

# F.O. "RED" BATEMAN: THE GREAT SOUTHERN LUMBER COMPANY'S PIONEER SILVICULTURIST



JAMES P. BARNETT

An online publication of the Southern Forest Heritage Museum and Research Center P.O. Box 101 Long Leaf, LA 71448 Website: forestheritagemuseum.org

#### Author:

James P. Barnett, Secretary/Treasurer, Southern Forest Heritage Museum, Long Leaf, LA, 71448.

#### **Cover photo:**

F.O. "Red" Bateman contributed greatly to developing reforestation technology for southern pines. This photo, taken in the late 1920s, is of him standing near a tung tree (*Vernicia fordii*) plantation established by the Great Southern Lumber Company in a diversification effort.

#### **Photo credits:**

Unless otherwise noted, the photographs are from the collections of the Southern Forest Heritage Museum and Research Center.

#### Abstract:

In the late 19<sup>th</sup> century, the virgin forests of the West Gulf Coast Region began to be harvested. After the Civil War, the economy of the region was in shambles, and lumbering became the primary driver of the economy. When the forests were cut, however, landscapes that were once covered with majestic pines became vast "stumpcapes" void of any prospect of forest regeneration. A small group began an effort to restore these forests. The Great Southern Lumber Company at Bogalusa, who had generated thousands of acres of cut over forests, became a leader in developing reforestation techniques. Great South assigned the task of developing the needed technology to F.O. "Red" Bateman who was the Ranger for the Company. With little background or education, Bateman led the effort, and the methodology was developed. Within 5 years after initiating a reforestation program, Great Southern was recognized as one of the world's most progressive lumber companies and a pioneer in developing reforestation technology. Bateman's efforts were responsible for these accomplishments.

#### How to cite this publication:

Barnett, James P. 2021. F.O. "Red" Bateman: The Great Southern Lumber Company's pioneer silviculturist. SFHM Research Paper-5. Long Leaf, LA: Southern Forest Heritage Museum and Research Center. 7 p.

# F.O. "RED" BATEMAN: THE GREAT SOUTHERN LUMBER COMPANY'S PIONEER SILVICULTURIST

## James P. Barnett

Soon after Henry Hardtner, president of the Urania Lumber Company, began efforts to reforest his company's lands, the Great Southern Lumber Company, headquartered in Bogalusa, became interested in reforestation. In about 1918, W.H. Sullivan and the entire Board of Directors visited Urania and were impressed with Hardtner's reforestation efforts (Barnett and Carter 2017). The Great Southern Lumber Company had one of the largest mills in the world and they were harvesting about 60 acres per day to supply their sawmill complex. The aggressive harvesting by steam-powered skidders left the land with no potential for reforestation—different from Hardtner's natural reforestation techniques. Great Southern, then, had to develop techniques to produce and outplant seedlings. Fortunately, the company had the financial backing of the Goodyear family of lumbering baron fame to begin such an effort (Barnett 2011).

The Great Southern Company began an aggressive forestry program in 1919-1920. William H. Sullivan, General Manager, named J.K. Johnson as forester and F.O. "Red" Bateman as head ranger. Bateman had responsibility for the development of nursery production technology. He was known as "Red" for his florid complexion. Unlike his younger brother, Dr. Bryant Bateman, who was the first graduate and long on the faculty of the School of Forestry at Louisiana State University, Red's formal education extended only through high school. However, he had a remarkable talent for extracting both information and constructive ideas from the many professional foresters with whom his work brought him in contact (Wakeley 1976).

