Farm program considerations: Part 8 Environmental impacts

Our focus so far in this series of columns on agricultural policy has been to identify policy elements that that take into account the market failure we see in crop agriculture. For us that means maintaining the price of major crops in a band that protects farmer on the low side and consumers on the high side. During that part of our policy analysis, we did not focus on the environmental impact of growing crops on 250 million acres in the US. However, environmental issues are certainly a legitimate concern, especially if the public is going to be asked to fund a farm program—whether or not it is the program design that we have laid out or something else.

Agricultural runoff containing chemicals that make their way into waterways has been an issue in places like Des Moines, Iowa, the southwestern corner of Lake Erie, and the Chesapeake Bay. For longer than we care to admit, the dead zone in the Gulf of Mexico has had an impact on fishing and water quality. People living next to concentrated animal feeding operations (CAFO) have complained about odors that force them to keep their windows closed and hold family gatherings indoors if the wind comes from the wrong direction.

From an economic perspective, these problems all point to negative externalities that are associated with agricultural production. Negative externalities are production costs that are borne by someone other than the producer: in the above examples, the Des Moines Water Works, the citizens of Toledo Ohio, and fishing operations in the Chesapeake Bay and Gulf of Mexico.

But farmers are not paid for environmental services: minimizing soil erosion and the leaching of farm chemicals into waterways and reducing odors from CAFOs. Neither are they paid for positive externalities like providing wildlife habitat.

The farmer who closely manages nutrient levels and uses buffer strips to absorb farm chemicals before they get into the waterway gets the same crop price as the farmer who doesn't do anything to manage farm chemical runoff.

Negative externalities from agricultural operations is not a new issue. At the beginning of the 20th century, Henry A. Wallace, future Secretary of Agriculture and Vice President, railed against soil miners as Editor of *Wallaces' Farmer.* Soil miners was the name Wallace gave to farmers who did not prevent soil erosion on their farms and simply moved further west when the gullies got too deep. Today the issue is not just soil, but the loss of nutrients and other farm chemicals.

It seems to us that there are four ways to deal with negative farm externalities: 1) voluntary activities by farmers, 2) government programs that provide financial assistance to farmers for implementing practices that reduce or eliminate negative externalities, 3) government regulations, and 4) market-based programs like those we are beginning to see in the area of animal welfare.

Voluntary conservation activities by farmers certainly are important. Committed individuals often carry out externality-reducing activities for reasons that are unique as the persons involved. The practices they put into place on their farms and ranches often show the way for others who want to eliminate negative impacts of their agricultural practices.

The limitation of individual voluntary activities, however, is just that; it is individual. As such these activities may improve soil quality on a given farm and reduce that farm's negative impacts on the nearby streams, but even in aggregate they do not have the scale sufficient to impact watersheds as large as the Chesapeake Bay or the Mississippi River basin.

In addition, the costs are borne by the individual producer and major activities may cost more than an individual farmer can afford. In addition, it may reduce the individual's cost-competitiveness compared to producers who do not engage in these unpaid activities.

To help with the issue of affordability, the government often offers a cost-share program or other financial incentive. The EQIP (Environmental Quality Incentives Program) is one of a number of incentives programs offered by the USDA's Natural Resources Conservation Service and funded through the farm bill. Other agencies or groups may also offer funding to provide farmers with a financial incentive to engage in specific activities.

When compared to the scope of needs, Congress is unwilling to provide enough money to fund all of the vital projects that might be implemented by concerned farmers and charitable groups do not have enough money. Then there is a large group of producers who do not want to be bothered with projects that do not enhance their bottom line. As long as they don't bear the cost, they are not interested in investing the time, even if others provide the financial resources.

Neither of these two ways of dealing with the negative externalities that occur as the result of farming activities has the potential to have system-wide impact.

Next week, we will analyze the other two options.

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