
What bobwhites want: research results from 11 projects across the quail range

In an effort to help restore northern bobwhite quail populations to 1980 levels, the U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Agricultural Wildlife Conservation Center (AWCC) led the Bobwhite Restoration Project, a cooperative research project designed to develop and evaluate the technology needed to establish or manage quail habitat across its range. The AWCC, located in Madison, Mississippi, is a fish and wildlife technology development center.

The AWCC enlisted the Department of Wildlife and Fisheries at Mississippi State University (MSU) to coordinate 11 research projects among 9 universities, with projects in Arkansas, Florida, Illinois, Mississippi, Missouri, North Carolina, South Carolina, Tennessee, and Texas.

“Our goal was to identify practices that have potential to accomplish multiple conservation objectives—to address the economic needs of producers and at the same time enhance habitat quality for bobwhite and other early successional species,” says Dr. Wes Burger, principal investigator for the project from MSU.

Among the findings from the 11 projects:

- A study of rangelands in South Florida by the Tall Timbers Research Station, the University of Georgia, and University of Florida found that quail populations could be doubled in as little as 2 years by using summer fire and roller drum chopping as needed.
- Quail populations almost doubled on farms where as little as 2 to 3 percent of the cropland edge was allowed to go fallow and field border size and shape affect quail numbers, a North Carolina State University study found.

- The message from a University of Tennessee study comparing various habitat treatments was that active management is required to maintain early successional habitat. Fire and heavy disking are often successful, herbicides may be required, and mowing is least effective.
- Research in Mississippi by Iowa State University and MSU shows a cumulative effect from applying buffers that connect larger blocks of grassland habitat. Farms with buffers alone supported twice as many quail as conventional farms. A farm with buffers and blocks supported four times as many. The study found that narrow buffers were better than no buffers at all, and wide buffers were better than narrow buffers.
- Studies by Texas Tech and Texas A&M Universities show quail benefit from some, but not too much, woody cover, and that deferred grazing practices helped both cattle and quail.
- A survey by the Missouri Department of Conservation found that landowners were very interested in bobwhite and were willing to implement some, but not all conservation practices needed to restore bobwhite populations.

“We wanted to have answers come out of these projects on how we can do a better job helping landowners produce fish and wildlife,” says Pete Heard, AWCC Director.

“When our district conservationists make recommendations to landowners, they need to be heeled with the best information science can provide.”

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NRCS photo by Lynn Betts

Northern bobwhite in flight

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