although some additional roads and trails must be constructed. Of interest, yet not too important at the present time, is the fact that the Missouri-Kansas-Texas Railroad skirts the southern boundary along the river. The location of the area near wood-using industries should make marketing and utilization problems relatively simple. A number of residences on the tract furnish quarters for permanent employees as well as temporary research workers or work crews. An office building provides headquarters for the administrative personnel.

Before working plans could be set up for field projects, a forest inventory had to be made. This was accomplished in the summer of 1949. During the fall of the same year additional studies were made of form class, growth, cull, and defect. Although an analysis of these data has not been completed, it is evident that many of the stands contain merchantable volumes adequate for immediate operation. Thus, there is the possibility of early utilization studies. This is an indication of how preliminary investigations will point the way for an expansion of the research work. Through a practical experimental approach to questions that pose themselves, an attempt will be made to solve the problems facing forest management in Missouri today.

## *In Memoriam*



RUDOLF BENNETT

December 22, 1898-February 2, 1950

Member of the staff of Zoology Department, University of Missouri, 1927-1950.

First chairman of the Missouri Wildlife Research Unit, 1937-1950.

*"The influence of his investigations and teachings in wildlife management on the forest and wildlife resources of Missouri will have a lasting effect on the State's conservation program."*

# BETTER FARM WOODLOTS THROUGH EDUCATION

HAROLD GALLAHER

Assistant County Extension Agent

Dent County, located in southcentral Missouri, has over 1,600 farms containing approximately 110,000 acres of timber, an average of about 70 acres per farm. Assisting farm families in this section of the Ozarks with better woodlot management is my job. As a forester working for the Extension Service of Missouri University's College of Agriculture, I find this work should be basically educational in purpose. Once the landowner becomes aware of the potentialities of his timber acreage as a productive part of his land, the amount of extension is greatly reduced and becomes essentially technical in nature.

Since the overall purpose of the Extension Service is to carry the teachings of the College of Agriculture to rural people, part of my responsibility is keeping informed on the latest findings and recommendations of the College. This is accomplished largely by attending monthly district conferences held for extension personnel by extension specialists. Through this means we are kept up to date on subject matter involving new and diversified techniques designed for application to farm operations. One result is that we can better evaluate the various aspects of farm life; through a proper correlation of parts we can think better in terms of a balanced farm enterprise.

"Balanced Farming," as employed by the Extension Service, means that every part of a farm is used to its best advantage. A farm's crop land, its pasture, livestock, farm buildings—in fact, everything that makes up a farm—is fitted together into one coordinated working unit. When an average farm is examined from this standpoint, its wooded area is almost invariably the most abused, neglected, and unappreciated part of the land involved. This is because few farmers have in the past looked to their trees as a source of sustained yield.

Although not generally recognized as such, timber is a farm crop in Dent County and has made a good contribution to farmer income. At the present time over 50 local sawmills and stavemills are operating largely from sawlogs and bolts sold from the farm. With local

marketing possibilities so favorable, potential profits from farm woodlands are much greater than is commonly realized.

Several farmers have told me they do not know what makes up a good stand of timber. Many have the idea that an absence of undergrowth indicates a better stand condition. For example, valuable oak reproduction is commonly known as brush until it is large enough to grow a crop of acorns. Because most farmers in the Ozarks have had such a fight with hardwood sprouts, they look upon young forest trees as something to get rid of rather than as a crop.

I have found it easier, in some cases, to get farmers interested in the possibilities which their farm woods offer by first working with them to improve their present pasture system. Getting cattle and hogs on good pasture and out of the woods is one of the first steps toward better timber management. As long as the present Ozark farmer uses his woods for pasture, annual burning is very likely to continue. As one means of discouraging woodland grazing, it has been demonstrated that the carrying capacity of pasture land in Dent County can often be doubled or tripled by soil testing and proper soil fertilization.

I have found that through such general approaches to the farmer's problems I can get him more interested in his woodlot. Last spring, for example, I held a dehorning and castrating meeting in combination with a forestry meeting. This demonstration was held on a farm having several head of cattle and hogs and 40 acres of timber. All farmers in the vicinity were invited to attend. The morning was spent dehorning calves and castrating calves and pigs. Those present were brought up to date on these techniques (I had learned them only the week before at one of our district conferences). That afternoon we all went to the 40 acres of timber and worked out together a management plan. Since this meeting, the farmers who attended have started improvement work on their own woodlots. All have a simple plan worked out as a guide to follow in managing their woods.

A lot of our County Extension meetings are held at night in rural schools or churches. We have found that such gatherings are more successful if we take along movies or slides to help tell our story. These tools of visual aid play a forceful role in education, for the whole family turns out to see them.

One of the most productive phases in an educational approach to extension forestry comes through efforts to train young people to

think in terms of better land use. Working with 4-H clubs has been a means of introducing better forestry practices on many farms. Last spring six 4-H clubs in Dent County started pine plantations. Although these were club projects, many adults came out and assisted with the planting operations. In all, over 100 people got a little forestry education out of these plantings.

Vocational Agriculture classes and World War II veterans' on-the-farm training provide other means of teaching the younger farmers good forestry practices. This year some of the veterans' instructors have given time in their school program to forestry subject matter. Meetings have been planned on several farms where some practical work will be done—such as marking for stand improvement, estimating volume of standing trees, and scaling logs.

Much of the progress which has been made toward better timberland management has been achieved through interagency cooperation. Last year, members of the U. S. Forest Service, the Missouri Conservation Commission, and the Extension Service started an annual event called Dent County Conservation Week. Again this year these three agencies are holding a series of meetings throughout the county. Several hundred people will hear discussions and see movies having to do with the part they have in the conservation of our natural resources.

My experience to date convinces me that if we can get farmers into the woods and show them what we are talking about, most of them can do a creditable job with little further assistance. This is what our educational program should do, since it would be physically impossible for one person to assist on every farm in a county.

The future success of the farm forestry program depends largely on how well a lot of us working together do our jobs. Forestry students who are thinking of going into a field of work which has to do with farm woodlots will profit by taking some related agricultural subjects. More than a knowledge of technical forestry is needed to promote better practices in farm forestry.



The Peshtigo Fire in Wisconsin in October 1871 is considered the worst forest fire in American history. 1,280,000 acres were burned over, homes, towns, and settlements were swept away, and 1,500 persons perished.

# *The University Forest*

J. M. NICHOLS

Forester, University Forest

The University of Missouri Lands in Butler and Wayne Counties were placed under the supervision of the Department of Forestry in 1946. This 9,000-acre ownership is now known as the University Forest. It is in twenty-eight separate timber tracts varying in size from 40 to 2,000 acres in a three-township area lying north of Poplar Bluff, Missouri, between the Black and St. Francis Rivers.

The Forestry Summer Camp was constructed in 1947 fifteen miles northeast of Poplar Bluff near Wappapello Dam. Army surplus buildings were used in the construction of student quarters, bath house, kitchen and dining room, faculty quarters, and house for the resident forester. The water supply is from a drilled well, and REA furnishes the electric power.

The writer was appointed resident forester in May, 1948, and the first summer camp at the new location was held in the same year.

A number of necessary items of equipment have been secured. These include a Corley 440 sawmill with a 54-inch inserted-tooth saw, a Corley edger, a Chrysler Model 12 industrial motor, a 1½-ton Studebaker truck, a Disston one-man chain saw, and two 1000-gallon tanks for use in post treating.

Two additional buildings are now under construction and will be ready for use during the 1950 summer camp. One of these will furnish accommodations for faculty and visitors, and the other will be used for office and classroom space. Using materials from the Forest, a shed has been built over the sawmill, and a garage will be constructed in the near future.

The University Forest presents the typical management problems akin to forest properties over the entire Missouri Ozarks, past fires and over-cutting accounting for the present situation.

The entire area was burned frequently prior to the entry of the U. S. Forest Service in the mid 1930's, even though most of the old residents claim to have been "fittin' h't hard fer years"! The Forest Service afforded protection to those tracts within their protection area



*Baldcypress Swamp*

except for acreage isolated from National Forest land. This left approximately one-third of the University Forest without protection until 1948. Nearly all of the remaining 6,000 acres had been burned at least once in the preceding fifteen years with a few tracts having escaped damage for over twenty years.

The total burn on the University Forest from May, 1948, through 1949 was approximately 230 acres. Had it not been for abnormally wet weather during the spring of 1949 this acreage would probably have been greater. A large portion of the burn was in one incendiary fire which was set for a mile along a ridge late at night and was not detected until the next morning. Of eleven fires, six were classed incendiary and these accounted for over 90% of the total burn. All fires thought to be incendiary were investigated, and in most cases it was possible to learn who the guilty parties were. By narrowing down the field of suspected "fire-bugs" every effort is going to be made to get a case in court this year, the thought being that those people who still set fires are few in number and are obviously not going to change their ways through more gentle means of education.

Fires escaping from debris burning were second in importance in the area although only one of these got on the University Forest. Toward the end of the spring fire season there was a brief outbreak of nuisance fires which were probably set to prolong employment of fire fighters. To combat this situation no fire fighters are going to be hired from this particular area this year.

All fire protection activities on the University Forest are dovetailed with the Forest Service organization. Communication with the Forest Service detection system is with radio and portable phone. A small fire crew of from three to five men is maintained during severe fire weather and a four-wheel-drive carryall, appropriately named "The Green Monster," is used for transportation. The general plan of action is for a quick initial attack with this small crew anywhere within the area where University Forest or National Forest land is threatened, with additional assistance from Forest Service crews as needed.

Timber thieves have taken their toll as has been usual on most non-resident land. Except for a few timber sales made by the University, all merchantable material has been removed with regularity by local people. In one community the local residents even had agreements among themselves as to which tract each would cut. This general situation prevailed until the Forest Service's presence had a restraining effect. Since then the stealing has been sporadic with little loss since 1945. No cases in the last year have warranted prosecution. However, two men were apprehended on University land in Ripley County (not included in the University Forest) after having cut approximately 80 acres and were sentenced in Ripley County Circuit Court to six months in the county jail. This case has been widely played up in local papers and should have a good effect on the problem in this area.

Through the years numerous small acreages over the Forest have been cleared for agricultural use. At one time there were as many as twenty families living on the Forest, but most of these "squatters" moved out after the land became almost completely unproductive through continuous cropping. Six families still live on the Forest under lease arrangements.

Efficient over-all administration is difficult with the numerous small tracts scattered over such a large area. To alleviate this prob-

lem an attempt is being made to find a way to exchange land with the Forest Service which would consolidate the University Forest and make it a compact working unit.

The predominating species on the University Forest include black oak, scarlet oak, white oak, post oak, southern red oak and hickory with scattered black gum and blackjack oak. Of the several species of hickory, black hickory is most abundant and has little value. The area is just on the periphery of the shortleaf pine range, and approximately 500 acres of the Forest supports the oak—pine type. At the other extreme some bottom areas support a few yellowpoplar trees, and approximately three miles from the Forest, baldcypress and many of the bottomland oaks and other hardwoods can be found.

Although over half of the Forest supports well-stocked stands of sapling and pole sizes, there is little merchantable volume. The inventory work to date places this volume below 500 board feet per acre. Since the sawmill has been in operation, 80 acres have been logged. The volume sawed averaged 250 board feet per acre. The trees removed were mostly large over-mature black oaks which had been left by timber thieves because they were too large for easy logging or were defective in the butt log. By using the chain saw for limbing, it has been possible to get out top logs which would ordinarily be left. Local labor is used for cutting. Team skidding and loading have been satisfactory except for the larger logs. The largest log sawed out 450 board feet.

