

All H2Ohio Nutrient Management practices are intended to:

- properly utilize commercial fertilizer, manure and/or organic by-products as a plant nutrient source or soil amendment
- maximize nutrient use efficiency
- budget, supply, and conserve nutrients for plant production
- minimize risk of agricultural nonpoint source pollution of surface water and groundwater resources
- maintain or improve the physical, chemical, and biological condition of soil

The document is to clarify issues that have arose with several of the Nutrient Management practices within H2Ohio.

1. Voluntary Nutrient Management Plans Development and Implementation:

Nutrient Management Plans are the keystone of the H2Ohio. It is extremely important that we are consistent within the Maumee basin and within the State of Ohio as we move forward on what is a voluntary nutrient management plans (VNMP). The use of the Ohio Voluntary Nutrient Management Plan spreadsheet and Comprehensive Nutrient Management Plans will be the documents needed to meet the requirements of a voluntary nutrient management plan.

Ag Retailer, Certified Crop Adviser, Independent Consultant Plans – Ag Retailers are going to be creating a large percentage of the VNMPs. Ag retailers have software that can process large numbers of soil tests and create prescriptions that can meet the needs of a VNMP, if all documentation needed is recorded. We need to utilize this resource and take advantage of this without creating redundancy in work for both the Soil & Water Conservation Districts and the ag retailers. If ag retailers do not have all requirements of a VNMP documented, the SWCDs may have to do some supplemental work to complete all aspects of a VNMP. Once all documentation has been completed, we can submit these plans to the SWCD Board for approval.

For Ag Retailer/Consultants Plans:

- All soil tests and prescriptions must be turned into and copies maintained within the SWCD Office.
- SWCD will review a minimum of 10% of the total acres to be covered by the VNMP using the VRT Review Tool to review for Tri-State Recommendations.
- VRT Review Tool documentation will be maintained within producer's folder.
- SWCD will maintain a copy of approved VNMP in the office.
- If recommendations are not meeting Tri-State Recommendations or all nutrients have not been accounted for, please contact ODA.

SWCD Written Plans – SWCDs should encourage producers to utilize ag retailers, CCAs, Consultants as much as possible. If a producer requests the SWCD to write a plan, the producer will have to provide all need documentation to meet those requirements. If the producer can supply VRT prescription maps the plan can be handled much like an ag retailer written plan.

- All soil tests and prescriptions must be turned into and copies maintained within the SWCD Office.
- SWCD will write or review all the acres to be covered by the VNMP using the VRT Review Tool or VNMP spreadsheet
- VRT Review Tool or VNMP documentation will be maintained within producer's folder.
- SWCD will maintain a copy of approved VNMP in the office.

- If producer supplied recommendations are not meeting Tri-State Recommendations or all nutrients have not been accounted for, the producer should be notified of deficiency and work with them to correct the issues.

Producer Written Plans – SWCDs should encourage producers to utilize ag retailers, CCAs, Consultants as much as possible. A producer can write their own or have any person write a plan for them. Producers that want to do this on their own will undergo a lengthier review process. This review process is going to take additional time for SWCDs.

- All soil tests and prescriptions must be turned into and copies maintained within the SWCD Office.
- SWCD will review all the acres to be covered by the VNMP using the VRT Review Tool or VNMP spreadsheet.
- VRT Review Tool or VNMP documentation will be maintained within producer's folder.
- SWCD will maintain a copy of approved VNMP in the office.
- If producer supplied recommendations are not meeting Tri-State Recommendations or all nutrients have not been accounted for, the producer should be notified of deficiency and work with them to correct the issues.

