

1949

# The Annual Ring 1949

Louisiana State University and Agricultural & Mechanical College

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1949

*Ady Cee*



# The Annual Ring

# *School of Forestry Yearbook*

LOUISIANA STATE UNIVERSITY



*Published by*

The Society of Foresters, Louisiana State University

Baton Rouge, Louisiana

# DEDICATION



To the SCHOOL OF FORESTRY, Louisiana State University

The Department of Forestry in the College of Agriculture here at LSU had its beginning a quarter of a century ago in 1924. It was headed at that time by J. G. Lee, Sr., who was also its first professor of forestry. Later, the department was led by Gordon Markworth who is now Dean of the Washington College of Forestry. In 1934, Ralph W. Hayes became the department head; during the next fifteen years the Forestry Department mushroomed in size and fame. Because of this expansion, effort was exerted to change the status from department to *school*. Through the efforts of the staff of the department, the college, and the alumni, this change materialized on July 1, 1948.

To this new SCHOOL OF FORESTRY, to its director and faculty, and to its continued growth and success the tenth volume of the *Annual Ring* is respectfully dedicated.

THE EDITORS AND STAFF.



# FOREWORD

The staff, in presenting Volume X, has endeavored to live up to the high standards that have been set for them by previous issues, and hope that the growth and progress of the School of Forestry has been somewhat reflected in its yearbook.

This edition has been standardized on the size of the books published for the past two years in response to the many requests that this be done.

Though all yearbooks are intended primarily for the interest of the graduating class, we have made an effort to include those features and articles which will make this yearbook of interest to all forestry students and alumni.

Here is your 1949 Annual Ring!

## *The Annual Ring Staff*

EDWARD D. HOLCOMBE AND FLEETWOOD J. ALBRECHT . . . . . Editors  
CLIFTON C. WINKLE . . . . . Alumni Editor  
C. C. SIGLER, V. W. COTHREN, R. B. JOHNS, E. C. CORDON . . . Feature Editors  
C. B. BRISCOE . . . Business Manager G. M. PURVIS . . . . . Artist  
V. T. LAPHAM, L. C. WHITE, CECIL HALBERT . . . . . Photographers  
Editorial Assistants—H. M. BURNHAM, W. C. KELSO, HERMAN KNOUSE, J. B. EBERT,  
W. S. COCKROFT, R. G. EBLE, E. B. BURNS  
PROF. CHARLES O. MINOR . . . . . Faculty Advisor



*Last Row—Burnham, Ccthren, Eble.  
Center Row—Briscoe, Knouse, Halbert, Winkle, Cockroft.  
First Row—Johns, Holcombe, Albrecht.*

# FACULTY



RALPH W. HAYES

*Professor and Director of The School of Forestry*

B.S.F., Iowa State 1914

M.F., Iowa State 1924

Forest Economics

Forest Finance

Forest Technique



BRYANT A. BATEMAN

*Professor*

B.S.F., L. S. U. 1926

M.F., Iowa State 1934

Ph.D., Michigan 1949

Farm Forestry

Game Management



WILLIAM McD. PALMER

*Associate Professor*

B.S.F., L. S. U. 1937

M.F., Michigan 1938

Forest Management

Forest Improvement's

Forest Products

# FACULTY



RICHARD F. WEST  
*Assistant Professor*

B.S., Rutgers 1940  
M.F., Yale 1942  
Wood Technology  
Wood Preservation  
Mechanical Properties of Wood  
Veneers, Plywoods, and Adhesives  
Industrial Forestry  
Timber Physics  
Faculty Adviser, Xi Sigma Pi



A. BIGLER CROW  
*Assistant Professor*  
B.S.F., N. C. State 1934  
M.F., Yale 1941

Silviculture  
Forest Fire Protection  
Forest Administration  
Faculty Adviser, Alpha Zeta



CHARLES O. MINOR  
*Assistant Professor*  
B.S.F., Iowa State 1941  
M.F., Duke 1942

Forest Mensuration  
Forest Engineering  
Logging and Lumbering  
Seasoning of Lumber  
Aerial Photography  
Faculty Adviser, ANNUAL RING  
and Society of Foresters



MARTIN B. APPLEQUIST  
*Assistant Professor*  
B.S.F., Iowa State 1940  
M.F., Duke 1941

Dendrology  
Forest Sites  
Seeding and Planting  
Silviculture  
Faculty Adviser, Society of Foresters



MRS. NORMA C. ARMSTRONG  
*School Secretary*



LESLIE L. GLASGOW  
*Assistant Professor*  
B.S.F., Purdue 1942  
M.S., Maine 1948  
Game Technique  
Economic Game Relations  
Game Management  
Forest Game  
Dendrology Laboratory

# A LETTER

## From the Director of the L.S.U. School of Forestry

This is Volume 10 of the Annual Ring. The first volume appeared in 1938, but two years were missed during the last war. We sincerely hope the sequence is never again broken by such a catastrophe.

### The Student Body:

Enrollment has continued at a very high level. There is indication that it will drop off during the next few years. We are prepared and will continue to be prepared to take care of those who come here interested in a study of forestry.

### The Alumni:

Quite a few of you have been by to visit us during the present year. We are always glad to have you come back and hope that more of you find an opportunity to return for a visit. As I am sure most of you know, we are now classed as a School of Forestry in the Louisiana State University organization. We added two new faculty members last fall and are continually developing the work offered to, in our opinion, better prepare students for their chosen work. We would like to solicit a better response to the Annual Ring staff in their solicitations for your subscriptions to the Annual Ring. These boys are working hard. They have done a good job, and we feel that they need and deserve your financial support.

### The Patrons:

The patrons of the Annual Ring have been a big help in the financing of the publication. You have helped in making it a success, and we hope for your continued interest and contributions.

### The Advertisers:

The staff of the Annual Ring has tried to present your advertisements in a pleasing way. Your contribution as advertisers has always been a big help in financing the publication. We believe that although the distribution of the Ring is not extensive those who do get it and read it would favor your companies, but, more than that, we feel that you are showing a definite interest in our work by your advertising. We wish to continue to deserve your patronage.

### All Readers:

The staff of the Annual Ring as well as the School staff would be very much interested in your comments regarding this publication. Are there any changes that you would like to see made or any new divisions added? Would you like to have more information regarding the alumni? We have changed back to a yearly basis for the alumni directory which many of us think is better than the alphabetical arrangement. We have made a special effort to include everyone; but as you check this over if you find anyone has been left out we will appreciate your advising us. We hope to continue to publish a creditable Annual Ring.

RALPH W. HAYES.



# GRADUATES

## BELL, MARVIN T.

B.S.F., L. S. U., 1949  
Okolona, Miss.  
Activities: Society of Foresters, American Society of Wildlife, Ag. Fair Association.  
Military: Air Force, 42 months.  
Goal: Director of federal park.



## BLAKE, COLIN D.

B.S.F., L. S. U., 1936  
Baton Rouge, La.  
Activities: American Society of Electrical Engineers, Society of Foresters.  
Goal: Teaching.

## GAINNEY, LOUIS F.

B.S.F., L. S. U., 1948.  
Rayville, La.  
Activities: Society of Foresters.  
Military: 99th Infantry, 3 years.  
Goal: Provide enough game for recreation for the average person.



## NEWSOM, JOHN D.

B.S. (Agriculture), L. S. U., 1948.  
Shongaloo, La.  
Military: Air Force, 3 years.  
Goal: Do state work.

## REDMOND, HOWARD R.

B.S.F., L. S. U., 1948.  
Wiggins, Miss.  
Activities: Society of Foresters.  
Military: Navy, 4 years.  
Goal: Own a private game estate in Mississippi.



## YANCY, RICHARD K.

B.S.F., L. S. U., 1948  
Ferriday, La.  
Activities: Society of Foresters.  
Military: Navy, 3 years.

## NOT PICTURED

### ROBERTSON, CARROLL L.

B.S.F., L. S. U., 1948  
Manifest, La.

### STALLWORTH, NICHOLAS B.

B.S.F., L. S. U., 1948  
Vinegar Bend, Ala.

# SENIORS

## ADKINS, VERNON C.

Minden, Louisiana  
Forest Production  
Activities: Scabbard and Blade; Society of Foresters; American Legion of Air; President ROTC Athletic Council, '48-'49; Cadet Major ROTC, '48-'49.  
Experience: Summer work, Coeur D'Alene N. F. '47.  
Military: Army Engineers, 36 months ETC.

## ALBRECHT, FLEETWOOD J.

Georgetown, South Carolina  
Forest Utilization  
Activities: Alpha Tau Omega; Xi Sigma Pi; Alpha Zeta; Society of Foresters, Canterbury Club. ANNUAL RING, Co-Editor '48-'49.  
Experience: Summer work, International Paper Co., and Georgetown Plywood Co.  
Military: Canton Liaison Group, 37 months CBI.

## ALLEN, TERRILL D.

Bexley, Mississippi  
Forest Production  
Activities: Society of Foresters.  
Experience: Timber sales, Mississippi National Forests, 17 months.  
Military: Naval Reserve, 21 months.

## ANDREWS, JOHN R.

Shreveport, Louisiana  
Game Management  
Activities: Society of Foresters.  
Military: Marine Corps, 26 months.

## BERGERON, EMILE D.

Baton Rouge, Louisiana  
Forest Utilization  
Activities: Society of Foresters.  
Military: 301st Bomber Group, 38 months.

## BLAIR, ALBRO E.

Covington, Louisiana  
Forest Production  
Activities: Society of Foresters.  
Experience: Lookout, Clearwater N. F., '47.

## BONNER, JOHN D.

Jackson, Mississippi  
Forest Production  
Activities: Society of Foresters; Xi Sigma Pi; Alpha Zeta.  
Experience: Three summers with USFS in Idaho and Mississippi.  
Military: 493rd Bomber Group, 28 months.

## BURNS, EDMOND B.

New Orleans, Louisiana  
Forest Production  
Activities: Society of Foresters; Xi Sigma Pi.  
Experience: Louisiana Forestry Commission 1946-1949.  
Military: Navy, 36 months.

# SENIORS

## CARLTON, CHARLES, F.

Good Pine, Louisiana  
Forest Production  
Activities: Society of Foresters; Xi Sigma Pi; Alpha Zeta; President College of Agriculture, '48-'49; Who's Who in American Colleges and Universities.  
Experience: Summer work with Colfax Lumber Co. and LaSalle Land Co.  
Military: Army, 42 months.



## COCKROFT, WILLIAM S.

Memphis, Tennessee  
Forest Utilization  
Activities: Society of Foresters, President '48-'49; Xi Sigma Pi; Alpha Zeta; Baptist Student Union; ANNUAL RING, Business Manager '47-'48; Vice-President Senior Class, College of Agriculture '48-'49.  
Experience: Two summers log scaling and lumber grading.  
Military: Navy, LST 461, 36 months.



## COMEAX, WILLIAM E.

Baton Rouge, Louisiana  
Forest Production  
Activities: Society of Foresters.  
Military: Army Air Force, 36 months.

## CORDON, EDWARD C.

Jeannette, Pennsylvania  
Forest Production  
Activities: Society of Foresters; VFW.  
Experience: CCC, 18 months, '38-'40.  
Military: 12th and 15th Air Force, 57 months.



## COTHREN, VIRGIL W.

Dierks, Arkansas  
Forest Production  
Activities: Society of Foresters; Xi Sigma Pi, Assistant Forester, '48-'49; Alpha Zeta; ANNUAL RING, '48-'49.  
Experience: Dierks Lumber and Coal Co., 3½ years.  
Military: Air Force, 53 months.

## D'AUTREMONT, FRANCIS J.

Vidalia, Louisiana  
Forest Production  
Activities: Society of Foresters; Kappa Alpha.  
Military: 346th Infantry, 25 months.

## DOLHONDE, PAUL E.

Independence, Louisiana  
Forest Utilization  
Activities: Society of Foresters.  
Experience: USFS, Montana.  
Military: USMCR, 592nd Night Fighter Squadron, 45 months.

## DYKES, JAMES F.

McComb, Mississippi  
Forest Production  
Activities: Society of Foresters; Xi Sigma Pi; Alpha Zeta.  
Military: Navy Air Corps, VPB 102, 33 months.





# SENIORS

EBERT, JAMES B.

Erlton, New Jersey  
Forest Production  
Activities: Society of Foresters; Xi  
Sigma Pi; Alpha Zeta.  
Military: Army Air Force, 21 months.

EBLE, ROBERT G.

New Orleans, Louisiana  
Game Management  
Activities: Society of Foresters; Xi  
Sigma Pi; Alpha Phi Omega.



EDWARDS, JAMES H.

Bradley, Arkansas  
Forest Production  
Activities: Society of Foresters.  
Military: 337th Inf., 85th Division,  
54 months.

ELISSALDE, JACOB C.

Baton Rouge, Louisiana  
Forest Production  
Activities: Society of Foresters; Xi  
Sigma Pi; Alpha Zeta.  
Experience: USFS, Kootani N. F.,  
Montana.  
Military: Tenth Mountain Division, 36  
months.



GOODWIN, ARCHIE L.

Camden, Arkansas  
Forest Production  
Activities: Society of Foresters; Xi  
Sigma Pi.  
Experience: CCC 2½ years; one year  
and three summers with Interna-  
tional Paper Co.  
Military: 36th Inf. Division, 40 months.

GORINSKI, WALTER A.

Greensburg, Pennsylvania  
Forest Production  
Activities: Society of Foresters; Theta Xi; Varsity Football, '40-'41-'42;  
Professional Football, Pittsburgh  
Steelers (NFL), '46.  
Military: 103rd Inf. Div., 42 months.

GRESHAM, CLAUDE H., JR.

Duncan, South Carolina  
Game Management  
Activities: Society of Foresters; Xi  
Sigma Pi; Baton Rouge Sportsman's  
League, Vice-President.  
Military: AAF 36 months.



HALBERT, CECIL, JR.

Cisco, Texas  
Forest Utilization  
Activities: Society of Foresters; AN-  
NUAL RING '48-'49.  
Experience: USFS, summer '47.  
Military: Army Air Force, Glider  
Pilot, 48 months.

# SENIORS

## HANSBROUGH, THOMAS

Greenfield, Tennessee  
Forest Production  
Activities: Society of Foresters; Xi Sigma Pi, Forester '48-'49; Alpha Zeta, Vice-President '48-'49; Phi Eta Sigma.  
Military: Marine Corps, Fighter Pilot, 42 months.



## HOLCOMBE, EDWARD D.

Bogalusa, Louisiana  
Forest Production  
Activities: Society of Foresters, Secretary '48-'49; Xi Sigma Pi, Ranger '48-'49; ANNUAL RING, Co-Editor, '48-'49.  
Military: U. S. Navy, 33 months.



## HUGHES, JEFFERSON D., JR.

Hammond, Louisiana  
Forest Production  
Activities: Society of Foresters, Athletic Manager '47-'48.  
Experience: USFS, Kootenai N. F., '47.  
Military: U. S. Navy, 24 months.



## KELSO, WILLIAM C., JR.

Memphis, Tennessee  
Wood Technology  
Activities: Society of Foresters, Athletic Manager '48-'49; Xi Sigma Pi; Alpha Zeta.  
Military: 24th Inf. Div., 32 months.

## KIDD, JOSEPH B.

Baton Rouge, Louisiana  
Game Management  
Activities: Society of Foresters.  
Military: 771st FA Bn., 30 months.



## KNOUSE, HERMAN J.

Zwolle, Louisiana  
Forest Production  
Activities: Society of Foresters; ANNUAL RING '48-'49.  
Experience: USFS, Idaho, summer work; Mansfield Lumber Co., 6 mo.

## JOHNS, ROBERT B.

Oswego, New York  
Forest Production  
Activities: Society of Foresters; Xi Sigma Pi; ANNUAL RING, '48-'49.  
Military: 13th Air Force Service Command, 35 months.

## LAPHAM, VIRGIL T.

Houston, Texas  
Game Management.  
Activities: Society of Foresters; Alpha Zeta; Alpha Phi Omega; VFW; BSA; American Society of Mammalogists; American Ornithologists Union; Wildlife Society.  
Experience: Two summers USFS, Idaho; four years timber stand improvement and soil conservation.  
Military: Army, 66 months ETO.



# SENIORS

## LEMAIRE, ROBERT J.

Chicopee, Massachusetts  
Game Management  
Activities: Society of Foresters; Phi  
Theta Kappa.  
Experience: CCC, Mass., '38-'40;  
Davey Tree Expert Co. '41.  
Military: AAF, 47 months.