From the start of Great Southern's artificial reforestation work at Bogalusa, Red was the prime mover in developing planting principles and techniques. By 1922-1923, two growing seasons before Philip Wakeley arrived at the U.S. Forest Service's Southern Forest Research Station to conduct reforestation research, Red had worked out the essentials of the general practice still employed today—slit planting of bare-rooted seedlings grown at moderate seedbed densities in the nursery without shade. He developed a planting tool (or "dibble") that is still in use to plant pine seedlings. The 6- by 8-foot spacing he chose as most suitable and economical for southern pines was the almost universal standard throughout the South for decades. Before the Great Depression halted his company's planting operations, Red had planted 12,700 acres (Wakeley and Barnett 2011). With only one exception (the Biltmore estate in North Carolina), there was no other successful southern pine plantation of more than 100 acres.

Phil Wakeley noted Bateman's ingenuity when he remarked to Red that it was a pity that the persistent wings of longleaf pine (*Pinus palustris*) seeds prevented drill-sowing that species on nursery beds. By noon, Red asked Wakeley to stop by the nursery. During the morning Red had designed a drill seeder that worked with longleaf pine. It was a wooden trough five feet long to fit across nursery beds. It was hinged to open at the bottom and drop seeds on the bed. A pair of tall, curved handles at each end permitted opening it without stooping or kneeling, which made the device easy to use (Wakeley and Barnett 2011). This seeder designed in a morning resulted in marked improvement in the uniformity and quality of longleaf pine nursery stock.



Red Bateman's seeder for sowing longleaf pine seed in the nursery in operation. This simple tool significantly improved the quality of nursery grown longleaf pine seedlings.



Early photo of the Great Southern Lumber Company's tree seedling nursery at Bogalusa. Note the rows of seedlings established by Bateman's nursery seeder.

Not only did Bateman determine how to plant southern pines effectively, in anticipation of a bumper fall crop of longleaf pine, he persuaded W.H. Sullivan to let him fence 10 thousand acres of burned forest land, scheduled for forest, to protect the area from hogs. The 1920 crop exceeded all expectations and Red's activity resulted in establishing longleaf seedlings on 10 thousand acres, all from a single seed crop—a notable achievement (Wakeley 1976).

Another aspect of Bateman's early work was the prevention and suppression of fire on company lands. Red observed the fire was needed to prepare areas for seed fall or planting, but that seedlings were killed by fire while in the cotyledon stage. As they developed, they became tolerant to fire.

As an example of Red's practical approach, he described to a couple of young researchers why direct seeding would not work. Although Bateman was responsible for the successful direct sowing of 800 acres of slash pine (*P. elliottii*), subsequent trials had failed. This was decades before repellents were found to protect seeds from bird and rodent depredation. Wakeley quotes Bateman's comments on his vain attempts to reliably direct seed in plowed furrows (Barnett 2014):

"When we went out to start seeding, there was a pheellock [field lark or meadowlark] sittin' on a fence, he whistled, and up come fifty more pheellocks. We went down the furrows, dropping five longleaf seeds every six feet. The pheellocks follered us drown the furrows and, gentlemen, when we got to the end of the furrows, there wasn't a damn thing left in the furrows but bird-s—t!"

Although he had no forestry education, he was not intimidated when interacting with professionally trained foresters. Wakeley commented, "I think that Red Bateman



This group, including Tor Jonson of Sweden who was at the time one of the world's most knowledgeable foresters, met at Bogalusa in 1925. From the left to right kneeling: R.D. Forbes, Director of the Southern Forest Experiment Station; Roy Hogue, State Forester of Mississippi; W.R. Hine, State Forester of Louisiana. Standing: J.K. Johnson, Great Southern forester; Norman Core, Louisiana Division of Forestry; Tor Jonson; Larry Baker, U.S. Forest Service; Mr. Jonson's interpreter; F.O. Bateman; and E.L. Demmon, who succeeded Forbes as Director of the Southern Station.

communicated with visiting international guests with greater understanding of forests than did most of the professional foresters." It is interesting to note that within 5 years after initiating a reforestation program, Great Southern was recognized as one of the world's most progressive lumber companies and a pioneer in developing reforestation technology.

