

Name of Practice: Precision Nutrient Management on Cropland

DCR Specification for NM-5

A. Description and Purpose

This practice will encourage the use of precision nutrient management practice components that support a higher intensity of nutrient management in the field than existing standard nutrient management practices. This practice is limited to row crop production systems.

This practice supports multiple enhanced nutrient management components such as; zone soil fertility samples, soil (pre-sidedress) nitrate tests (PSNT), corn stalk nitrate sampling (CSNT), and variable rate nitrogen and phosphorous, applications based upon the soil test results of zone (subfield) sampling. It also supports all variable rate nitrogen and phosphorous application technologies. This practice may be used on fields that apply nutrients based upon the soil test results whether they have organic nutrient applications or not, with the exception of Biosolids Applications.

Multiple split applications of nitrogen only applies to corn and cotton crops. This practice does not apply to the late winter split application of nitrogen on small grains. The variable rates of nitrogen and phosphorus listed below (in B. 2.) apply to all row crops. Other macro-micro nutrients may be applied concurrently.

B. Policies and Specifications

1. This is an annual practice. Results from any test supported by the implementation of this practice shall be used to determine the nutrient application rates for the current or following crop as appropriate.
2. At least two of the following identified components must be implemented to receive any cost-share payment. Furthermore at least one of those components implemented must be variable rate nitrogen or phosphorous application, or multiple split applications of nitrogen on corn and cotton only.
 - i. Zone soil fertility samples,
 - ii. Soil (pre-sidedress) nitrate test (PSNT)
 - iii. Corn stalk nitrate sampling (CSNT),
 - iv. Variable rate nitrogen and/or phosphorous applications based upon the soil test results of (subfield) sampling; other macro-micro nutrients may be applied concurrently
 - v. Variable rate of nitrogen application on any row crops
 - vi. Multiple (more than one) split applications of nitrogen on corn and cotton only
3. On fields that have organic sources of nitrogen applied during the crop year or in previous years, or if high residual nitrogen levels are suspected from a previous crop, fall nitrogen rates should be determined by a nitrate test.

4. Total nitrogen application rates (including pre-plant and sidedress) on corn should not exceed 1 lb./bu. expected crop yield.
5. Producers must be fully implementing their current nutrient management plan prepared and signed by a certified nutrient management planner. Where this practice is recommended or applied there must be a note to that effect in the narrative or elsewhere in the nutrient management plan indicating that the soils and/or tissue samples were sampled in an appropriate manner. Cost share payments will not be made until a copy of the nutrient management plan and work orders, or applied field maps or invoices are presented to the SWCD. The nutrient management plan must include all production acres of the farm. A copy of the current nutrient application, record keeping and work orders shall be maintained by the producer for the purposes of verification.
6. The total number of acres that qualify for this practice will be based upon the total acres that were sampled in zones (zone are no larger than 20 acres and based upon soil type), or grids (grid size may be of 1 to 4 acres in size), or had mid-season testing such as soil (Pre-sidedress) Nitrate Testing (PSNT), Corn Stalk Nitrate Testing (CSNT), or received Variable Rate or Zone applications of nitrogen, and/or phosphorus, based upon the zone or grid soil sampling.
7. The producer **must** provide written verification (such as results of laboratory test, a work order or bill; or as-applied application map of field) to the district (SWCD) within forty-five days of the variable rate nitrogen and/or phosphorous application to verify that the recommendations of the soil samples were followed.
8. The producer **must** sign up for this practice before April 1st of each year that the practice will be utilized and provide the SWCD verification of work orders or bills within forty-five days of the sample analysis.
9. Fields that have received applications of biosolids within the previous 24 months are not eligible.
10. Participants may not receive cost-share payments for NM-3C or NM-4 and NM-5 simultaneously on the same crop and field.

C. Rates

1. As set forth by Virginia Code § 58.1-339.3 and §58.1-439.5, Virginia law currently provides a tax credit for implementation of certain BMP practices. The current tax credit rate, which is subject to change in accordance with the Code of Virginia, is 25% of the total eligible cost not to exceed \$17,500.00.
2. For participants who certify in writing (*see language on last page of this specification*) that they will not utilize the tax credit set forth above with regard to the

implementation of this practice and who are not receiving payment for precision application of nutrients from any other source on the same acreage, a state cost share payment rate of 75% of the application charge, up to a maximum amount of \$8.00 per acre per year, for the acres receiving the variable rate nitrogen and/or phosphorous applications or multiple split applications of nitrogen on corn or cotton.

3. Costs for corn stalk nitrate test (CSNT), pre-side dress nitrate test (PSNT) or fall soil nitrate test sample collection and analysis by a commercial laboratory that are used to implement this practice will be reimbursed at a flat rate of \$8.00 per sample up to 1 PSNT per field and 3 CSNT per field. No per sample cost-share is available for zone soil fertility testing.
 - i. Many commercial applicators include zone soil fertility sampling in their variable rate application charge.
 - ii. Virginia Tech. will analyze soil fertility samples at no cost.

D. Technical Responsibility

Technical and administrative responsibility is assigned to qualified technical DCR and SWCD staff in consultation, where appropriate and based on the controlling standard, with DCR, Virginia Certified Nutrient Management Planner(s), NRCS, DOF, and VCE. Individuals certifying technical need and technical practice installation shall have appropriate certifications as identified above, and/or Engineering Job Approval Authority (EJAA), for the designed and installed component(s). All practices are subject to spot check procedures and any other quality control measures.

March, 2016

Certification from an Agricultural Best Management Practice Participant that
a Tax Credit will not be Utilized

I, _____ hereby certify that I will not claim the tax credit which is available for participation in the Precision Nutrient Management for Cropland , NM-5 practice, and therefore I am eligible for cost-share funding available under that practice for participants who do not wish to utilize the tax credit. I understand that any cost-share funds received must be returned should I claim the tax credit.

Signed: _____

Date: _____