## LEMOINE, LOUIS E.

Moreauville, Louisiana  
Forest Production  
Activities: Society of Foresters.  
Military: Navy, 31 months, Pacific.

## LEWIS, RICHARD F.

Gulfport, Mississippi  
Forest Production  
Activities: Society of Foresters; Xi  
Sigma Pi.  
Experience: Summer work, Dantzler  
Lumber Co.  
Military: Inf., 45 months; MP, 42  
months.

## McCULLOUGH, JOHN M.

Columbia, Mississippi  
Forest Production  
Activities: Society of Foresters.  
Experience: USFS, Cobinet N. F.,  
Montana.  
Military: 80th Inf. Div. Light Artillery,  
43 months.

## McFATTER, DONALD M.

Sugartown, Louisiana  
Game Management  
Activities: Society of Foresters.  
Military: USN, 34 mo., Pacific.

## MARSHALL, THOMAS W.

Covington, Louisiana  
Game Management  
Activities: Society of Foresters; Xi  
Sigma Pi; Alpha Zeta; Bengaliars  
Male Chorus; Presbyterian Choir;  
Westminster Fellowship; ROTC, 1st  
Lt, 1943.  
Experience: USFS, Montana, two  
summers.  
Military: Navy Air Corps, 24 months.

## MIGLICCO, ANTHONY

Donaldsonville, Louisiana  
Forest Production  
Activities: Society of Foresters.  
Military: 487th Bomber Group, 30  
months.

## MILES, DEAN J.

Metuchen, New Jersey  
Forest Production  
Activities: Society of Foresters.  
Military: USN, 34 months.

# SENIORS

## MOODY, RAYMOND D.

Natchitoches, Louisiana  
Game Management  
Activities: Society of Foresters.  
Military: 9th Armored Div., 43 mo.



## MORGAN, WILLARD T.

Tishomingo, Mississippi  
Forest Production  
Activities: Society of Foresters.  
Experience: Nine years Practical Experience in Lumber Industry.  
Military: 456th Bomber Group, 34 months, Italy.



## PURVIS, GEORGE M.

Little Rock, Arkansas  
Game Management  
Activities: Society of Foresters; ANNUAL RING, Artist, '48-'49.  
Military: USN, 36 months.

## ROBINSON, RUTHER F., JR.

Danville, Louisiana  
Forest Production  
Activities: Society of Foresters.  
Military: 788th AAA, 36 months, ETO.

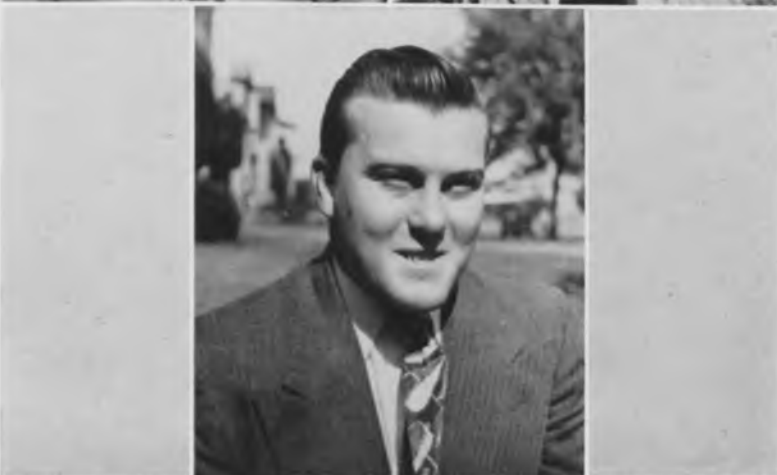


## ROMERO, LAMBERT H.

Baton Rouge, Louisiana  
Forest Production  
Activities: Society of Foresters.  
Experience: USFS, Kootenai N. F.  
Military: U. S. Far East AF, 42 months.

## SCOTT, FERDIE W.

Amory, Mississippi  
Forest Production  
Activities: Society of Foresters.  
Military: A.A.F., 37 months.



## SIGLER, CARLYS C.

Orange, Texas  
Forest Production  
Activities: Society of Foresters; Alpha Tau Omega; ANNUAL RING, '48-'49.  
Military: Marine Corps, 1st Division, 18 months.

# SENIORS

## SIMMONS, CALVIN T.

Roanoke, Virginia  
Game Management  
Activities: Society of Foresters.  
Military: 99th Bomber Group, 36 mo.

## STRONG, BYFORD

Gloster, Mississippi  
Forest Production  
Activities: Society of Foresters.  
Experience: Crosby Lumber Co., '47.  
Military: USAAF, 37 months.

## THIGPEN, DOYLE

Franklinton, Louisiana  
Game Management  
Activities: Society of Foresters; Block  
and Bridle Club; Alpha Gamma  
Rho.  
Experience: USFS, St. Joe N. F.  
Military: ATC, 56 months.

## TOMLINSON, ROY V.

Hugo, Oklahoma  
Forest Production  
Activities: Society of Foresters.  
Experience: Southern Advance Paper  
Co., Summer Work.  
Military: 8th Air Force and 109th  
FA Bn., 86 months.

## TURNLEY, JAMES E.

Trout, Louisiana  
Forest Production  
Activities: Society of Foresters, Ser-  
geant-at-Arms, '48-'49.  
Military: USMCR, 1st Division, 36 mo.

## WILLIAMS, CHARLES W.

Monroe, Louisiana  
Forest Production  
Activities: Society of Foresters; Xi  
Sigma Pi; Square and Compass  
Club.  
Military: USN, 36 months.

## WILLIAMS, LeROY G.

Leesville, Louisiana  
Forest Utilization  
Activities: Society of Foresters; Xi  
Sigma Pi.  
Military: Navy, 44 months.

## WINKLE, CLIFTON C.

Cotton Valley, Louisiana  
Forest Production  
Activities: Society of Foresters; An-  
nual Ring Alumni Ed. '48-'49.  
Military: 9th AF, 21 months, ETO.

# LIFTING-TIME

It's again time to lift and transplant the School of Forestry's 4-0 stock. The seedlings have reached the proper size and development to insure successful survival and, while several are slated for graduate transplant beds for another year, most of them will be dibbled right out into field plantations.

The school's nurserymen have amply fertilized the stock and graded the seedlings to the best of their ability, but nobody knows what each seedling has got under the surface better than one who germinated and developed in the same bed.

Let's take a look at the respective root systems and may they never get dry. The alphabetical order is properly skewed to relieve routine monotony:

ADKINS, "BUCK"—the biggest of the lot with proportional generosity. If you ever need a hand, Buck will be there with two big ones ready and willing.

ALBRECHT, "PETE"—S. C. transplant who knows how to get along with those in charge—good man in a fight, too, as portrayed in the "Battle of the Substitutes."

ALLEN, "I have returned"—Lifted prematurely, and sure to produce fine quality material wherever he goes.

BLAIR, "BRO"—bound to make out alright considering all the nutrients he absorbs. Give him room and watch him grow!

BONNER, "SMOKEY"—slightly allergic to railroads. Objective in life is to "do the job without defeating the purpose." That's problematically speaking, suh.

BURNS, "COMMISSIONER"—don't know if he's bucking for State Forester or just naturally likes to work there with a covey of pretty secretaries — Palmer will miss "Ask ole Burns."

CORDON, "WHITEY"—this Pennsylvanian's Dutch roots will uphold him no matter what the soil type.

COCKROFT, "BILL"—has done a bang-up job as pres. of the Sassiety—definitely the executive type (hope Nickey Bros. get the hint, Bill). P. S., that'll be one dollar and two cents, please.

COTHREN, "WAT"—Arkansas is the best. Consult your nearest Wat Cothren for further details.

COMEAX, "PERRY II"—(Winkle had it first)—never says anything but most of the "big talkers" would learn a damn site more if they'd listen to Comeaux.



*Out of character*



*Bird's-eye view*



*Is it long enough?*

D'AUTREMENT, "BUDDY"—If he takes to work like he did to Bogalusa, the rest of us will work for him. What an ETD.

DOLHONDE, PAUL—Having come from strawberry country, he will go well with pine straw underfoot.

DYKES, "UPRIGHT"—(He never bends over)—Brakeman from Mississippi. Wasn't too interested in pines at camp because he is a tung oil man.

EBERT—A New Jersey Dixiecrat! The method of keeping spotless after cruising a swamp is his secret alone.

EBLE, "EBEL"—French Quarter's gift to the Forestry School. An expert on Nutria, or as it is commonly called, the coypu.

EDWARDS, "CAPTAIN"—Arkansas' gift to this class. Precision work only—ask Lewis.

ELISSALDE, "NATURE BOY"—Will give a high yield no matter what site conditions, having come from good Third Street stock.

GOODWIN, "ARCHIE" (pronounced Arkee)—Probably will be more careful when he stoops to go under dogwood trees. Loved to clear-cut dense stands of poison sumac.

GORINSKI, "HOWDY PARDNER"—had those local yokels thinking he was Mayor. Even though playing no longer with Pittsburgh, Walt will be going down that field. Good luck!

GRESHAM, "GRITS"—big wheel in Bayou Rouge Sportsman's League. Future is "Game Unlimited."

HALBERT, "CISCO"—Capable of giving real competition . . . don't know how he does it with a nearly denuded canopy. Don't give up, Nell, it may come back.

HANSBROUGH—Tom's the Dan'l Webster of the lot and is certain to be heard from if only Cordon will quit telling Ginny things. Tenn. Tom's homesite is where they grow black locust so big they use the thorns for haystack poles.

HOLCOMBE—Dick's a valuable man to have around — especially in Bogalusa. Many a summer camper would have gone astray if Dick hadn't been around to answer questions. 1960 address: c/o Holcombe & Gaylord Container Corp.

HUGHES, "INSTITUTE"—His terminal bud damaged in youth, he yielded to an unusually healthy lateral on the front of his face which lifted him into dominance in spite of numerous attacks of brown spot. An A-1 piling in any outfit.

JOHNS—"Ah'm from Upstate New York." Came south and loved it. Kept everyone laughing at camp and during school. A fine fellow with a fine future.

KELSO—the only wood-tech variety in the LSU nursery and a southpaw besides. Did a good job as Athletic Manager for the Society.

KNOUSE, "DRAFTBAIT"—If anyone is able to survive in a class of some fifty G. I.'s, and Herman did it, we won't worry about him.

LAPHAM—Chuck's got plenty of stored food (for thought) to carry him through any situation. Recommended for a multiple use forest.

LEWIS, "LEW"—Oldest transplant from "the best fishin' country in the land." Isn't at home unless there is plenty of liquid around. Took an unusual amount for him to recover from the stunting in Improvements Lab.

MCCULLOUGH, "ROLL ME OVER"—Had a slight encounter at camp with a regiment of yellow-jackets and came out second best.

McFATTER, "MAC"—"Lover" of the School. His most used words are, "Your time to buy the coffee."

MARSHALL—Mrs. Armstrong's boy Friday. Very quiet but a deep thinker. Some day will be a Forest Supervisor in the FS.

MILES—The only man who could outwalk Winkle. He has already started his own crop of young forest and a good plan for the future.

MIGLICO, "TONY"—History repeated itself when he pulled a Frank Merriwell in the Mr. Herman game. Is always popping up whenever baseball is suggested.

MORGAN—Playing manager of the summer baseballers. Will never try lifting an eleven inch pulpwood bolt again while he has an audience.



PURVIS—Never on time for any class or lab., loves to sleep, fish, and draw pictures. Future—Taxodermist for Purvis, Inc.

LEMOINE, "LEW"—a quiet but indefatigable French variety—never said anything in class until one lecture about bayou buildings. Carried one crew through one-fourth of camp—(they all had saddle sores).

LEMAIRE—this boy from yankeeland joined the class after summer camp. A very quiet fellow.

ROBINSON, "ROBBY"—Will go as far as his gas in the car holds out.

ROMERO, "ROMEO"—A healthy individual in spite of moth defoliation during the war—it looks like it's been growing, Bert.

SCOTT, "SCOTTY"—Holder of many records, notably the Baton Rouge-Bogalusa speedway of 37 minutes with five minute coffee stop included.

SIGLER—Quit growing when he first spotted that rattler at camp. Has a fine future and will undoubtedly be State Forester some day. Always *glad* to work.

SIMMONS, "AL"—Has taken root already, and double sprouts have resulted after only one the previous year. Now leads the class.

STRONG—After leaving his crew's lunches on the ground, he decided to get married so somebody could take care of him.

THIGPEN—Missed camp last year due to a previous engagement with Uncle Sam's camp.

TURNLEY, "Chin yourself on this, sonny"—This fellow from Catfish, La., is the Marine Corps' gift to forestry, and our guess is that forestry will give him back.

WINKLE, CUBE—A "product" of North-Louisiana, suh! Deep rooted species not suitable to swamp habitat. There he was 20,000 feet from the nearest road and no tape repairs.

WILLIAMS, "FINANCE"—Carried entire class through Finance. Plans to go to Yankeeland in order to further his learning. In 5 years: "Boss" of the Preservation Lab at LSU.

MOODY, "RAY"—One of the largest dominants in his class. Should not have trouble getting through forest underbrush—ask Prof. Minor.

TOMLINSON—Called "Roy" by all members of the "officers' table" at camp. Knew every dive in Bogalusa, or would help find them. "Bouquet of Roses" and "Tennessee Waltz" are favorites.

BERGERON, "BOOTS"—A valuable individual who has proven the value of integrated use (potato chips, fishing, etc.).

KIDD, "BILLY"—Species that is slightly intolerant to certain Washington Parish weed species—*Rhus radicans*, etc.

WILLIAMS, "CHARLIE"—The other half of the "Williams Brain Trust." Future looks bright. He will be Chief Forester for Brown Paper Co., or president of MPRR.



*Train wreck in an Indian village*

# JUNIORS



*Back Row—W. F. Bailey, L. L. Brewton, C. B. Briscoe, H. E. Brislin, C. E. Brown, O. J. Builteman.*

*Middle Row—E. P. Champagne, J. E. Coleman, J. O. Collins, D. R. Copeland, C. E. Crowther, E. A. DeGrummond, C. F. Delaney.*

*First Row—J. E. Evans, F. L. Evans, T. E. Campbell, D. C. Cameron, H. M. Burnham, R. T. Carter.*



*Last Row—A. J. Fakier, G. T. Faure, R. J. Gascon, G. E. Goebel, E. A. Golden, E. Graham.*

*Middle Row—I. F. Grillot, J. O. Haynes, C. O. Haynes, J. L. Haygood, J. D. Hammock, J. T. Hennegan, M. Henry.*

*Front Row—J. T. Jones, P. F. Krouse, J. D. Kilgore, W. E. LaFitte, W. J. LaBlanc, A. D. Hulett.*

# JUNIORS



*Last Row—C. L. Leonard, W. A. Loe, W. E. McWhorter, E. L. Martin, C. E. Miller, O. C. Morris, J. W. Netterville.  
Middle Row—J. D. Odom, L. C. Peters, W. L. Pierce, O. M. Porciau, J. H. Price, J. W. Read, B. J. Robert.  
Front Row—K. D. Richards, F. H. Richardson, J. U. Rochester, C. W. Oakes, L. J. Roundtree, H. O. Roye.*



*Back Row—H. E. Rudy, P. H. White, E. C. Wilkins, W. T. Whalen, C. J. Vaughn, J. C. Watson.  
Middle Row—T. Watts, H. L. Walters, G. R. Smith, J. W. Seale, R. C. Sibley, L. R. Westmoreland.  
Front Row—E. S. Thornton, F. Walker, J. E. Sumrall, R. L. Vansandt, M. M. Smith, T. D. Williams, L. C. White.*

# SOPHOMORES



Rear—Foster, Bennett, Coltharp, Slocum, Hutchinson, McLean, Thurman, Bolton, Green, Edington.  
 Second Row—Hughes, Holloway, Herr, Martin, Turman.  
 Kneeling—Hovell, Davis, Holloman, Burton.



Rear—Couvillion, Reynolds, Waits, Crowell, Poston.  
 Front—Pearson, Courtade, Conneil, Fox, Evans.

# JUNIOR DIVISION



ALISON, THOMAS W.

BASKIN, CURTIS D.

BIVONA, ANTHONY J.

BRILEY, JUBERT J.

BURTON, GLENN A.

CARROLL, ROBERT L.

DUNHAM, PRENTIS U.

EGAN, PAUL J.

FLINT, AUSTIN W.

GREEN, RICHARD

GUENARD, JAMES H.

HIX, WILLIAM H.

HURST, CALVIN C.

HUTCHINSON, DELMOS G.

HUDE, HOLLIS E.

ITTMANN, R. A., JR.

