Voluntary Nutrient Management Plan (VNMP) and Comprehensive Nutrient Management Plan (CNMP) Development & Implementation

Purpose

- To increase producer collection and use of soil test results to develop nutrient recommendations
- To properly utilize commercial fertilizer, manure and/or organic by-products as a plant nutrient source or soil amendment
- To reduce agricultural nonpoint source pollution of surface water and groundwater resources

Applicability

VNMPs and CNMPs apply to cropland acres in the program area. Acres receiving payment under any other county, state, or federal program (EQIP, H2Ohio, MWCD etc.), are not eligible. Cropland enrolled in CSP and receiving payment for NRCS Practices 590 are not eligible.

Specifications

1. VNMPs and CNMPs will be developed in the MyFarms application.
2. VNMPs and CNMPs will be written to the current NRCS 590 Nutrient Management Standard.
3. Nitrogen and Phosphorus rates will follow 2020 Tri-State Fertilizer Recommendations (Ohio State Extension - Bulletin 974).
4. Phosphorus application rates shall not exceed a two-year recommendation, per the Tri-State Fertilizer Recommendations.
5. VNMPs and CNMPs may be developed by an ag retailer, independent crop consultant, or producer.
6. VNMPs and CNMPs must be reviewed and approved by the local SWCD Board of Supervisors or director's designee.
7. Average yield goals shall be used for fertilizer recommendations.
8. VNMPs and CNMPs developed through H2Ohio must meet the minimum requirements set forth in ORC 905.31(DD).
    a. Soil tests must be compliant with the Natural Resources Conservation Service (NRCS) field office technical guide and not older than four years.
    b. Basic soil samples for soil tests must represent 25 acres or less for a basic VNMP or CNMP. Soil test results must be uploaded or entered in the soil test result form in MyFarms.
    c. Precision VNMPs and CNMPs, one soil sample must represent no more than six acres for grid sampling and no more than 12 acres for a zone management system. All soil test results must be uploaded into MyFarms in shapefile format.
    d. Documentation of the method and seasonal time of utilization and application of nutrients.
    e. Identification of all nutrients applied, including manure, fertilizer, sewage sludge, and biodigester residue.
    f. Field information regarding land subject to the plan, including the location, spreadable acreage, crops grown, and actual and projected yields.
9. Implementation will be verified by comparing planned nutrient application records to actual application records for the crop year within the VNMP and CNMP in the MyFarms application.
10. VNMPs and CNMPs implemented through this program must meet the minimum requirements set forth in ORC 905.31(DD).

Additional Considerations for VNMPs and CNMPs

- Producers will be allowed to place up to 20 pounds of P2O5 as starter fertilizer.

Basic VNMP Implementation

- Basic VNMP and CNMP Implementation is any nutrient application for the crop year that is a flat rate application of phosphorus (subsurface application or broadcast application).
- If the Basic VNMP and CNMP has a recommendation for a phosphorus application and the producer elects not to apply or apply less than the recommendation of phosphorus this would also constitute a Basic VNMP Implementation payment.

Precision VNMP Implementation

- When a Precision VNMP or CNMP is developed based on zones, soil fertility, soil types, cropping history, and crop management practices should be considered when delineating the zones.
- For Precision VNMP and CNMP implementation, one soil sample must represent no more than six acres for grid sampling and no more than 12 acres for a zone management system.
- Precision VNMP and CNMP Implementation payments will be made for each year if the phosphorus applications are at or below the nutrient recommendations of all grids or zones in a field, or no application was certified.

Livestock Producers

Livestock producers who produce a significant amount of manure in their operations will be required to develop a Comprehensive Nutrient Management Plan (CNMP).

- Operations producing less than 350 tons, or 100,000 gallons of manure annually must be assessed to determine the need for a CNMP. Current soil tests and livestock production facilities will be used to determine if a CNMP is needed for these operations.
- Operations that produce more than 350 tons of manure, or more than 100,000 gallons of liquid manure annually are required to develop a CNMP.
- A livestock production facility site visit and Inventory and Evaluation by the SWCD or ODA, may be required.
- Producers are eligible to participate and receive incentives under all the remaining practices offered through H2Ohio.
- Producers will work directly with the SWCD or ODA to determine if a CNMP is needed.

