

Consider Wetlands

By Dr. Jacqueline Comito

When discussing agricultural conservation practices, it is easy to think of conservation and economics as mutually exclusive. People often assume that a certain practice or strategy can be either environmentally friendly or economically beneficial, but not both. This is simply not the case. There are many situations where conservation methods not only protect our natural resources but also provide economic benefits. One example is wetlands.

A century ago, numerous wetlands were woven into Iowa's prairie landscape. To enable agricultural production, drainage systems were put in place to make wetland areas suitable for growing crops. Approximately 90% of Iowa's native wetlands were drained for agriculture and development.

As researchers, landowners, and policymakers have learned over the last few decades, wetlands provide a wide array of benefits to Iowans: improved water quality, increased habitat for wildlife, erosion control, sediment retention, carbon sequestration, increased crop yields and some flood mitigation.

The Iowa Nutrient Reduction Strategy (NRS) includes wetlands as an important tool available to Iowa producers to control nitrogen levels in Iowa waters. Wetlands act as nature's treatment facility through processing nitrogen and trapping other pollutants and preventing them from continuing to flow through the watershed.

When located and constructed properly, wetlands can reduce nitrogen transport by 40-70%. This is important not only for maintaining the health of Iowa waterways, but also for reducing nutrient loads in the Mississippi River that ultimately cause the Gulf of Mexico dead zone.

In addition to water quality benefits, wetlands also provide essential habitat for a number of beneficial species, including amphibians, mammals, fish, and birds. In fact, sportsmen were some of the earliest advocates of Iowa wetland restoration because of the need for suitable waterfowl habitat to maintain healthy duck populations.

Producers have not always been keen to take agricultural land out of production to create wetlands. This position is understandable given recent prices for both agricultural land and grain. However, there are economic benefits to consider beyond grain and land prices.

First, wetlands can actually produce an economic benefit for landowners. For instance, instead of watching crops drown on land that typically remains saturated during the growing season or is prone to flooding, a grower can install a wetland. Then, in addition to the benefits of clean water, wildlife habitat, and some flood mitigation, the grower can also achieve a higher average yield with a lower input.

Second, wetlands provide services that result in positive economic outcomes both for landowners and the local community. Wetlands provide free water treatment services.

The cost for providing the same water treatment services through water treatment plants is considerable.

There are many programs available through agencies such as the Natural Resources Conservation Service (NRCS) and the Iowa Department of Agriculture and Land Stewardship (IDALS) to help defray the costs of installing wetlands.

Despite hesitations producers may have about wetlands, they will turn out to be quite a bargain toward the long-term economic success and ecological health of the land. When given a choice between marginally productive farmland that requires significant input with little return and wetlands, wetlands are the obvious choice. It really is a win-win for the environment, agriculture and all Iowans.

Comito, an anthropologist, is the program manager for Iowa Learning Farms.

This is second in a series of monthly op-ed articles. Subsequent articles in this series will discuss in detail various nutrient reduction methods outlined in the Iowa Nutrient Reduction Strategy and the costs and benefits of each potential method. To read other articles in this series, visit the Iowa Learning Farms website:

<http://www.extension.iastate.edu/ilf/content/ilf-opinion-articles>

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