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Conservation Compliance: The Once and Future Farm Environmental Policy Tool

By Carl Zulauf, Brent Sohngen, Lindsey Hoskinson, and Allan Lines

Despite being an entitlement criterion that farmers must meet in order to qualify for farm program payments, Conservation Compliance has largely disappeared as an issue during recent farm bill debates. The focus has been on using cost-share and incentive payments to encourage the adoption of environmentally friendly farming practices. Conservation Compliance, in contrast, denies certain farm program benefits (including income support payments) to farmers who convert a wetland into cropland or who farm highly erodible land without an approved conservation plan. Thus, Conservation Compliance uses the denial of government benefits to encourage environmentally friendly farming practices.

Thanks to sizeable federal deficits, Conservation Compliance may again become a major farm policy issue. The Office of Management and Budget recently forecast a 58% increase in gross federal debt by the end of fiscal year 2008, driven largely by cumulative federal deficits of \$1.9 trillion over fiscal years 2003–2008. Deficits of this size may make Congress more willing to achieve farm environmental improvements by adding new requirements to Conservation Compliance. Doing so would allow them to reduce outlays for environmental cost-share and incentive payments to farmers. But will farmers—key farm policy actors—overwhelmingly oppose new compliance requirements? Opposition is expected due to the costs of meeting new requirements, including possible loss of farm program benefits.

Farmers' views about Conservation Compliance requirements come from the 2001 National Agricultural, Food and Public Policy Preference Survey

(Lubben, Simons, Bills, Meyer, & Novak, 2001). The specific question was: “Should farmers be required to do the following in order to receive farm program benefits: (a) plant 20-foot buffer strips along waterways; (b) plant cover crops after harvest; (c) use reduced-tillage cropping systems; or (d) use no-tillage cropping systems?” Before briefly discussing the survey methodology and presenting results, Conservation Compliance is discussed in greater detail. Conclusions and implications are drawn in the last section of the article.

HEL program success has two indicators: high acreage enrollment—in 1985, 86 of 91 million acres not in the CRP had NCRS approved plans—and reductions in erosion totaling about 791 million acres per year. Although not all this reduction is directly due to HEL Conservation Compliance, its size resembles the 1993 record high of nearly 700 tons of erosion reduction from the CRP. As a benchmark, total erosion from U.S. cropland was estimated in 1982 at 3.07 billion tons per year, implying that HEL compliance has reduced erosion by about 25%.

Ohio Survey

The Ohio farm operator survey was mailed to 1,500 Ohio farmers by the Ohio Agricultural Statistical Service during March and April of 2001. A stratified sampling procedure was used. The sampling strata were farms with sales of less than \$100,000, \$100,000 to \$250,000, and more than \$250,000. Farmers in the two larger sales strata were sampled at a higher rate to increase the likelihood of receiving a statistically significant number of responses from them. Useable surveys totaled

Overview of Conservation Compliance

Conservation Compliance was enacted in the Farm Security Act of 1985 (Glaser, 1986). Farmers who wish to receive certain farm program benefits (a) cannot convert a wetland into cropland unless explicitly permitted to do so, usually by replacing the converted wetland; (b) cannot convert highly erodible land into cropland unless a pre-approved conservation plan is followed; and (c) cannot farm highly erodible cropland that was in production between 1981 and 1985 without following an approved conservation plan (Claassen, 2000). These three restrictions are commonly referred to as Swampbuster, Sodbuster, and Conservation Compliance, respectively. Noncompliance could lead to loss of price and income supports, disaster relief, loans, and access to the Conservation Reserve Program (Ribaud, 2000).