JOFFRION, HORACE C.

JONES, JAMES V.

JUREY, CLARENCE E.

KENNEDY, JOSEPH D.

LYON, JAMES F.

McCAIN, EDWIN

McCAVATHY, CHARLES R.

MILLER, JOHN P.

MYRICK, JACK M.

PARKER, JOSEPH W.

QUBER, B. B.

REBOLY, JOSEPH V.

REYNOLDS, GERALD L.

ROSS, JOSEPH J.

SEXTON, GEORGE

SHIELDS, JOE A.

SLACK, FRANK W.

SMITH, HARVEY

STRICKLAND, DAVID L.

WALKER, GERALD A.

WALLACE, DEAN R.

WALTON, ROBERT A.

WILSON, JEWELL MC.

WOODARD, RISDON E.

WOODMAN, DONALD H.

WRIGHT, L. O.



# OUTLINE OF TIMBER CRUISING PRINCIPLES

BY CLEMENT MESAVAGE  
*Southern Forest Experiment Station*

Timber cruising has long been recognized as a problem in sampling, but difficulties in securing data have obscured the sampling processes and many liberties with sampling have been taken. The effect of these, in terms of accuracy and efficiency, has been hidden because checks of cruise estimates can rarely be arranged, mistakes are difficult to isolate, and inefficiencies in procedure are hard to prove. Pressure for research has been lacking, and cruising procedures of doubtful efficiency are being perpetuated.

This article discusses cruising principles which point up some of the more serious sources of error. The author's recommendations for overcoming these are not firm ones, but he hopes that they will stimulate research along the lines suggested.

## DEFINING CRUISE OBJECTIVES AND ACCURACY

It must be known beforehand exactly what kinds of information are to be secured by a cruise. An outline of the final cruise, report, complete with dummy tables needed to satisfy the objectives, should be prepared. Specifications for data needed should be carefully drawn up. The outline should describe the area to be cruised and should describe additionally any subdivisions of the data which may be required. These subdivisions may relate to area or to the trees themselves. Areal subdivisions may be geographic parts of the total area, or they may be parts which require special description, such as forest type, age-class, or site areas. Items relating to tree volume may similarly be broken down, for example, by species and tree size-class.

A consideration of the accuracy needed should then follow. There are two aspects of accuracy to consider. One relates to the validity of sampling, the other to the accuracy of the necessary measurements. These error sources should not be confused. They are largely independent of each other, and failure to provide properly for either should not be used as an excuse to slight the other. Probable limits of error are generally specified for sampling. Commitments as to sampling error should be avoided, however, until the probable size of combined error from all other sources (grouping, instruments, personnel, etc.) is known.

## THE REQUISITES OF A GOOD CRUISE DESIGN

A cruise should be planned to furnish data of specified reliability at minimum cost. Because of the large unpredictable errors arising from hidden defect, waste in utilization, human vagaries, etc., relatively large sampling errors are usually acceptable. It is economically unprofitable to reduce sampling error below 25 percent of the error likely from other sources. The size of the sample needed depends on the acceptable sampling error coupled with the amount of variation which is present on the area being cruised, and the efficiency of the sampling design.

When the objective is the collection of data on both area and volume, the principal elements which must be taken into account in designing a cruise are: 1) the allocation of samples to different portions of the area being cruised, 2) the size and shape of the samples, 3) the arrangement of samples, 4) the measurement of samples. The first of these elements is of particular importance when low-cost determinations of forest area by forest type, condition classes, density classes, etc., can be made by aerial photographs. It enables one to make use of the device termed "stratification" and to set up groups within which variation is relatively low. A discussion of stratification, however, is beyond the scope of this paper. The remaining elements will not be affected appreciably by the manner in which the samples are allocated. They are discussed briefly below.

## THE SIZE AND SHAPE OF SAMPLE PLOTS

A sample plot may be used as a sampling unit to arrive at an estimate of how the area being cruised is distributed by forest type, age class, and other area classifications. It may be used also as a sampling unit for estimating volume. Although estimates of both area and volume may be obtained from the same sample plots, the meaning of the area estimates differs according to the size of the plot which is used. In a survey using 1,000 quarter-acre sample plots, for example, it is usually inferred that 50 per cent of the area is in type A if 500 of the plots are classified as type A. More specifically however, the survey shows that 50 per cent of all the quarter-acre units which can be contained by the area are in type A. To get a

similar estimate in terms of 1-acre units requires the use of 1-acre sample plots; for 5-acre units, the use of 5-acre sample plots, etc. The size of the sampling unit must correspond with the size of the desired unit. In ground cruising, it is rarely practicable to use sample plots which exceed 1 acre in size. Within these limitations, sample plot size for area determinations is dictated by cruise objectives.

In the measurement of volume, on the other hand, the size of the plot required has little to do with the objectives of the cruise. For any given condition, accurate volume estimates can be secured from the measurement of sample plots of any size. However, there may be a narrow range of plot sizes which will yield the lowest error of estimate for a given cost, or, conversely, the least cost for a given limit of error.

The general practice has been to use a sample plot which is either one-quarter or one-fifth acre in size, according to the difficulties involved in measurement. Thus a one-fifth acre plot is popular in dense stands and rough terrain in the Appalachian Mountains, whereas a one-quarter acre plot is used more frequently in the southern States. Either of these sizes is merely a concession to the cruiser in that they permit him to measure the maximum amount of timber at a given place without confusion. Optimum plot size is primarily a function of the product of mean squared deviation of individual plot volumes from a mean plot volume, multiplied by the cost per plot. Sample plot size is at an optimum when this product is at a minimum.

Analyses made by the Southern Forest Survey showed that optimum plot size for cruises of units covering 15,000,000 acres was only one-half acre. If larger but fewer plots were used, the same sampling accuracy could be obtained with less travel time between plots, but the overall cost would be greater because of greater time required to measure plots. Alternatively, if smaller but more numerous plots were used, the same sampling accuracy could be obtained with less expenditure of time in measuring plots. The overall cost, however, would be greater because more time would be spent travelling between plots and locating plot boundaries.

There is little evidence as to the optimum plot size for normal cruising practice. Nor is it known whether a standard plot size is feasible, or whether several standard sizes for use under different conditions can be worked out. Tests by the author indicate that plots one-twentieth of an acre in size are close to the optimum under certain conditions. There is indication that when plots of this size are used in certain areas an estimate to a given standard error can be secured with little more than half the cost which would result from the use of one-quarter acre plots, even though the number of samples

needed is considerably greater. In recent tests in the immature longleaf pine type made by the Brewton Branch of the Southern Forest Experiment Station, it was learned that there is no significant difference in efficiency between one-tenth and one-twentieth acre plots.

Valid sampling can be secured with plots of any shape. In timber cruising, sample areas are usually circular, but rectangular or triangular plots have been used; strips are also used. There is some uncertainty as to the volume of plots as compared to strips. Strips have an advantage when timber is being mapped in place because type areas can be measured more closely.

This advantage of the strip appears to be outweighed by its inefficiency as a sampling unit. Because of the correlation between the timber on the adjacent strip lengths, the information gained on the second chain is not as significant as that obtained on the first chain. Yet the time needed to get the measurements is doubled. Consequently, the information obtained per unit of time expended is not uniform on a succession of adjacent areas. One way of increasing the efficiency of the strip is to narrow it to such a distance that correlation between volume present on adjacent strip sections is reduced. When this is done it is necessary to use more strips.

(Continued on Page 45)



# XI SIGMA PI



The Nu chapter of Xi Sigma Pi, forestry honor fraternity, has come a long way since its inception April 13, 1940, in securing and maintaining high forestry scholarship standards, building up the profession, and promoting fraternal relations among foresters.

The membership, listed below, is the largest ever.

## Officers

THOMAS HANSBROUGH . . . . .	<i>Forester</i>	F. J. ALBRECHT . . . . .	<i>Fiscal Agent</i>
VIRGIL W. COTHREN . . . . .	<i>Associate Forester</i>	EDWARD D. HOLCOMBE . . . . .	<i>Ranger</i>
R. F. WEST . . . . .	<i>Executive Representative</i>		

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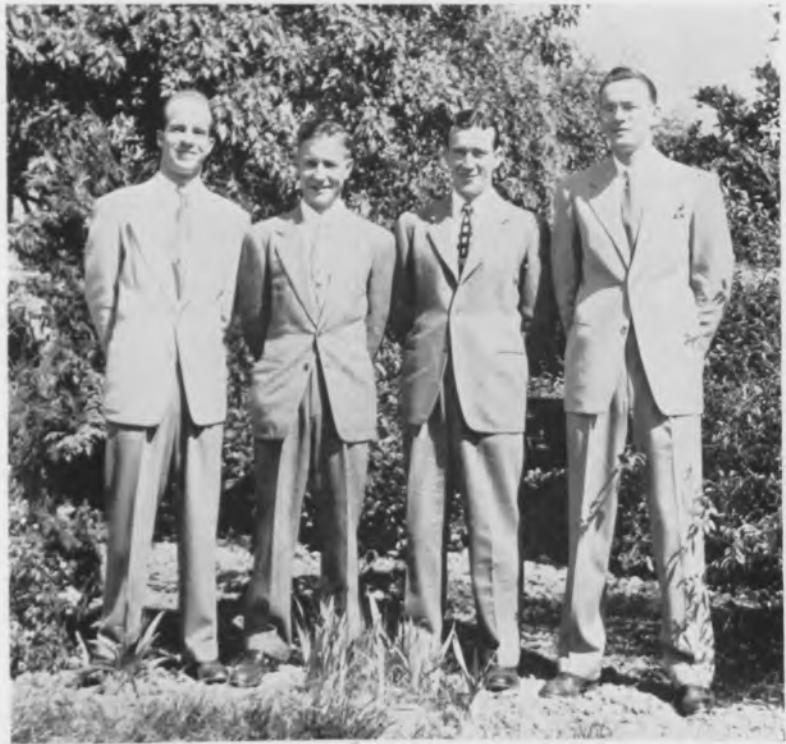
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*Sergeant-at-Arms*

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*Athletic Officer*

WILLIAM C. KELSO, JR.



BRISCOE

HOLCOMBE

COCKROFT

KELSO

# SOCIETY OF FORESTERS

The L. S. U. Society of Foresters as an organization of forestry students is dedicated to the promotion of friendship and the development of interest in the profession of forestry.

The Log Jam and the Field Day were sponsored by the society to provide social activities for the students in the School of Forestry.

As a member of the Agricultural Fair Association the society is able to keep the students and faculty well informed as to the activities and future events of the College of Agriculture.

In furthering the interest of the school's students in the business of forestry and keeping them up to date on new trends, the society provided speakers throughout the year. The information gained from these speakers was furthered by interesting educational films on forestry practices and the activities of the various wood using industries.



GOLDEN

BRISCOE

## OUTSTANDING SOPHOMORES

The first recipients of the annual award presented by the honorary fraternity of Xi Sigma Pi to the outstanding sophomore in the School of Forestry were Earnest A. Golden and Charles J. Briscoe. These men were chosen for their equality of scholastic ability and potentialities of leadership in the profession of forestry.

Golden has attained a high scholastic average and has had considerable experience in the field of forestry. Before entering LSU, he was active in the U. S. Forest Service for

more than five years. When World War II began Golden entered the U. S. Army and was assigned to one of two existing forestry battalions and sent to the South Pacific Theater of Operations, where he carried on lumbering operations supplying construction materials to the Corps of Engineers.

Briscoe has also attained a high scholastic average while being active in the Society of Foresters, Alpha Zeta, the Ag. Fair Association, and the Annual Ring.

## FRESHMAN ORIENTATION

Fishing, hunting, and fire-fighting—is that what most freshmen think of when they choose Forestry as their college career? How about speech, *Cephalanthus occidentalis*, and problems in finance? Many students graduate from college each year, having been educated for a job they soon find they don't like. Many others lose time and money in transferring from one career to another.

In an effort to prevent this in the School of Forestry, the Society of Foresters and Xi Sigma Pi sponsored a freshman orientation program the second week of school. The idea was new, this being the second year it has been tried, but already it warrants an editorial in the *Reveille*. In a tribute to the program the editorial said, "It would almost seem that they want to let the freshman know where he's going before he's halfway there."

The program was held around an open fire at the council ring. All the professors were introduced (and kidded). Short talks were made by Professor Hayes; Tom Hansbrough, President of Xi Sigma Pi; Bill Cockroft, President of the Society of Foresters; and by Charlie Carlton, President of the College of Agriculture. The turnout was phenomenal—about 85 per cent of the students and 100 per cent of the faculty (the announcement didn't say it was root beer).

If the freshmen learned nothing else, they must have felt the unity and friendship that exists in the basement of the Ag. Extension Building. We've started a good thing--now it is only up to us to make it better.



# Lab Shots



1. Victory Garden.
2. Nothing can be that interesting.
3. Hell, only fifty more miles.

4. You can't fool us with that pose.
5. The three stooges.
6. The Ice Wagon.

# Trends in Fire Danger Measurement Research in the South

By A. W. LINDENMUTH, JR.

*Fire Project Leader*

*Southeastern Forest Experiment Station*



A. W. LINDENMUTH, JR.

Fire danger is a very complex entity. As defined in "Forest Terminology," Society of American Foresters, 1944, it determines whether fires will start, spread, and do damage, and determines as well the difficulty of control. Accurate determinations of that order obviously require a detailed knowledge of fire behavior and effects, and a means of correlating the involved relationship. A complete evaluation is difficult. So, the job of rating fire danger ordinarily is broken down into its component parts. In the East and South at present we only measure inflammability or the relative ease with which fuels ignite and burn; in other words, fuel moisture and wind are the key factors in our scheme of fire danger measurement.

Fire danger measurement or fire weather research actually began about 27 years ago. Some scattered individual investigations had been conducted earlier, but no provision was made for a systematic, sustained study until in 1922. Then a fire danger research project was set up in the Northern Rocky Mountain Forest and Range Experiment Station at Missoula, Montana. By 1937, the idea of measuring fire danger had spread clear across the country. And now it is an established practice here in

the United States and also in Australia and Canada.

Measurable progress has been made over the years. Methods of measuring fire danger are established in all regions, and in the East and South, where I work and study, approximately 420 fire danger stations are now operating in 24 states. The system is still expanding. In those regions alone, fire danger measurements provide administrative guides for the annual expenditure of more than 12 million dollars for fire prevention, presuppression, and control activities on approximately 200 million acres of protected forest lands.

Although a great deal of work has been done, the job is by no means finished. As a result of many years' experience and a widely felt need, there are active trends today toward:

- A. Coordination of danger rating systems.
- B. Replacement of the present largely empirical guides with factual methods.
- C. Use of danger ratings as guides in prescribed burning.
- D. Expansion of the danger station system to increase the accuracy of sampling.

(A) The most far-reaching of these trends is that toward coordinating danger rating systems so they will have a certain basic uniformity from coast to coast. In the early days, fire danger measurement research started on a regional or sectional basis because conditions varied so markedly. For that matter, they still do. As an illustration, in the East and South 99 percent of all forest fires are man-caused. In the Rocky Mountains only 44 per cent are man-caused, while lightning is responsible for the other 66 per cent. But there is even a difference between the Northeast and the South in fire causes. In the Northeast, 91 per cent of all fires result from human carelessness or negligence and 8 per cent are deliberately set by incendiaries. In the South, only 55 per cent are attributable to carelessness while 44 per cent are set on purpose. There are also differences between the various sections of the country in fuels, in seasons, in climate, and many other things. It is for these reasons that danger indices have been developed by regions to fit individual needs.

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A map of forest fire danger stations illustrating this article appears on page fifty-one.

However, now that individual systems have evolved and are found valuable in each region, the trend is to unify them so that ratings can be used on a nation-wide basis for publicity and educational programs, as administrative guides in distributing funds available for meeting temporary dangers, and in the rating of fire-control efficiency. Thus their value is increased. Possibly within a few years the system of measuring and integrating fire danger will be uniform from Maine to Texas. This is only a step toward the goal, but when that day comes, a single method of fire danger measurement will be available to about 44 per cent of all the forest land in the United States needing protection from forest fires.

(B) Urgency, of course, compelled the original acceptance of largely empirical, or trial and error, methods. Administrators could not afford to wait many years for facts based on the investigation of fundamentals. So, the experience and judgment of fire control men were incorporated into some of our fire danger measurement schemes. The plan paid off but, as the measurements are used more and more, weaknesses become increasingly evident. For instance, danger ratings still don't accurately express fire intensity and consequent damage.

