

the landowner. Depending on stand density, a healthy pine stand is often thinned two to three times during the life of the stand and can include a precommercial thinning.

10

Prescribed Burning. Prescribed burning is used for site preparation, hazard reduction, wildlife habitat, and vegetative management. Landowners should have a prescribed burning plan that they present to the Mississippi Forestry Commission (MFC) on the day of the intended burn. Based on the weather conditions, the MFC may or may not issue a burn permit. Along with prescribed burning certification, permission to burn is important to mitigate liability.

11

Managing For Multiple Use. Many people use forestland for reasons other than timber production. These include aesthetics, recreation, and wildlife. Multiple use means managing the forest for a variety of objectives, all the while maintaining its ecological integrity and sustained timber yield. An important concept in multiple use, plant succession emphasizes the idea that plant communities change over time through disturbances. This concept can easily be incorporated into a forest management plan by simulating natural disturbance using harvesting or prescribed burning for habitat management.

12

Taxes & the Family Forest Owner. Several provisions within the tax code are specific to forestry. For instance, ownership practices and structure (hobby, investment, or business) determine acceptable deductions. It is important to keep records of forest activities to take full advantage of available deductions. Landowners must also understand basis, which is the investment value of an asset. Basis is important when deducting loss and capitalizing costs.

13

Forest Health. Landowner decisions regarding site preparation, regeneration, thinning, and burning influence forest health. Damages to forests occur due to wind, water, invasive species, diseases, and other sources. Basic preventive guidelines include appropriate logging practices, tree species, and stand density prescriptions.

From hardwood bottomlands in the Delta, to the bluff hills, to the upper and lower coastal plains, Mississippi has some of the most productive and diverse forests in the country. Family forest landowners are caretakers of this forestland and, therefore, are responsible for learning about appropriate resource management. Many government agencies, professional forestry consultants, and county forest associations can assist landowners in this important endeavor.



msucares.com

Copyright 2012 by Mississippi State University. All rights reserved. This publication may be copied and distributed without alteration for nonprofit educational purposes provided that credit is given to the Mississippi State University Extension Service.

By **Dr. Jason S. Gordon**, Assistant Extension Professor, Forestry.

Discrimination based upon race, color, religion, sex, national origin, age, disability, or veteran's status is a violation of federal and state law and MSU policy and will not be tolerated. Discrimination based upon sexual orientation or group affiliation is a violation of MSU policy and will not be tolerated.

Publication 2720

Extension Service of Mississippi State University, cooperating with U.S. Department of Agriculture. Published in furtherance of Acts of Congress, May 8 and June 30, 1914. GARY B. JACKSON, Director (1000-03-12)



AN INTRODUCTION TO MANAGING THE FAMILY FOREST IN MISSISSIPPI

DEPARTMENT OF FORESTRY, MISSISSIPPI STATE UNIVERSITY
MISSISSIPPI STATE EXTENSION SERVICE, U.S. FOREST SERVICE
MISSISSIPPI FORESTRY COMMISSION
MFA SFI-SIC COMMITTEE



An Introduction to *Managing the Family Forest in Mississippi*

Forests provide numerous benefits to Mississippi residents, including timber production, clean water, wildlife habitat, and abundant recreational opportunities. Most of this forestland is owned by more than 100,000 private forest landowners. Each of these landowners has different reasons for owning forestland and different goals for the land.

Extension Publication 2470 *Managing the Family Forest in Mississippi* addresses these diverse lands and ownerships. This collection of forest management topics is designed to be a primer on forest management for the new private forest landowner as well as a refresher for the more seasoned landowner or forester.

The following is a chapter-by-chapter synopsis of *Managing the Family Forest in Mississippi*, intended to briefly introduce the Mississippi forest landowner to forest management.



1 The Management Plan. A forest management plan is a roadmap for knowing the products your forest contains and outlining future activities. A plan can save the landowner money, increase profits, decrease taxes, and provide opportunities for cost-share and certification programs. Management plans can incorporate multiple objectives. Any actions taken in the forest, including no action, will have an immediate and long-term effect on wildlife habitat.

2 Site Preparation. Site preparation increases seedling survival rates and long-term productivity of regeneration. The choice of site-preparation techniques should be based on site-limiting factors, including drainage, competing vegetation, debris, soil compaction,

and costs. The landowner must do what is necessary to encourage regeneration, but keep costs as low as possible to ensure financial benefits.

3 Natural Regeneration of Southern Pines. Advantages to natural regeneration can include lower costs and improved aesthetics. Disadvantages include longer rotation lengths. One method of natural regeneration, even-aged management, allows seed to develop into trees of a similar age. Examples are strip clear-cut, seed tree, and shelterwood methods. Uneven-aged management involves managing multiple-age classes, resulting in the perpetual appearance of a forest with many sizes across the property. Examples include single-tree selection and group selection harvesting, which regulate the amount of light that affects regeneration and wood volume.

4 Artificial Pine Regeneration. Planting alone does not guarantee success. Site, seedling quality, proper handling of seedlings, and proper use of direct seeding affect survival rates. Commercial pine species are differentially susceptible to drought, insects, disease, and weather damage. Genetically improved seedlings have better survival rates, faster growth, and better form than other seedlings. Landowners must carefully consider seedling source as well as costs and benefits of hand-planting versus machine-planting.

5 Regenerating Hardwoods. In addition, Mississippi is well known for its production of high-quality hardwoods used for veneers, furniture, and other products. An understanding of soil and site conditions is necessary for successful hardwood regeneration. Landowners with hardwoods should investigate various cost-share programs that promote hardwood management. Enhancement plantings can be employed to improve genetic quality and increase species diversity.



6 Harvesting & Best Management Practices. Appropriate harvesting methods depend on the management objectives outlined in your management plan, regeneration alternatives, and markets. Best Management Practices (BMPs) can be implemented to minimize or prevent soil erosion from harvesting operations or silvicultural practices. For example, forest roads and skid trails must be designed to ensure sediment does not enter streams. In addition, specific harvesting techniques can be implemented to create Streamside Management Zones (SMZs) to serve as buffers around waterways.

7 Financial Considerations. As with any investment, forestry has risks and benefits. Landowners should consider benefits of forestry activities over alternatives as well as nonforest investments. Forest income sources include revenues from thinning, annual lease payments for recreational activities, final harvest, pine straw, and other non-timber products. Costs include regeneration expenses, stand improvements, and taxes.



8 Marketing the Forest Crop. Landowners should understand how to market their timber so that they can realize the maximum in financial returns. To know the value of the timber, the landowner must determine quantity and number of acres to be sold. A forest inventory is used to estimate value of timber and provides information on tree species, products, sizes, and quality. Following an inventory, a timber sale is typically carried out through negotiation or sealed bids. Landowners should be aware of the advantages and disadvantages of both.

9 Pine Plantation Thinning. Both natural and artificial pine stands should be thinned to promote growth of residual trees, improve stand health, and provide economic return to