

The World's Largest Open Access Agricultural & Applied Economics Digital Library

This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.

Help ensure our sustainability.

Give to AgEcon Search

AgEcon Search http://ageconsearch.umn.edu aesearch@umn.edu

Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.

Shifting from Commodity Programs to a Stewardship Program

Mike Dicks¹

Introduction

Interest in moving from the current format of providing price and income support for the major commodities to stewardship payments has increased over the last three decades. But the joining of old forces with new friends has brought a heightened pressure for change. Old antagonists continue to argue that highly profitable and wealthy farm families should not be receiving income support from non-farm families with substantially less average income and wealth. In addition, the environmental community has continued their effort to move funding from subsidy programs to conservation expenditures. And, budget hawks continue to target cuts in agriculture based on the notion that large corporate farms do not need public assistance.

The current Doha round of WTO has a principle goal of reducing payments to farmers that are coupled to production and/or prices. Moving to payments tied to specific production practices that also maintains some level of income support would aid the United States in the Doha negotiations as these payments would not contribute to amber or blue box and hence would be seen as a reduction in the Aggregate Measure of Support (AMS) in the United States.

In addition, the fruit and vegetable industries have increased their demands to be included at the subsidy table. The movement from supply management to direct payments for the major commodities has led to a new push by the fruit and vegetable industry to move away from marketing orders to direct payments.

The combined impact of the worsening federal budget picture, the Doha round of the WTO, and demands by both the fruit and vegetable industries and environmental groups has led to an increased interest in shifting from direct price and income support to support through resource stewardship efforts. While a complete shift from commodity programs to a stewardship program in the next farm bill is unlikely, the shift has already begun and discussions of potential strategies for a continued shift are needed to build support amongst all stakeholders and ensure movement towards an efficient and equitable program.

The Conservation Security Program was enacted under the Food Security and Rural Improvement Act of 2002. The CSP was a response to concerns that existing conservation programs that attempted to obtain the "biggest bang for the buck" often rewarded the worst land stewards. Under the CSP, payments would be made based upon the level of conservation practices currently implemented on the farm, providing a reward for the best land stewards. While the CSP began in concept as a national stewardship program, implementation has produced just another targeted watershed protection program falling short of a national program due to limits on funding. In addition, the level of payments a producer receives is tied to use of specific practices rather than the level of environmental benefits provided.

What might happen if the United States were to truly dismantle price and income support programs and use the \$15 – \$20 billion per year for environmental stewardship? How would the

¹ Mike Dicks is Professor of Agricultural Economics at Oklahoma State University.

program be shaped and more importantly how would the program be implemented? How would the program provide equity between so many diverse farm and ranching activities and between farm and non-farm families?

This paper provides some initial thinking about how an environmental stewardship program might be constructed and implemented. Principle concerns for agriculture in receiving federal financial assistance include equity across commodities, structural implications, national availability, and a seamless program between reserve lands and working lands. For the environmental groups, many of the same concerns have been voiced but an additional concern that landscape effects guide the level of funding also has been raised. And finally, for the implementing agencies the programs must be easy to implement and easy to check for compliance.

Equity Based on Financial Reality

The concept of providing an economic incentive to land owners or operators to manage farm land to meet social objectives is not new. Incentives have been used to expand and reduce the cropland base, implement specific production practices and minimize the use of specific inputs in the production process. Thus, the technical knowledge required to implement a program that transfers funds from taxpayers to landowners/operators to induce certain land management practices is already in place. However, past programs to induce changes in land use management have not been used to specifically distribute funds equitably based upon the profitability of the crops produced in specific locations.

Equity is always a prominent issue in the farm bill debate. A move from commodity programs to environmental stewardship payments, inclusion of livestock, fruits and vegetables and other agriculture enterprises into the pool of producers eligible for financial assistance certainly has the potential for dramatically altering the distribution of government payments across states and congressional districts. Thus, the issue of equity, particularly with respect to how changes in policy will affect the status quo will likely be central to the success of obtaining a shift in policy.