In the Southeast we are going to concentrate more on the basic type of studies for the next few years. Right now our fire intensity project has high priority. From it we want to determine to what degree the heat, and its duration, generated by forest fires are affected by weather and physical conditions. Practical methods for measuring and integrating the important factors will also be developed.

(C) In the South especially, the spotlight is now being turned on fire intensity, because of its importance in prescribed burning. Southern forest landowners or managers now control burn more than 100,000 acres annually. The practice is spreading, and indications are that acreage burned will increase immensely in the next few years. In the execution of this program, conflagrations must be avoided, and damage to forage or seedlings or other desirable vegetation must be held to a minimum. To avoid the pitfalls and achieve the benefits, land managers need reliable predictions of fire intensity. In the absence of any other guide, fire danger ratings are now being used for such predictions. But refinements are needed if the ratings are to do this new job accurately.

(D) Although there are now about 420 fire danger stations in the East and South, the system should be expanded to increase accuracy of sampling. In 1948, there was an average of one danger station for every 475,000 acres of protected forest land in this territory. One station for each 742 square miles is scarcely enough. How many stations should there be?

Roughly, one for every 200,000 acres of protected land, but the actual distribution depends on topography, climate, and other things. No formula has yet been developed for arriving at the exact answer. Careful study and field tests will be needed to determine the best distribution of danger stations. In the meantime holes are being plugged by inserting stations where the sampling obviously is inadequate. Later, as a result of our studies, we hope to place the distribution on a plan-wise basis.

Fire danger research has probably reached physical maturity—the period of rapid growth has passed. It is not likely that drastic changes will be made in the future in either the danger meters or the measuring techniques. However, basic knowledge will continue to accumulate for a number of years and meanwhile a gradual evolution will take place. What we have now is a general indicator; in the future we must adapt it to do specific jobs. There will probably always be a need for current revisions. Concentrations of population shift closer to or farther away from the forests, and man-caused fires vary accordingly. Management modifies the composition of timber stands and the accompanying fuel types. Even the weather changes in cycles from wet to dry and vice versa. All of those changing conditions—and more too—affect fire danger. As a result, it looks as though the fire danger researchers will be busy for many years.



*Kleinpeter prescribed burn*



# Summer Camp





# SUMMER CAMP

The forestry summer camp of 1948 had everything the typical vacation resort offers to the privileged few. An enormous swimming pool of outdoor variety was made possible by the ingenious construction of a dam which put many beavers in that area to shame. The baseball diamond which sported a stellar club was a gem indeed. The volleyball court was available to all men who wore "dust excluding masks." Recreation was everywhere. The food was exquisite, more or less, and the soft fluffy innerspring beds were the talk of the entire camp.

The honored guests gathered at the Bogalusa camp on June 2, 1948, at which time the adventure began. The official reception committee consisted of Ralph W. Hayes, president, secretary and business manager of this exclusive country club; C. O. Minor, chief mensuratorec-tera; A. B. Crow, silviculturist deluxe; R. F. "Gotta find that corner" West, official engineer; M. B. Applequist, D.F.C. (Dendrologist First Class) and B. A. Bateman, general woods foreman. Of course Beulah, the permanent chef, was very much there with her corn pone.

The following morning the club house resounded, reverberated and practically fell apart under the strain of a shrill bell being punished at 6:00 a.m. Many men set traps during the ensuing weeks, numerous guards were posted with orders to "brain that man," but all to no avail. The culprit who beat that bell at 6:00 every morning went unpunished.

Crews were formed and work began the first morning. The "North Louisiana crew" was ramrodded by Cube "slave-driver" Winkle and composed of individuals of varying qualifications, namely, Willard "Ole Man" Smith, Ruther "hot lips" Robinson, J. E. "Chin yourself on this" Turnley, S. D. Winkle, who became adept at the art of cracking his black bull whip, had the entire camp's sympathy. Anyone who carried this crew on their back should have more than sympathy.

J. E. and Hot Lips were quite the night owls, in fact only quick thinking by an anonymous

forester saved J. E.'s life one morning at breakfast. His timely advice was, quote: "Close your eyes or you'll bleed to death." Cube was the official tree climber for his section and on one occasion was heard telling Prof. Minor that he could climb up and measure the bark thickness himself if he didn't believe him. This crew provided many laughs with their antics.

W. T. "Shortstop" Morgan, R. D. Moody, D. J. "Step and fetch it" Miles and W. "Thirsty" Purvis comprised another crew of talented foresters. Moody found himself in a precarious position while crossing a creek on a log. A cotton-mouth snake was lazily estimating the distance between reptile and man from below while a highly aggravated nest of wasps were warming up for a bit of sport from above. Turning to gain aid from his crew he discovered that said crew was already 60 chains away and was gaining speed with every second. Morgan seemed to specialize in yellow jackets while Purvis was eternally drinking someone else's water. Long legs seemed a definite asset to Miles who stepped off countless "miles" with ease.

L. H. "Baldy" Romero, O. B. Strong, F. R. Scott, and C. T. "Yoyo" Simmons came in for their share of troubles. True to a pre-existing trend the crew pooled its resources, if any, to pull Simmons through. Their cruising wasn't such a bad job, but exceptionally tiresome since the crew took turns carrying him piggy-back while he enthusiastically shouted "That's a 10" hard, a 14" lob, etc.," while the remaining members toiled laboriously to keep up the tally, catch the end of the chain and satisfy Simmons' never ceasing demand for water and smokes. Not to be outdone by anyone else, Scott and his weekend riders broke all pre-existing records for the stretch between Baton Rouge and camp. This daring bit of speed caused considerable comment, usually ending with an impromptu version of "Wreck on the Highway."

Strong made the unfortunate mistake of leaving the crew's lunches on the ground. After thorough examination of the area it was decided that everything had gone to the hogs. And then

Relic

Tick picking

(D-4)<sup>2</sup> cr ?





there was the morning after a vigorous and extended night at the "One Stop," when Prof. Crow pointed to a stand of timber and asked Romero how he would thin it. He sleepily replied that he didn't see any trees.

The crew of LeRoy Williams, C. W. "Charlie" Williams, Roy "Doubting" Tomlinson, and C. C. "I'm glad" Sigler had their ups and downs. The two Williams' provided more than enough brains, Roy supplied the brawn while Sigler "gold bricked." During their brief sojourn through their mensuration a monstrous reptile attacked this crew. Roy cut down 6" saplings with his pocket knife in order to arm the crew with much-needed weapons. A flanking movement was then tried with success. The snake met a bloody fate at the hands of this courageous quartet. Remembering the words of the resident caretaker of the camp, the crew knew that this was not a rattlesnake, since none existed in that area. Still it was an odd-looking 5' garden snake with those cute rattles on its tail. Charlie was an unerring compass man while LeRoy succeeded in losing himself on one occasion.

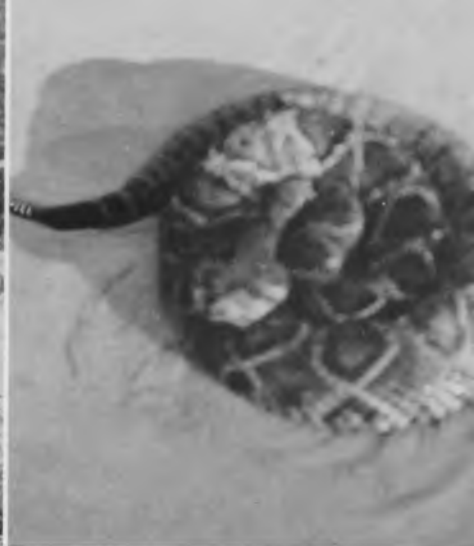
One typical day of the crew composed of Wat "Buzz 'em low" Cothorn, Bubba Burns, Jimmy Dykes, and Pete Albrecht, resulted in the following episode. The problem was to locate old corners; drawings were held to determine which corner. To begin with Burns had the privilege of drawing for the crew due to the fact that he was supposed to be on cordial terms with Lady Luck. The line drawn had only one swamp on it but it covered approximately 99 per cent of the line, more or less. Despite this minor setback the crew squared their shoulders, picked up their gear and their lunches (fried chicken with salad), and set out to find the missing corner "x." Fairly good progress was made during the morning despite the nu-

merous crossings of the creek, canebrakes to hack through, and bogs to be circumnavigated (please do not trouble editor for definition). Then the rains came. The elements showered those unfortunate foresters with all its might. Then a bolt of lightning struck a tree not too far from this crew and that ended that. "My opinion right or wrong" Albrecht then led this crew back to camp in short order. In a round about way that is.

Paul Dolhonde, Marvin "Little Wheel" Bell, Boots Bergeron, and Bill "Big Wheel" Cockroft was another prize crew. Dolhonde distinguished himself by tumbling into a creek (pronounced C-reek, not C-rick). Bell hurried to his rescue and in the process of pulling Dolhonde out also went into a tailspin. This crew had the pleasure of thinning a plot which was inhabited by a colony of yellow jackets who decided they would not be evicted. One group were of the dive bombing variety while the rest were content to strafe and snipe. All skirmishes were won by the colony. Bergeron machetted his way right over Cockroft, leaving the wounded forester with a cut leg. The men debated whether or not to put him out of his misery or just sit down to watch him sink more slowly. The latter idea was okayed but Bill sure fooled them. He was too tough and came through in fine style.

Floyd Adkins, Vernon "Buck" Adkins, John "Smoky" Bonner, and Ed Whitey Cordon were undoubtedly the luckiest crew at camp. Instead of swamps, snakes and alligators to confront them they always seemed to draw paved roads. This was the case in running land lines. The section on which they conducted their cruise was interspliced with melon patches and hay fields. Buck Adkins was the expert estimator, being able to call diameters from distances up to 300 yards. Bonner was the official level and compass man. Cordon, G. F. C. (graphiter





*Not really a crew . . . Not really a Dendro Lab . . . Not really a mirage*

first class) no doubt was instrumental in keeping this crew in line. He also had the Bogalusa police looking for one Thomas Hansbrough. It must be mentioned here that Cordon is also a noted poet of great renown having dashed off the "Dendro Yell" among other classics.

Another illustrious crew was Herman "Draft Bait" Knouse (editors' note: pronounced K-noose), Bob "Hope" Johns, "Nature Boy" Elisalde, an enthusiastic advocate of Toni Home Permanent, and Mac "Mississippi" McCullough. Elisalde was the pencil pusher for this outfit while Johns used that dry wit of his to keep the crew's morale at a high ebb. He was continually losing his upper plate at which time he became incoherent. Herman spent most of his time dodging wasps and draft questionnaires. His ulcers gave him special care from the chef: he ate eggs and toast when the rest of the men had to content themselves with sirloins. Mac forgot to extract the proper bearings from the old field notes, so he received special treatment from West in engineering.

The crew of Archie Goodwin, Don MacFatter, Tony Miglico, and Walter Gorinski had a very successful career at camp. Two of this crew were the stellar hurlers for the camp baseball team. Tony won the first game he had ever pitched. He was perhaps a little wild in spots but then all foresters are wild at times. Gorinski won a game with his fast ball (awfully fast). Goodwin cut himself shaving with a machete but it wasn't too serious. MacFatter was the glamour boy, L. S. U.'s gift to those poor Bogalusa girls. Don used the local bowling alleys for his base of operations. Goodwin lost the mapping plat sheet and as a result a new graphite pencil was put into use.

Lemoine, J. D. Hughes, Dick Holcombe, and Cecil "Cisco" Halbert were also in there with that do or die spirit. Hughes had the honor of playing center field for the baseball team. He was always good for a homerun or a strikeout, the latter being predominant. "Hot Rod" Lemoine was an expert at thinning dead trees.

Halbert became known as "One-eye" after an uninspiring brush with a wasp. (It closed that other eye.) Dick, being a Bogalusa lad, was able to point out the local dives not to frequent—although it did little good. This crew spent more time sipping long cool ones at Ma Minklers than they did cruising. That was one reason Prof. Minor had such a hard time locating them in the field. Dick refused to set up the transit in Engineering unless 15 or 20 trees were in the line of sight.

Thomas Hansbrough, Jim Ebert, Ed Edwards, and Lewis completed the summer camp contingent. Lewis managed to get left 6 miles from camp when a storm broke one afternoon. Prof. Crow sounded retreat and took off for camp leaving Lew all alone. He would still be thinning his plot if some one hadn't gone back for him. Ebert was the boy who upheld the morale of this crew. A cleaner-cut boy can't be found, although he did indulge in a little Beech Nut on occasion. Hansbrough was the mother of this crew and for half the camp as well. Ed was always on the ball, to say the least.

To all you future campers don't let the senior class scare you with all those tall tales of snakes, wasps, yellow jackets, red bugs, swamps, and Prof. Hayes' dog, Rusty. Summer camp affords the opportunity not only to put into effect the theory taught in previous years, but it is there where you get to know your fellow student. Lasting friendships are made during the brief six weeks period, views of various subjects are exchanged (from forestry to how to handle Russia, and even occasionally—women); the whole atmosphere is favorable for congenial relationship. Still, if in future years you undergraduates are called upon to cruise Section 19, T 2N, R4W, it would be wise to proceed with caution. A seven-foot rattler was left there to discourage firebugs but, it may not be able to distinguish foresters from the "peckerwood." We the senior class do bequeath to you future campers all these things and "heaven too."

# Utilization of Low Quality Southern Hardwood and Its Effect on Forest Management

PAUL M. GARRISON—Chief Forester  
Gaylord Container Corporation, Bogalusa, Louisiana



PAUL M. GARRISON

We as foresters are still idealists and as such we are inclined to be impatient with the progress being made by ourselves and our associates in this complicated economic world of ours. It is not my intention to present a formal paper loaded with long columns of box car figures as to availability of supply, growth and drain and attempt to make these figures add up to a definite answer; but rather it is my intention to attempt in an informal sort of way to review the hardwood situation in the south as it is known to exist and endeavor to enumerate some of the developments which have taken place within the region in the past few years—developments which, to me at least, indicate a definite trend toward the solution of a large and difficult problem.

The territory of which we speak has been defined many times, it includes all or part of twelve states, namely, Oklahoma, Texas, Arkansas, Louisiana, Mississippi, Tennessee, Alabama, Georgia, Florida, North Carolina, South Carolina and Virginia.

This article was presented by Mr. Garrison as an address before the national convention of the Society of American Foresters held in Boston, Mass., December 16-18, 1948; printed by permission.

**Low Quality Southern Hardwoods**—I have used the United States Forestry Service survey classification of Cull Hardwoods i.e. hardwood trees of all sizes that because of poor form or quality will not produce 1—12' sawlog and all hardwood trees under sawlog size.

Within the boundary mentioned above there is a total land area of 326,000,000 acres of which 183,000,000 acres are classified as commercial forest lands. These commercial forests are made up of 73,000,000 acres of pine; 30,000,000 acres of mixed pine and hardwood; 40,000,000 acres of Upland hardwoods and 40,000,000 acres of Bottomland hardwoods. It appears to me that our greatest problem concerns the land areas now occupied by stands of mixed pine and hardwood and Upland hardwoods; approximately 70,000,000 acres.

On the above 183,000,000 acres of commercial forest land the United States Forest Service survey of 1945 shows the following:

Total Hardwood—1,500,000,000 cords

One Billion, Five Hundred Million Cords. I do not know how many of you realize how much wood that is. Well it reminds me of a true story told on two illustrious members of our profession, Capt. Eldredge and Jim Gerard, I don't know who asked the question or who answered but either is eminently qualified to do so. Cap said, "Jim! How much wood is one million, five hundred million cords?" Jim took an old envelope from his pocket and figured a minute and said, "Well I'll tell you Cap, if that wood was cut into 4' billets and laid end to end and side by side, it would completely pave the entire state of Texas and with enough left over to stoke hell for seven years."

Total Hardwood	1,500,000,000 Cords
Cull Hardwood	300,000,000 Cords
* (a) Sound Cull	200,000,000 Cords
** (1) Non Pulping	125,000,000 Cords
	—50% 5-13"
(2) Pulping	75,000,000 Cords
(b) Rotten Cull	100,000,000 Cords

We can now discard from consideration 1/3 of our total cull volume which is the 100,000,000

cords of rotten cull, and deal only with the remaining 2/3 which is 200,000,000 cords of sound cull material.