The first lumber sold was 6,000 board feet to the University's Department of Animal Husbandry. An additional 8,000 board feet will be used in the two new buildings now under construction at the Forestry Summer Camp. No lumber has been sold on the local market. Most of the present merchantable volume suitably located for an economic operation will be needed for student logging and milling practices for a few years. Slab waste is easily disposed of through a good local fuelwood market.

Stand improvement work has been carried out on 300 acres. This has been done on an extensive basis, girdling culls and wolf trees at a cost of less than 50 cents per acre. On areas being logged, girdling will be done along with the cutting.

Oak wilt damage has been found in the area during the past year. Although it has only been definitely identified as the cause of death to trees on a one-half acre spot, several other similar spots have been



*A Mixed Hardwood Stand*

noticed with the same symptoms in evidence.

A beginning has been made on a research program with emphasis on the hardwoods. Research equipment secured includes weather instruments and an embossing machine to stamp aluminum tags for marking sample trees. Copper nails are used for attaching the aluminum tags.

Permanent burning plots have been established. They will be burned at regular intervals for an accurate study of the effects of fire on tree growth, reproduction, and soil. Permanent growth plots are being established on different sites and in various timber types.

Sampling of the acorn crop of white oak, black oak, and scarlet oak was started in 1948. Trees covering a range of diameters on different sites will be sampled each year using screen traps to determine the quantity and quality of acorns produced. The effects of crop fluctuations and soundness of fruit on the establishment of seedling reproduction will be a part of this study.

Direct seeding of black oak, white oak, and scarlet oak was also begun in 1948. No planting was done in 1949 because of the scarcity of sound acorns for all three species. Plots were established on a fertile ravine bottom, on a ridge-top, and on a poor south slope. Half of each plot was raked clean of litter. Resulting germination was good for all species on all sites, but survival was limited on the litter covered areas where the rodent population was apparently high. Additional work on direct seeding will be continued, including the control of rodent damage.

The effectiveness of ammate and esteron 245 in killing certain hardwoods is being tested. Species used in these tests to date include sassafras, persimmon, black hickory, blackjack oak, and post oak. This study is designed to check the effectiveness of the two chemicals as foliage sprays and for treating fresh-cut stumps, using various concentrations and different solvents. Results at the end of the first growing season show both chemicals to be effective in stump treatment of persimmon, sassafras, and black hickory. There was very little sprouting and this of a weak nature. Additional tests are under way to check the effectiveness of the stump treatments during different seasons.

In addition to serving as an area for research work and student field study, the University Forest can be expected to start giving a good account of itself financially as well. It is hoped that through effective use of our timber resource it will be possible for the Department of Forestry to point up answers to some of the Ozarks' forest problems.



## **THE STATE FORESTRY ACT—AN AID TO PRIVATE FORESTRY**

JOHN R. KULLMAN

Forest Cropland Inspector

When one travels through the Ozark country of southern Missouri, he is frequently impressed by the panorama of rolling hills and glittering streams. But if a student of conservation and land use, the traveler must also come to the tragic realization that only shades remain of what was once a vast timber empire. With few exceptions, inferior species and culled veterans characterize forest lands blanketed in former years by tall pines and sturdy hardwoods.

Reduction in timber quality and quantity has been the inevitable result of improper cutting methods, woods burning, and excessive grazing. Today, the average forested acre in these Ozark hills contains only 750 board feet of merchantable volume. Growth is correspondingly low; this same average acre is producing less than 50 board feet annually. With adequate growing stock and protection, the average yield per acre per year could be 100 to 150 board feet.

To assist private landowners in returning their forest holdings to maximum timber production, a new law known as *The State Forestry Act* was passed in 1946 by the Missouri legislature. Through tax reduction—actually a deferment—on lands devoted exclusively to the growing of timber crops, this act seeks to encourage permanent management and protection of forest property in private ownership. To be eligible for the tax provision of the law, land must be classified as Forest Crop Land by the Missouri Conservation Commission.

Prior to classification, the owner must agree to follow basic forest management requirements. He must make every reasonable effort to protect his land from fire. Grazing must be limited so as to permit adequate stocking of the land by natural forest reproduction. Moreover, cuttings must conform to practices designed to provide adequate restocking with trees of desirable species.

Assessed value, size of holding, and land use are other considerations preliminary to a classification as Forest Crop Land. A property must have a value of less than \$10 per acre and be contained in tracts of forty acres or more; furthermore, with allowance for controlled grazing, an area cannot qualify unless it is devoted exclusively to the production of timber.

When classified as Forest Crop Land, the valuation of a holding is reduced to a dollar an acre for the purpose of taxation. Local tax rates of the county wherein the property is located will apply to this dollar per acre assessment. To offset loss in taxes, the State reimburses each county two cents per acre per year for all Forest Crop Land within its boundaries.

Once established, the classification remains in effect for 25 years. It can be revoked at any time by the Commission, however, if there is evidence that the owner is not following prescribed practices in forest management. An individual also has the privilege of removing his land from the special category at any time he so desires. In the event of cancellation, the owner must pay the county all taxes from

which he was exempted plus a penalty of five per cent interest for the period of classification. In addition, the owner must reimburse the State for the two cents per acre per year paid the county.

Transfer of ownership does not affect the classification of Forest Crop Land. All reasonable effort is made, however, to make sure ownership is stable before an area is classified.

When a commercial cutting is made on Forest Crop Land, the owner must pay the State a yield tax. Based on stumpage value of the material cut, this tax increases with time from four to six per cent. The levy is four per cent during the first ten years following classification, five per cent during the 11- to 20-year period, and six per cent from 21 to 25 years. After 25 years, cuttings are no longer subjected to a yield tax. No tax must be paid at any time on products cut for use on the property.

The foregoing should clarify an earlier statement that the law really amounts to tax deferment rather than tax reduction. Through this partial deferment of taxes the landowner is given financial assistance until the productivity of his land has been restored through proper management and protection. It would be incorrect to construe the law as simply a means for reducing or delaying taxes. Equal in importance to any benefits gained individually is the obligation of the woodland owner to practice better forestry.

Although the tax provision of the act doubtless offers the greatest incentive to have land classified as Forest Crop Land, it is only a part of the law. Other important advantages come through technical advice and forest protection measures. The services of a trained forester are available to assist in managing and improving timber lands. Where facilities are available, Forest Crop Lands are given high priority in fire protection. Areas under this special classification are closely watched to prevent timber stealing. This practice, termed "grand-mawing," is still a big obstacle to the practice of forestry in some areas. Its discouragement is especially valuable to absentee owners.

That Missouri's forest land is capable of again becoming productive is well demonstrated on State-owned and National Forest properties. Depleted and misused forest lands now in public ownership are being rapidly restored to their previous high productivity. With *The State Forestry Act* offsetting earlier obstacles, there is no reason why this trend in forest restoration should not spread to private lands.

## *In Memoriam*



PAUL DELMAR KELLETER

May 1, 1881-March 19, 1950

*"As an administrator of millions of acres of forest land and as an active participant in the civic life of many forest and metropolitan communities, he has contributed widely to the progress of forestry and to the welfare of the Nation."*

# THERE'S ACTION IN THE WALNUT FORESTRY PROGRAM

BURDETT GREEN

Manager, American Walnut Manufacturers Association

Like a diamond worn by a conservatively well-dressed person, genuine walnut furniture is always in good taste. Other analogies could be drawn, for items of walnut are also comparable to precious stones in beauty and heirloom value. These are reasons why Americans today are concerned about conserving this priceless species, a concern that has given rise to an expanding forestry program. As a result, thousands of acres are being added to timberlands already given to the cultivation of black walnut and some of its valuable hardwood associates.

To what dangerous extent are we cutting our forests? Today's best source of information on the subject comes from the Chief of the U. S. Forest Survey who recently stated, "Saw timber drain is fifty percent greater than growth." As early as the turn of this century it was forecast that the "take" was too great. Gifford Pinchot predicted soon after 1900 that our timber would be depleted in from fifteen to thirty years. Fortunately, this prophecy has not been fulfilled, but there has been a serious reduction in quality material.

Only recently the Forest Survey completed its inventory in Missouri and Illinois, fairly typical hardwood-producing states. When these thorough surveys are compared with earlier estimates, we find the area of forest land has increased over many areas, even when the last decade with its "war drain" is included. And even more important, stands of saw timber have been found to be somewhat more abundant than was thought.

Further analysis of the present situation, however, reveals that the percentage of trees in sawlog sizes is still disappointingly low; moreover, only a small portion of these larger trees represents desirable species in demand by manufacturers of fine furniture and woodwork. Of this limited quantity, little is available for one reason or another. Often a farmer who owns marketable trees already has sufficient income, plus liberal AAA checks which reach him regularly as government subsidy. With high taxes, he prefers to let his trees grow.

## *Problems in the Furniture Industry*

One of the most exacting and extensive consumers of hardwoods is the furniture industry. In 1928, furniture manufacturers used 27 percent of all hardwoods utilized. In 1933, when total consumption had decreased to less than half, the furniture industry's portion was up to 37 percent. By 1940, the total consumption was back up and the furniture industry continued to consume 37.2 percent. Future trends, of course, are directly dependent upon the availability of quality hardwoods. Herein lies one of the most acute problems now confronting the makers of the best furniture.

Trees which are bought and manufactured into lumber and veneer each year are not of the size and quality that were fairly readily available when most of the furniture plants now operating began production. Timber simply is not what it used to be, at least as to size and clearness. Certainly, the lumber industry has made lots of progress through more uniform manufacturing methods, better drying, and other improvements—but little has been done about making boards bigger, unless plywood construction is considered. This decline in both grade and size of lumber is a factor that has demanded serious attention, for it has a direct bearing upon the efficiency of production as well as the value of the final product.

Consequently, urgent problems before the hardwood industry have been to increase the growing stock of preferred species and, at the same time, to effect practices that will assure quality timber. Examples of how this is being done are found in the activities of the American Walnut Manufacturers Association. Through the efforts of this organization, progress is being made in rebuilding depleted reserves of walnut timber.

### *Forestry Program Proves Effective*

Success in growing more walnut timber can be attributed to the conscientious efforts of manufacturers of walnut lumber and veneer, their buyers, loggers, and producers in carrying out practices recommended by the Forestry Department of the American Walnut Manufacturers Association. Minimum cutting standards adopted and put into effect by these men now protect fast-growing young trees. Originally the standards agreed upon would not permit the cutting of trees too small to produce a butt log 12 inches in diameter at the small end. These standards were increased in 1948, and the butt log must now have a 14-inch diameter at its small end.

Through this practice of conserving vigorous trees, many thousands of feet of walnut timber are being grown each year on trees of small sawlog size. It is interesting to note that this method of harvesting the forest crop is also economically advisable from the standpoint of present operations. Studies of production costs stress the importance of thinking in terms of marginal logs. It is now known that past practices of cutting to low diameters often resulted in a net loss. When small logs are handled, wood waste, labor, and transportation costs all increase.

To sustain the walnut industry in the distant future, mills have been engaged in a seed-collection program. Walnuts are collected by buyers and producers and shipped free of cost to state forest nurseries. As a result, additional millions of walnut seedlings and stratified seeds have been made available to farmers and woodland owners. During the last six years, walnut-using mills have helped make available ten walnut trees for planting purposes for each tree cut. Quotas of the number of bushels of walnuts collected are assigned in proportion to the rate each firm is depleting the resource.