From the national perspective the large difference between farm and non-farm family income suggests that no transfer from taxpayers to farms should occur. Over the last three years the agriculture sector has posted record levels of net farm income and gross profit on cash revenue (GPOCR) has approached 32% when government payments are included and nearly 20% based only on cash receipts. The level of income and profitability describes a very profitable industry.

However, return on assets (ROA) in agriculture is very low especially if only those returns to assets that originate with cash receipts are considered. The low returns on assets are a result of the large capital investment needed in agriculture because the industry is land based. As an industry, agriculture has a very low value of sales per dollar of fixed assets (S/FA).

Land represents roughly 85% of the fixed assets in agriculture. As land values increase, new land purchases with stagnant commodity prices leads to a further decline in the dollar of sales per dollar of fixed assets. In most areas land values continue to move away from parity with the capitalized value of the land. Demand for land to provide recreation, homesteads, urban and other uses continues to push the market value of the land further from the value generated by returns to agricultural production activities (capitalized value). One has to move to remote areas

of the United Sates to approach parity between the market value and the capitalized value of land.

The disparity between the capitalized value of land and the market value favors older landowners and operators who lease land in remote areas. Operators who have made recent land purchases (e.g., new farmers and ranchers) and those living nearer to urban areas are forced to purchase land at a price above the land's ability to provide income that will cover all costs. Farmers and ranchers of this land will be financially unable to pay for conservation practices that do not increase profit. The financial incentives required to induce landowners/operators to implement specific conservation practices will be different based upon land tenure, distance to urban areas and other socioeconomic factors.

To the extent that under the stewardship programs conservation practices are implemented that bring lands into compliance with current and future environmental regulations land values will increase. However, if the market value of the land exceeds the capitalized value the increase in land value that might occur as a result of the implementation of new conservation practices will not likely be observed.

Similar Allocation of Payments

Equity between commodities will pose the biggest road block in determining how to reallocate current commodity program payments to land stewardship payments. Table 1 provides a comparison of the GPOCR, S/FA and ROA and government payments per harvested acre from representative of typical commercial operations in the United States.²

Baseline:				
	S/FA	GPOCR	ROA	Gov. Pmt (\$/acre)
Feed Grains	0.39	0.16	6.24	\$65
Wheat	0.26	0.28	7.28	\$46
Cotton	0.59	0.08	4.72	\$206
Rice	0.44	-0.03	-1.32	\$421
Dairy	0.42	0.18	7.56	
Beef	0.17	0.22	3.74	

Table 1. Comparison of financial indicators for typical commercial operations, 2005-2009
 Baseline.

Using the FAPRI baseline for 2005-2009, the government payments per harvested acre vary by commodity and are consistent with need as demonstrated by the GPOCR. For instance, rice with a negative profit margin of 3% receives the highest per acre government payment (\$421) while wheat with the highest level of profitability receives the lowest per acre government payment (\$46).

To move to a stewardship program that rewards landowners/operators for carrying out specific practices would require per acre government payments similar to current allocations to obtain

² Data were obtained from Representative Farms Economic Outlook for the December 2005 FAPRI/AFPC Baseline J.L. Outlaw, J.W. Richardson, et al.

support from farm and commodity groups. This would be difficult using current working land conservation program strategies such as the Environmental Quality Incentives Program (EQIP) that pay per unit for a specific practice.

Current support programs, because of their attachment to historic production, also provide larger payments for larger farmers. Payments per unit for stewardship practices would likely continue this trend. Concerns about structure (e.g., programs encourage farm enlargement as larger farms get larger payments) could not be dealt with through payment limits without constraining the ability of the programs to obtain environmental benefits.

A National Program

Unlike the CSP, where the program is targeted to specific watersheds, a new stewardship program that may be used to supplant the commodity programs would have to be available nationally, to all lands. Without other specific changes, the national diffusion of dollars would reduce the marginal increase in environmental benefits per dollar expended. The targeting of payments enables more concentrated efforts within a watershed. The more acres within a watershed that implement a specific practice to achieve a specific objective the greater the average benefit per dollar expended. In most cases a threshold exists that requires a certain percentage of the area in a watershed/landscape have a specific practice implemented before any benefits are obtained.