Let us think of growth:

Hardwood growth on all hardwood except rotten cull is as follows:

Current annual	50,000,000 Cords
Sound Cull	6,000,000 Cords
Non Pulping	3,750,000 Cords
Pulping	2,250,000 Cords

We are now concerned with a land area of 70,000,000 acres; 200,000,000 cords of growing stock on which we have an annual growth of 6,000,000 cords. I wonder if you are now approaching the same state of confusion that I have been in since September in regard to this problem. If you are I know another good story. I think it applies in this case, as we are perhaps all confused about the problem and where we are going. A tourist stopped a man on the street of a small city one morning and asked, "Friend, can you tell me how to get to the post office?" the man said, "Sure, you go straight up this street two blocks, turn right go one block, turn left go,—no you can't go that way. Go up this street three blocks, turn right, go one block, turn left go,—no you can't go that way. Tell you what to do, go up this street one block, turn right, go one block, turn left go,—nope, you know, I'll be damned if you can go to the post office from here!"

In all seriousness—where are we going? It's a problem that confronts all foresters regardless of the region in which they work. It's a problem that becomes more critical as time goes on and we practice what we think is good management on forests of valuable species, and as these supplies of valuable species become more sought after.

I think that in as far as the south is concerned some progress has been made. Not necessarily in a large material sort of way but in realizing that the problem exists and that something must be done about it. Connected as I am with a pine consuming industry the hardwood problem was never prominent in our minds but as our management practices become more refined our hardwood problem becomes paramount. In the past few years we have come to realize that we do have a considerable area of hardwood land which cannot be converted to pine production, it will always be hardwood lands and as such we expect to manage it just as carefully for production of hardwood of usable species and quality of product as we do our pine lands for the production of usable materials as to quality and size.

The booming World War II market for forest products as well as the post war demand has educated others as well as foresters in the utilization of hardwoods of all species.

There is a continual stream of operators through my office inquiring into the possibility of purchasing not pine stumpage but hardwood stumpage of almost any species in almost any quantities. These same operators a few short years ago were interested exclusively in pine. This hardwood in considerable quantities is going into cross ties for export to Greece, Holland and Belgium, oil field decking, shuttle blocks, flooring, mine props, fuel wood, furniture, staves and heading, and pulpwood. And these products are being produced from hardwood trees which we have always considered sound culls. To indicate this trend to you I wish to quote from our own experience.

(1) I am told that the last quantity of white oak staves which moved from our immediate territory was from 1909-1915. In 1944 we were approached by three distilling companies to purchase white oak for staves and there have been produced from our lands to date 2,030,241 board feet white oak logs for staves at \$25.00 per M. These staves were produced from Post and Cow Oak, not from forked leafed white oak.

(2) Within my memory we have never had an inquiry for purchase of oak tie stumpage because the quality of our oak was so low—sound cull again. In 1944 our entire holdings was examined by one of the largest tie producers in the country and the stumpage was refused at any price. Since that time we have sold 4,428,313 board feet at an average price of \$9.00 per M.

(3) In 1941 we acquired a 6,000-acre tract which included 2,800 acres of bottom land hardwoods. This tract was originally cut over in 1935, recut 1941, and in 1945 we sold \$16,000.00 worth of cull hardwoods for slack cooperage and heading and at the present time we are cutting oak pulpwood from the area.

(4) We have discontinued our tie operations because our lumber operators desire to purchase the cull oak that is presently going into export ties.

(Continued on Page 53)



# HOMECOMING -- 1948



*Standing—Summers, Clark, MacClendon, Herrod, Drews, Hodges, Brown, Robertson, Vick, Grigsby, Kitchens, Brashears, Bateman, and McKean.  
Kneeling—S. Jones, Malloy, Morgan, Mixon, Myers, Foil, Ritchie, Barnett, Valentine, Moore, Wall, and Palmer.*

Some of the LSU Foresters got back together on homecoming this year—the day LSU got beat by Ole Miss (we understand that next year will be different).

President Brashears led the meeting and pointed out that the number present was not as large as it should have been (there were 29 there), and that he hoped future meetings would see more of the alumni coming back to visit the school at least once a year.

Brashears stated that during the past year the Department of Forestry had been made a School of Forestry and asked Professor Hayes to tell the group something about the status of the school.

Mr. Hayes pointed out that we became a school on July 1, 1948; that there are some 56 seniors, 106 juniors, 45 sophomores, and 30 freshmen enrolled in the school at present; and that two additional members had been added to the faculty this year—L. L. Glasgow in Game Management, and W. McD. Palmer in Forest Management and Utilization.

The group discussed the constitution for the alumni association that had been prepared by Darwin, Toler, and Squires. The constitution was adopted with certain changes recommended. The changes suggested are to be drawn up in written form and circulated to the alumni for their approval.

This concluded the major official business of the alumni meeting which ended with the group voting that a resolution be sent to Dr. Stoke expressing gratitude for his interest in forestry and confidence in his leadership.

Brashears, Hayes, and others emphasized the fact that the alumni should take every opportunity to remain in close contact with the school and the staff, and that through this contact both alumni and staff members of the school could benefit.

This all means that homecoming is a great day—all of the alumni should come if possible—but don't wait for homecoming—visit the school any time.



# ATHLETICS



Paced by "Lefty" Robert the Foresters gave a good account of their gridiron abilities in intramural competition for the 1948 season by winning five of the six games played. The lone defeat being a 12-0 loss to the Y.M.C.A. boys in the last game of the season.

Responsible for the fine showing of the team throughout the season was the excellent passing and defensive play of "Lefty" Robert along with the capable support of "Spider" Morris, G. R. Smith, "Tony" Miglicco, and Tom Watts in the backfield and with the aggressive play of L. L. "Heavy" Denham, J. N. Brown, L. E. Lemoine, Charles Hughes, and J. D. Hammock in the front wall.

After the successful football season the Foresters turned their attention to the Campus basketball league and walked off with third place honors by winning four of the five games played.

Led by Willard "Sachmo" Morgan, "Lefty" Robert, Sam Connell, and Tom Watts the Foresters made fast work of their first four opponents. In their last game of the season against the Baptist it looked as if they were on the road to an undefeated season, but two sensational shots by Hanchey in the last two minutes of the game gave the Baptist a 23-19 victory and the Foresters their first and only defeat of the season.

Last year's softball team with a record of 10-1 was one of the best that the Foresters have had and with most of the same group back this year plus some "mighty promising" sophomores and juniors the boys should make it "hot" for some of their opponents this year. Included in the returning men is pitcher Willard "Sachmo" Morgan with a record of 10-1 last year. His only loss being to the Newman Club by a score of 6-0 in the Campus league play-off.



# Field Day



1. Nineteen feet.  
2. On the ball.  
3. Ringer.

4. Who's riding who?  
5. Chow.  
6. Reminiscing.

# FIELD DAY

After reluctantly donating their dollar admittance fee, the forestry students headed for Camp Istrouma and the annual Field Day during the fall semester. Kelso had an adequate supply of athletic equipment to start the day's activities, but failed to bring enough card decks for the ever-present "Field Day bridge" players. Competitive sports got under way soon as the various classes played softball and volley ball. In the heat of one game, someone mistook Sigler for the ball and dropped him over the net for the winning point.

Prof. Minor voted his surrender to the theory of evolution after watching Briscoe win the tree climbing honors by reaching the twenty-foot mark in seven seconds flat.

Chow call at noon time found smacking lips eagerly awaiting the fine barbecue prepared by Prof. Crown of the AI department. George Faure remarked, on his fourth trip through the line, "Why not make this a weekly event?" Every one got their fill, and so did all wives concerned.

Highlighting the events of the day were the very informative speeches on the future of southern hardwoods by Mr. Walter Kellogg of

Monroe, La., and Mr. Sam Nickey, Jr., of Memphis, Tenn. Mr. Kellogg and Mr. Nickey, who are both prominent lumbermen, emphasized the need of further education and research in the fields of southern hardwoods.

With the bulging paunch of Hungry Holcombe leading the pack, less strenuous sports were of necessity resorted to after the pots and pans were emptied, and licked. Beech-nut Sumrall eked out Prof. Crow in the tobacco spraying contest to win this year's precipitation contest. No plug intended.

Hairless Joe Jones and Legs Thornton tied for first place in the pacing contest, both guessing the distance correctly. Quite a feat. Three-Aces Tomlinson was disqualified because he measured the distance with the aid of a poker chip of known circumference which he rolled the entire length of the course.

Vigoro Romero and ski-jump Halbert teamed up against an open-face sandwich for the title of "Most likely to Recede." Raw, huh?

These events were followed by tree felling and bucking, chopping, and annual ring counting. No cases of indigestion or sudden death have been reported so far.



*First Aid!!*

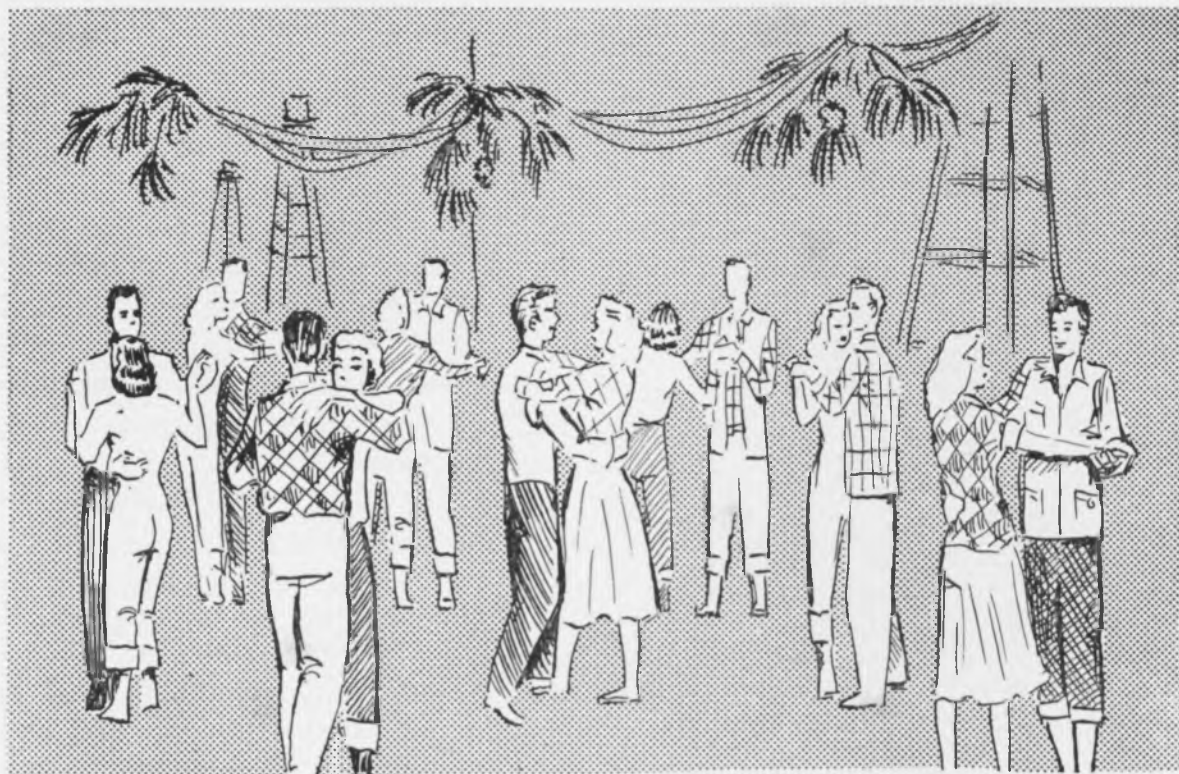


*This is a volleyball game*



*Keep it away from the tree*

# Annual Forester's Ball



## LOG JAM

During the spring semester, Paul Bunyan made his annual appearance for the foresters' traditional LOG JAM. After leaving his size "40" footprints on the campus, he moved into the Gym-Armory to reign over the dancers who whirled beneath the canopy of forest green.

"Pop" Edwards ably served as Paul's representative on the dance floor as his rustic cap tassel made its way through the crowd. Gorinski, Cordon, Strong, and Goodwin led their wives in a fast stomp, but very willingly voted top honors to Prof. Palmer who rocked the rafters with his original "Loggers' Stomp." To the fitting tune of "A Tree in the Meadow," woodsmen and partners led the Foresters' Special.

Climaxing the frolic was the award of a plug of Bloodhound and a bottle of Garrett's Best to Jim Odom and Jeannine Briscoe for winning the best costume award.

Refreshments were served behind a rustic bar

presided over by the able crew of Read, Krouse, and others. "One-Wing" Turnley and his alibi of "Honest, I slipped," in answer to numerous inquiries of his sprained wrist, provided many laughs. The only complaint offered was by Tomlinson and Hansbrough who wanted to hear the "Tennessee Waltz."

Many a tear was shed when it was learned that the tupelo quartet, composed of Gorinski, Knouse, Johns, and Cordon, would not give their famous rendition of "No, No, I Can't Forget the Hour." Ask Knouse why.

In departing, Paul, with a broad grin, turned and said, "So long, poddnuhs." It was obvious that he had given his heartiest approval and would return in time for the celebration next year.

Thus the campus' most notorious dance was again a big success, not only socially, but financially . . . for a change.

# AG FAIR DAYS

During the fall semester, forestry students presented their annual "open house" in co-operation with the Ag. Fair Association. Outstanding among the exhibits was that of the wildlife and game majors. "Casanova" Kidd and "Dapper Dan" McFatter held the female visitors spell-bound with their lectures on the various game animals being shown.

In the timber testing lab., "Cisco" Halbert explained to the visitors why wood holds supremacy for strength in relation to weight.

Kelso and "Fireball" Morgan got so excited at the deluge of damsels interested in slide preparations they almost made a tangential section

of their forefingers. Prof. Palmer, after taking his second helping (plate) of cookies at the Home Ec. exhibit, suggested that we have these open houses more often.

All departments of the College of Agriculture had exhibits which enabled the students to become better acquainted with the various fields of agriculture. Dean Lee, after visiting the displays, said it was the best open house yet put on, and the refreshments were equally fine!

Many forestry students will remember the days spent working at the annual rodeo and livestock show. "Smiling Jack" Turnley voiced his heartiest approval of the fine company of Home Ec. talent working at the student coffee shop.





# ALUMNI LETTERS

Every effort has been made to provide the latest and accurate address of the Alumni of this school but the material and cooperation was so small that the original space allocated the Alumni section of this year's Ring was cut down and awarded to other articles. As you know, your suggestions for improving the year-book in any way are wanted and welcomed now just as they have been in the past. The Staff offers a special vote of thanks to those who gave so willingly of their time and information in preparing this section of the Annual Ring.

W. B. WHEELIS, '27

I sincerely hope that this year's publication will be the best ever. I see several of the old grads occasionally and they all are very nice to us and see that I get to make most of the meetings held in this district.

To all of the old grads, how about dropping by to see Mr. Wheelis when you are up Monroe way. I am sure he would appreciate it. He is now located at 4210 DeSiard Street, Monroe, La.

W. E. KILGORE, '34

It is with a great deal of pride that I address this letter to you at the newly created Forestry "School." I read about the change in one of the forestry publications and, like a lot of the other alumni, I am proud of it.

JAMES E. MIXON, '36

The old saying—we get too close to the trees and fail to see the forest—applies to our neglect in replying to your letters asking for information from Alumni. I have maintained so much interest in our Alumni organization and have been so eager to see it better organized and more active, that I failed to recognize that you were waiting on ME.

I just have this message: We surely need more foresters with the Louisiana Forestry Commission. We are in hopes that this year's class will furnish us with ten or twelve new men. There is a wonderful opportunity and future with this Commission. Better experience and training cannot be secured elsewhere.

E. S. WALKER, '38

Forestry is really on the up-grade in this neck of the woods.

SAM JONES, '38

My time is fully occupied, I'm busy raising pine bushes and brown eyed gals.

IVAN R. MARTIN, '39

I would like to state that we have one of the best management programs in the south here in Alabama, as far as farm woodlands are concerned. The Extension Service has eight Timber Marketing Specialists covering thirty-six counties and we intend to soon expand our program to include five more counties. Our foresters assist land owners in all phases of timber management and marketing work. Some of our older men have assisted in a sale of more than a million dollars worth of marked timber per man. At the same time that these men are marking timber they are advising farmers as to other phases of woodland management, holding demonstrations on forest practices, assisting in laying out fire break plans, informing farmers on wood preservation, termite control, and every other subject slightly related to forestry; they are assisting sawmillers in obtaining timber, sawing better lumber, in efficient stacking, markets for specialized products, etc. I am the only LSU graduate on the Extension Staff. At present all of our jobs are filled, but we have a pretty large turn-over and I would be glad to hear from some of your more recent alumni who might be interested in jobs such as I have just described.