### *Demonstration Helps*

Because there is no better way to prove that forestry is a paying business, several of the walnut firms have established memorial or demonstration forests. Ranging in size from 24 acres to 175 acres, these areas are being managed by our Industry Forester. Such forest practices as cutting to minimum standards, thinning young growth, and planting valuable hardwood species in openings made by the removal of large trees have been proved profitable. Demonstrations within these living laboratories have encouraged and stimulated industry operators to better forest practices throughout the walnut-growing region.

### *Educational Work Essential*

In addition to personal contact work and demonstrations of good forest management, selling a forestry program to landowners, operators, and buyers, requires the use of educational material. Toward this end, our Forestry Department has approached the public through various channels. Colorful posters have been used to illustrate our cutting practices. A 12-page booklet entitled "Growing Walnut for Profit" is being distributed to those engaged in planting and growing walnut. Radio programs and news releases have also been effective in stimulating better forest practices on walnut lands.

## *A Challenge to Other Industries*

The forestry program of the American Walnut Manufacturers Association has now grown to include the Veneer Association. Members of this group are primarily interested in white oak, yellowpoplar, hard maple, white ash, birch, basswood, elm, and black cherry. Operators cutting these species have also had minimum cutting standards in effect since July of 1948. As a result of the joint forestry program of the American Walnut and Veneer Associations, considerable progress is being made in effecting proper woodland management throughout a wide territory. This area extends from the Central States north to Canada and eastward to New England. A recent publication, "Forgotten Acres," sponsored jointly by these two groups, has been a helpful guide in farm woodland management.

Other associations now represent mills cutting eastern redcedar, a species occurring in the southern part of the walnut-growing region. These associations are the National Cedar Chest Association and the Aromatic Red Cedar Association. Last year these groups furnished 1.6 million eastern redcedar seeds to state forest nurseries in the South. As another means of perpetuating the species, redcedar-using mills have established an eight-inch stump diameter as a minimum cutting standard.

Is it not timely that other industries should undertake forestry programs in cooperation with existing state and federal forest agencies? The primary objective of these privately endowed contributions to the development of American forests is not just words but effective action. It is hoped other industries will participate through similar programs.



The General Sherman Bigtree in the Sequoia National Park in California is the biggest living tree in the world. It is nearly 115 feet in circumference and 273 feet in height; its volume is 600,120 board feet.



About 21 million Christmas trees are produced in the United States each year; 87 percent are cut on private forest lands. About 100,000 acres of woodland (most of it owned by farmers) are devoted solely to growing Christmas trees.



Back row: *Compton, Polk, Burns, Westveld, Liming and Fletcher*

Front row: *Martin, Paulsell, Dingle, Horton, and Clark*

Not shown: *Smith, McDermott, McCormick, and Nichols*

## *Faculty and Administration*

# DEPARTMENTAL PROGRESS IN 1949-50

R. H. WESTVELD

Chairman, Department of Forestry

The past year has been significant in the history of the Department of Forestry in that the first foresters to graduate from the University of Missouri in 28 years completed their course of study, and the department showed some sign of recovering from growing pains. Our first graduate students—three in number—are working toward masters' degrees. Two of them expect to complete their work in June; the third hopes to finish his work in August. In addition to two alumni who are taking graduate work here, two other members of the class of 1949 are taking advanced work, one at Oregon State College and the other at the University of Michigan. Of the remaining eleven members of last year's graduating class, three are self-employed in a sawmill business, two are with private industry, five are in state work, and one is in federal work. Of the nine who graduated in February, 1950, three are with private industry, two are in state work, two are in the graduate school, while the whereabouts of two are unknown at this time.

The instructional program of the Department of Forestry is gradually reaching a more stabilized status, making it possible for the Department to participate in more outside activities of the University. During the past year the Department participated in two University-sponsored meetings. The first of these was a forestry meeting for bankers which was held at Van Buren in October in cooperation with the Federal Reserve Bank of St. Louis, the Missouri Bankers Association, and the Missouri Conservation Commission. Paul Burns presented a paper at the evening meeting of the conference dealing with the financial returns from good farm woodlot management. An afternoon field trip on national forest land gave the bankers an opportunity to see the values of fire protection and good forest management.

In March, the Department participated in a short course on weed and sprout control sponsored by the departments of Agricultural Engineering, Field Crops, Horticulture, and Forestry. Franklin G. Liming served as chairman of the session dealing with the control of woody plants. During this phase of the course, S. Clark Martin presented a paper on "Problems in the Control of Woody Vegetation in Pasture Development;" Richard Dingle gave a paper on "The Elimination of Low Value Species in Forests;" and the author one on "Problems and Control of Woody Plants."

The research program of the Department has been expanding gradually. As a result of the larger allocation of Norris-Doxey funds from the Forest Service, activities on the forest plantation survey were considerably increased. During the past year, Dingle, Polk, and Hortin have been devoting part of their time to this project. Also worthy of note is the arrangement which has been made for the publication by the Missouri Agricultural Experiment Station of the results of the Missouri forest survey made by the Central States Forest Experiment Station. This publication will come out as a research bulletin sometime in June.

At Weldon Springs the inventory of the forest has been completed, and Lee K. Paulsell is in the process of preparing a management plan for the area. A limited amount of research on fence post preservation has been started, and this spring about 12,000 trees will be planted for research on the culture of Christmas trees. About 2,000 trees will be planted on the Ashland Wildlife Area for the same purpose. Studies on direct seeding, acorn production, fire studies, and inferior-species control are being continued at the University Forest. The work on species control has been considerably expanded during the past year in an effort to determine the best techniques of using various chemicals to dispose of inferior trees. Details of the work at the University Forest are reported elsewhere by Nichols.

Paul Burns continues to get information from time to time on farm woodland areas on which good records on income have been kept over a period of years.

The harvesting of Christmas trees at the Ashland Wildlife Area continues to be a profitable undertaking, both for the Forestry Club and the Department. Income from this work is being reinvested in additional plantings and research on Christmas-tree culture. The harvesting and sale is handled by members of the Forestry Club. Wages earned in this manner help to keep the treasury of the Club on an even keel.

Part of the faculty continues to pursue additional knowledge. Robert McDermott left at the beginning of the school year to spend two years leave of absence at Duke University where he is working on his doctor's degree. To fill McDermott's position, two new appointments were made to the staff—R. Brooks Polk and Ross Hortin. By dividing the teaching work which McDermott had handled previously, it is possible to have the two new men engaged in part-time research. They have been assisting Dingle on the forest plantation survey, and

Polk has been handling the Christmas tree work at the Ashland Wildlife Area. Paul Burns was awarded his Ph.D. at Yale last June. Richard Smith completed all of his work for the degree of Doctor of Forestry at Duke University and will receive his degree in June of this year. Upon his return to the staff in February, he was promoted to the rank of Associate Professor of Forestry. Peter Fletcher who has been doing part-time teaching in the Forestry Department expects to complete his graduate work in late summer. The forestry staff will then have four men with doctors' degrees.

The author attended the meeting of the Forestry School Executives and the annual meeting of the Society of American Foresters in Seattle in October. He also attended the 62nd annual convention of the Southwestern Lumbermen's Association in Kansas City in January. In February he presented a paper entitled "Facts for Timberland Owners in Growing Trees" at the Southern Forestry Conference in Jacksonville, Florida, sponsored by the Forest Farmers Association.

Work is in progress on the new Agricultural Building, and it is hoped that it will be ready for use soon after the beginning of the fall semester. This will provide some modern laboratory facilities for the Department of Forestry and will thus make it possible to have the work of the Department concentrated in the new building and in T-7.

The Society of American Foresters, through its committee on accrediting, is developing a revised scheme for the accrediting of forestry schools. An inspection of the Department of Forestry will be made sometime during the school year 1950-51. We are hoping that our progress will have been sufficient to meet the Society's requirements for accrediting.



### THOUGHT FOR THE DAY

"Forest Fires like fiery tempers are hard to control; so let's not be careless with either."



It's love when she sinks in his arms—and ends up with her arms in the sink!—Wooden Barrel.

## *New Faculty Members*

FLOYD BRYAN CLARK joined the staff of the Northern Ozark branch of the Central States Experiment Station last September. Last June he received his B.S. degree in Forestry from Purdue University, where he graduated with honors. Mr. Clark served in the Pacific Theater as a crew chief on L-5 and C-64 aircraft. The summer of 1948 was spent in Lewiston, Idaho on a logging job. Mr. Clark will devote his time to local phases of a regional research project, dealing with methods of establishing forest trees on lands that have been strip-mined for coal. Time will also be given to the possibility of improvement of the black walnut trees by pruning while the trees are still small.



ROSS HORTIN was born in Albion, Illinois and grew up on a South Illinois farm. In 1943 he received his B.A. degree in Mathematics from McKendree College, Lebanon, Illinois. Following this he served in the U. S. Navy for two years in the Pacific Theater. After leaving the Navy Mr. Hortin enrolled at Michigan State College where he received his B.S. in Forestry in 1948. One year later he received his M.F. from Duke University. Mr. Hortin came to the University of Missouri in September 1949 as an addition to a growing staff of teachers in the Forestry Department. Here his interests are in forest soils and hardwood silviculture.

## *New Faculty Members*

R. BROOKS POLK originally came from Tampa, Florida. In 1939 he was employed by the U. S. Phosphoric Products of Gibsonton, Fla., where he held the positions of chemist, operator, and foreman of sulfuric acid plants (contact and lead chamber processes). In 1944 Mr. Polk joined the Navy and served as a radio technician for two years. Upon leaving the service he entered the University of Florida and received his B.S. degree in Forestry in 1947. He then went to Alabama Polytechnic Institute as an instructor of Forestry. Leaving Alabama in 1948 he went to Montana State University and completed his master degree in 1949. In September 1949 he joined the staff as an instructor of Forestry. Mr. Polk lists hunting, fishing, Spanish, travel, and Florida beaches as subjects of special interest.

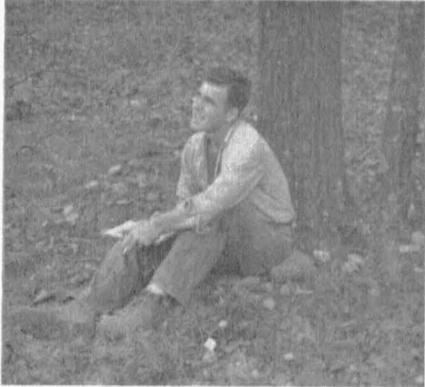
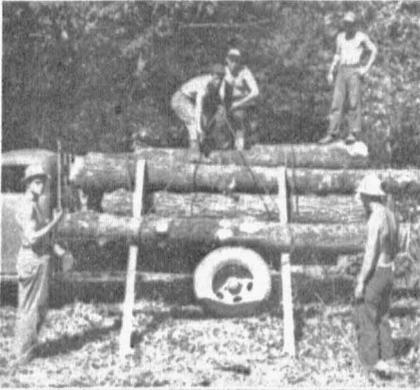


LEE K. PAULSELL calls Rolla, Missouri his home town. Last year Lee graduated from old Mizzou with a B.S. in Forestry. The past summer he was on the Weldon Springs Experimental Forest working on his Masters degree. This fall Lee returned to the University to pick up some graduate studies and in February he went back to Weldon Springs as resident forester. Lee hopes to receive his Masters degree this June. His first job as resident forester will be to write and set up a management plan for the Weldon Springs area.



