



Northern Bobwhite Management on Private Lands

Historically, abundant bobwhite populations were an accidental byproduct of broadly applied land-use practices. In modern landscapes, the intentional creation and maintenance of early successional native plant communities is generally required to produce sustainable bobwhite populations. The magnitude of bobwhite population response to habitat management is scale-dependent. This means that the more intensive and extensive the habitat management, the greater the bird response. Expected population response to management is also influenced by landscape context. Throughout the South, there are numerous large (3,000-5,000 ac) public and private properties under varying degrees of active management. The degree of habitat management on these properties depends on landowner objectives and knowledge of conservation practices and opportunities. Management can vary in scale and intensity ranging from no management, to broadly applied but low-intensity conservation buffers, to comprehensive conservation involving a suite of conservation practices integrated throughout a production system.

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Clay County, Mississippi Property Management

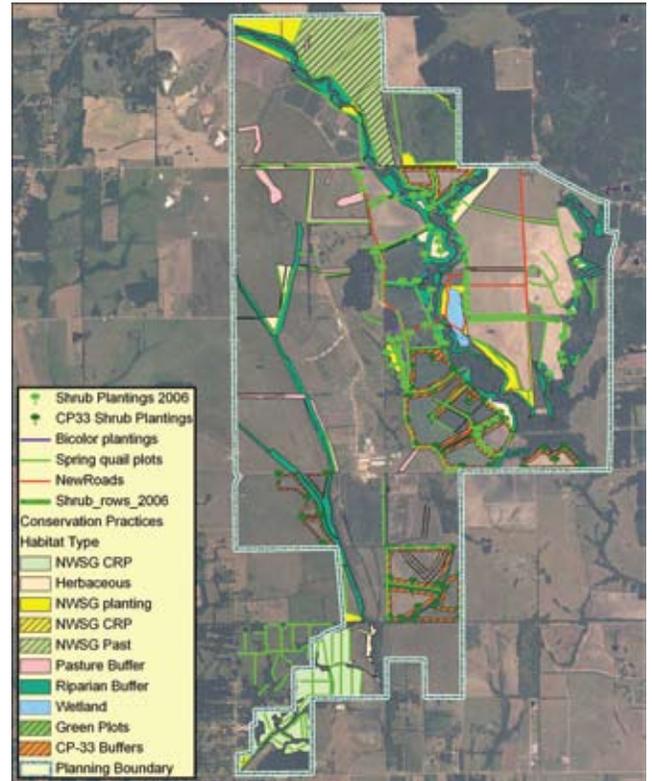
The Clay County property is a 5,400 acre working cattle and row crop farm located in the Black Prairie Physiographic region. The goal of the property is to run a profitable, diversified cattle and row crop operation in the context of a land ethic based on environmental stewardship.

Management Objectives: To control erosion in pastures and croplands, improve bank stability and water quality in drainage areas, and restore bobwhite populations to huntable levels.

Twenty five percent of the property is maintained in conservation practices including riparian buffers, native warm-season grass (NWSG) buffers, NWSG pasture, and CRP grasslands.

Specific management practices include:

- Herbicidal eradication of exotic grasses such as fescue and bermudagrass;
- Establishment of buffers and native grasslands;
- 100-180' forested riparian buffers (CRP CP22) with 20-30' native herbaceous zones (7% of total landscape);
- 30-100' fenced pasture buffers planted to native forbs, grasses, and shrubs (2.4% of total landscape);
- 60-120' NWSG upland habitat buffers (CRP CP33) around croplands (3.6% of total landscape);
- 120 36'x36' (3.57 total acres) Chickasaw plum shrub thickets;
- Conversion of fescue pasture to rotationally grazed NWSG pasture (4.3% of total landscape);
- Establishment of 171 acres of NWSG (3.2% of total landscape);
- Miles of grain food plots; and
- Rotational disking and prescribed fire to maintain early successional habitats.



Conservation planning was accomplished by a consultant wildlife biologist working in cooperation with USDA-NRCS field office personnel. Conservation practices were implemented under the WHIP, EQIP, CRP, (USDA-FSA), and U.S.F.W.S. Partners Programs.

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Forest and Wildlife Research Center Note
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CP33 NWGS Habitat Buffer



NWGS Pasture



Pasture buffers

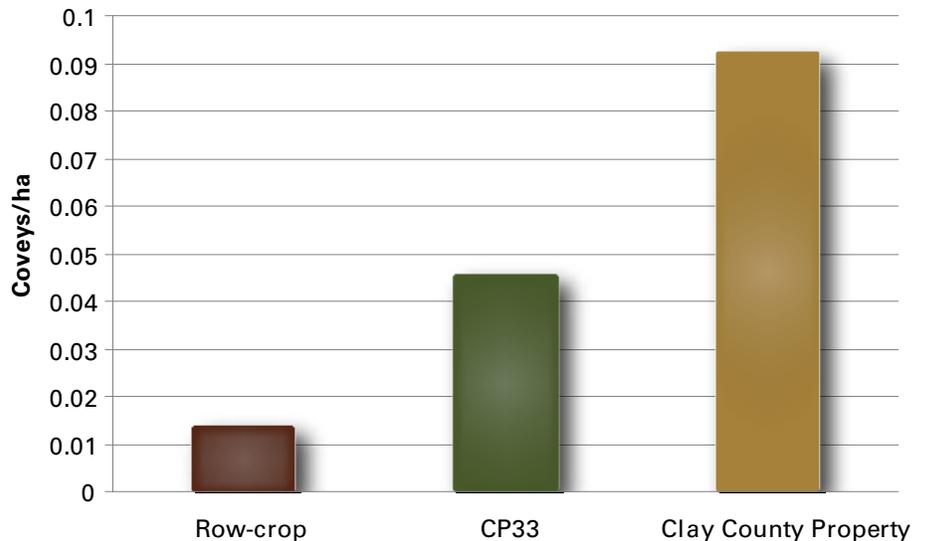


Chickasaw plum planting

Effects of Integrated Management

- In the absence of bobwhite management, 2007/2008 fall densities in the surrounding landscape of the Southeastern Coastal Plain averaged 1 covey/72 hectares or 1 bobwhite/6 hectares (assuming 12 bobwhites/covey).
- Addition of CP33 buffers more than tripled fall density to an average of 1 covey/22 hectares or 1 bobwhite/1.8 hectares.
- Within the Clay County property, CRP CP33 field buffers are simply one component of a more comprehensive conservation management system. On this property, farm-level fall densities were 1 covey/11 hectares or 1 bobwhite/0.9 hectares.

Northern Bobwhite Fall Covey Densities, 2007/2008



- Broadly applied conservation practices that created early successional habitat produced bird densities almost 7 times greater than the surrounding landscape.
- Habitat management produced bobwhite populations sufficient to support quality recreational hunting.