Producers need a program that is seamless from reserve lands to working lands. In some situations such as cropland within close proximity to short grass prairie grasslands a case could be made for developing prescribed management practices that enable economic use of the lands but only under strict guidelines that preserve the habitat for native species. These lands would be considered for restoration and as such should be offered only a permanent easement that prevents future cropping or development. The cost of restoration makes 10 year contracts infeasible. This option would be similar to the Grassland Reserve Program except that management would be prescribed by USDA.

Other croplands could be returned to grasslands and may need to be rested or simply placed into a less intensive use such as haying or grazing. These lands could be managed similar to CRP acres accept that options would be available for no use to unlimited alternative (to annual cropping) uses.

Working lands could have a literal smorgasbord of practices to select for incentive payments to increase water or air quality, wildlife habitat, or soil productivity. In addition, incentive payments could be used for on-farm research to entice producers to try new technologies, processes or new crops.

Administer within the Landscape

An important concept for the stewardship program to be endorsed by environmental groups will likely be the allocation of incentive payments based upon benefits within the landscape. The CRP uses an Environmental Benefits Index (EBI) to rank offers for selection to the program. However, without knowledge of the surrounding lands and how a specific field fits into the

landscape it is impossible to determine what environmental benefits a specific field will yield. And, these benefits will change if land use of the surrounding lands change.

To provide a stewardship payment for conversion of cropland to native grassland to support the greater prairie chicken on 160 acres may be meaningless if the 160 acres is surrounded by only cropland but may provide enormous benefits if it enlarges a contiguous area of native tall grass. One potential solution to this problem would be to increase the payment level for stewardship practices based upon the level of implementation of this practice in the landscape. This may entice landowners/operators to work cooperatively to obtain larger scale environmental benefits. However, this same strategy would provide even larger payments for larger landowners.

A Multi-Agency Approach to Implementation and Compliance

For the stewardship incentive program to work will require a more focused, expanded and cooperative effort on the part of the Farm Services Agency (FSA), Natural Resource Conservation Service (NRCS) and Cooperative Extension (CE). FSA has been developing a GIS delivery system with a Common Land Unit (CLU) that will be invaluable in estimating costs and benefits of a new program. FSA has a long history of working with landowners and operators in administering programs from data collection to payments. FSA should be responsible for the administration of the stewardship program including signing up producers, making incentive payments, and assessing program impacts.

NRCS has historically provided the technical assistance required to implement appropriate conservation practices and should retain the role of being responsible for working with FSA to deliver Resource Management Systems (not single practice conservation plans) to landowners/operators.

One final point is whether management of excess capacity will be considered a stewardship benefit and thus available for incentive payments. Both idled land and stocks are means of holding food or production potential off the market and in reserve in case an exogenous event such as drought, floods, or other catastrophic events cause sharp rises in prices. Holding excess capacity by producers caps prices, providing benefits to consumers to the detriment of producer incomes. Including capacity management as an objective in the stewardship program would provide a potential solution to the issue of equity between commodities. In addition, rather than idling land to maintain excess capacity, other inputs (e.g., fertilizer, agricultural chemicals) could be reduced through offsetting stewardship payments. This may provide more environmental benefits than the idling of land, maintain the productive capacity and minimize the adverse consequence on local economies.

<u>Summary</u>

A new stewardship program that is born out of commodity programs must be a seamless program providing for land and resource management that would include incentives for options from permanent land use changes to temporary changes in resource/input use. Each of these management options should provide incentives that reflect reduced profit and increased value of public amenities. The stewardship program must be available to all farmland owners and operators with consideration for cross-commodity equity and predetermined structural objectives. Incentive payments must be based on both farm level management and cooperative management within the landscape. The payments must also be based upon the level of specific changes in environmental amenities provided by changes in practices. Where the initial cost in the change in practice exceeds the increase in the value of environmental amenities or that value is unknown the incentive payment would reflect the cost of changing practices.