*Camp Sawmill In Operation*

## *Camp Life*



*Cross Hauling  
Strike Two  
Smoke Break*

*Bridge Crew  
Flapjacks  
Compassman*

## *Summer Camp--1949*

SPUD CHANDLER

*The curse of the Ozarks is on us,  
The weather is warping our souls.  
The ticks, mosquitoes, and chiggers  
Are riddling our bodies with holes.*

*The snakes crawl around in the bushes,  
The whip-poor-wills keep us awake,  
And what's even more disconcerting,  
We can't catch the fish in the lake.*

*There are bugs of all sorts and descriptions,  
And spiders seem part of the scheme  
To try to drive all of us crazy,  
But maybe it's all a bad dream.*

*So cheer up, and after this summer,  
Whenever it's over and done,  
We'll survey the whole situation  
And remember some of it was fun.*

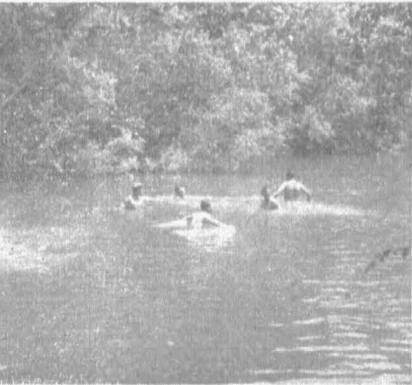
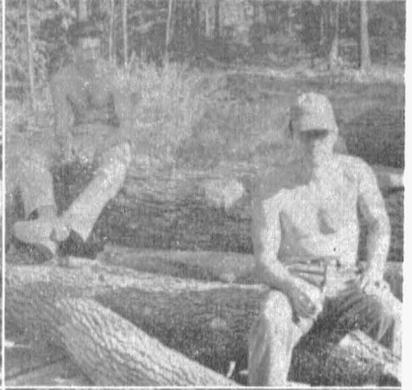
—Earl F. Ferris

After waiting two years for summer camp to roll around, it was with foreboding anticipation that students began their mid-June safari to camp headquarters about seventeen miles north of Poplar Bluff, Missouri. Scuttlebutt had us prepared for long days in the field, no water, peanut butter sandwiches, and hard work, but it wasn't all that way—not entirely, that is.

Of course, there were times when dry victuals, a scorching sun, insect hordes, and slinking reptiles made a rough assignment even rougher. At times a varied assortment of such adversities seemed to congregate at a single site. These provocations were not without virtue, however, for in their wake the men in the crowd stood notably taller than the boys (Sophomores, please note).



I shall never forget my first glimpse of the camp. Upon arrival at the local bus station I had the good fortune of getting a ride with one of the boys. His speedy 1929 Whazit lost little time in getting



*Power Saw Felling  
The Gang  
Ye Ole Swimming Hole*

*Weary Loggers  
Fishermen's Luck  
Bushie And Jo Jo*

us over the last lap. When we turned off the main road north out of Poplar Bluff, my buddy told me that the camp was just ahead, and as we wound through the oak forest I saw it. It was a very neat and well-planned collection of buildings.

During a two-day period the boys continued to arrive. Some came in the "Green Monster" or "Green Hornet" (Forestry Department vehicles) and others in their own speedy Erskines and Model A's. After the dust had settled and noses were counted, thirty-two students were in camp. Hastily stowing away their gear, the boys began to explore the area, write letters, and to do other things of interest, one of which was to start a card game that lasted all summer.

Our 12-week summer bivouac had scarcely begun when an automobile accident caused the first genuine stir in camp. One cannonball member of the group piloted four of his classmates through two mail boxes and a wire fence. During the process, the bounding car rolled over three times. Out of the totally wrecked vehicle scrambled five well-shaken boys. Sporting only minor cuts<sup>1</sup> and bruises, they displayed an assortment of emotions. One, perhaps the most nonchalant, was concerned about the loss of a shoe. Another was disturbed because he could account for only four men; showing a complete lack of ego, he was neglecting to tally himself.

It was known before going to camp that we would have the use of a new sawmill set up during the previous winter by Resident Forester Nichols. Soon after arriving, a number of us located the mill and gave it as good a survey as our inexperience would permit. The mill was a Corley Number 440 portable, but it was set up as a permanent installation. Power for both the mill and a Corley Jr. Edger was furnished by a 9500 H.P. Chrysler Industrial Motor.

All of us had an opportunity during the summer to gain experience in the operation of each individual section of machinery at every working position. It was an unforgettable experience to be the sawyer and know that we were actually running the mill. Through nervous uncertainty, some of the fellows pushed the carriage lever when they should have pulled it, with the result that the carriage nearly left the tracks. Needless to say, such mistakes are frowned upon, and they could have serious consequences.

A number of trips were made to various parts of the Ozarks in the forestry bus. The first of these carried us into the Clark National

<sup>1</sup>Bud Taylor contends that the 2-inch gash in his scalp was not minor.—Editor.



*Stump Splitting  
Nick, Doc, and Digger  
Bull Session*

*Silvics Class  
Loggers  
The "Hornet"*

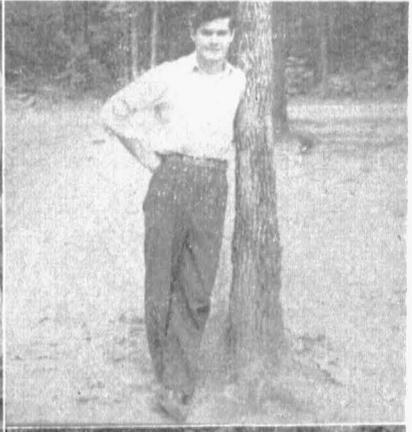
Forest where we observed various stand conditions in several forest cover types. Careful attention was given to the effects of previous uncontrolled burning on standing timber, reproduction, and the soil. Similarly, responses to various methods of cutting and logging were studied. Observations were made on rate of growth, form, and reproduction resulting from varying degrees and intensities of cutting. A number of pine plantations were visited for a comparison of site factors and their influence upon stand development.

During our second extended field trip we tackled a series of field projects at Crowley's Ridge, about 18 miles from camp. Following a study of soil types and formations on this area, relationships were noted between stand composition and the nature of the soil. Such correlations were sometimes marked.

The third and last extended trip was a two-day journey to Round Spring State Park. Using Round Spring as a pivot point, we made sorties in several directions to study forest conditions in that area. Because it had been under management for some time, forest land belonging to the Pioneer Cooperage Division of National Distillers was particularly interesting. It was here that we saw one of the most impressive sights of the summer—virgin white oaks up to forty inches in diameter at breast height. Specimen trees in this group would each yield over 2,000 board feet of lumber. Forester Charles Kirk guided us through the company's stave mill and surrounding grounds, explaining the entire operation of obtaining suitable stave bolts for shipping, including the woods operations. We witnessed the actual cutting, edging, and grading of stave bolts, after which they were stacked for shipping.

Recreation at camp consisted mainly of swimming, baseball, corkball, horseshoes, and of course, cards. Often at the end of a hot day we would drive down to Rockwood Point Resort in the "Hornet" for a swim. With many of the boys, corkball was a favorite after-dinner sport. During the course of the summer a horseshoe tournament was played off. The boys were divided into two sections, and Section I claimed the championship after a summer-long struggle. Baseball could probably be termed the sport of sports. We played a number of games with the local towns of Rombauer, Wappapello, and Poplar Bluff.

A couple of evenings were set aside monthly for contests between the two sections. Competition was keen in such sports as tree-felling and tug-o-war. We always ended those evenings by a fire, where such refreshments as weiners, soda, and watermelon were plentiful. Needless to say, occasions of this nature furnished some of the most pleasant memories of our summer camp experience.



*Close Utilization  
Southern Exposure  
St. John And The Barber*

*Going To Town  
Map Making  
That's Better*



*White Campus—Home of the Forestry Department*

*Senior and Graduate Class*  
*1950*



**GILMORE BALL**

Salem, Missouri

Camp: University Forest, Poplar Bluff, Mo., '48.

Forestry Club

Ag Club

Military Service: U. S. Navy

Experience: Siskiyan National Forest '49



**RAYMOND L. BERKLEY**

Columbia, Missouri

Camp: University Forest, Poplar Bluff, Mo., '48.

Military Service: Army, European Theater

Experience: St. Joe National Forest, Idaho, '47

Shoshone National Forest, Wyoming, '49



**FREDERICK BUCK**

Glendale, Missouri

Forestry Club: '46, '47

Ag. Club: '46, '47

Phi Gamma Delta

Camp: Colorado A & M '48

Experience: U. S. Forest Service, Oregon

U. S. Forest Service, Idaho



**RUDOLPH C. CREASY**

Columbia, Missouri

Camp: Mark Twain National Forest, West Plains, Missouri,  
'47

Forestry Club: Vice President

Military Service: Army Air Force, Pacific Theater

Experience: Oregon and California Land Administration '42



**RICHARD N. DEED**

Quincy, Massachusetts

Camp: University Forest, Poplar Bluff, Mo., '48

Forestry Club: Secretary '48 & '49

Military Service: Army

Experience: Glacier National Park, Blister Rust Control, '47



**ARMIN T. DRESSEL**

Sappington, Missouri

Camp: University Forest, Poplar Bluff, Mo., '48

Forestry Club

Ag Club

Alpha Zeta

Phi Theta Gamma

Military Service: U. S. Army, European Theater

Experience: Compassman, International Paper Company, '49



**KENNETH C. EDSCORN**

Overland, Missouri

Camp: Mark Twain National Forest, West Plains, Mo., '47

Forestry Club: '47, '48, '49

*Missouri Log*: Editor, '48

Military Service: U. S. Army Air Force, Pacific Theater



**VIRGIL THOMAS FAULKENBERRY**

Ellington, Missouri

Camp: University Forest, Poplar Bluff, Mo., '49

Forestry Club: '46, '47

Ag Club

NROTC: Battalion Commander

Midshipmens Club

Rifle Team: Captain

M. U. Band: '46

Military Service: Navy

Experience: Pioneer Cooperage, Timber Cruising; Deer Run  
Forest, Fire Fighting, Towerman



KERWIN F. HAFNER

Vandalia, Missouri

Camp: University Forest, Poplar Bluff, Missouri, '49

Forestry Club

Military Service: U. S. Navy



ELLIS V. HUNT, JR. (*Candidate for Master Degree in August*).

Mt. Vernon, Missouri

Camp: University Forest, Poplar Bluff, Mo., '48

Forestry Club: Secretary '47

Phi Theta Gamma: President '49

Missouri Log: Editors Staff '48

Mayor, G. I. City '49

Military Service: U. S. Army, European Theater



ERNEST W. KUNZE

Villa Park, Illinois

Camp: University Forest, Poplar Bluff, Mo., '48

Forestry Club

Engine Club: '46

ASCE Club: '47

Military Service: Navy, E. T. O.



WALLACE M. LIECHTI

Jamestown, Missouri

Camp: University Forest, Poplar Bluff, Mo., '48

Forestry Club

Ag Club

Military Service: Infantry and Air Corps

Experience: CCC, Mo., Minn. and Calif., Union Pacific Railroad Co., Kansas City, Mo.