M. O. STARK, '39

The International Paper Company announces the appointment of M. O. (Mike) Stark of Jackson as Conservation Forester for Mississippi and the Florida Parishes of Louisiana. Stark succeeds Bob Nonnemacher who has been transferred to other duties with the Company. The International Paper Company at present employs nine conservation Foresters in the South. This position was created to encourage better cutting practices on private lands from

# ALUMNI LETTERS

which wood dealers and producers who ship to the Company's mills obtain wood. Adherence to the cutting standards of the Southern Pulpwood Conservation Association and to the State's Forest Harvesting Act is sought as a minimum. Selective cutting of pulpwood is encouraged and a free timber marking service is offered to land owners.

Mike has been employed by private industry, the United States Forest Service, and the Mississippi Forestry Commission. He recently resigned as Forest Management Director with the Commission to enter his present work.

J. W. MYERS, JR., '41

Railroad foresters, of whom I am one, lead a varied life. Most of the work is educational, public relations, and industrial development. Translated literally, this means that you may be called on at any time to go anywhere and do almost anything most of which isn't between the textbooks at school.

There is usually plenty of travel involved. During this past year I visited the Forest Products Laboratory at Madison, Wisconsin; Purdue University Forest Department at Lafayette, Ind.; The Illinois Forestry Congress at Champaign; International Livestock Show in Chicago; and the Annual Meeting of the SAF in Boston, Mass. This of course in addition to my regular trips throughout Louisiana and Mississippi.

Taking over where Charley Robertson, '47, left

off, I completed a booklet for the railroad on management called "Timber—A Cash Crop." To date, it has been very well received and 30,000 copies printed in two editions. Robertson originated the idea and gathered the material and is to be much commended on his work.

SANTIAGO PORCELLA III, '42

Congratulations: We are finally a School of Forestry, and I wish it could have happened during my stay there.

I spent a little over six months in Costa Rica, returned for a week at the New York office, and then jumped over to Accra in Liberia early in August. I am sure by this time you have read somewhere of the efforts of the Liberia Company in the development of Liberia. The immediate goal in our cacao program is to plant 200,000 acres during the next five years. This will not be land owned by us, but divided into blocks for individual ownership. We supply the knowledge for planting and maintenance and purchase of the crop. This will insure a uniform high quality product for export. So far, I have picked out one area which will be approximately 50,000 acres in size. This is 190 miles in the interior from Monrovia, and where we are now living.

Some planting to cacao has been started in the fall but I now have to wait for the rains to begin in April before planting can be resumed. In the meantime, there are huts and houses to build and roads to be constructed. All in all, it is a grand experience.



*James W. Duty*



*Lawson M. Anderson*



*J. W. Myers, Jr.*

# ALUMNI LETTERS

LOUIS A. ROWLAND, '47

Best wishes for this year's Ring.

EARL M. BRADEN, '48

So far we have had a nice season, lots of rain and no fires, which is very pleasing to me. I never thought I'd like to see it rain as much as I do now, the more rain the less work. Best of luck on the '49 Ring.

RAYMOND E. GIPSON, '48

Hope "you" all accomplish this task with as little pain as possible. Good luck, and happy exam results in the coming days.

ALPHAS HERRINGTON, '48

Looking forward to this year's Ring.

THOMAS R. SCOTT, '48

I would sincerely like to contribute more but the first year out is a lot like school, lots of work and very little capital.

MARION A. STEVENS, '48

Best of luck on the Ring, and by the way, don't let anyone tell you that you can't use what you have learned in school. You most probably will get almost any kind of job thrown at you. By the way, I like forestry work mighty fine.

GARRETT H. WALSH, '48

At the present I am located in a logging camp here in Mississippi. We are cutting all cottonwood and willow logs with some scattered sycamore. Our operation is 90 per cent or better by river transportation. Best regards to all.

O. F. WILSON, JR., '48

I have been spending most of my time since September doing farm forestry work in Bienville Parish. Never figured that I would get in the film projector operating business. But I did for a while; Ranger Floyd Caskey and I spent about three days last month showing the sound, color film "Dead Out" to rural school students in this parish. The central thought of the film was "Prevent Forest Fires"; however, it was so cleverly and humorously put to the students until they thoroughly enjoyed the movie. Trust that all have survived the final exams in worthy shape.

JIM RITCHIE, '46

Attached find check for \$1.50—please cash within two weeks. We could help you if someone would show interest to come around, but a mimeographed letter can't get it done. As an old Annual Ring editor I am interested in a good publication. Let's get down to business—suggest also Jim Kitchens or Ralph Wall for help.



*Class 5*



*Big Shots*



*Fires, Females, Form Class. Etc.*

# Outline of Timber Cruising Principles

(Continued from Page 23)

## THE ARRANGEMENT OF SAMPLES

Sample plots may be located with either random or systematic arrangements. Systematic arrangements of all types can be laid out more expeditiously than random arrangements. Those of certain types will also yield more information per sample plot than can be expected from a random arrangement. The big disadvantage of systematic arrangements for volume cruises is that there is no known way to compute sampling accuracy.

The general practice in timber cruising has been to use systematic arrangements and then use random sampling formulae to compute the standard error. This practice has been defended on the grounds that if a systematic survey is more efficient than a random arrangement of the same number of samples, then the true standard error, if known, would be less than is claimed by statistical formulae.

This assumption has led to many liberties with systematic sampling. Experiments with area sampling have indicated that sampling accuracy with systematic surveys may be more efficient than the use of a similar number of random samples. However, this superiority is present only when the systematic arrangement provides certain standards of sample plot distribution. In homogeneous areas, for example, it can be expected that systematic surveys will yield the most information if the samples are located at the points of a square, or equilaterally triangular grid, unless the separation of locations is correlated with land-use patterns.

In a square arrangement, the ratio of the distance between plots on a line to the distance between lines is 1 : 1. With this ratio, the uncorrelated systematic survey should have a lower sampling error than a random survey. As the ratio increases, however, the advantage of the systematic survey decreases. Somewhere along the line, its sampling error is the same as that of a random arrangement, and from there on, its sampling error may be expected to be greater than that of a random arrangement. It is not known which ratio will yield sampling accuracy equivalent to that of a random arrangement.

The author feels that if the money allotted to random, strip, or line plot designs is devoted to square sampling using optimum plot size, a greater accuracy will usually result, though the magnitude of the improvement cannot be calculated.

Timber types and stocking, however, are frequently correlated with topographic features of an area being cruised. When such a condition

exists, variance of tree volume may be expected to be greater between sample plots on a line which runs across the topography than between plots on a line that runs parallel with it. In a case like this, a rectangular arrangement of samples, oriented so that the short side is across the strata, will result in more sampling efficiency than could be secured with a ratio of 1 : 1.

It is not known how to determine the optimum ratio for local topographic conditions. One way of handling this may be to intensify the sampling of AREA but not VOLUME in each stratum. The arrangement of samples for the determination of volume in each of the strata may then have a 1 : 1 ratio without much disadvantage, particularly because volume stratifications within areal strata are difficult to recognize. Various designs using restricted randomization have been worked out for experimental work, but these are usually too costly for ordinary cruisers, or else complicate mapping and orientation too greatly.

## TREE MEASUREMENT ON SAMPLE PLOTS

When volume on sample plots is expanded to provide estimates of total volume on the area being cruised, it is assumed that the volume on sample areas has been measured without error. Actually, it is impracticable to estimate volume without incurring errors of several types. The errors are the result of failure to predict correctly the contents of standing trees, and of failure to account accurately for all the trees on the sample areas.

There are two kinds of difficulties in measuring the contents of standing trees. One is due to variability inherent in certain units of measure, a discussion of which is beyond the scope of this paper. The other is due to the fact that it is impracticable to obtain a direct measure of volume in standing trees. Consequently, a cruise can only furnish data on number of trees and a few dimensions such as d.b.h. and height, which are partially correlated with volume. Volume estimates must be obtained indirectly by inferring that the standing trees have the same volume as felled trees of the same dimensions whose actual volume can be measured. Such an inference can never be fully substantiated. Commercial cruisers frequently overcome much of this difficulty by scaling the contents of a tree ocularly. The procedure requires experience. Moreover, it limits cruise objectives and is cumbersome. When more than one cruiser is employed, differences in judgment may be great.

Foresters have gotten around this by classifying trees on the sample areas so that some of

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# ALUMNI LETTERS



MRS. EARL M. BRADEN



MURRAY E. BRASHEARS

H. L. BANGO, '38

I desire only one Annual Ring. I note that a patron receives two publications. I believe this practice is unnecessary and an added expense.

B. M. COOL, '40

If I am due an extra copy of the Ring, please send it to a member of the class of '40 from whom you have not received a subscription, but who you know is still active in forestry. Do not send it in my name. Just mail it without comment. If none of the class of '40 fits this description, pick out a name that does.

You might suggest this idea to other patrons as a means of increasing the circulation and bringing the old L. Shoe forestry grads together a bit more. I would mail it on myself but I have no way of knowing who gets copies and who doesn't. You should have that information readily available.

Stamp the book "patron copy" or something if you think it might otherwise encourage some of my worthless buddies to expect a free copy every year.

## Outline of Timber Cruising Principles

(Continued from Page 45)

the differences between estimated and actual volume are reduced; they can rarely be entirely eliminated. Thus trees may profitably be classified by species, even when the cruise objectives do not require such separation of data. They may be divided further on the basis of measurable characteristics which are correlated with volume. Although there is wide latitude in the selection of such characteristics, two in common use are tree diameter, outside bark, at breast height, and tree height to a utilizable top. Estimates of average volume of trees in each class may then be obtained by sampling the volume in felled trees.

To be valid statistically, there is obligation to select the sample trees in accordance with

sampling requirements, literally suggesting the necessity for felling sample trees on the sample plots laid out for the cruise. Such a procedure, however, is impracticable, and volume estimates have generally been based on tree measurements made on logging operations on or near the area being cruised. In the absence of such logging operations, averages based on measurements made elsewhere are commonly used. Neither of these methods is altogether tolerable because they invite systematic biases of unpredictable size. When cruise classifications are based on diameter alone, for example, the methods assume that the height and taper of the trees measured are the same as of those being cruised. The error is greatly reduced

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# ALUMNI DIRECTORY

## CLASS OF 1926

Bateman, Bryant A.—M.F. Iowa State '34; Professor of Forestry, L. S. U.; 321 Leeward Dr., Baton Rouge, La.

## CLASS OF 1927

Morgan, Sam H.—President, First National Bank, Opelika, Ala.

Stevens, Norman G.—Agent, Standard Oil Co., Box 169, Picayune, Miss.

Wheelis, Willis B.—M.F. Yale '28. 4210 DeSiard Road, Monroe, La.

## CLASS OF 1928

Bennett, Frank W.—M.F. Yale '31. Owner, Bennett Lumber Co., 820 Lake Park Dr., Baton Rouge, La.

Booth, E. W.—Address Unknown.

Story, H. D.—Assistant State Forester, Chief Management Division, Louisiana Forestry Commission, Box 1269, Baton Rouge, La.

## CLASS OF 1929

Sylvester, E. J.—U. S. Forest Service, Leaksville, Miss.

Brashears, Murray E.—Forester, Reimers Timber Corp., 211 W. Thomas St., Hammond, La.

Foster, Falcon R.—Forester, Brown Paper Co., Monroe, La.

## CLASS OF 1930

Graves, Ben S.—Technologist, Shell Oil Co., Norco, La.

McKellar, A. D.—Address Unknown.

McKean, A. A.—M.F. '41. Extension Forester, Agricultural Extension Service, University Station, Baton Rouge, La.

Chesson, Maxwell—Chief Forester, Bell Estate, Kinder, La.

Traver, Claud L.—Farmer, General Delivery, Sicily Island, La.

## CLASS OF 1931

Adams, William P.—Baton Rouge Claims Co., Triad Building, Baton Rouge, La.

McKeithen, Togo V.—Mill Operator, Summerfield, La.

Morgan, Roy B.—Forester, T. L. James Lumber Co., Ruston, La.

Risch, Lucius, Jr.—Procurement Department, Gaylord Container Corp., Bogalusa, La.



C. C. WINKLE, Alumni Editor

Smith, Francis A.—Manager, Arkansas Fuel Company, New Roads, La.

St. Dizier, A. J.—Principal, Central School, Lake Charles, La. Stringfield, Will—Regular Army.

Tate, Theodore, Jr.—Eunice, La.

Toler, James B.—Forester, Masonite Corporation, Laurel, Miss.

## CLASS OF 1932

Babin, Willie James—Modern Tire Service, Baton Rouge, La. Darwin, William N.—Head, Forest Products Utilization Section, TVA, Dept. of Forestry Relation, Norris, Tenn.

Fortenberry, E. J.—Assistant Supervisor, Gunnison National Forest, Colo.

Hobgood, E. C.—Farmer, General Delivery, Clinton, La.

Johnson, M. M.—Work Unit Conservationist, Henderson, Texas.

McCullough, Joe T.—Forester, The Collier Corp., Everglades, Fla.

May, Jack T.—U. S. F. S., Tallahassee, Fla.

Miles, R. V., Jr.—Chief Forester, Gulf States Paper Corp., Tuscaloosa, Alabama.

Squires, J. W.—Forest Supervisor, Mississippi National Forests, USFS Box 1849, Jackson, Miss.

Tannehill, George, Jr.—District Ranger, USFS, Winnfield, La.

## CLASS OF 1933

Matthews, W. P.—Reservoir Manager, U. S. Corps of Engineers, Nashville District, Nashville, Tenn.

Smith, H. E.—Forester, Crosby Lumber Company, Crosby, Miss.

## CLASS OF 1934

Hebert, Clyde H.—Private Business.

Kilgore, Elbert—Assistant State Forester, Alabama Division of Forestry, Montgomery, Ala.

Lehman, John W.—Assistant Chief, Forest Development Branch, Division of Forestry Relations, TVA, Norris, Tenn.

Sentell, Wesley W.—Chief Forester Woodland Department, Southern Advance Bag and Paper Co., Box 219, Hodge, La.

Sessions, Lee C.—Assistant State Forester, Mississippi Forestry Commission, Box, 649, Jackson, Miss.

Yawn, F. W.—Chief of Fire Control, Division of Forestry and Parks, Little Rock, Arkansas.

## CLASS OF 1935

Etzel, Robert A.—Boy Scout Executive, 139 Melton St., Longview, Texas.

Korte, Karl H.—Assistant Forester, Board of Agriculture and Forestry, Territory of Hawaii, Box 213, Mokawoa, Maui, Hawaii.

MacClendon, Travis—Assistant Superintendent of Wood Procurement, International Paper Co., Bastrop, La.

Olson, Harold W.—Private Business, 207 Shute St., Everett, Mass.

Townsend, Hal E., Jr.—Box 985, Northwestern State College, Natchitoches, La.

## CLASS OF 1936

Blake, C. D.—Mechanical Drawing Institute, College of Engineering, L. S. U., 311 East Airport Avenue, Baton Rouge, La.

Mixon, J. E.—State Forester, Louisiana Forestry Commission, Box 1269, Louisiana Forestry Commission, Baton Rouge, La.

Wierman, R. L.—Address Unknown.

## CLASS OF 1937

Bolar, Max D.—Forester Land Utilization Projects, Soil Conservation Service, Forest City, Arkansas.

Camp, J. W.—Address Unknown.  
 Chalk, A. T.—District Conservationist, U. S. S. C. S. Box 910, Nacogdoches, Texas.  
 Cobb, H. C.—Forester, Southwest Development Co., Jasper, Texas.  
 Dietrich, Warren E.—Forester & Agent—The Pardee Co., Box 269, Minden, La.  
 DeLisa, L.—Assistant Laboratorian in Bacteriology, Bath, New York.  
 Garr, Fred—Lieutenant-Commander, Naval Air Corps, Honolulu, Hawaii.  
 Herrod, Jasper B.—Timber Manager and Vice-President, Plant Superintendent Central Creosote Co., Inc., Slaughter, La.  
 Hunt, Thomas W.—Address Unknown.  
 Kitchens, J. H., Jr.—Chief, I. E. Branch, Louisiana Forestry Commission, Box 1269, Baton Rouge, La.  
 Montfort, W. W.—Farm Forester, Mississippi Extension Service, Philadelphia, Miss.  
 Palmer, W. M.—Associate Professor of Forestry, School of Forestry, L. S. U., Baton Rouge, La.  
 Perkins, C. J.—Biologist, Department of Wildlife and Fisheries, Elizabeth, La.  
 Pierson, Woodrow D.—Address Unknown.  
 Rhodes, Robert R.—Assistant Professor, Texas Agricultural and Mechanical College, College Station, Texas.  
 Roberts, Christy E.—Division Superintendent, Wood Procurement Division, International Paper Co., Bastrop, La.  
 Rordam, R. B.—Private Surveyor, 318 Carondelet Street, New Orleans 12, La.  
 Russell, E. J.—Associate Professor of Forestry, Department of Forestry, Louisiana Tech, Ruston, La.  
 Sentell, John—Farmer, 238 Albert Street, Shreveport, La.  
 Smith, Marshall R.—District Forester, Louisiana Forestry Commission, Box 550, Minden, La.  
 Turba, John—1223 Hodgson Street, Schenectady, N. Y.  
 Woodcock, Fred—Forester, Brown Paper Mill, West Monroe, La.  
 Valentine, W. C.—Chief of Fire Control, Louisiana Forestry Commission, Box 1269, Baton Rouge, La.

