Iowa Soybean Association

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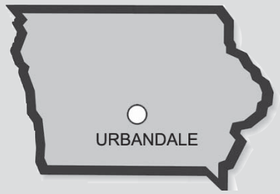

The Iowa Soybean Association (ISA) is governed by an elected board of 21 volunteer farmers and serves more than 6,000 members throughout Iowa. ISA develops policies and programs that help farmers expand profit opportunities by promoting environmentally sensible production and promoting the use of soy-based products. The soybean checkoff program funds research and promotional activities. Membership fees fund legislative and policy lobbying.

Project Background

ISA's environmental programs help farmers improve environmental performance while capturing value through two major programs: Watershed Programming and Certified Environmental Management Systems for Agriculture (CEMSA). The key to the CEMSA program is the measuring, monitoring, and validating process to capture feedback on the performance of current practices. The purpose of this project was to evaluate the costs and benefits experienced by farmers and the environment.

Incentives to Change

ISA's environmental programs staff, Iowa farmers, government agencies and other partners are seeing growth potential and increasing benefits for producers and the public in agricultural Environmental Management Systems. At the current time, there is a need for the quantification of the costs and benefits. CEMSA is a cycle of continuous improvement, not just a continuous use practice that remains the same until the system fails. CEMSA collects, evaluates, and documents information about a farm's activities to determine how to efficiently use available resources. This management system allows the farmer to consider legal requirements and economic stresses while customizing

the system to reflect his or her values.

Results

CEMSA Program: Evaluation

Many of the farmers involved in CEMSA have decreased commercial nitrogen fertilizer use by 30 percent, yet retained profitable yields. The measuring, monitoring, and validating of a performance-based management framework such as CEMSA allows farmers to gather useful information and make decisions based upon in-field performance. Following a performance management system rather than a prescriptive system has the opportunity to improve farmers' financial bottom line.

A life cycle assessment of three years of nitrogen management by 17 farmers across 15,000 acres resulted in preventing the manufacture of 50 tons of commercial nitrogen fertilizer. The prevented manufacture of this commercial fertilizer reduced greenhouse gases by 30 tons and conserved enough energy to power 14 homes for one year.

If all 95 farmers and assumed 36,500+ acres of corn in CEMSA-SP reduced nitrogen fertilizer application rates by 50 pounds, then the prevented use of commercial fertilizer would have huge environmental effects. More than 1,500 tons of greenhouse gases would be prevented and enough energy to power 675 homes for one year would be conserved. Farmers would collectively save $410,000 by avoiding application of over 2,000 tons of commercial nitrogen fertilizer.

Improving a farmer's profitability helps not only the farmer, but also supports the rural economy. Farmers spend money in their local economy, they donate to the local rural church, they volunteer in various civic organizations, and their tax dollars fund local schools. Family agriculture is the foundation of the rural economy.

CEMSA Program: Energy Audits

Currently CEMSA does not address energy issues. The addition of energy audits to CEMSA has the potential to improve a farmer's financial bottom line. Farmers and ISA can identify areas of major energy consumption and take steps to reduce consumption. Once that is complete farmers can diversify energy sources.

Publication Print Planning

Currently there is no standard operating procedure to account for how many publications to print. Each department determines its individual needs for printing. A standard procedure for all departments would help prevent waste of space, time, labor and money. The recommended procedure directs communications staff to identify the primary audience and possible secondary audiences and make an order estimate based upon the document's content, utility, timeliness, cost and previous publication distribution.

Project	Annual Cost Savings	Environmental Results	Status
CEMSA EVALUATION	$410,000	1,500 tons greenhouse gases 2,000 tons of commercial nitrogen fertilizer application prevented 675 homes powered for one year	Recommended
CEMSA ENERGY AUDITS	Decreased energy consumption Increased energy security	More research needed	Recommended
PUBLICATION PRINT PLANNING	More research needed	4 tons of recyclable material diverted from landfill	Recommended