Long-term goals of the Signature Program include:

1. Reduce the incidence of *Microcystis*, a cyanobacterium—more commonly called blue-green alga—blooms in Lake Erie.
2. Reducing phosphorus loading in waterways.
3. Improve water quality by helping growers use adaptive management to lessen phosphorus and nitrogen use increasing crop yields and boosting farm profits.
4. Offering training for producers and commercial fertilizer applicators on: the current state of Ohio waters, soils and soil testing, best management practices for phosphorus and nitrogen use. For more information and training opportunities visit www.nutrienteducation.osu.edu

The Nutrient Stewardship for Cleaner Water initiative is an Ohio State University Extension Signature Program designed to improve water quality by helping growers efficiently use nitrogen and phosphorus to keep more of it on the field resulting in increased crop yields and farm profits and cleaner water.

CFAES provides research and related educational programs to clients on a nondiscriminatory basis. For more information: http://go.osu.edu/cfaesdiversity.
Nutrient Stewardship for Cleaner Water

Fertilizer is essential to Ohio crop production. But, if nutrient applications are not managed, farm field nitrogen and phosphorus can be lost into water resources and promote hazardous algal blooms. When nutrient sources are applied using the correct rates, timing and placement less nutrient are lost offsite reducing algae growth.

Major water quality problems have occurred in Lake Erie, Grand Lake St. Marys and other Ohio water resources in recent years. Within these aquatic ecosystems, harmful organisms in the form of algal blooms have also been present.

The Nutrient Stewardship for Cleaner Water initiative is an Ohio State University Extension Signature Program designed to improve water quality by helping growers lessen the use of nitrogen and phosphorus and keep more of it on the field, while increasing crop yields and boosting farm profits.

The Nutrient Stewardship for Cleaner Water program focuses on:

- Verifying and developing best management practices for farm field nitrogen and phosphorus application and timing to limit soluble nutrient loss from farm fields.
- Verifying the Tri-State Fertilizer Recommendation Guide for crop production and environmental impacts.
- Educating farmers and industry on best management practices and water quality impacts.
- Developing a voluntary Nutrient Management Plan for growers and producers.
- Evaluating the impact of the program on the improvement of the quality of Ohio waters.

Goals for the first two years of the Signature Program include:

1. Conducting on-farm and field trials of best management practices of application method, timing and nutrient rates.
2. Adopting soil tests and Tri-state fertilizer recommendations for agronomic and other crops.
3. Promoting the use of organic or inorganic nutrient sources for optimal crop production.
4. Developing a hands-on tool growers and producers can access to find recommendations for the best management practices specific to their needs.
5. Optimizing the efficiency of fertilizer use by incorporating the 4R concept: The Right fertilizer source at the Right rate at the Right time and in the Right place.
6. Help growers develop a voluntary Nutrient Management Plan that includes crop recommendations and site environmental risk assessments.
7. Identify fields with high nutrient loss risk and implement appropriate cost effective Best Management Practices on these fields.