

Forest Stand Improvement for Bobwhite Quail
Georgia Practice Job Sheet- 666
(Modified by GADNR Wildlife Biologists- Bobwhite Quail Initiative)

Purpose

Forest Stand Improvement is a timber harvesting practice used to remove unwanted trees from an area in order to improve stand composition, maintain forest health, increase growth rate and vigor of the trees, generate income, and most importantly to bobwhite quail, open up the canopy to allow ample sunlight reaching the ground. The increased sunlight stimulates the growth of the native understory vegetation that provides necessary conditions for a plethora of plant and animal species associated with early successional habitat such as gopher tortoise, indigo snake, grassland song birds, pollinator insects and plants. After opening the forest canopy, the vegetation responds quickly due to the increased favorable growing conditions. Therefore, the life span of quality habitat is short lived and requires the application of other practices such as prescribed burning and/or brush management to maintain the plant composition in the most favorable stage of succession for bobwhite quail.

Requirements

- Follow state Best Management Practices (BMPs) for forestry and all applicable laws and regulations.

Thinning Considerations

- The ultimate goal of thinning timber for quail is to provide adequate sunlight reaching the ground by maintaining a density of 50 ft² basal area per acre or less.
- Modern advances in forestry and silviculture has increased the productivity of forests; therefore, several harvest treatments over the life, or rotation of a stand may be necessary to maintain the target density.
- The majority of forest cover on private property managed for quail has been artificially regenerated as even-aged plantations. Therefore, the initial thinning will be a combination of removing entire rows and selecting trees within the remaining rows to harvest. Common patterns of row removal include 3rd row, 4th row, or 5th row sequences.
- For harvesting purposes, planted loblolly and slash pine reach commercial size between 12 and 15 years old and longleaf pine at approximately 20 years old or when average diameter is 6" and the total height is 40' tall. Other characteristics to consider include the live crown to total height ratio, growth rate, forest product markets, and basal area.
- Subsequent thinning's should prioritize removing poor quality trees that are defective, diseased, or poorly growing. Mostly likely, a portion of average quality trees will also need removing to reach the target density.
- Apply a similar approach to thinning natural pine, mixed pine and hardwood, and uneven-aged stands by removing undesirable species, trees that are poorly growing or defective, diseased trees, and reducing number of trees within a stand that are generating undesirable shade conditions.

Maintenance

- Because of the potential for a vigorous growth response of the trees following a thinning, landowners and managers should frequently monitor stands for canopy closure. Anticipate future harvests before the stand reaches the density threshold because quail abundance sharply declines as the trees density increases above 50 ft² basal area per acre.

Primary Habitat Considerations

- Creating and maintaining open canopy pine savannah with the implementation of proper thinning's in combination with frequent prescribed fire and/or brush management (see job sheets for Prescribed Burning for Bobwhite Quail-338 and/or Brush Management for Bobwhite Quail-314) will provide the required conditions needed for a host of species dependent or favored by early successional habitat such as quail, deer, turkey, songbirds, small mammals, native grasses and wild flowers, pollinator insects and plants.

Thinning and Burning Basal Area Photo's

Thinned and Burned <40 ft² Basal Area



Thinned & Burned, 80-100ft² BA



Thinned & Burned, 60-80ft² BA



Thinned & Burned, 40-60ft² BA



Prepared by: _____

Title: _____ Date: _____

Approved by: _____

Title: _____ Date: _____

Installation:

I certify that this practice has been installed in accordance with NRCS standards and specifications.

Certification by: _____

Date: _____

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