

EFFECTS OF CLOVER STRIPCOVER CROPPING OF COTTON ON SONGBIRDS POPULATIONS AND NORTHERN BOBWHITE BROOD HABITAT

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Abstract. Changes in agriculture in the state of Georgia and the Southeast have had a tremendous effect on populations of northern bobwhite quail (*Colinus virginianus*) and many early successional songbirds. The change from rather diverse small farms to large operations, generally geared to production of a few crops, has generally had a negative impact on farm wildlife. Heavy pesticide use to battle key agricultural pests has had a carryover effect by removing neutral and beneficial insects required by many breeding birds. Cotton, which requires more technological inputs than many row crops, has therefore traditionally been viewed as detrimental to wildlife. The use of clover strip-cropping has been shown to revitalize beneficial insect communities in cotton fields.

This diverse community reduces the need for traditional pest control while also avoiding unnecessary or costly inputs that many alternative techniques currently require. The inherent structure of cotton rows along with the boost in insect diversity with strip-cropping suggests a possible positive agriculture/wildlife interface. We are studying the effects of strip-cropping cotton and clover versus conservation tillage and conventional cotton on the density and success of passerine nests, as well as the suitability of brood habitat for the northern bobwhite. Variations in vegetation and arthropod communities throughout the breeding season are being measured. In addition, avian species composition and usage will be monitored during the migration and winter.