#### CLASS OF 1938

Brewer, W. E.—Forester, Riegel Paper Corp., Bolton, N. C.  
 Bryan, James E., Jr.—Forester L. N. Dantzler Lumber Co., Perkinston, Miss.  
 Byrd, Edwin L., Jr.—1310 Munday Ave., El Paso, Texas.  
 Bango, Henry L.—Consulting Forester, Box 145, Minden, La.  
 Couch, Clifton Z., Jr.—Major, U. S. Army, HQ 1st Bn., 15th Inf. Reg., Ft. Benning, Ga.  
 DeFelice, Dave J.—Student, L. S. U., University Station, Baton Rouge, La.  
 Ferguson, Edwin R.—Superintendent, Harrison Experiment Forest, Southern Forest Experiment Station, Route No. 1, Saucier, Miss.  
 Foil, J. Harold—Assistant Chief Forester, Gaylord Container Corp., Box 555, Bogalusa, La.  
 Francis, Julian B.—Deceased.  
 Henderson, Wilber H.—District Forester, Gaylord Container Corp., Box 52, Morgantown, Miss.  
 Holmes, W. W.—Forester, Mansfield Hardwood Lumber Co., Zwolle, La.  
 Honnold, Clark D.—Timber Cruiser-Land Appraiser, Clark Hill Dam Being Constructed, Corps of Engineers, U. S. Army, Box 128, Lincolnton, Ga.  
 Hopkins, Jack G.—Cotton Planter, Waterproof, La.  
 Jones, M. Samuel—Forester, Woodard & Walker Lumber Co., Taylor, La.  
 Kirkpatrick, John C.—Assistant Forester, Gulf States Paper Corp., Tuscaloosa, Ala.

Loe, Espy F.—Forester, Goodyear Yellow Pine Co., Pica-yune, Miss.  
 Millsaps, Paul G.—Extension Forester, Mississippi Extension Service, State College, Miss.  
 McKillips, Robert L.—District Forester, Louisiana Forestry Commission, Box 137, Natchitoches, La.  
 Russo, Andrew J.—81 Eagle St., Fredonia, N. Y.  
 Sprott, C. Harvey—Chief Forester, Southland Paper Mills, Inc., Box 149, Lufkin, Texas.  
 Walker, C. Scovell—Forester, S. H. Bolinger & Co., Ltd., Plain Dealing, La.  
 Warmbrod, James G.—Supervisor of Natchez Trace Forest Park, Wildersville, Tenn.

#### CLASS OF 1939

Armstrong, Donald B.—Forest Engineer Southern Kraft Timberland Corp., Waycross, Ga.  
 Belniak, Casmer A.—Forester, International Paper Co., Georgetown, S. C.  
 Davila, Jose A.—Lumber Broker, Caguas, Puerto Rico.  
 Drummond, Don M.—Asst. Forester, Utah Board of Forestry, Logan, Utah.  
 Flash, J. E., Jr.—Tester Continental Oil Co., Ville Platte, La.  
 Josefus, John E.—Newburg Heights, Ohio.  
 Kohara, Tommy Tamotsu—Visual Aids Forester, Alexandria State Forest, Woodworth, La.  
 Lathrop, Frank P.—Lathrop Logging Co., Reform, Ala.  
 Lewis, Charles H.—Forester, Crosby Lumber Co., Crosby, Miss.  
 Linn, Ed R., Jr.—Sales Representative, Mengel Plywoods, Inc., 7143 Garden St., Houston 12, Texas.  
 Martin, Ivan, Jr.—Extension Forester, Alabama Extension Service, Auburn, Ala.  
 Molloy, L. H.—Forester, Crosby Lumber Co., Crosby, Miss.  
 Moore, Hal—Forester, Chicago Mill and Lumber Co., Tallulah, La.  
 Moore, J. Scott—Assistant Forester, L. N. Dantzler Lumber Co., Perkinston, Miss.  
 Nicholson, J. C.—International Paper Co., 4226 Second Ave., Birmingham, Ala.  
 Stark, Meridith O.—Conservation Forester, International Paper Co., Canton, Miss.  
 Summers, Jerome H.—Consultant Forester, 710 North Blvd., Baton Rouge, La.  
 Titus, John A.—3108 Sixth St., Port Arthur, Texas.  
 Toler, Ardie D.—Forest Economist, International Paper Co., Mobile, Ala.  
 Wright, George—Manager Pole and Piling Division, Kirby Lumber Co., Silsby, Texas.

#### CLASS OF 1940

Anderson, Massey H.—General Manager, Sigman Stave Mill, Box 179, Monticello, Ark.  
 Barnett, John—Forester & Timberman, Haymes Lumber Co., Box 504, Clinton, La.  
 Beauchamp, Emmette—R. O. T. C. Instructor, University of Missouri, Columbia, Mo.  
 Beeson, Travis M.—Forest Consultant, Walterboro, S. C.  
 Behrens, Arthur—Deceased.  
 Browning, Lacy W.—Instructor Veteran Trainees Institute on Farm Training, Ecru, Miss.  
 Cool, Bingham M.—Assistant Forest Specialist, Forest Products, Mississippi Extension Service, State College, Miss.  
 Cooper, James Robert—Production Manager Richmond Plant, Koppers Co., Inc., Wood Preserving Division, Box 1620, Richmond, Va.  
 Dowdy, Felix—District Forest Engineer, International Paper Co., Mobile, Ala.  
 Elfer, L. Gus—Sales Manager, The Fortier Co., 4006 Eden St., New Orleans, La.

Freshwater, Richard J.—District Forester Gaylord Container Corp., Denham Springs, La.

Green, John L.—Deceased.

Girlinghouse, Gus N.—Deceased.

#### CLASS OF 1941

Buescher, Peter P.—Manager Harriston Hardwood Co., Harriston, Miss.

Davis, John E.—Assistant Ranger, USFA, Wausau Tower, Richton Miss.

Dedeaux, Randle J.—Consulting Forester, Masonic Building, Box 52, Perkinston, Miss.

Dimmick, Allen E.—Deceased.

Duplantis, John D.—Deceased.

Edlestein, Arnold A.—145 Congress Ave., Chelsea, Mass.

Grémillion, Arthur F.—Filling Station Operator, Box 107, Alexandria, La.

Johnson, M. B.—Work Unit Conservationist, Henderson, Texas.

Koen, John T.—Fire and Improvement Ranger USFS Rt. No. 3, Moncks Corner, S. C.

Lewis, John R., Jr.—Deceased.

Moore, F. D.—Endicott Lumber and Box Co., 1306 Clark St., Endicott, N. Y.

Myers, John W.—Forestry Agent, I. C. Railroad, I. C. R. R. Depot, Baton Rouge, La.

Nelson, Robert D.—Forester T. V. A. Forest Relations Dept., Norris, Tenn.

Phillips, William T.—Forester, Kirby Lumber Corp., Agent, Southwestern Improvement Co., Box 85, Merryville, La.

Robertson, Charles W.—Conservation Engineer International Paper Co., Box 94, Natchitoches, La.

Roundtree, Charles O.—Representative Toledo Scales Co., 2775 Oak St., Jacksonville, Fla.

Tannehill, Glen F.—Forester Urania Lumber Co., Ltd., Urania, La.

Trichel, J. S.—Forester Brown Paper Mill Co., Inc., Monroe, La.

Wall, Ralph T.—Assistant I. E. Chief, La. Forestry Commission, Box 1269, Baton Rouge, La.

Wallace, Harold E.—Associate Federal Aid—Regional Supervisor, L. S. Fish and Wildlife Service, 414 Glenn Building, Atlanta, Ga.

Herlevich, Joe—District Forester, N. C. Forest Service, Box 628, Whiteville, N. C.

Hinton, John Hopkins—Tennessee Valley Authority, Box 154, Trenton, Ga.

Kety, J. H.—Medical Student (second year), L. S. U. School of Medicine, New Orleans, La.

King, L. E., Jr.—Conservation Forester, Champion Paper and Fibre Co., Huntsville, Texas.

Lambert, Herbert G.—Address Unknown.

Moore, Charles H.—Partner, Louisiana Waterproofing Co., 1412 Texas Ave., Shreveport, La.

Munsterman, John Francis—Forester, Roy O. Martin Lumber Co., Box 1110, Alexandria, La.

Olmstead, Marion J.—Sales Representative, 124 S. Grand St., Monroe, La.

Ramke, Thomas F.—Forester T. V. A., 418 Old Post Office Bldg., Chattanooga, Tenn.

Robertson, Charles W.—Conservation Engineer, International Paper Co., Box 94, Natchitoches, La.

Salter, Andrew, Jr.—Assistant Superintendent, Mill Division Crossett Lumber Co., Crossett, Ark.

Shirer, John Marion—District Forester, S. C. Forestry Commission, Box 458, Kingstree, S. C.

Schultz, Oliver W.—Forester, Brown Paper Co., Monroe, La.

Sizemore, William R.—Assistant State Forester, Alabama Department of Conservation, Rt. 1, Tallahassee, Ala.

Smith, Wallace R.—Forester, Tremont Lumber Co., Rochelle, La.

Stevens, James N.—Nursery Superintendent, Louisiana Forestry Commission, Box 218, Sibley, La.

Waterer, John B.—Captain Delta Air Lines, Municipal Airport, Atlanta, Ga.

Wilson, John Stewart—Forester, International Paper Co., Camden, Ark.

Young, John Frank—Forester The Mengel Co., Baton Rouge, La.

Weatherly, Joseph E.—District Forester, Mississippi State F. S., Box 225, Brookhaven, Miss.

White, Charles W.—Area Forester T. V. A., 720 James Bldg., Chattanooga, Tenn.

Woolfolk, Edmund Taylor—Commercial Sales Representative, Gulf States Utilities, Box 2431, Baton Rouge, La.

Zachariah, Joseph Dullar—Landscape Architect, 2054 Argyle Ave., Hollywood, Calif.

#### CLASS OF 1942

Blevins, Jack W.—Partner Gayle-Blevins Lumber Co., Box 392, Lake Charles, La.

Brown, John B., Jr.—Forester University Forest Land, University of Mississippi, Box 156, Wiggins, Miss.

Darby, Albert W.—Address Unknown.

Forward, George L.—Insurance Adjuster, General Adjustment Bureau, 517 Texarkana National Bank Bldg., Texarkana, Texas.

Gunter, Erin R.—Assistant District Forester Louisiana Forestry Commission, Box 689, Hammond, La.

Hays, William R.—Manufacturers Representative, 2011 Cedar Springs, Dallas, Texas.

Hudson, Charles R.—Veterans Administration, 3200 Wolfe St., Little Rock, Ark.

Jacks, Marshall Hugh—A. M. Wood Inspection Co., Hattiesburg, Miss.

Kohlman, N. C.—District Forester, Mississippi Forestry Commission, Wiggins, Miss.

Perdue, William K.—Forest Engineer, Long-Bell Lumber Co., Eugene, Oregon.

Porcella, Santiago II—Forester, The Liberia Company, Box 45, Monrovia, Liberia.

Robinowintz, Milton E.—Cotton & Livestock Business, Richmond, Texas.

Stallworth, Nicholas J.—Manager Stalworth Pine Prod. Co., Box 1114, Mobile, Ala.

Todd, Ralph Leon—Address Unknown.

#### CLASS OF 1943

Aguillard, Nolan—Veterans Instructor, care of Evangeline Parish School Board, Box 61, Eunice, La.

Avrard, Jules E., Jr.—Field Executive, Boy Scouts of America, 201 Cigali Bld., New Orleans 18, La.

Batchelor, James P. III—Forester, International Paper Co., Huttig, Arkansas.

Boerstler, Ross F.—Boerstler Brothers, 601 West Division, Henrietta, Okla.

Byassee, J. F.—7701-A Brookline Terrace St., St. Louis 17, Mo.

Cleveland, Robert L.—Forester, Edgewood Land and Logging Co., Ltd., Box 831, DeQuincy, La.

Freeman, E. A.—Forester, Fordyce Lumber Co., Fordyce, Ark.

McDaniel, Curtis M.—Assistant District Forester, Louisiana Forestry Commission, Minden, La.

Rivette, Manuel J.—Consultant Forester, Box 283, Clinton, La.

Webb, John M.—Forester, International Paper Co., Box 694, Jena, La.

Wilkinson, W. H.—Forester, Crosby Lumber Co., Crosby, Miss.

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# Outline of Timber Cruising Principles

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when height as well as diameter is recorded during the cruise, but even then sizeable systematic errors can still be introduced by differences in tree form.

A practicable means of reducing the occurrence of these systematic errors without the expense of felling sample trees on cruise plots is to use a device which is known as "Girard form class." Girard form class refers to the degree of taper in the utilizable bole of trees. It may be defined as the percentage which the scaling diameter of the first sawlog of a tree bears to the diameter measured outside bark at breast height. For eastern species, Girard form class is based on a 16-foot sawlog, with scaling diameter usually, but not necessarily, averaged across the log, inside bark. For tall western species, it is based on the scaling diameter of a 32-foot sawlog. Girard form class of standing trees cannot be conveniently measured, but it can be estimated ocularly after some practice.

When trees are stratified by form class as well as by diameter and merchantable height, effect of volume variations between trees is greatly reduced. Those variations which occur are usually traceable to differences in standards of utilization. The similarity in volume is due to a tendency for trees of the same diameter, height, and form class to have similar rates of taper in the sawlog portion of the tree above the first log, irrespective of species and locality, provided that standards of utilization are similar.

Estimates of average tree volume incorporating the use of form class may be prepared specially for each area cruised by using a method of volume table construction explained by Girard and Gevorkiantz (3). For most cruises, however, satisfactory results can be obtained by using published tables (6), (5), (2), (1), (4) which show volume for trees of each form class by diameter and height. The tables are based on the volume of many sample trees, and thus reflect average taper rates of many species in many localities. When such tables are used, the only factor affecting tree volume which cannot readily be taken into account during the cruise is the rate of taper in the merchantable portion of a tree

above the first log. However, systematic errors introduced from this source are small if directions for table usage are observed. To insure proper sampling distribution, data on diameter, height, and form class should be obtained during the cruise. Most accurate results will be secured if these measurements are taken on all trees tallied. However, an average form class for each species can be obtained from a subsample of the trees cruised. Separate form class averages should be determined for trees larger and smaller than 10 inches in diameter.