Wetlands are identified using a combination of soil, vegetation, and hydrology characteristics associated with the inundation or saturation of soil by water under normal circumstances (Heimlich, Gadsby, Claassen, & Wiebe, 2000). Highly erodible soils erode at a rate equal to or greater than eight times the soil tolerance level, which is the maximum rate of erosion that can occur without hurting the soil's productivity. Highly erodible lands (HEL) are in fields with at least one third or 50 acres (whichever is less) of highly erodible soils (Claassen, 2000). Consequently, of the 146 million acres classified as HEL by the Natural Resources Conservation Service (NCRS), 22 million acres are not highly erodible (Magleby, 2002).

Impacts of the Wetland and Sodbuster restrictions primarily occur by preventing land from coming into production. Using data from the 1997 National Resources Inventory, Claassen (2000) estimated that without compliance, 7–14 million acres of wetland and HEL could profitably be converted to crop production. The range represents low and high farm price scenarios. The midpoint of this estimate (10.5 million acres) is 3% of the 327 million acres planted to principal crops (essentially all crops except for fruits, vegetables, and tree nuts) in the United States during 2003 (USDA, 2003, p. 4).

HEL Conservation Compliance specifies the use of economically viable conservation systems that substantially reduce erosion. "Substantial" currently means a 75% reduction in erosion, but plans approved prior to July 1996 may require a smaller reduction. Conservation systems include one or more conservation practices, the most common being cropping sequences, crop residue use, and conservation tillage (Claassen, 2000).

239, with a distribution of 86, 89, and 64 by increasing sales strata. Responses were expanded to population estimates by using the sampling weights.

Farmer Views About Expanding Conservation Compliance

Fifty-six percent of the surveyed Ohio farm operators responded that farmers should be required to use reduced tillage practices in order to receive farm

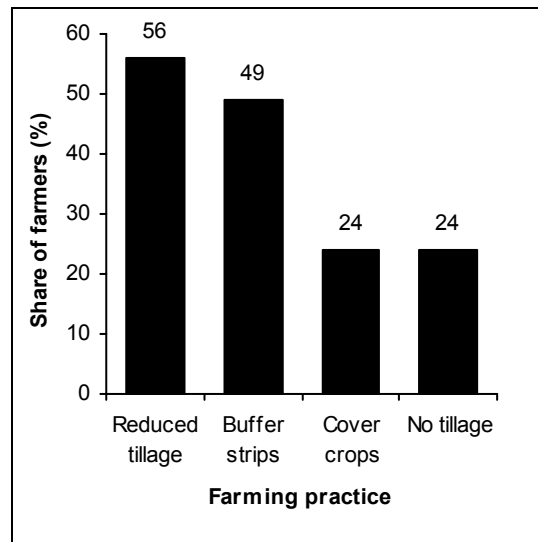


Figure 1. Support for adding selected new requirements to conservation compliance, Ohio farmers, 2001.

program benefits (see Figure 1). Forty nine percent of the surveyed farmers agreed with requiring 20-foot buffer strips along waterways. However, support declined to 24% for requiring post-harvest cover crops and use of no-tillage practices.

Reduced tillage is often a part of residue management practices required by Conservation Compliance plans on HEL. Because the question asked on the survey did not restrict the practice to HEL, the responding farmers may believe this practice should be required on all lands, including those not highly erodible. The survey also did not ask whether the farmer was subject to Conservation Compliance. However, approximately half of the surveyed farmers reported that they participated in year 2000 commodity programs.

Future Compliance Directions?

Since enacted in 1985, Conservation Compliance has reduced soil erosion by more than any other current farm bill environmental program. It has made working lands an important part of post-1985 farm environmental policy. It has also made farm income supports a type of environmental payment by denying them to farmers who violate any of the three compliance practices. If the idea of multifunctionality is incorporated into the next international trade treaty, credit should be given to U.S. farm income support programs for the

improved environmental performance resulting from Conservation Compliance.

Adding new requirements to Conservation Compliance was not completely opposed by the surveyed Ohio farmers. Half of the respondents supported requiring reduced tillage and buffer strips in order to receive farm program payments. This level of support suggests that in a budget deficit environment, farmers might accept these two Conservation Compliance practices in exchange for not cutting farm income supports. The new compliance requirements could satisfy society's desire for improved environmental performance by farmers while permitting reductions in cost-share and incentive payment programs.