Participant Payments

- Producers will receive $10/ac/yr upon approval and implementation of Basic VNMP and CNMP Implementation from the SWCD.
- Producers will receive $15/ac/yr upon approval and implementation of Precision VNMP and CNMP Implementation from the SWCD.

Overwintering Cover

Purpose

- To encourage agriculture producers to establish crops that provide overwintering cover
- To reduce sheet, rill, and wind erosion
- To reduce water quality degradation due to excess nutrients
- To increase cropping system diversity

Applicability

Overwintering Cover applies to cropland acres in the H2Ohio program area. Acres receiving payment under any other county, state, or federal program (EQIP, H2Ohio, MWCD, etc.) are not eligible. Cropland enrolled in CSP and receiving payment for NRCS Practices 328 or 340 are not eligible.

Specifications

1. Establish any of these crops that provide overwintering cover according to NRCS Appendix A.
2. The completed practice must meet the criteria for planting dates, seeding, establishment, and maintenance per NRCS Appendix A; including seed quality and testing requirements:
   a. Winter Annuals – Appendix A – Cover Crops (Minimum)
   b. Perennial Forage - Appendix A - Forages
   c. Overwintering Cover Crops – Appendix A – Cover Crops
3. Cover crops seed mix must include a minimum of 50% of full rate of an overwintering species.
4. Overwintering Cover must be maintained until March 15 of the contracted crop year.
5. Manure may not be applied from November 1 to March 15:
   a. Manure shall not be applied on frozen, snow-covered, or saturated soils or applied when the local weather forecast for the application area contains greater than a 50% chance of precipitation exceeding one-half inch in a 24-hour period.
   b. If a field is used for an emergency manure application, regardless of application date it will be ineligible.
6. Fertilizer shall not be applied on frozen, snow-covered, or saturated soils or applied when the local weather forecast for the application area contains greater than a 50% chance of precipitation exceeding one inch in a 12-hour period.
7. Limited field tile installation may occur if Overwintering Cover is maintained.

Participant Payments

- Enrolled participants will receive $40/ac/yr for completion of this practice, after verification that all program requirements are met.

Subsurface Phosphorus Placement

Purpose

- To encourage agricultural producers to utilize nutrient application equipment that places phosphorus below the soil surface.
- To reduce risk of agricultural nonpoint source pollution of surface water and groundwater resources.

Applicability

Subsurface Phosphorus Placement applies to cropland acres in the H2Ohio program area. Acres enrolled in the Manure Utilization practice are not eligible for the Subsurface Phosphorus Placement practice in the same crop year. Acres receiving payment for in-field practices under any other county, state, or federal program (EQIP, H2Ohio, MWCD, etc.) are not eligible. Cropland enrolled in CSP and receiving payment for NRCS Practices 590 are not eligible.

Specifications

1. The producer has an approved Voluntary Nutrient Management Plan (VNMP) or Comprehensive Nutrient Management Plan (CNMP) with the local SWCD.
2. Eligible acres must have a phosphorus recommendation in the approved VNMP, and the amount of phosphorus fertilizer applied must be equal to or less than the recommendation.
3. Phosphorus may be placed in multiple applications in one crop year if the total amount does not exceed the phosphorus recommendation in the approved VNMP, and all applications meet the requirements of this standard.
4. The producer must provide a detailed plan of fertilizer source and method to be used to achieve program requirements. Subsurface placement equipment must use the “Injected” application method and equipment types include, but are not limited to; planter, side-dress, strip-till, or nutrient placement toolbars.
5. All phosphorus applied must be injected. Fields that receive broadcast applications of phosphorus fertilizer are not eligible for this practice until the broadcast nutrients are utilized through crop removal. Approved phosphorus fertilizer application options include:
   a. Direct Subsurface Placement: phosphorus fertilizer shall be placed a minimum of two inches below the soil surface for each applied acre.
   b. No Application: phosphorus fertilizer is not applied, even though phosphorus is recommended.
6. All phosphorus applications must comply with Ohio Revised Code Section 905.326.

