

FOREST STAND IMPROVEMENT

North Carolina Practice Job Sheet 666

Prepared for: _____

Prepared by: _____

Farm: _____ Tract: _____ Date: _____



Periodic thinning provides room for tree crowns to expand, resulting in improved growth.

DEFINITION

The manipulation of species composition, stand structure, and stocking by cutting or killing selected trees and understory vegetation.

PURPOSES

- Increase the quantity and quality of forest products.
- Harvest forest products.
- Initiate forest stand regeneration.
- Reduce wildfire hazard.
- Improve forest health - reducing the potential of damage from pests and moisture stress.
- Restore natural plant communities.
- Achieve or maintain a desired native understory plant community for special forest products, grazing and browsing.
- Improve aesthetic and recreation

values.

- Improve wildlife habitat.
- Increase carbon storage in selected crop trees.

CRITERIA

Forest Stand Improvement plans for forestry, site restoration, wildlife management, and ecological purposes are usually supervised by foresters, biologists, and other professionals registered/certified in North Carolina.

During thinning operations, remove trees that are dead, dying, suppressed, poorly formed (have crooked stems, low forks or broken tops), diseased, damaged or that have insects. Leave healthier, sound, and higher quality trees to maximize the future economic and regenerative potential of the stand. Under no circumstances should one fork or individual stems be removed on a multi-stemmed tree.

Consider installing a fire break to protect high value timber stands from wildfire. Control invasive weeds according to standards (314) Brush Management and (315) Herbaceous Weed Control.

The United States Department of Agriculture (USDA) prohibits discrimination in its programs on the basis of race, color, national origin, sex, religion, age, disability, political beliefs, and marital or familial status. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD). To file a complaint, write the Secretary of Agriculture, U.S. Department of Agriculture, Washington, DC 20250, or call 1-800-245-6340 (voice) or (202) 720-1127 (TDD). USDA is an equal employment opportunity employer. To file a complaint of discrimination write USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 14th and Independence Avenue, SW, Washington, DC 20250-9410 or call (202) 720-5964 (voice or TDD). USDA is an equal opportunity provider and employer.

Desired activity to achieve the purpose(s) and objective (check appropriate box):

- Thinning – Use Silvicultural prescriptions in the specifications for this practice to determine the planned spacing and trees per acre.
- Regeneration Harvest – Check one system box.

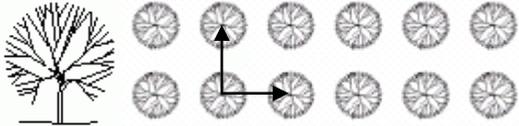
Uneven-aged management system:

- Single-tree selection Group Selection

Even-aged management system:

- Patch-cut Seed-tree Shelterwood

- Understory/Brush Control – Remove undesired understory species using mechanical or chemical means or by prescribed burning. Coordinate with provisions of (314) Brush Management and (315) Herbaceous Weed Control when invasive species are present.

Tree Spacing/Stocking					
		Spacing /stocking manipulation includes all commercial and non commercial harvest and thinning operations. Measurements include: Trees or stems per acre (TPA) – generally used for younger planted stands; Basal Area (BA) and Diameter plus (D+_)– generally used on stands > 4" DBH (BA measured with prism tool, D+ measured using zig zag transect, TPA determined from measured plots, spacings) Note: A clear cut harvest can be a planned forest stand improvement leading to reforestation!			
Field or Stand#	Managed Tree(s) Type/Species	Measurement Method	Current Stocking/Spacing	Planned Stocking/Spacing	Method/Type of Thinning
Thinning can be commercial, where a wood product is removed from the site for specified remuneration; or, non (pre) commercial, where trees are felled/killed and left on site. An operation that creates openings for wildlife would be a stocking/spacing manipulation. A registered consultant forester should be used to mark thinning involving commercial harvest. Additional Notes or Requirements: Inspect for: next thinning 20____; prescribed burn 20____; Other: _____					

Other Overstory, Midstory, Understory Management					
		Overstory, midstory, understory management activity that does not involve harvest or stocking/spacing manipulation (ex. herbicide release or seedlings, hack and squirt removal of midstory, understory invasive removal).			
Field or Stand#	Managed Tree(s) Type/Species	Competing Species			Method/Type of Control
		1.	2.	3.	
Additional Notes or Requirements: Inspect for: additional treatment 20____; prescribed burn 20____; Other: _____					

ADDITIONAL INFORMATION & INSTRUCTIONS

CAUTION: Check for any utilities (underground or overhead) *before* operating machinery in and around forestland!

Pesticides

As applicable for Forest Stand Improvement activity involving planned herbicide use.

Specific pesticide recommendations will be obtained from personnel who are licensed by the NC Department of Agriculture and Consumer Services in specialty area Agricultural Pest Plant Category G (forest) - in accordance with North Carolina Pesticide Laws and Regulations. All pesticides must be registered for use by North Carolina and approved for use by the U. S. Environmental Protection Agency (EPA). Refer to the current issue of "North Carolina Agricultural Chemicals Manual" for guidelines, rules and regulations regarding use of pesticides. Users must **always** follow instructions and safety precautions on the container label when handling, applying, or storing pesticides.

Professional Forester Services

The use of a registered consultant forester is recommended for all forest stand improvement activities, especially those involving the sale and harvest of commercial timber and wood products.

Compliance with Federal, State and Local Laws

Installation and application of this practice MUST comply with all applicable federal, state and local laws or ordinances! Reference NC Forest Practices Guidelines and NC Forestry Best Management Practices for Water Quality for information on required Stream Management Zone widths, specific watershed rules and other water quality requirements and recommendations forest stand improvement activities.

Additional requirements:

OPERATION AND MAINTENANCE

Operation – Periodically inspect during and after forest stand treatment activities to insure that objectives are achieved and resource concerns (like water quality) are met.

Maintenance - Inspect trees periodically for pest (insects and weeds) and disease problems. Protect from wildfire, livestock grazing, and herbicide damage.

Consider prescribed burning as an additional management follow-up alternative on forest stand improvement areas...talk with your forester or NRCS representative for more information on prescribed burning.

Additional requirements:

MAPS AND FIELD(S) LOCATION

See conservation plan map for location of forest stand improvement fields/stands.

CERTIFICATIONS

Job Sheet

Prepared by: _____

Title: _____

Date: _____

Approved by: _____

Title: _____

Date: _____

Installation

Meets NRCS standards and specifications? YES NO

Certification by: _____

Date _____