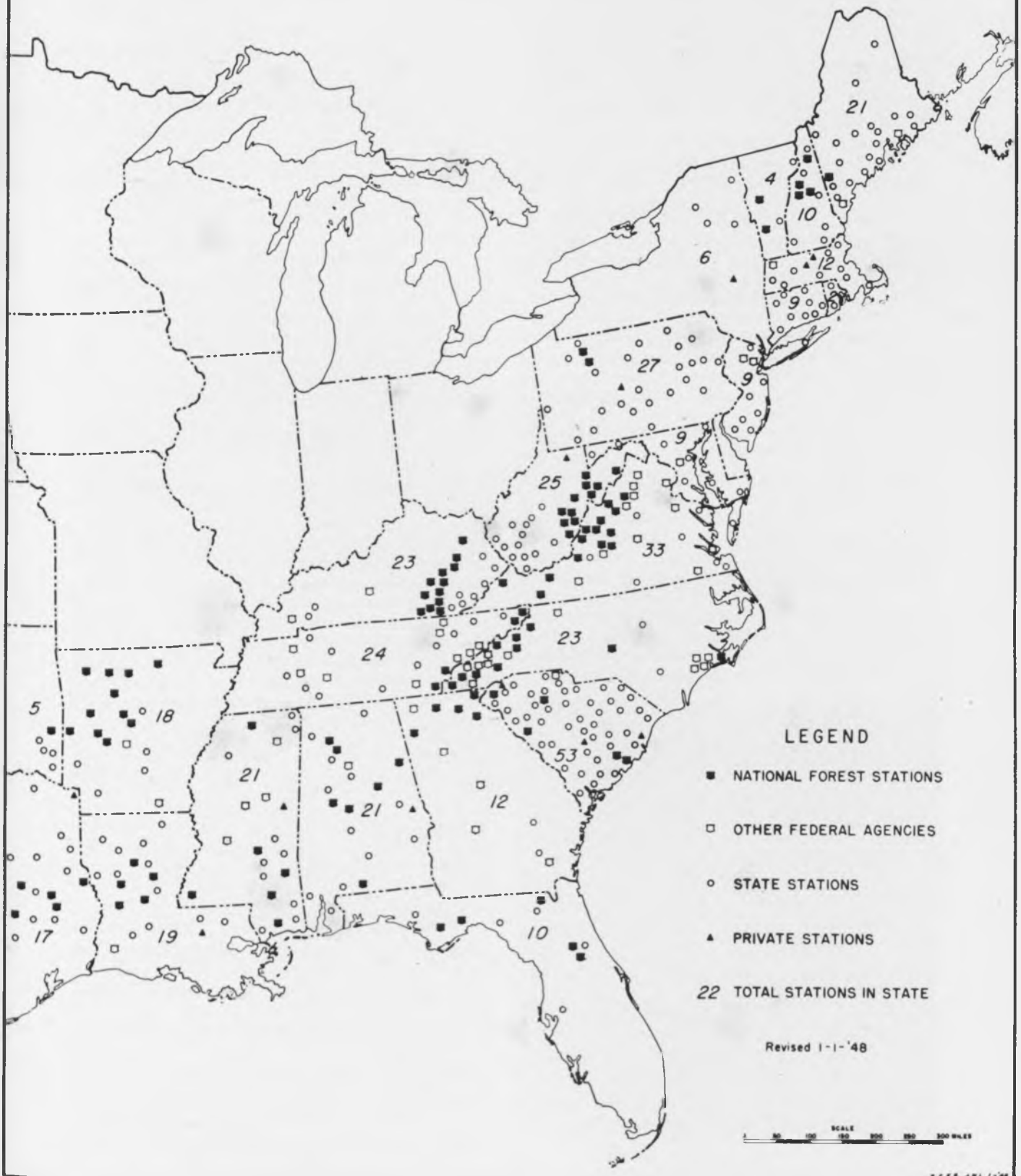
Particularly in cruises of small areas where a large proportion of the trees must be included in the cruise tally, it is advisable to sample height as well as form class.

Experience with the Southern Forest Survey has shown that the most important single source of plot measurement error comes from inaccuracies in accounting for all trees on sample areas. Decisions as to whether a tree is on the sample area should be based on a measurement of distance rather than on ocular estimates or pacing. It is also essential that an identifying mark be placed on a tree after a record of it has been made in the cruise tally. This is particularly true in rough topography and densely stocked stands. Individual trees must be approached for this purpose, and consequently an actual measurement of tree diameter can be made with little additional cost. Ocular estimates of diameter are unreliable except when made by experienced cruisers. If tree diameter is measured, diameter may be classed to the nearest inch, rather than 2 inches. Tallying to the nearest inch reduces the variation of volume within diameter classes and improves accuracy considerably.

Height should also be specified carefully. Errors in ocular estimates of height generally accumulate because individual cruisers usually estimate too high or too low. Although it is impracticable to measure the height of all trees, checks of ocular estimates should be made frequently by the use of an instrument such as the Abney hand level. Height should always be estimated to the nearest half log. When full logs are used, bias in volume estimates is inherent for the tall-

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# FOREST FIRE DANGER STATIONS





Wilson, J. G.—Forester, International Paper Co., Camden, Ark.

#### CLASS OF 1944

\*There were no graduates in the year of 1944.

#### CLASS OF 1945

Kirkley, Eugene R.—Address Unknown.

#### CLASS OF 1946

Anderson, Lawson M.—Assistant State Forester, Chief of Management Division, Division of Forestry and Parks, Little Rock, Arkansas.

Duty, James W.—Associate County Agent in Forestry, Box 327, Alexandria, La.

Ritchie, James I.—Assistant Chief of Fire Control Louisiana Forestry Commission, Box 269, Baton Rouge, La.

#### CLASS OF 1947

Burns, Joe D.—Assistant County Agent in Forestry, 307 Bossier, Natchitoches, La.

Cochran, Jack B.—Partner, Louisiana Hoop Co., Bunkie, La.

Eldredge, Inman F.—Forester Champion Paper and Fiber Co., Huntsville, Texas.

Faucheux, Wm. A.—Forester, Division of Forestry and Parks, Box 1940, Little Rock, Ark.

Grigsby, Hoy C.—District Forester, Mississippi Forest and Park Service, Grenada, Miss.

Johnson, Charles W.—U. S. Army Air Corps.

Madison, David P.—Pro. Baseball, Kansas City (American Association), 1948.

Rowland, Louis A.—District Forester, Louisiana Forestry Commission, West Monroe, La.

Tucker, Robert Edward—Assistant Forester, Southern Advance Bag and Paper Co. Inc., Woods Dept., Hodge, La.

#### CLASS OF 1948

Adema, John M.—Chemist, Technical Department, Celotex Corp., Marrero, La.

Braden, Earl M.—District Forester, West Tennessee, Lexington, Tenn.

Brent, Homer I.—National Park Service, Yellowstone N. P., Wyoming.

Clark, Harry D.—Forester Fisher Lumber Co., Wisner, La.

Chustz, Henry Norris—Private Business.

Cooper, Jack S.—Forester, Flintkote Corp., Meridian, Miss.

Cummings, W. C.—Extension Farm Forester, Clinton, La.

Curtis, James E., Jr.—Assistant District Forester, Gaylord Container Corp., Walker, La.

Donaldson, D. J.—Parish Forester, La. Forestry Comm.

Drews, Robert J.—International Paper Co., Box 94, Natchitoches, La.

Foster, George W.—Forester, Brown Paper Mill Co., Inc., Monroe, La.

Gainey, Louis F.—Student L. S. U. (Masters in Game Management), University Station, Baton Rouge, La.

Gayle, James A.—Farm Forester, La. Extension Service, Minden, La.

Gipson, R. E.—Forester, Lutchter & Moore Lumber Co., Box 621, Orange, Texas.

Hebb, Edwin A.—East Texas Branch Southern Forest Experiment Station, U. S. F. S., Nacogdoches, Texas.

Herrington, A. E.—Forester, Arkansas Div. of Forestry and Parks, Box 5900, Camden, Ark.

Hodge, Joseph S.—International Paper Co., Box 94, Natchitoches, La.

Holman, Jack—530 Stilwell Ave., DeQueen, Ark.

Hoover, Kenneth H.—Student L. S. U. (Masters), University Station, Baton Rouge, La.

Long, Lewis C.—U. S. Engineers, Vicksburg, Miss.

Margrave, Fred N.—Forester, Brown Paper Mill Co., Inc., Monroe, La.

McDaniel, Robert L.—Executive Secretary, Louisiana Wildlife Federation, Old Court House, Alexandria, La. Phone 6732.

McMahon, James T.—Forester, Kirby Lumber Corp., Silsbee, Texas.

Mims, Jack—Farm Forester, Corinth, Miss.

Odom, Jack Cantrell—Forester, Gaylord Container Corp., Denham Springs, La.

Phifer, Truman E.—Forester Brown Paper Mill Co., Monroe, La.

Price, Kenneth F.—Graduate School, State College of Washington, Pullman, Wash.

Redmond, Howard R.—Graduate School, L. S. U., University Station, Baton Rouge, La.

Robertson, Ralph H.—District Forester, Mississippi Forest and Park Service, Meridian, Miss.

Robinson, Vernon E.—Biologist, Wildlife and Soil Conservation Service, General Delivery, Winsboro, Texas.

Robertson, Carroll L.—Forester, International Paper Company, Box 157, Amite, La.

Rodrigue, E. A.—Masonite Corp., Laurel, Miss.

Smith, Autley, B.—Brown Paper Co., Jackson, Miss.

Smith, Donald Jackson—Regular Army.

Scott, Thomas R.—Forester Pomeroy McGowan, Monticello, Ark.

Stallworth, Nicholas B.—Forester, Stallworth Naval Stores Co., Vinegar Bend, Ala.

Stephens, Marion A.—Assistant District Forester, Gaylord Container Corp., Bogalusa, La.

Tannehill, Richard M.—Forester, Louisiana Longleaf Lumber Co., Fisher, La.

Vick, Hugh Monteith—Forester Kellogg Lumber Co., West Monroe, La.

Walsh, Garrett Hickey—Forester, General Box Co., Natchez, Miss.

Wilson, O. F., Jr.—Parish Forester of Bienville Parish, La. Forestry Commission, Box 32, Arcadia, La.

Yancey, Richard K.—Graduate School (L. S. U.), Baton Rouge, La.



*Morning Treat*

(Continued from Page 50)

est trees. In the tallest height classes, trees which are taller than the mid-point of the height class are less likely to occur than trees which are shorter than the mid-point. The error is not escaped even when half-logs are used, but it is reduced to tolerable limits.

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## Utilization of Low Quality Southern Hardwood and Its Effect on Forest Management

(Continued from Page 35)

(5) We are at the present time cutting and using 1,500 cords of oak pulpwood per month and hope to expand this to 5,000 cords per month.

(6) Many operators in the south have seriously undertaken the elimination of worthless hardwood from pine stands or potential pine stands by the use of tree poison. This operation can be done economically and satisfactorily and will in the next few years be done on a rather extensive scale.

That satisfactory pulp can be made from most species of southern hardwood is an established fact and further it is recognized that the addition of some hardwood pulp to pine pulp adds desirable qualities to the higher grades of paper insofar as bulk, opacity and formation are concerned and the same qualities of bulk and formation to the heavier boards. Mixtures of pine and hardwood pulps are being used by at least three Southern mills today. At least three other Southern mills are using quantities of ground hardwood pulp. Several other Southern mills are using from 5—10% of hardwood pulpwood in their normal sulphate operation. One mill uses up to 20% hardwood in their normal operation. One mill is using pure oak in the manufacturing of semi-kraft pulp.

Perhaps the most significant development in the past two years has been the conversion of one complete mill and the installation of equipment in a second mill for the manufacture of pulp using entirely hardwoods by the so called neutral sulphite process of cooking. These two mills use approximately 250,000 cords of hardwood annually.

In recent weeks International Paper Company has announced a 300 ton rayon mill, using hardwoods as raw material, to be erected in the South and be in operation in 1950.

Research at the University of Florida points toward the possibility of the manufacture of rough board in connection with a tannin plant using oak pulpwood.

Extensive research is being conducted at New

York State College of Forestry, the University of Maine at the Institute of Paper Chemistry, and at the Forest Products Laboratory in the utilization of hardwood for special pulp.

There are many in the business who believe that as the southern pulp and paper industry evolves into the production of the higher grades of paper and board there will be a greater and greater demand for the hardwood material which we have always considered sound cull. And this added demand by this one industry will go a long way toward creating the demand which will make the harvesting of these hardwoods economically feasible. True words were spoken by A. G. T. Moore of Southern Pine Association when he said "The most effective way to encourage the growing of trees is to develop profitable reasons for cutting them down."

Even though I am an optimist it is not my intention to lead you to believe that our hardwood problem in the south has been solved and that we have reached the forester's millennium. Such certainly is not the case and we have a long hard road to follow, but I do believe that we are started on this road. Foresters and land-owners and operators realize the seriousness of the problem and are belligerent about attacking it. The irrevocable old law of supply and demand will boost us on our way, and the inherent ingenuity of the American people in the development of new and the improvement of the old processes and techniques, for the utilization of this so called cull material will ultimately solve some of our problems and we like the tourist going to the post office may be badly confused, but we will, as he did, take a new starting point and finally arrive at our destination.

\*Trees culled because of poor form and quality.

\*\* Oak, Pecan, Ash, Hickory, Hackberry and Elm.

Rotter Culls—Any sawlog size tree 50% defective. Any small tree 20% defective.

#### SOURCES OF DATA

Reappraisal Report No. 1, U.S.D.A. F.S.—1946.

Land Areas—Table 16.

Cubic Foot Volume—Table 19.

Growth—Table 23.

# SOME RECENT CHANGES

Forestry 68—Forest Sites is a new course that treats of the relationship of different forest soils, the rate of growth of trees on different soil types, and the effect of forest stands on the soil occupied. Agronomy is a prerequisite for Forest Sites. This course is scheduled in the spring semester of the sophomore year so as to precede silvics.

Forestry 82—Aerial Photo Interpretation. Described in the catalog as: "Fundamentals involved in the interpretation of vertical aerial photographs for information on forest types, stands, and species." Course added as a result of progress in Southern forestry use of aerial photos as an essential tool in gaining management information.

Forestry 123—Economic Game Relations. This course deals with all the economic aspects of the important game mammals and birds plus those other species, such as hawks and owls, which have a direct relationship to game management. Two main values considered are: (1) the esthetic and social value, and (2) the monetary value.

Forestry 179—Advanced Forest Utilization. An advanced course, designed for seniors and graduate students, to give further coverage of the principle involved in analyzing and controlling costs and returns from harvesting timber for various products.

Forestry 188—Advanced Forest Mensuration. Advanced problems, for seniors and graduate students, demonstrating principles and theories of forest measurements.

Forestry 222—Advanced Game Management. This course embraces three subjects: (1) Management of waterfowl, (2) Management of marsh inhabiting fur-bearers, and (3) Study of Marsh ecology.



*How to sex a duck*

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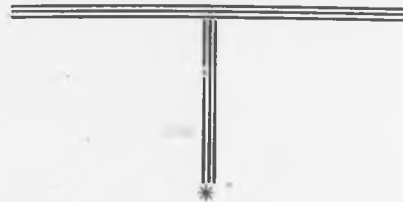
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# To A Forester's Wife

Do you ever dream of a heaven on earth, where, in view, there isn't a tree,  
In a home of your own, made of plastic and chrome, and never wood could be,  
With a man well-dressed in a shirt and tie and no kerseys or caulked Paris boots,  
No rancid odor of black-fly dope and no resin or mud-stained suits?

Do you reminisce on the good old days, when your wedding was shiny and bright,  
The furniture matched in its gloss and its sheen, and your house wasn't always a fright,  
No square-ended brooms, no drawers all cut, and no chairs, each scraped for a pore,  
When he thought about wedding, not annual rings, and there wasn't a nick in your door?

Do you long for the days when, in ignorant bliss, you walked in the woods to see  
The beauty of birds, and sky, and flowers, and the various greens of the tree,  
When you'd never heard of a forest type, or pinnated leaves on an ash,  
When maples were lovely, not opposite-leaved, and a bush wasn't just so much cash?

Do you wish, when out on an evening sometimes, your husband were not such a bore?  
In conversation, he nods and grunts as he examines the quarter sawn floor,  
In bridge, he's a friend for trumping your ace; you'd kill him, I know, if you're able,  
And your hostess thinks she's forgotten to dust, as he peers at the grain on a table.

When you drive through Toronto, and go down the streets, are you always expecting the law,  
While your husband proclaims with both hands off the wheel, "There's the foreshore of old Iro-  
quois"?

And he looks, as he passes each tree on the street, not in front, but 'way up in the air,  
The people all congregate round you to see, and you've started a mass-upward stare.

Do you want your man with a white-collared job, and identical turn of each hair,  
With a home in the city, and furniture grand, and every evening to spare?  
Just remember, my friend, when you think about jobs, that he's very much pleased with his work,  
And it's not as in offices, out in the bush—only four-footed females lurk.

If you ever do, but I'll bet you don't, just look at your man and be fair.  
Would you rather have him at home every night with a lazy and occupied air,  
Or greet him at the end of a long, lonely week with a radiant smile on his face,  
While he thinks you're the beauty of all the world, and endowed with every grace?

He may not be handsome or tidy and neat, but he's healthy, rugged, and gay,  
With no haggard look of the care-worn world, and his face isn't pallid and grey;  
His thoughts are in tune with the clean, clear air, he breathes as he works at his task;  
If you wanted the moon made of bright, shiny gold, you'd know you'd have only to ask.

When you sit at the close of a tranquil day, and gaze on the restful scene,  
With friends just as happy as you, gathered round, would you change it for what might have  
been?

Oh, no! There are things you like to change, but there isn't a better life.  
The road may be bumpy, not smooth, at times, but YOU'RE GLAD YOU'RE A FORESTER'S WIFE.

By MRS. N. J. TURNBULL.

This poem was re-printed from the University of Toronto's publication, also called THE ANNUAL RING, with Mrs. Turnbull's permission. N. J. Turnbull was Athletic Director.—Ed.

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