**GEORGE W. LODGE**

Bolivar, Missouri

Camp: University Forest, Poplar Bluff, Mo., '48

Forestry Club

Sports: Intramural Softball

Military Service: Army, European Theater

Experience: Transit operator, Horton Engineering Co. '49



**LESTER E. MATT**

Webster Groves, Missouri

Camp: University Forest, Poplar Bluff, Mo., '48

Forestry Club: President '49

Ag Club

Sports: Intramural Softball, Volleyball, and Basketball

Military Service: U. S. Navy, Asiatic-Pacific

Experience: M. U. Forestry Dept. '47, '48, and '49



**WOODFORD P. METCALFE, JR.**

Rolla, Missouri

Camp: University Forest, Poplar Bluff, Mo., '48

Forestry Club

Military Service: U. S. Army Air Force



**NOAH F. MOBLEY**

Kennett, Missouri

Camp: Mark Twain National Forest, West Plains, Mo., '47

Forestry Club

Ag Club

Missouri Log: Circulation Manager, '48

Military Service: U. S. Army Air Force

Experience: Lookout Smokechaser, Clearwater National Forest '48; Boundry Renewal, Kentucky Ridge State Forest, '49



CARL A. MOELLER, JR.

Kansas City, Missouri

Camp: University Forest, Poplar Bluff, Mo., '49

Forestry Club

Alpha Zeta

Phi Theta Gamma

Military Service: U. S. Navy



HARRY B. MORAN

Cape Girardeau, Missouri

Camp: University Forest, Poplar Bluff, Mo., '48

Forestry Club

*Missouri Log*: Business Manager, '50

Sports: Intramural Football, Softball, and Basketball

Military Service: U. S. Army Air Force

Experience: Shoshone National Forest Summer '49



RALPH A. MUSBACH

Fulton, Missouri

Camp: University Forest, Poplar Bluff, Mo., '48

Phi Theta Gamma

Forestry Club

Military Service: U. S. Marine Corps



WILLIAM W. PURCELL

St. Louis, Missouri

Camp: University Forest, Poplar Bluff, Mo., '48

Forestry Club

Alpha Zeta

Phi Theta Gamma

Intramural Football, Softball, and Basketball

Military Service: U. S. Navy

Experience: International Paper Co. (Summer) Arkansas



**ROBERT D. RAISCH**

St. Louis, Missouri

Camp: University Forest, Poplar Bluff, Mo., '48

Forestry Club: '47, '48, and '49

Phi Theta Gamma: Ranger '49

Alpha Zeta: '48, '49, and '50

Missouri Log: Art and Photo Editor '49

Military Service: U. S. Navy

Experience: Lookout-Smokechaser Nezperce National Forest,  
'49



**JOHN R. SCHILDKNECHT**

Cassville, Missouri

Camp: University Forest, Poplar Bluff, Mo., '49

Forestry Club

Missouri Log: Circulation Manager, '50

Intramural Football and Softball

Military Service: 2 years



**FRANCIS J. SCHWEITZER**

Poplar Bluff, Missouri

Camp: University Forest, Poplar Bluff, Mo., '48

Forestry Club: Vice President '48, Secretary '47

Ag Club

Military Service: U. S. Navy

Experience: Timber release, U. S. Forest Service, Poplar  
Bluff, Summer '47; Timber Marking State of Kentucky,  
Summer '49



**HAROLD H. SENDT**

Belleville, Illinois

Camp: University Forest, Poplar Bluff, Mo., '48

Forestry Club

Intramural Basketball

Military Service: U. S. Army

Experience: Lookout-Towerman Boise National Forest, Ida-  
ho Summer '49



WILLIAM B. SENDT

Belleville, Illinois

Camp: University Forest, Poplar Bluff, Mo., '48

Forestry Club: President '49

Military Service: U. S. Army

Experience: Payette National Forest, Idaho Summer '49



ROBERT L. STEVENSON

Tarkio, Missouri

Camp: University Forest, Poplar Bluff, Mo., '49

Forestry Club

Military Service: U. S. Army



WILLIAM J. TODD

Webster Groves, Missouri

Camp: University Forest, Poplar Bluff, Mo., '48

Forestry Club: '47, '48, '49, and '50

Alpha Zeta

Phi Theta Gamma

*Missouri Log*: Associate Editor '49, Editor '50

Military Service: Army Air Force, E. T. O.

Experience: International Paper Co., Arkansas (Summer '49)



LESTER E. TSCHANNEN

St. Louis, Missouri

Camp: University Forest, Poplar Bluff, Mo., '48

Forestry Club

Alpha Zeta

Phi Theta Gamma: Fiscal Agent

*Missouri Log*: Sales Manager '49

Military Service: U. S. Army



**JAMES W. WALKER**

Bradleyville, Missouri

Camp: University Forest, Poplar Bluff, Mo., '48  
Forestry Club

Military Service: U. S. Army Air Force

Experience: Flathead National Forest, Summer '49



**ORVILLE E. WILSON**

Brazil, Indiana

Camp: University Forest, Poplar Bluff, Mo., '48  
Forestry Club

Ag Club

Military Service: U. S. Marine Corps

Experience: U. S. Forest Service Wyo. Summer '49



**GEORGE A. WOLFEL**

Sedalia, Missouri

Camp: University Forest, Poplar Bluff, Mo., '49  
Forestry Club

Experience: Blister rust control, Yellowstone National Park,  
'47



**EDISON B. WOOD**

Bolekow, Missouri

Camp: University Forest, Poplar Bluff, Mo., '48  
Forestry Club

Military Service: U. S. Marine Corps

Experience: International Paper Co. (Summer '49)

## Master Degree Candidates



EDWIN H. GLASER

Sullivan, Missouri

B. S. Degree, University of Missouri, 1949

Experience: Missouri Conservation Commission, Fire Crewman, '44; Summer work summer '49; Boise National Forest, Smokechaser, '48.

Forestry Club

Phi Theta Gamma

Military Service: U. S. Marine Corps



LEE K. PAULSELL

Rolla, Missouri

B. S. Degree, University of Missouri, 1949

Forestry Club: Vice-president, '47; President, '48

Alpha Zeta

Phi Theta Gamma

*Missouri Log*: Editor 1949

Military Service: 84th Infantry Division, E.T.O.

# MIZZOU FORESTERS ON ARKANSAS TRIP

LEE K. PAULSELL

Early on the morning of March 24, 1949, under the guidance of Professors Paul Y. Burns and Kenneth C. Compton, twelve forestry seniors and a dog loaded into a new bright-yellow school bus for a fast-moving two-week field trip into Arkansas. Although the men did not realize it at the time, this 1800-mile journey was to be a high-point in their four years of study. Information from many subjects would take on a new meaning as they saw forest management and the utilization of timber crops woven together into one big pattern of working forestry.

The first day was spent enroute to the University Forest at Poplar Bluff, Missouri, where two days were devoted to the collection of additional data for a management plan.

With Arkansas ahead, the bus again rolled on the fourth day, and night found the troupe in Hot Springs, city of hot mineral water baths. The welcome mat had been laid out by Supervisor M. C. Howard of the Ouachita National Forest. Comfortable quarters awaited the group.

Early the following morning, a management tour was begun under the competent direction of Milton B. Ricker, management assistant from the supervisor's office. Of special interest were visits to the well known Forest Practice Acres, established as demonstrations of various stand treatments and conditions.

Retaining its base camp in Hot Springs, the group became guests of the Dierks Lumber Company for the next two days. Many questions were answered by Robert B. Gierow, company forester, who conducted an interesting and worthwhile trip through company holdings. Special emphasis was given to logging methods. Another day was spent at the company's double-band mill at Mountain Pine. A Swedish gang mill operated by the company at Norman was also of considerable interest, since mills of this type are rather uncommon.

The morning of March 31 was spent with William L. Hall on his tract of land near Malvern, Arkansas. (The 1949 *Missouri Log* had previously been dedicated to Mr. Hall, a pioneer in forestry.) He has

put into practice on his holdings a great many of the theories of forest management and silviculture, and the group considered it a great pleasure and privilege to discuss various aspects of forestry with him.

Next on the itinerary was the Fordyce Lumber Company. Robert Clark, chief forester, conducted a tour through all phases of the company's operations. The Missouri men were guests of the company at a dinner during which were shown excellent slides of the company's work.

Driving farther south in Arkansas, Crossett became our next objective. There the group met H. L. Williston of the U. S. Forest Service's Crossett Experiment Forest. Literature and publications from this research center are well known to all foresters, and a tour of the forest proved most interesting.

While at Crossett, the group was also guests of the Crossett Lumber Company. Forester Gordon R. Condit assumed the brunt of many questions and handled the extensive tour. Probably outstanding in the visit to the Crossett Company was the trip through its paper mill where pulpwood was being consumed at a rate of 500 cords daily. The Crossett chemical plant also commanded much interest. During a dinner given by the company, the men had the pleasure of meeting Sulo Sihvonen, forester in charge of all company woods operations.

One pleasant evening was spent when the Missouri men accepted an invitation to visit the Yale School of Forestry camp near Crossett. Professor Walter H. Meyer spoke briefly to the group concerning the Yale School and its camp program.

With two weeks suddenly gone, the now familiar yellow bus turned northward toward Missouri. Opinions were that the time could not have been spent more profitably. School bus seats were not made for comfort, however, and—after 1800 miles—Columbia looked pretty good to fourteen men and Dickie, the dog.



### HOLE-IN-ONE!

"The traps on this golf course are very annoying aren't they?"

"Yes. Would you mind closing yours?"

—Wooden Barrel.



*Juniors*

## Seniors

- Ball, Gilmore, *Salem, Mo.*  
Berkley, Raymond L., *Columbia, Mo.*  
Buck, Frederick, *Glendale, Mo.*  
Creasy, Rudolph C., *Columbia, Mo.*  
Deed, Richard N., *Quincy, Mass.*  
Dressel, Armin T., *Sappington, Mo.*  
Edscorn, Kenneth C., *Overland, Mo.*  
Faulkenberry, Virgil T., *Ellington, Mo.*  
Hafner, Kerwin F., *Vandalia, Mo.*  
Hunt, Ellis V., *Mt. Vernon, Mo.*  
Kunze, Ernest W., *Villa Park, Ill.*  
Liechti, Wallace M., *Jamestown, Mo.*  
Lodge, George W., *Bolivar, Mo.*  
Matt, Lester E., *Webster Groves, Mo.*  
Metcalfe, Woodford P., *Rolla, Mo.*  
Mobley, Noah F., *Kennett, Mo.*  
Moeller, Carl A., *Kansas City, Mo.*  
Moran, Harry B., *Cape Girardeau, Mo.*  
Musbach, Ralph A., *Fulton, Mo.*  
Purcell, William W., *St. Louis, Mo.*  
Raisch, Robert D., *St. Louis, Mo.*  
Schildknecht, John R., *Cassville, Mo.*  
Schweitzer, Francis J., *Poplar Bluff, Mo.*  
Sendt, Harold H., *Belleville, Ill.*  
Sendt, William B., *Belleville, Ill.*  
Stevenson, Robert L., *Tarkio, Mo.*  
Todd, William J., *Webster Groves, Mo.*  
Tschannen, Lester E., *St. Louis, Mo.*  
Walker, James W., *Bradleyville, Mo.*  
Wilson, Orville E., *Brazil, Ind.*  
Wolfel, George A., *Sedalia, Mo.*  
Wood, Edison B., *Bolckow, Mo.*