Participant Payments

- Producers will receive $20/ac/yr on all eligible acres, for up to two years, after completion of all practice requirements. Only one payment will be made for this practice in a single crop year, regardless of the number of phosphorus applications. If a 2-year rate application is made that complies with this standard, the producer will receive a payment each year, if the recommendation is not exceeded, and no surface broadcast applications are made in the two crop years.

Manure Incorporation and Utilization

Purpose

- To encourage the application and incorporation of manure into a growing crop
- To shift timing of manure application to better utilize nitrogen and phosphorus
- To reduce the risk of manure and nutrient runoff

Applicability

Manure Incorporation and Utilization applies to cropland acres in the project area. The producer is only eligible for one manure payment per field annually. Acres receiving payment under any other county, state, or federal program for Nutrient Management (EQIP, H2Ohio, MWCD, etc.) are not eligible. Cropland enrolled in CSP and receiving payment for NRCS Practices 590 are not eligible. Any documented discharge of manure may result in an automatic forfeiture of payment or dismissal from the H2Ohio program.

Specifications

1. Producer must have an approved Voluntary Nutrient Management Plan (VNMP), Comprehensive Nutrient Management Plan (CNMP).
   a. Fields enrolled in this BMP, that use a fixed application rate, must have an average Mehlich-III soil test phosphorus level of 50 ppm or less. Fields enrolled in this BMP, that use a variable application rate, must have a Mehlich-III soil test phosphorus level of 50 ppm or less at the grid or zone level.
   b. Plant available nitrogen applied through the manure shall not exceed the nitrogen recommendations for the current crop or the next planned crop, whichever is applicable. If the following crop is a legume, nitrogen can be applied at the nitrogen removal rate for the legume crop up to a maximum of 150 pounds of plant available nitrogen at the time of application.
2. Manure cannot be surface applied to frozen, snow-covered, or saturated soils.
3. Manure cannot be surface applied if there is a greater than 50% chance of precipitation exceeding ½" in the next 24 hours.
4. A cover crop is required for manure applications completed after June 30 and where a growing crop is not present.
5. Manure is animal excreta
6. **All manure applications must be completed by October 31.**

Manure application must be accomplished in a manner consistent with one of the following methods and timing

Incorporated or Injected Applications

- All manure will be injected or incorporated to a minimum of 2 inches below the surface. Surface applied manure must be incorporated using a full-width disturbance tillage tool to mix the manure with the soil.
- Manure shall be applied after April 1 and before crop emergence and must be incorporated within 24 hours of application.
- Manure is applied via side dress injection to a growing corn crop after emergence.
- Manure may be applied to wheat or overwintering cover crop with a grassland applicator or comparable equipment after green-up.

- Manure is injected directly into the soil in an established covers with minimal surface disruption.
- Manure is surface applied after the harvest of a crop and incorporated within 24 hours of application.

In-season Applications

- Manure may be irrigated from June 1 to August 30 on a growing crop.
- Manure may be applied to a perennial forage immediately after harvest of the perennial forage.
- Pen pack or dry manure (cannot be pumped through a dragline) applied after April 1 and before June 30 does not have to be incorporated if there is 75% crop residue at the time of application.
- Pen pack or dry manure (cannot be pumped through a dragline) applied after harvest of a small grain and before August 30 on an established cover crop does not have to be incorporated if there is 75% living cover.

Participant Payments

- Participants will receive $35/ac/yr for dry manure (cannot be pumped through a dragline) utilization, and $60/ac/yr for all other manure utilization.
- A $15/ac/yr. Bonus payment will be made to fields that have a field average of less than 25 ppm Mehlich-III.
- Payment will be made on acres where manure application was completed. Payments will be made annually after all requirements have been verified.
- If a 2-year manure application is made, only one payment will be made in that 2-year period. Also, no more nutrients may be applied until those nutrients are utilized.
- Only one manure utilization payment will be made per field annually regardless of how many applications are made.