

Grazed Forestland Resource Management System

Existing Conditions: *Tract is 640 acres of 20-year-old, even-aged loblolly pine that average 8-inches in diameter. The site index is 90. The stand is overstocked with trees. No existing erosion problems. The area is currently grazed by cattle. The plant vigor is low because of overgrazing and a closed canopy. Forage value rating is low for cattle and deer. Calf crop is 60 percent, and the average weaning weight is 325 pounds. Internal parasites are a problem. Landowner wants to manage for wood production and livestock production as well as to create a good habitat for deer and wild turkey.*

Option 1

Option 2

Option 1: (1) Beginning in 1990, thin one pasture each year and establish a 5-year thinning cycle. Clear cut pasture 1 at 45 years of age, pasture 2 at 50 years, pasture 3 at 55 years, and pasture 4 at 60 years. (2) Plant loblolly pine after each clear cut. (3 and 4) Surround and divide area into four equal parts with 30 ft. wide roads seeded to cool season grasses and legumes. These will serve as green firebreaks and facilitate forest management. (5) Construct ponds as shown on map. (6) Prescribe burn on a 4-year rotation or as needed. (7) Stock at a rate to achieve proper use of the key grazing and browsing species.

Express the effects of the selected practices as N/A, if not applicable; F = facilitating; 0 = no effect; + = positive effect; and - = negative effect.

Resource Problems	Soil	Water	Air	Plant					Animals						
	Erosion	Quality	Quality	Condition			Management		Habitat			Management			
	Roadbank Erosion	Water Management for Non-irrigated Land	Smoke for Safety and Health	Plant Suitability	Productivity	Plant Health and Vigor	Establishment, Growth, and Harvest	Pest Management	Food - Cattle	Food - Deer, Wild Turkey	Cover - Deer, Wild Turkey	Water - Cattle	Population/ Resource Balance		Animal Health- Cattle
													Cattle	Deer, Wild Turkey	
RMS Options															
Quality Criteria Met	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√
Forest Stand Improvement	0	+	N/A	+	+	+	+	+	+	+	+	0	+	+	+
Tree/Shrub Establishment	0	+	N/A	+	+	+	+	0	0	0	+	0	0	0	N/A
Access Road	+	F	N/A	F	F	F	F	F	F	F	+	N/A	F	F	F
Firebreak	+	F	F	F	F	F	F	F	+	+	F	N/A	F	F	F
Ponds	N/A	F	N/A	F	F	F	F	F	F	F	F	+	F	F	F
Prescribed Burning	N/A	+	+	+	+	+	+	+	+	+	+	N/A	+	+	+
Prescribed Grazing	+	+	N/A	+	+	+	+	+	+	+	+	N/A	+	+	+

**Grazed Forestland Resource Management System
 (Cont'd)**

Option II: *Every fifth year beginning in 1990, thin all pastures and clear cut one pasture. After planting, first thinning will be at 15 years of age. (2) Plant loblolly pine after each clear cut. (3 and 4) Divide area into 11 equal parts and install 30 ft. wide roads seeded to cool season grasses and legumes. These will serve as green firebreaks and facilitate forest management and fencing. (5) Establish two-wire electric fence along one side of the access road. (6) Construct four ponds as shown on map. (7) Install livestock pipeline as shown. (8) Install trough to supply water to each pasture. (9) Prescribe burn on a 4-year rotation or as needed. (10) Stock at rate that balances forage supply and numbers or animals. (11) Rotate one herd through the grazeable units using a 30 to 60 day cycle.*

Express the effects of the selected practices as N/A, if not applicable; F = facilitating; 0 = no effect; + = positive effect; and - = negative effect.

Resource Problems RMS Options	Soil	Water	Air	Plant					Animals						
	Erosion	Quality	Quality	Condition			Management		Habitat			Management			
	Roadbank Erosion	Water Management for Non-irrigated Land	Smoke for Safety and Health	Plant Suitability	Productivity	Plant Health and Vigor	Establishment, Growth, and Harvest	Pest Management	Food - Cattle	Food - Deer, Wild Turkey	Cover - Deer, Wild Turkey	Water - Cattle	Population/ Resource Balance		Animal Health- Cattle
Quality Criteria Met	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√
Forest Stand Improvement	0	+	N/A	+	+	+	+	+	+	+	+	+	+	+	+
Tree/Shrub Establishment	0	+	N/A	+	+	+	+	0	0	0	+	0	0	0	N/A
Access Road	+	F	N/A	F	F	F	F	F	F	F	+	N/A	F	F	F
Firebreak	+	F	F	F	F	F	F	F	+	+	F	N/A	F	F	F
Fence	+	F	N/A	F	F	F	F	F	F	F	F	N/A		F	F
Ponds	N/A	F	N/A	F	F	F	F	F	F	F	F	+	F	F	F
Pipeline	N/A	F	N/A	F	F	F	F	F	F	F	F	F		F	F
Watering Facilities	N/A	F	N/A	F	F	F	F	F	F	F	F	+		F	+
Prescribed Burning	N/A	+	+	+	+	+	+	+	+	+	+	N/A	+	+	+
Prescribed Grazing	+	+	N/A	+	+	+	+	+	+	+	+	N/A	+	+	+