## Juniors

- Bammert, Robert F., *St. Louis, Mo.*  
Barnhart, Frank T., *Columbia, Mo.*  
Bayer, Robert S., *St. Louis, Mo.*  
Brodhage, Jack A., *House Springs, Mo.*  
Bruns, Raymond R., *St. Louis, Mo.*  
Bushie, Gordon J., *St. James, Mo.*  
Campbell, Lester E., *Lowry City, Mo.*  
Carrere, James M., *Goldsboro, N. C.*  
Chandler, Rolla E., *Sullivan, Mo.*  
Clark, Benneville H., *Newtonville, Mass.*  
Cochrane, James R., *Atlanta, Ga.*  
Duesing, Richard C., *St. Louis, Mo.*  
Duwan, Dan W., *St. Joseph, Mo.*  
Ferris, Earl F., *Overland, Mo.*  
French, Harold, *Kansas City, Mo.*  
Fric, Jerry, *Hinsdale, Ill.*  
Gibson, William J., *Milwaukee, Wis.*  
Hawkins, Wharton Z., *Memphis, Tenn.*  
Hubbs, Oliver W., *Poplar Bluff, Mo.*  
Kerr, Russell S., *Ferguson, Mo.*  
Lashley, Owen L., *Ironton, Mo.*  
Mabry, Donald J., *Montgomery City, Mo.*  
McDonald, Norvel A., *St. Louis, Mo.*  
McGlasson, Bruce E., *Davisville, Mo.*  
Neebe, David, *Columbia, Mo.*  
Ottomeyer, Donald J., *St. Louis, Mo.*  
Plummer, John L., *Columbia, Mo.*  
Robine, Carl L., *St. Charles, Mo.*  
Sander, Gary H., *Milwaukee, Wis.*  
Sander, Ivan L., *Jackson, Mo.*  
Shaw, Dale L., *Yukon, Mo.*  
Smith, Donald W., *Rolla, Mo.*  
Stevenin, Howard L., *Kansas City, Mo.*  
Taylor, Llewellyn M., *Weldon Springs, Mo.*  
Todd, William G., *Columbia, Mo.*  
Vandeven, James A., *Cape Girardeau, Mo.*  
Vogler, James E., *St. Louis, Mo.*  
Wallace, Joseph P., *Columbia, Mo.*  
Ward, John T., *Rocky Comfort, Mo.*  
Welch, Hugh D., *Cameron, Mo.*  
Williams, Ralph J., *Aurora, Mo.*



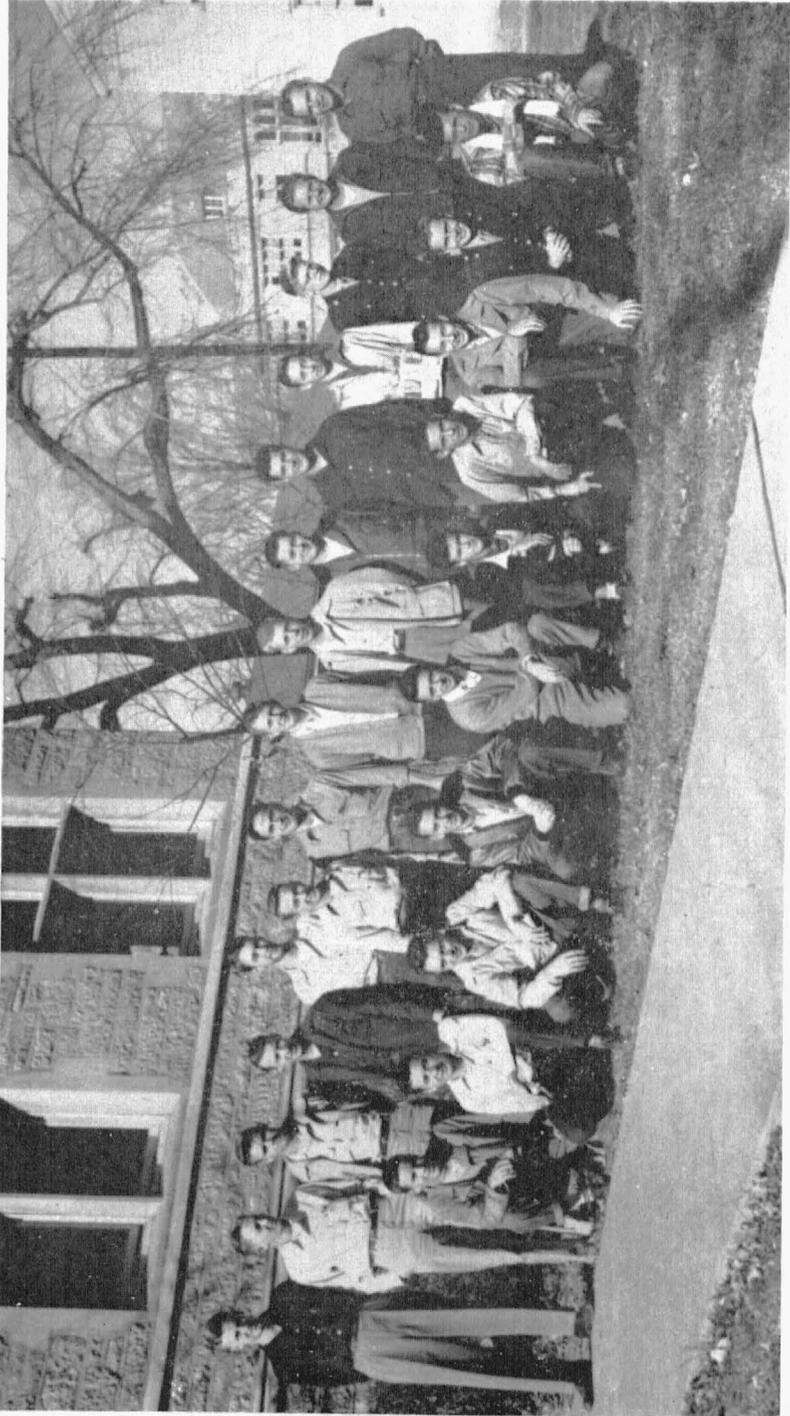
Sophomores

## *Sophomores*

Aikins, Robert E., <i>St. Joseph, Mo.</i>	Illinik, Richard H., <i>St. Louis, Mo.</i>
Brennecke, William E., <i>St. Louis, Mo.</i>	Klonowski, Floyd A., <i>St. Louis, Mo.</i>
Coplen, William C., <i>Sedalia, Mo.</i>	Kunz, Ralph N., <i>St. Louis, Mo.</i>
Davis, Jerry T., <i>St. Louis, Mo.</i>	McCray, William L., <i>Columbia, Mo.</i>
Eggers, Kenneth W., <i>Jefferson City, Mo.</i>	Petrus, John H., <i>Hermann, Mo.</i>
Elliott, Lowell E., <i>Columbia, Mo.</i>	Robinson, John A., <i>Kirkwood, Mo.</i>
Grate, Donald A., <i>Webster Groves, Mo.</i>	Ross, Roy D., <i>St. Louis, Mo.</i>
Green, Jim, <i>Chicago, Ill.</i>	Smith, Robert L., <i>Webster Groves, Mo.</i>
Groepkor, Richard C., <i>St. Louis, Mo.</i>	Steger, Peter P., <i>St. Louis, Mo.</i>
Hembree, Jack E., <i>Stockton, Mo.</i>	Taylor, Richard F., <i>Weldon Springs, Mo.</i>
Herzwurm, Ernest J., <i>St. Louis, Mo.</i>	Ward, Rodney L., <i>Trenton, N. J.</i>

## *Freshmen*

Biswell, Clifford R., <i>Columbia, Mo.</i>	Hornbeak, James W., <i>Springfield, Mo.</i>
Bryan, John L., <i>Rolla, Mo.</i>	Meyer, Clarence E., <i>Hermann, Mo.</i>
DeMoor, James, <i>St. Louis, Mo.</i>	Oechsel, Edward H., <i>St. Louis, Mo.</i>
Ferguson, Alan C., <i>Willow Springs, Mo.</i>	Olsen, Karl A., <i>St. Louis, Mo.</i>
Forbes, James G., <i>Kirkwood, Mo.</i>	Phalen, Donald R., <i>Hume, Mo.</i>
Funkenbusch, Dale D., <i>Maywood, Mo.</i>	Ramsey, Ralph, <i>Mountain Grove, Mo.</i>
Gerdemann, Gene, <i>Warrenton, Mo.</i>	Ryker, Russell A., <i>Foristell, Mo.</i>
Glenn, Robert R., <i>Columbia, Mo.</i>	Schweke, Russell M., <i>Kirkwood, Mo.</i>
Gould, Thomas L., <i>Chicago, Ill.</i>	Smith, Harold W., <i>Licking, Mo.</i>
Grey, Gene W., <i>Mineola, Mo.</i>	Smith, Willis W., <i>Columbia, Mo.</i>
Hankins, Robert T., <i>Cuba, Mo.</i>	Sutton, Robert E., <i>St. Louis, Mo.</i>



*Freshmen*

# Forestry Club Officials

1949-50

Forester .....	Bill Sendt
Assistant Forester (first semester) .....	Bill Purcell
Assistant Forester (second semester) .....	Dale Shaw
Secretary .....	Spud Chandler
Treasurer .....	Carl Moeller
Ranger .....	Jim DeVoure

## *Highlights Of 1949-50 Club Meetings*

MOVIES—"The Wooden Barrel," "Timber Growing Today," "Winter Wonderland," "Fire Weather," and films on wildlife.

TALKS—Dr. Westveld on...the meeting of the Society of American Foresters in Washington...and on the meeting at Van Buren, Missouri. Bryon Grosbeck, supervisor of the Clark National Forest...on changes in the past 15 years in the Poplar Bluff district. Students on...summer work. Art Meyer, assistant state forester, on...problems and work of the farm forester in Missouri. Dr. Liming on...present, past and future work of the North Ozark Forest Research Center in Columbia.

SUMMARY—These programs missed no Forester. They were designed for the instruction and enjoyment of all Foresters, regardless of their specialized fields.

## *Spring Barbecue*

Subject: Barbecue. Occasion: Last yearly meeting of the Forestry Club. Place: The Hinkson. Time: One spring night, in 1949.

Yes, the menu was barbecued ham, baked beans and cole slaw, which, by the way, was late as usual. Two and one-half hours, to be exact. But when the Green Beetle arrived with three luscious hams, etc. in tow—well, the waiting was worth it.

Foresters—about sixty of 'em—swarmed over the delicious morsels



*Forestry Club*

(since none had eaten that night in order to save their chow money) and soon the platters were clean...and we mean literally clean. Even the sauce was lapped up.

But this is tradition. It's a meeting all Foresters look forward to throughout the year. So be the chow late, it's always worth waiting for—and there's company galore in friendly Foresters.

It makes, to be sure, a wonderful time.

## *Fall Campfire*

The freshmen students were introduced to the Foresters and the faculty at the first club meeting of the year, which was held at Rollins Spring. We hoped they liked what they saw.

This meeting held each year—at the beginning of the fall term—is to acquaint the entering freshman with the Foresters' customs and traditions.

Forester Bill Sendt called the meeting to order and gave a short talk on club activities. He then introduced Dr. Westveld, chairman of the department, who welcomed the new students and introduced them to the faculty.

Later two elections were held. A freshman, Jim DeVoure, was elected Ranger—a tradition at the first meeting. Joe Wallace was elected 1949 football captain.

