

## AGRI-BUSINESS STEWARDSHIP

# NEWSLETTER

*Brought to you by the Michigan Agri-Business Association  
through a grant from the Michigan Agriculture Environmental Assurance Program.*

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The objective of this document is to provide you with current and helpful information regarding water protection, and the Michigan Agriculture Environmental Assurance Program (MAEAP).

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### **Precision and adaptability critical to achieving the greatest water quality benefit**

When it comes to reducing nutrient losses and protecting water quality, we know we don't have all the answers today. Many conservation options are available for farmers, and it's important that conservation efforts be targeted to the specific needs of each field.

With today's focus on protecting the Great Lakes, more scrutiny is being paid to nutrient losses from farm fields. This is especially true today on the issue of dissolved phosphorus, which has replaced particulate phosphorus loss as a leading cause of water quality issues in our region.

Addressing nutrient losses starts with awareness of your farm. Advanced mapping and precision application are standard practices on many farms today. Working with your certified crop advisor, these management tools can allow producers to have more detailed information than ever before on their fields and allow for site specific management plans that maximize yields while protecting the environment.

Based on the most specific characteristics of your farm, some conservation practices could be more useful than others. For example, no-till is an option in some areas, but could contribute to increased dissolved phosphorus losses in other situations. Cover crops are a good option for preventing soil erosion and nutrient losses, but the type of cover crop plays a critical role in the net benefit for the environment. Drain tile is another area of concern, with its own set of positive environmental benefits and potential risks.

Surface conservation practices, when implemented strategically, can be helpful and provide benefits for water quality. As we discover new factors that play a greater role than previously thought, it appears that surface practices are only part of the solution. More research is necessary to discover how subsurface losses are occurring and the steps needed to prevent them. New conservation practices will be needed to address these challenges, beyond just those designed to reduce surface losses. However, more research is needed to fully understand how surface practices like buffer strips, no-till and cover crops interact with nutrients.

As we gain a better understanding of the dissolved phosphorus issue, and develop new strategies tailored to meet dissolved phosphorus concerns, our understanding of the best conservation practices on Michigan farms could shift. It's important that we continue to look for new opportunities to implement solutions with our advanced management capabilities.



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