



AGRICULTURAL & FOOD
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State Responses to Agricultural Nutrient Pollution

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Categories of State Responses to Agricultural Nutrient Pollution:

- Nutrient Management Plans
- Conservation Programs
- Application Certification & Education
- Application Restrictions
- Private and Nonprofit Partnerships
- Educational/Informational Tools

Nutrient Management Plans (NMPs)

- Ohio—Voluntary NMPs, Ohio Revised Code [905.323](#)
 - There are mandatory NMPs in Ohio through federal regulations and in “watersheds in distress,” but in most cases NMPs are voluntary
 - Someone who owns/operates agricultural land *may*
 - Develop a NMP
 - Or have someone develop one on their behalf
 - Also, they may have it approved by their Soil and Water Conservation District or the Ohio Department of Agriculture
 - If it is approved, it must be resubmitted for review every 5 years
- Maryland—Mandatory NMPs, Maryland Code Agriculture §§ [8-8 01.1](#), [8-802](#), [8-803](#), [8-803.1](#), Maryland Code of Regulations, [15.20.07.01](#), [15.20.07.03](#), [15.20.07.04](#)
 - All farms, or “agricultural operations” with:
 - A gross yearly income of at least \$2,500,
 - Or 8,000 lbs. of live animal weight, are required to have a NMP.
 - Plans specify how much fertilizer, manure, other nutrients may be safely applied to crops
 - Plans must be prepared by someone certified to do so
- Wisconsin—Mandatory NMPs, Wisconsin Administrative Code [ATCP § 50.04 \(3\)](#)
 - Landowners *shall* have and follow an annual nutrient management plan when applying nutrients to any field, including pastures.
 - There is an exemption for pastures with an average of one animal unit per acre or less during the grazing season, and that do not receive mechanical applications of nutrients.
- Oregon—Mandatory, Agricultural Water Quality Management Program, Oregon Revised Statutes §§ [561.191](#), [568.900 to 568.933](#), Oregon Administrative Rules [603-090-0000](#) to [603-95-3960](#)
 - Different approach than other states—“Water Quality Management Area Plans”

- Similar to NMPs, but they apply to individual farmers as well as to overall geographic areas
- Within each Management Area, local committees create area Plans and Rules
 - Plans and rules meant to help farmers and landowners prevent nutrient runoff, other water degradation
 - Farmers can choose which tools they use, as long as it follows the Rules under their Area Plan
 - For more information, see the Oregon Department of Agriculture's [document](#) that further explains the Program.

Conservation Programs

- Financial Incentives
 - Maryland
 - Maryland Agricultural Water Quality Cost-Share Program, Maryland Code Agriculture §[8-703](#), [8-704](#), Maryland Code of Regulations [15.01.05](#)
 - Grants to cover up to 87.5% of cost of installing best management practices
 - Selection to participate depends on geographic area, how much the project will improve water quality
 - Projects that qualify for cost-share reimbursement include, but are not limited to:
 - Cover crops, waste treatment lagoons, fencing, riparian buffers, filter strips, grassed waterways, terraces, wetland restoration
 - More information about the program is available on the Maryland Department of Agriculture's [website](#), and in a [manual](#) available from the Department.
 - Cost-share grants for manure injection
 - Grants may be used to:
 - Hire custom operators
 - Rent or lease equipment
 - Offset operation costs associated with secondary tillage equipment
 - Up to \$55/acre
 - Under the Maryland Agricultural Water Quality Cost Share Program (discussed above)
 - More information is available in a [press release](#) from the Maryland Department of Agriculture.
 - Maryland Income Tax Subtraction for Conservation Equipment, Maryland Code Tax-General § [10-208](#) (d)
 - Farmers can receive a tax break on conservation equipment, including, but not limited to:
 - No-till planters and drills
 - Manure injection equipment
 - Certain manure spreaders
 - GPS
 - Farmers can write off up to 50-100% of the conservation equipment purchased

- More information on this program is available in this [brochure](#).
- Manure Transport and Matching Service, Maryland Code Agriculture, § [8-704.1](#), [8-704.2](#), Code of Maryland Regulations [15.20.05](#)
 - Helps livestock producers cover costs of transporting excess manure off the farm
 - Transport from areas with high phosphorus levels or where there is not enough land to spread manure to places that can use the manure
 - More information is available on the Maryland Department of Agriculture [website](#).
- Required under state law
 - Minnesota
 - Buffer law, Minnesota Statutes [103F.48](#)
 - Requires landowners within certain protection areas, who have property located next to public waters or public drainage systems, to install and maintain buffers between their land and the water
 - There is an exception to this law for agriculture
 - Owners of land used for agriculture can use other practices such as a combination of structural, vegetative and management practices, practices based on local conditions, etc.
 - May do this as long as the alternative practices protect the water as well as a buffer would
 - More information on the buffer law can be found on this [website](#), as well as this Minnesota Board of Water & Soil Resources [website](#).

