

to be met. A common rule of thumb often quoted in the agricultural conservation community is that 80%–90% of the benefits can be achieved by changing the behavior of 10%–20% of the actors. Unfortunately, the properties of nutrient flows, especially nitrogen, in this landscape where tile drains and ample rainfall prevail, mean that there are nitrogen flows from all agricultural land. While targeting of cost-effective practices to the locations they are most effective is clearly important, implementation of traditional conservation practices (best management practices) will not achieve the nitrogen reduction needed, both because many of those practices are targeted at soil erosion/phosphorus rather than nitrogen and because practices that achieve a greater per acre effectiveness than many of the traditional practices are needed.

4. Successful treatment of the land area to achieve the targeted nutrient reductions will be expensive. The scenarios identified by the science team have initial price tags ranging from \$77 million to over \$1.4 billion annually. Bear in mind, however, that the initial cost of implementing and maintaining these practices may be shifted to consumers in the form of higher prices; thus, the ultimate “burden” of these costs may not fall only on agricultural producers.

In summation, to successfully address the nutrient enrichment problem coming from Iowa’s agricultural fields, a major change in the landscape will be needed. New practices and new crops will be needed, new land uses such as wetlands will have to be constructed in locations targeted to achieve nutrient cycling, and all of this will come at a cost. The Iowa

Nutrient Reduction Strategy calls for voluntary approaches to achieving this landscape transformation, meaning that producers will have to willingly adopt practices that reduce their bottom line and/or for conservation programs to substantially increase their funding of programs. The Iowa Nutrient Reduction Strategy contains a plethora of useful information and the insights from many of the best scientists in agronomy, ecology, agricultural engineering, and hydrology. Nonetheless, many questions remain, particularly with respect to the implications for conservation and environmental policy. The attached box identifies a number of questions that will be discussed in future issues of the *Ag Policy Review*, particularly as new research becomes available that sheds light on these questions. ■

Ask an Ag Economist

If Iowa is the leader in corn production and has a poor corn crop, how can there be a bumper crop for the nation?

THE SIMPLE ANSWER IS ACREAGE:

lots of corn acreage. Over the past five years, the United States has increased corn planting by over 10 million acres. Much of that acreage is outside the traditional Corn Belt, in places like the Northern Plains and the Southeast. While these acres don’t tend to yield as much as Iowa’s acres, they definitely add to the national total. For example, if those additional 10 million corn acres yield at 140 bushels per acre, that’s an additional 1.4 billion bushels of corn for the

United States. For Iowa, a good year of corn production would result in roughly 2.4 billion bushels of corn; and in a poor production year, like last year, Iowa produced only 1.88 billion bushels of corn. So when Iowa corn production falls short, the US total declines by about 0.6 billion bushels of corn. The increase in corn production outside the Corn Belt is more than enough to offset Iowa’s loss and bring the US total corn production up to record levels. ■

Do you have a question for an Agricultural Economist?

The “Ask an Ag Economist” segment is where we invite readers to submit questions to us. We will periodically choose questions of general interest to respond to in future issues.

Questions can be submitted to us through our web site (http://www.card.iastate.edu/ag_policy_review/ask_an_economist/).