A key question is why Ohio farmers are more willing to support reduced tillage and buffer strips than no-tillage and cover crops as Conservation Compliance requirements. A reasonable hypothesis is that farmers will be more supportive when policies intrude less on farm management decisions. Buffer strips might apply to a limited subset of fields and portions of fields, whereas cover crops probably would apply to the entire field. Thus, requiring reduced tillage and buffer strips in exchange for farm program benefits intrudes less on existing farming practices than requiring no-tillage and cover crops.

Intrusiveness on farmer decision making can decline for many reasons. Technological change can improve the economic feasibility of an environmentally friendly farming practice. An example is improved no-till drills in the late 1980s and early 1990s. Changes in farmers' attitudes may make them more willing to implement a conservation practice. Cost-share and incentive programs can create awareness of an environmentally friendly farming practice, leading to large-scale adoption of the practice.

As adoption of environmentally friendly farming practices spreads, and as new technologies emerge, policy makers should consider whether the revisions in Conservation Compliance reflect these changes. This question becomes more important in a period of large federal budget deficits.

For More Information

Anderson, M., & Magleby, R. (1997). *Agricultural resources and environmental indicators, 1996-97*

(Agricultural Handbook No. 712). Washington, DC: United States Department of Agriculture Economic Research Service.

Claassen, R. (2000). Compliance provisions for soil and wetland conservation. In U.S. Department of Agriculture Economic Research Service, *ERS agricultural resources and environmental indicators* (No. AH722, Chapter 6.3). Available on the World Wide Web: http://www.ers.usda.gov/publications/arei/arei2001/arei6_3/DBGen.htm.

Conservation Technology Information Center. (2003). *National crop residue management survey: Conservation tillage data*. Available on the World Wide Web: <http://www.ctic.purdue.edu>.

Glaser, L.K. (1986). *Provisions of the food security act of 1985* (Agriculture Information Bulletin No. 498). Washington, DC: United States Department of Agriculture Economic Research Service.

Heimlich, R., Gadsby, D., Claassen, R., & Wiebe, K. (2000). Wetlands programs. In U.S. Department of Agriculture Economic Research Service, *ERS agricultural resources and environmental indicators* (No. AH722, Chapter 6.5). Available on the World Wide Web: http://www.ers.usda.gov/publications/arei/arei2001/arei6_5/DBGen.htm.

Lubben, B.D., Simons, C.J., Bills, N.L., Meyer, N.L., & Novak, J.L. *The 2002 farm bill: U.S. producer preferences for agricultural, food, and public policy* (Publication Number 2001-2). National Public Policy Education Committee.

Magleby, R. (2000). Soil management and conservation. In U.S. Department of Agriculture Economic Research Service, *ERS agricultural resources and environmental indicators* (No. AH722, Chapter 4.2). Available on the World Wide Web: http://www.ers.usda.gov/publications/arei/arei2001/arei4_2/DBGen.htm.

Office of Management and Budget. (2003). *Mid-session review*. Available on the World Wide Web: <http://www.whitehouse.gov/omb/budget/fy2004/msr.html>.

Ribaudo, M. (2000). Water quality programs. In U.S. Department of Agriculture Economic Research Service, *ERS agricultural resources and environmental indicators* (No. AH722, Chapter 6.4). Available on the World Wide Web: http://www.ers.usda.gov/publications/arei/arei2001/arei6_4/DBGen.htm.

www.ers.usda.gov/publications/arei/arei2001/arei6_4/DBGen.htm.

United States Department of Agriculture National Agricultural Statistical Service. (2003). *Acreage* (Cr Pr 2-5). Available on the World Wide Web: <http://usda.mannlib.cornell.edu/reports/nassr/field/pcp-bba/acrg0603.pdf>.

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