Reviewing a Voluntary Nutrient Management Plan

Max Soil Test Level H2Ohio			
P1 PPM	P1 LB	M3 PPM	M3 LB
50	100	70	140

- Sample or Test Date:** It is important that we are reviewing the date of when the sample was taken.
- Phosphorus Level:** Either labeled Phosphorus, P, or P1. If soil tests are over 40 ppm or 80 lbs/A there should be a 0 for recommendations for application. (Wheat/Alfalfa in rotation then 50ppm/100 lbs/A).
- Acres:** Take note of the amount of acres that represent each soil sample. Some may have a corresponding map of where samples were taken or a map showing management zones/grids. Grids/Zones must be 7.5 Acres or less.
- Phosphorus Recommendation:** Must be based on the soil test level , the targeted crop, and the yield goal for a phosphorus recommendation. Additionally in many crop rotations it is acceptable to apply fertilizer for multiple crops. Make notes if applications levels seem excessively high. On the Variable Rate Application map levels and acres for management zones are usually noted.
- Targeted Crop for Recommendation:** The primary crops being reviewed will be Corn, Soybeans, and Wheat. If vegetable crops are planned in the rotation take note and they can be assessed using Land Grant University Recommendations.
- Yield Goal:** Yield Goals should be levels that are achievable within the county. Most yield goals in the Western Lake Erie Basin will fall within the ranges below.
Corn: 150-240 bu/A
Soybeans: 40-75 bu/A
Wheat: 50-90 bu/A
- Prior Crop:** May or may not be noted on the recommendation report. Most important when considering Nitrogen credits from soybean, legume, or cover crop.
- Geo-Referenced Field Maps:** Map should show the amount of acres for the field, the management zones/grids, soil sample locations, and the field boundaries.

For all nutrient application practices: **Variable Rate Phosphorus Application, Subsurface Phosphorus Placement, Manure Incorporation**, only one payment can be made per crop year. A producer cannot apply manure after a wheat crop and be eligible for a subsurface phosphorous placement or variable rate phosphorus application payment in the same crop year on those acres. Manure Incorporation and Subsurface Placement are incompatible in the same crop year. Since variable rate technologies are not readily available for manure utilization, it will be allowable to follow manure incorporation with variable rate applications. Furthermore, a producer cannot be eligible for a Variable Rate Phosphorus Application, Subsurface Phosphorus Placement payment following a Manure Incorporation payment until all nutrients applied through the manure incorporation practice have been removed through grain or forage.

2. Variable Rate Phosphorus Application:

We intended that most practices would be compatible with others, several concerns have arisen that would potentially make producers ineligible to participate. It is our intention to clarify several common practices for producers, so they are not deemed ineligible for payment.

Producers may place **up to 20lbs of P₂O₅** (~5 Gals of 10-34-0) as starter through the planter and still be eligible for Variable Rate Application if:

- the application is credited on the prescription
- any foliar applications made in-season must be credited
- all nutrients have been utilized from previous manure incorporation practices

3. Subsurface Phosphorus Placement:

The subsurface phosphorus placement practice was intended to change application techniques or timing to offset or replace surface phosphorus applications. Many producers have stated they are going to place a couple (1-5) pounds of P₂O₅ through pop-up, in-furrow, on-the-seed, applications to meet the requirements of the placement program. This was not our vision for the placement program, and several pounds of P₂O₅ placed in a method other than 2x2 will be deemed ineligible for payment for subsurface phosphorus placement.

Additionally, the requirements below must be met receive the placement payment.

- producer must place **more than 20lbs** of P₂O₅ through the planter, strip-till or injected using a placement toolbar (Example – 6 gals of 10-34-0 = 24lbs of P₂O₅)
- producer may average field soil tests if they cannot variable rate apply phosphorus and, have applied per prescription based on average soil test, however this would remove eligibility for VRT.
- if average soil test is greater than Bray P1 40 ppm (Bray P1 50 ppm if wheat or alfalfa in rotation) that field would be deemed ineligible for placement payment, unless the field is managed as subfields that are less than 40 ppm and subfields over 40 ppm are ineligible.
- application plan must be documented with SWCD

4. Manure Incorporation:

Producers will not be allowed to make additional phosphorus applications until those planned nutrients are removed as grain or forage.

Example - Typically, a manure application will provide more than 1 year of phosphate (assuming 60 lb P₂O₅ = 1 year of P₂O₅). Swine manure at 7,000 gal/acre will bring roughly 140 lb/ac P₂O₅ or more. If the manure application provides more than 1 year of P₂O₅, then the field should not be receiving additional P (placement or variable rate application) in the following year until the applied nutrients are removed through forage or grain.