After the regular business meeting there was singing, by the fifty or sixty Foresters present, around the glowing campfire. Later the Foresters were introduced to the hotdogs, doughnuts, and cokes, which didn't have a chance.

All in all the evening was a success, for the older students felt they had helped the new members feel at home and the freshmen had found some new friends.

## *Sports*

### *Softball*

JOE WALLACE

The Foresters almost won the division intra-mural championship. They went undefeated until the two final games of the season. The first loss dropped them into a first place tie. With the loss of the play-off game the team ended up in second place.

Members of this hot-shot team were: Pitcher, Moran; catcher, Mertel; first base, Wallace; second base, Williams; third base, Purcell; shortstop, Church; center field, Taylor; short field, Matt; right field, Metcalf; and left field, Glazer.

As in basketball, the Foresters could use your extra punch in 1950-51. How about coming out for the team?

## *Football*

JOE WALLACE

Another bugaboo—a conflicting schedule—played a major role in the record of the Forester touch grid team. The team was in there trying but there wasn't much interest. So the Foresters tied one game and lost the rest. Still they left their mark.

The men who toted the ball last season are: Purcell, Taylor, Moran, Shaw, Cochrane, Duesing, Gardner, Stuart, and Wallace.

Next season, efforts will be made to complete a good schedule. This should stimulate interest, so come on out and show what you can do.

## *Basketball*

DON SMITH

The 1949-50 Foresters chopped their way to second place in their intra-mural basketball division with five victories and two defeats.

Led by sharpshooting Jim Williams, the Forest men unleashed an around-the-court attack that featured not only fire-brand shooting but a devastating pressing game.

Williams, one of the 10 top scorers in the entire intra-mural program, paced an improving Forester five which reached its best performance in a 27 to 7 victory.

One of their two losses was to the highly-touted Hot Shots. They dropped that one, 21 to 20. And despite the loss of Bill Purcell, one of the top athletes in the Forestry division, at mid-semester, the team maintained its pace.

Only four men will graduate from the present squad. Besides Purcell, others leaving are Harry Moran, Bill Sendt and Harold Sendt.

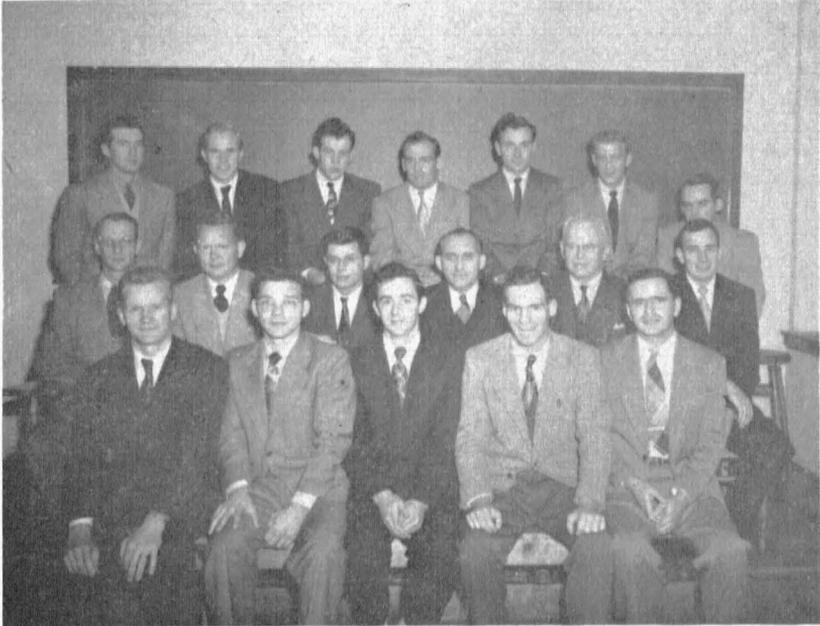
That leaves Williams, Joe Wallace, "Spud" Chandler, "Bud" Taylor, Ed Oechsle and Donald Marby to haunt the opposition next year.

Yes, prospects look bright for the 1950-51 cage season. If . . .

If, that is, our "unknown" cage stars step forward. Did you play basketball in high school? In service?

If so, why not play with the Foresters next year? And push us to the intra-mural championship!

## *Phi Theta Gamma*



Back row: *Paulsell, Raisch, Glaser, Dressel, Tschannen, Purcell, and Martin*

Center row: *Compton, Polk, Burns, Westveld, Liming, and Clark*

Front row: *Fletcher, Moeller, Todd, Horton, and Dingle*

Outstanding among recent accomplishments within the forestry student body at the University of Missouri has been the establishment of an active honorary fraternity, Phi Theta Gamma. The objects of the fraternity are to secure and maintain a high standard of scholar-

ship in forestry education, to work for the upbuilding of professional excellence, and to promote fraternal relations among earnest workers engaged in forest activities.

Election to membership in Phi Theta Gamma is based upon a composite rating rather than upon scholarship alone. Thus, a student honored with a bid to the fraternity has not only maintained above-average scholastic standards; through participation in Forestry Club affairs and interest in practical forestry work, he has displayed promise of attaining high professional achievement.

Coincident with a growth in membership has come a coalescing and hardening of group aims into a unified program. Through Phi Theta Gamma some members of the faculty, the Experiment Station, and the student body have been brought together. They have become acquainted with the personalities and problems of groups other than their own, and through these contacts all have benefited.

Plans are complete for sponsoring a memorial plantation of timber trees for each forestry class. The first such plantation will be established this spring on the Weldon Springs Experimental Farm. Members of the Class of 1950 will do the planting.

Efforts will be made to give early recognition to young students. Meritorious work will be recognized, and assistance will be offered as a part of a freshman orientation program. Annually, the name of the outstanding forestry freshman will be inscribed upon a plaque to be prominently displayed at a center of forestry activities. To assist incoming students, a member of Phi Theta Gamma is now assigned as "student advisor" to each freshman or transfer student enrolling in forestry. Through this means, council and scholastic aid will be readily available to a new enrollee during his first semester on the campus. It is hoped that the final result will be a student who participates fully in the various activities connected with forestry education at the University of Missouri.



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## ONE YEAR LATER

This marks the first anniversary of Missouri's initial edition of foresters. Since last February and June they have scattered far and wide, although the largest concentration is still to be found in Missouri.

The class can now be split into three groups: First, there are the money earners, those working for someone else; secondly, there are the money spenders, those still in school; and, thirdly, we have our bold entrepreneurs—those in business for themselves. This latter group is the smallest, involving three men.

SHORTY WEHKING, KAY ERWIN, and CHARLEY BARNHART are the independent operators. They run a sawmill and are doing custom sawing for farmers around Columbia. The outfit goes under the name of the W. E. B. Sawmill Company. Their original sawmill has been discarded in favor of a portable Jackson Lumber Harvester. The only big problem facing Short and Kay is how to work all day and still have enough energy to date at night.

The money spending brigade is comprised of Lee Paulsell, Ed Glaser, Walt Metcalf, and Joe Church.

LEE PAULSELL—Weldon Springs Experimental Farm, Weldon Springs, Missouri.

Lee spent the summer cruising the Weldon Springs Forest. This past fall he returned to school and completed his course requirements for his master's degree. At the end of the fall semester he returned to Weldon Springs as resident forester on the experimental farm. Along with his duties as resident forester, Lee will finish writing his thesis and receive his degree in June.

EDWIN GLASER—Sanford Apartments, Columbia, Missouri.

Ed has his sights set on a master's degree in June. The main obstacle remaining is to get the thesis written on "Farm Woodlot Financial Returns." He spent last summer as a surveyor for the Missouri Conservation Commission, working in Shannon County. A day to be remembered is the fourth of September—Ed's wedding day.

WALT METCALF—1462 Taylor Street, Corvallis, Oregon.

Walt is up at Oregon State College working toward a master's degree in forest management. His main troubles have been several courses in various phases of logging engineering. The weather has been uncooperative also, and he is having a hard time getting together

the field data for his thesis. To round out his troubles, he will be married in June.

**JOE CHURCH**—2553 West Liberty, Ann Arbor, Michigan.

Joe and his dog, Dick, have been broken up as Joe decided to do graduate work and Dick was against it. After faithfully attending classes for four years, Dick has settled down on Sanford Place. Joe is at the University of Michigan. His thesis will be on the Jackson Lumber Harvester, and he hopes to use pictures of the W. E. B. Mill.

The wage-earner bracket is by far the largest group, totaling eight men. Five are with state organizations, one with the U. S. Forest Service, and two are with private companies.

**GEORGE HAMILTON**—3855 Forest Park Boulevard, St. Louis, Missouri.

Any bug, termite, or wasp was a collector's item when George was around. He always managed to spice his forestry courses with a liberal dose of entomology. At the present time he is an Assistant State Entomologist with a great variety of duties running from termite control to orchard inspection.

**JOHN KULLMAN**—Missouri Conservation Commission, Monroe Building, Jefferson City, Missouri.

As a teller of tales about Missouri forestry, John is hard to beat now. Last July he assumed the job of field investigator working on the Missouri Forest Crop Law. He travels a great deal and classifies land under the law. John is still a ladies' man; as yet, however, he has no permanent attachment.

**RICHARD L. PIEPENBRING**—1800 Olive, Alexandria, Louisiana.

Soon after graduation in February of 1949, Dick joined the Longbell Lumber Company. He stayed with them as a pole, piling, and post inspector until September. At the present time he is with the R. O. Martin Lumber Company as a cruiser and marker.

**ED CANTER**—Assistant County Agent, Fredericktown, Missouri.

**HAROLD GALLAGER**—Assistant County Agent, Salem, Missouri.

Ed and Harold are in Extension work with farm forestry as an important phase. Each has several counties to cover in his varied work. As long as reference material is available they both feel that they can remain one jump ahead of the people with whom they work. The main problem faced by both is that people often shake their heads "yes" when they really mean "no."

DAVID L. WILDER—Red Ives Ranger Station, Avery, Idaho.

The Far West is where forestry is really practiced as far as Dave is concerned. Last summer his Ford was pointed west and it didn't turn east until winter forced a shutdown of all operations. Dave's job is of a supervisory nature on the Red Ives District in the St. Joe National Forest.

DON PITTENGER—Tahlequah, Oklahoma.

Don has a job which can cause grey hair very quickly. He is a district forester on a fire protection district in northeastern Oklahoma. In a race against the spring fire season, Don has been busy building a fire tower and getting the district organized.

JACK SHIELDS—Box 193, White Horse, California.

After graduation, Jack went to California and did some graduate work. This past summer he began work with the McCloud River Lumber Company and has remained with them. Jack is a scaler for the fallers and buckers on a railroad logging operation.

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Next year will probably find some changes in jobs and locations, so tune in again at that time for a bigger and better chapter.

