

Updating Financial Information Related to Water Quality Best Management Practices

Issue: The Iowa Science Assessment of Nonpoint Source Practices document, first released in November 2012, included cost and cost-efficiency assessments for more than a dozen nitrogen and phosphorus management strategies. Yet fluctuating prices for product, labor, equipment, rent and many other factors mean those 2012 cost figures need to be updated periodically.

Objective: Preventing and/or mitigating water quality impacts from row-cropping systems depends on private management on farms. Farmers need solid financial information and user-friendly tools to help them make decisions about adopting effective non-point source Best Management Practices (BMPs). This project will further investigate existing practices by adding value to the current financial assessments presented in the Iowa Nutrient Reduction Strategy.

Approach: The cost and cost-efficiency assessments presented in Section 2.1 of the Iowa Science Assessment of Nonpoint Source Practices for in-field and edge-of-field nitrogen and phosphorus management strategies will be updated.

BMP decision support tools (spreadsheet-based budgets) will be developed and made available on the Web. These transparent decision support tools will help farmers and technical service providers more accurately assess potential costs of adopting BMPs using annually updated input costs, expected yields and rental charges (or other expected opportunity costs).

Focused discussions will be held with farmers to test the tools and expand understanding of farmer-perceived opportunity costs and general decision-making. An exploratory off-farm economic environmental benefit analysis will be conducted.

Updated annualized costs will be assessed across a range of opportunity costs to allow for more variable and explicit field-level farmer consideration of potential costs. The impact that current conservation programs can have on farmers' costs also will be considered.

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