

Economic Analysis of Wildlife Habitat Buffers in CP33



Figure 1.

The conservation practice, CP-33, Habitat Buffers for Upland Birds, is a fairly recent addition to the list of options available through the USDA Conservation Reserve Program (CRP).

The initiative is administered by the United States Department of Agriculture (USDA) Farm Service Agency. In Missouri, technical assistance is provided by the USDA-Natural Resources Conservation Service and the Missouri Department of Conservation. Missouri has a total CP-33 allocation of 32,600 acres, the third largest in the nation behind Kansas and Illinois. The program has rapidly gained interest since it was made available in 2005. The basic intent of the program is to establish habitat buffers around the edges of existing crop fields to provide cover for bobwhite quail, ringneck pheasant, and songbirds.

A popular application of the program has been to establish buffers along field margins where planted crops compete with existing timber and hedgerows. In most years, crop yields are dramatically reduced along tree lines, but the impact is weather dependent. Historically, a selling point of the program has been that yields are often low enough at the field edge that revenue is less than the cost of planting and harvesting those acres. Figure 1 shows an ear of corn grown along a CP33 buffer (on the left) compared to an ear of corn grown on the opposite side of a wooded fenceline with no buffer: same farmer, same corn variety, same inputs.

To analyze this concept, the Missouri Department of Conservation teamed with the Food and Agricultural Policy Research Institute (FAPRI) at the University of Missouri to complete a farm-level economic analysis of participation in CP-33. The study was conducted using FAPRI's well established representative farm analysis. The approach used real world yields, prices, operational costs, and soil rental rates within a sophisticated computer model. Farm-level economics, validated by a panel of participating farmers from Carroll County, were modeled over 10-years, and projections of future commodity prices and operational costs were incorporated.

Results indicated that participation in CP-33 pays off in all the representative farm scenarios tested. The average increase in returns to family living ranged from 25 cents to \$2.49 per acre of the farm per year, Figure 2. Government payments plus lower operating expenses exceed declines in market receipts and produced positive returns to

Average Annual Returns - \$/Acre

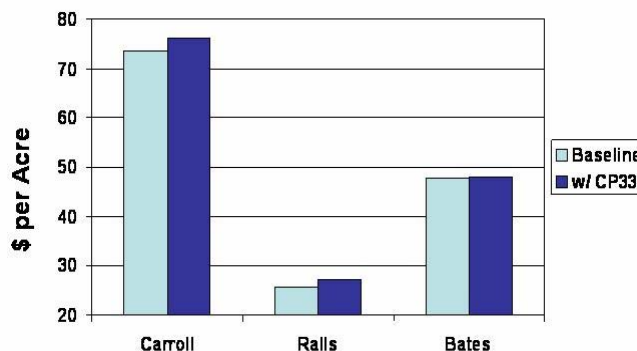


Figure 2.



CP33 buffers can provide needed broodrearing and nesting cover for bobwhite quail and other ground dwelling birds.(NRCS photo)

family living over the ten years modeled. FAPRI cautions that these findings do not apply to all farms, but is most applicable where crop yields along field edges suffer from the effects of adjacent tree growth. In these situations, whether corn is bringing \$2 or \$4 per bushel, CP33 pays.

The management alternative of complete tree removal along crop field edges with a bulldozer was also analyzed for the Carroll County farm. Higher returns to family living were

produced from CP-33 participation than from the tree removal option.

Yields, commodity prices, operating costs, and soil rental rates were important factors affecting study results. Although net benefits were small and variable across farms, most producers should receive a positive economic return to idle acres by participating in CP-33 even with strong commodity prices in the future. Recent increases in the CRP soil rental rates and additional incentives in the watersheds eligible for the Conservation Reserve Enhancement Program (CREP) and the Conservation Security Program (CSP) should provide additional positive returns to landowners. Buffers will lessen equipment damage caused by overhanging tree limbs, improve wildlife habitat, and provide more quail and songbird viewing opportunities for wildlife enthusiasts.

For more information about the FAPRI study visit: www.fapri.missouri.edu.

For more information about CP33 visit:

www.fsa.usda.gov/pas/publications/facts/html/crpcont03.htm

OR

www.mdc.mo.gov/conmaq/2006/01/30.htm