Applicator Certification and Education

- Ohio
 - Ohio Revised Code § [905.321](#), Ohio Administrative Code [901:5-4](#)
 - Requires certification and education for those applying fertilizer for agricultural purposes
 - Certificates are \$30 and valid for three years
 - Obtaining certification requires completing either:
 - A three hour nutrient training course or a fertilizer examination
 - The educational component includes instruction or testing on proper time, place, amount, and application techniques, which form of fertilizer should be used, storage and handling
 - Cannot apply fertilizer unless:
 - Have a certificate, or
 - Are acting under the instructions and control of a certificate holder who is either:
 - An immediate family member
 - An employee of the same farm or business
 - Certificate holder must keep records of the fertilizer they apply, and save the records for three years

Application Restrictions

- Ohio
 - Western Basin of Lake Erie
 - Fertilizer (nitrogen and phosphorus), Ohio Revised Code [905.326](#)
 - Fertilizer cannot be applied when:
 - Soil is frozen or snow-covered
 - The top two inches of the soil are saturated from precipitation
 - Fertilizer cannot be applied in the granular form when:
 - The local weather forecast contains greater than a 50 percent chance of precipitation exceeding one inch in a 12 hour period
 - Restrictions do not apply when:
 - Fertilizer is injected into the ground
 - Fertilizer is incorporated within 24 hours of surface application
 - Fertilizer is applied to a growing crop
 - Manure, Ohio Revised Code [939.08](#)
 - Manure cannot be applied when:
 - The soil is frozen or snow-covered
 - When the top two inches of soil are saturated from precipitation
 - There is greater than a 50 percent chance of precipitation exceeding one-half inch in a 24 hour period
 - These restrictions do not apply when:
 - The manure is incorporated within 24 hours of surface application
 - The manure is applied to a growing crop
 - Watersheds in Distress, Ohio Administrative Code [901:13-1-01](#) (b)(45), [901:13-1-11](#)
 - A watershed in distress is "a watershed...which has aquatic life and health that is impaired by nutrients or sediment from agricultural land uses and where there is a threat to public health, drinking water supplies, recreation, or public safety and welfare"
 - Owners, operators, and applicators for animal feeding operations cannot apply manure:
 - Between December 15 and March 1
 - Before December 15 and after March 1 when the ground is frozen or there is more than one inch of snow
 - If there is greater than a 50 percent chance of precipitation greater than half of an inch in the 24 hours after application
 - Manure can be applied in certain circumstances if it is packed with snow
 - Before December 15 and after March 1, if the ground is frozen or snow-covered, manure can be applied if it is injected or incorporated into the soil

Private and Nonprofit Partnerships

- Illinois
 - Keep it 4R Crop

- The Illinois Fertilizer & Chemical Association (IFCA) assists and represents the crop production industry
- The IFCA promotes the 4R Code of Practice
- 4R stands for:
 - Right source of nutrients
 - Applied at the right rate
 - Right time, and
 - Right place
- IFCA membership can pledge their commitment to the 4R Program, and their company names are published
 - Those who sign the pledge are supposed to follow a number of practices when they make nutrient applications or recommendations for applications on agricultural land
- Information on this program can be found on the Illinois Fertilizer & Chemical Association website, [here](#) and [here](#).
- Nutrient Research & Education Council, [505 Illinois Compiled Statutes 80 / 6a](#)
 - Established by the Illinois General Assembly
 - Council is made up of representatives from the fertilizer and specialty fertilizer agencies, grower, farm, agronomy, and environmental organizations, the state Department of Agriculture and Environmental Protection Agency, and state or federal agricultural field stations
 - Goal is to support research on agricultural nutrient pollution
 - Public-private partnership for funding nutrient research and education programs
 - \$0.50 to \$3.00 per ton of fertilizer sold goes toward the program
 - Projects and educational programs funded focus on preventing runoff—cover crops, buffers, wetlands
 - More information is available on the Nutrient Research and Education Council [website](#)
- Illinois Buffer Partnership
 - Brings together many nonprofit, industry, and governmental partners:
 - Trees Forever
 - Illinois Council on Best Management Practices
 - Syngenta
 - GROWMARK
 - Governmental agencies
 - One of main objectives is improvement of water quality
 - Partnership chooses Illinois landowners each year to receive cost-share money to implement conservation projects such as:
 - Buffer strips
 - Stream bank stabilization
 - Wetland Restoration
 - Information is available on Trees Forever's [website](#)

Educational and Informational Tools

- Wisconsin
 - [Runoff Risk Advisory Forecast](#)
 - Includes a map of the state, farmers can use to zoom in to the local level
 - The map is color-coded and shows the risk of runoff for a period of days
 - Risk is based on forecasts and information from the National Weather Service
 - Farmers and applicators are encouraged to use the map when planning their manure applications
- Ohio
 - [Ohio Runoff Risk Advisory Forecast](#)
 - Includes a map of the state, farmers can use to zoom in to the local level
 - Color coded based on the amount of runoff risk
 - Risk is based on National Weather Service data
 - Provides up to a week's worth of weather and runoff forecasts for farmers and applicators to take into account when applying nutrients



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