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## ALUMNI DIRECTORY

- Barnhart, Charles E.—1949, W. E. B. Sawmill, Columbia, Mo.  
Bremicker, Joel Herman—1917, Spink Arms Hotel, Indianapolis, Ind.  
Broadbent, Sam R.—1921, Assistant Chief, Division of Estimates, Bureau of the Budget, 3133 Connecticut Ave. N. W., Washington, D. C.  
Bruto, Fred Ray—1919 M. S. 1920, State Highway Bldg., Jefferson City, Mo.  
Canter, Edward H.—1949, Assistant County Agent, Fredericktown, Mo.  
Church, Joseph B.—1949, 2553 W. Liberty, Ann Arbor, Mich.  
Clay, Robert Buchanon—1914, Pleasant Hill, Mo.  
Creasy, Randolph C.—1950, unknown.  
Dressel, Armin T.—1950, International Paper Co., Southern Kraft Division, Delight, Ark.  
Erwin, Harry K., Jr.—1949, W. E. B. sawmill, Columbia, Mo.  
Fallenius, Victor Charles—1913, unknown.  
Fritschle, Charles Russell—1920, 5603 Washington Court, St. Louis 12, Mo.  
Gallaher, Harold G.—1949, Assistant County Agent, Salem, Mo.  
Gibson, Maurice Saley—1914, 3204 Windsor, Kansas City, Mo.  
Glaser, Edward H.—1949, Sanford Apartments, Columbia, Mo.  
Green, Charles Burdett—1921, 666 Lake Shore Dr., Chicago, Ill.  
Hamilton, George W.—1949, 3855 Forest Park Blvd., St. Louis, Mo.  
Herald, Charles William, Jr.—1917, No. 6 Hartus Court, St. Louis 10, Mo.  
Hotze, Earl Bent—1918, 9749 Tesson Ferry Rd., St. Louis County, Mo.  
Hunt, Ellis V.—1950, Columbia, Mo.  
Kraft, Felix Gustav—1916, 107 S. Maple Ave., Webster Groves, Mo.  
Kullman, John R.—1949, Missouri Conservation Commission, Jefferson City, Mo.  
Liechti, Wallace M.—1950, 313 Fairway Village, Columbia, Mo.  
Lodensohn, Samuel Hamilton—1917, 122 E. Ridgewood, San Antonio, Tex.  
Lodge, George W.—1950, International Paper Co., Southern Kraft Div., Sheridan, Ark.  
Matt, Lester E.—1950, Webster Groves, Mo.  
Metcalf, Walter B.—1949, Junior Forester, Central States Forests Exp. Stat., 111 Old Federal Bldg., Columbus 15, Ohio.  
Miller, Max Emmitt—1915, P. O. Box 55, Paducah, Ky.  
Musbach, Ralph A.—1950, Assistant District Forester, Mo. Conservation Commission, Sullivan, Mo.  
Paulsell, Lee K.—1949, Resident Forester, Weldon Springs Exp. Forest, Weldon Springs, Mo.  
Piepenbring, Richard L.—1949, Roy O. Martin Lumber Co., Alexandria, La.

Pittenger, Donald E.—1949, District Forester, Tahlequah, Okla.  
Purcell, William W.—1950, International Paper Co., Southern Kraft Div.,  
Sheridan, Ark.  
Shields, Albert J.—1949, Box 193, White Horse, Calif.  
Simmons, Charles Wade—1921, Texas A & M, College Station, Tex.  
Talbot, Murrell W.—1913, 2590 Cedar St., Berkley, Calif.  
Tschannen, Lester E.—1950, Assistant Farm Forester, Farmington, Mo.  
Wehking, Erhardt F.—1949, W. E. B. sawmill, Columbia, Mo.  
Wilder, David L., Jr.—1949, Red Ives Ranger Station, Avery, Idaho.  
Youmanns, John Power—1915, Pateau, Okla.



#### DIRECTORY OF FORMER PRE-FORESTRY STUDENTS WITH FORESTRY DEGREES FROM OTHER SCHOOLS

Capps, Osal B., Vienna, Mo.  
Croft, Archie D., Gen. Del., Libby, Mont.  
DeWolf, Howard, 2013 Lyons Ave., Lansing 10, Mich.  
Fine, Lee C., Eminence, Mo.  
Godman, Richard M., Univ. of Mich., Ann Arbor, Mich.  
Hoskins, Robert N., Seaboard Air Line Railroad, Norfolk, Va.  
Leach, C. Willard, Assistant Professor of Forestry, Alabama Polytechnic  
Institute, Auburn, Ala.  
Meyer, Arthur, Missouri Conservation Commission, Jefferson City, Mo.  
Nichols, J. M., Forestry Camp, Star Rt. 2, Williamsville, Mo.  
Pogue, Ralph, Missouri Conservation Commission, Jefferson City, Mo.  
Seay, Edward J., Salem, Mo.  
Towell, William E., 209 Boonville Rd., Jefferson City, Mo.  
Walter, R. F., unknown.  
Whitt, Fred B., Ellington, Mo.  
Wylie, J. E., c/o Forestry Dept. Oregon State College, Corvallis, Ore.

## ALUMNI NEWS NOTES

- Bremicker, Joel Herman**, Working for Pennsylvania Railroad Testing Dept.
- Broadbent, Sam R.**—1921, Assistant Chief, Division of Estimates, Bureau of the Budget. 3133 Connecticut Ave. N. W., Washington, D. C.
- Bruto, Fred Ray**, Forester, Missouri State Highway Dept.
- Capps, Osal B.**, District Forester, Missouri Conservation Commission.
- DeWolf, Howard**, Attended Univ. of Mo. 1939-1942, transferred to Michigan State College, was first graduate from Mich. State College, in new option of "Housing and Lumber Merchandising" 1945. Worked in retail lumber and prefab housing sales until April 1947, then joined Warren S. Holmes Co., as architectural draftsman, with some appraisal work thrown in. Married Mary J. Lake of East Lansing, Mich. in Sept. 1947, no children.
- Fritschle, Charles Russell**, Since graduation, in Railroad Tie and Lumber Business, married in 1944 to Mrs. Lila Canter, stepson Edward Canter Forester, Graduate of Missouri University.
- Gallaher, Harold G.**, Present position is Assistant County Extension Agent, work consists of woodlot improvement on the farm and 4-H Club forestry projects.
- Gibson, Maurice Saley**, Engaged in Real Estate and Rentals.
- Green, Charles Burdett**, Secy Manager, American Walnut Mfg. Association
- Herald, Charles William, Jr.**, In the 20th Regt. of Engr. World War I, in 1923 formed own Real Estate Co. in St. Louis specializing in real estate appraisal since that date. Was married in 1921, have two daughters, both graduated from Stephens College, one graduated from Washington Univ. in 1946 and the other from Univ. of Missouri in 1948. In the U. S. Army Air Corps from March 1942 to Dec. 1945, retain a reserve standing in the U. S. Air Force.
- Hoskins, Robert**, With Missouri Conservation Commission 1939-1942. Extension Forester with Florida Forest Service 1942 to 1945. With the Seaboard Air Line Railroad Co. as Industrial Forester since 1945. Married Julia Jones Husfeldt in 1946 and have one daughter.
- Hotze, Earl Bent**—1918, M. S. F. 1920. Present position, President Henry Hotze & Sons Company, St. Louis, Mo. Formerly inspected lumber, Southern Hardwood Association rules—mill burnt down—passed Forest Service exam. in 1921. Ran drilling rig—on cruising job Red Lake Agency (Minn.) Indian Service—back to drilling and brought in 5 lb. well at Sparta, Ill. 1923—with Pennsy. R. R. Forestry Dept. 1923 to 1929.—Inspection and treatment of forest products.—Still likes trees and growing things, has fun fighting bugs and brown rot, says it's lots more fun than making money.—Married—9749 Tesson Ferry Road, St. Louis County, Mo.

**Kraft, Felix Gustav**, Public Accountant.

**Leach, C. Willard** B. S. in Agriculture, 1941, from Univ. of Missouri. Research Asst. in Forestry, Univ. of Mo. 1943-'44. U. S. Navy, Hospital Corps, 1943-45. Instructor in Forestry, Univ. of Missouri 1945-46. Graduate study at Yale School of Forestry, 1946-'47 leading to the degree of M. F. in 1947. Married Louise C. Peck, sister of the late Ralph H. Peck, in 1946. Accepted present position as Assistant Professor of Forestry, Alabama Polytechnic Institute, Auburn, Alabama in 1947.

**Meyer, Arthur**, On Feb. 15, 1949 went back with Missouri Conservation Commission as Asst. State Forester, in charge of Farm Forestry work.

**Miller, Max Emmit**, Mfgr. Paducah Box and Basket Co.

**Nichols, J. M.**, Resident Forester on Univ. of Missouri Forest.

**Piepenbring, Richard L.**—1949, Roy O. Martin Lumber Co., Alexandria, La.

**Pogue, Ralph**, Present position with Missouri Conservation Commission in Education-Information Dept.

**Simmons, Charles Wade**, Extension Forester.

**Talbot, Murrell W.**, Range Research Worker, Calif. Forest and Range Exper. Station.

**Towell, William E.**, University of Mich. (1936-37, 1937-38) B. S. F. and M. F. 1938. Employed by Missouri Conservation Commission in July 1938. Served as District Forester, Sullivan, Mo. Farm Forester, Kirksville, Mo. In Jan. 1942 as Admin. Asst. to State Forester, Jefferson City, Mo. Present position Asst. State Forester in charge of Fire Control and Planting. Served 2½ years as Naval Photographic Interpreter in Pacific theater. Married in 1940 to Virginia R. Dotter. Have two daughters ages 2 and 7.

**Youmanns, John Power**, Mgr. of the Okla. and Ark. Telephone Co.

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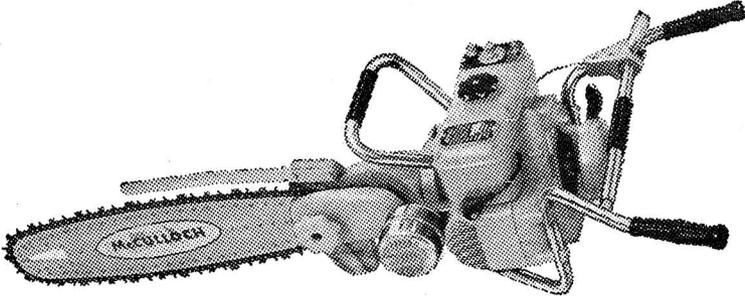
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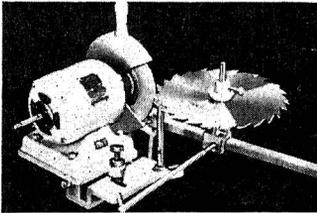
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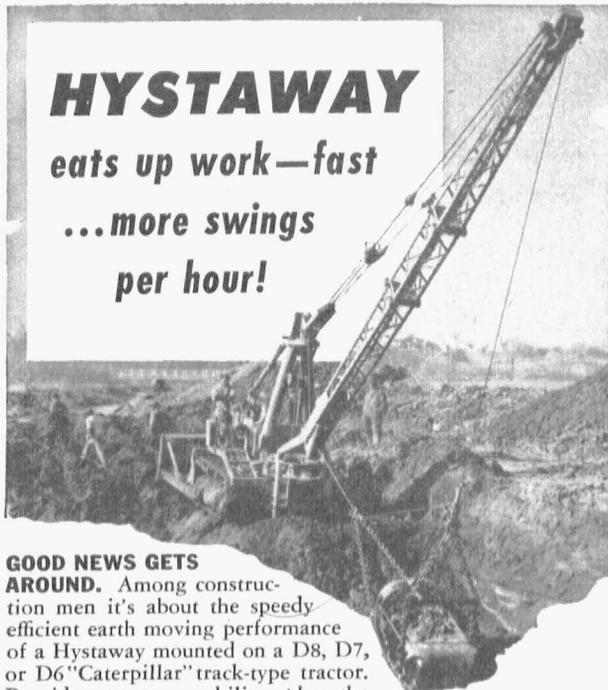
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