In the late 1920s, Great Southern determined that its second-growth forests would not develop soon enough to continue to maintain the operation of the mill, and the company sought to diversify its operation so that the town of Bogalusa would survive. Bateman led the effort to nursery grow and plant thousands of acres of tung or tung-oil trees (*Vernicia fordii*), a tree native to China (Barnett and Carter 2017, Goodyear 1950). The oil from the nut had traditionally been used in lamps in China, but in modern times as an ingredient in paint, varnish, and caulk. It is also used as a wood finish for furniture and other wooden products. The climate along the Gulf Coast seemed ideal for the species, and the company invested in plantations, and the facilities needed to process the nuts for oil. But, freezing weather and hurricanes destroyed much of the plantations, and with increasing foreign competition for producing the oil, this effort ended (Wikipedia 2016).



The Great Southern manager D.T. Cushing (left) and Lamont Rowland in a stand of one of the Company's tung-oil plantations

Bateman was an untiring and marvelously keen observer with far above average ability to reason about what he saw. These personal traits and his accomplishments make him, as Wakeley described "one of the greatest silviculturists the South has known."

In 1928, Henry Hardtner wrote to Sullivan praising the Great Southern's reforestation program. Hardtner wrote in part (Southern Lumberman 1929):

"I have watched with interest and enthusiasm development and progress of reforestation at Bogalusa... I knew the land in its naked, desolate state only a few decades ago, and now that same land... is covered with a mantle of green thrifty pine trees, growing rapidly, and rearing their tops heavenward. Your success is beyond my greatest expectations, and your greatest difficulties are over. You have done more real reforestation work than any other organization in America."

Not only was Red Bateman a great silviculturist, but he was also remembered by Charles Goodyear as an exceptional tung-orchardist and a trainer of pointers to hunt quail (Goodyear 1950). Unfortunately, Red died at age 46 from a heart attack.

### REFERENCES

Barnett, J.P. 2011. Faces for the past: profiles of those who led reforestation of the South's forests. Gen. Tech. Rep. SRS-133. Asheville, NC: U.S. Department of Agriculture Forest Service, Southern Research Station. 39 p. [https://www.srs.fs.usda.gov/pubs/37389]

Barnett, J.P. 2014. Direct seeding southern pines: history and status of a technique developed for restoring cutover forests. Gen. Tech. Rep. SRS-187. Asheville, NC: U.S. Department of Agriculture Forest Service, Southern Research Station. 55 p. [https://www.srs.fs.usda.gov/pubs/gtr/gtr\_srs187.pdf]

Barnett, J.P.; Carter, M.C. 2017. The dawn of sustainable forestry in the South. Gen. Tech. Rep. SRS-221. Asheville, NC: U.S. Department of Agriculture Forest Service, Southern Research Station. 68 p. [https://www.srs.fs.usda.gov/pubs/54583]

Goodyear. C.W., II. 1950. Bogalusa story. Buffalo, NY: William J. Keller, Inc. 208 p.

Southern Lumberman. 1929. Praises Bogalusa. Southern Lumberman. 134 (January 5, 1929): 44.

Wakeley, P.C. 1976. F.O. (Red) Bateman, pioneer silviculturist. Journal of Forest History. 20(2): 91-99.

Wakeley, P.C.; Barnett, J.P. 2011. Early forestry research in the South: a personal history. Gen. Tech. Rep. SRS-137. Asheville, NC: U.S. Department of Agriculture Forest Service, Southern Research Station. 90 p. [https://www.srs.fs.usda.gov/pubs/37765]

Wikipedia. 2016. *Vernicia fordii*. <u>https://en.wikipedia.org/wiki/Vernicia\_fordii</u>. (Date accessed March 25.2016).

The Southern Forest Heritage Museum and Research Center is a 501c3 organization which has been placed on the National Register of Historic Places with the National Level of Significance.

The Museum is an equal opportunity provider and employer and does not discriminate based race, color, national origin, age, or disability.