

Name of Practice: Precision Nutrient Management of Nitrogen on Cropland
DCR Specification for NM-5N

A. Description and Purpose

This practice will encourage the use of precision nutrient management practice components that support a higher intensity of nitrogen management in the field than existing standard nutrient management practices. This practice is limited to row crops, small grains and highly managed hayland (see glossary for definition) production systems.

This practice supports multiple enhanced nutrient management components such as, soil (pre-sidedress) nitrate tests (PSNT), and all variable rate nitrogen application technologies. This practice may only be used on fields that apply nitrogen based upon test results identified in section B. whether they have organic nutrient applications or not, with the exception of Biosolids applications.

Multiple split applications (more than two) of nitrogen applies to corn, cotton, small grains crops and highly managed hayland. This practice does apply to the late winter split application of nitrogen on small grains. The variable rates of nitrogen listed below (in B. 2.) apply to all row and highly managed hay crops (other than alfalfa). Other macro-micro nutrients or soil amendments may be applied concurrently.

B. Policies and Specifications

1. This is an annual practice. Results from the test conducted to develop a nitrogen application prescription must be used to determine the nutrient application rates for the current or following crop as appropriate and that prescription must be followed during the rate of application of nitrogen.
2. At least one of the following identified components must be implemented to receive any cost-share payment for this practice.
 - i. Soil (pre-sidedress) nitrate test (PSNT)
 - ii. Variable rate nitrogen applications based upon the soil test results of (subfield) sampling; other macro-micro nutrients may be applied concurrently
 - iii. Variable rate or zone application of nitrogen on row crops or small grains
 - iv. Multiple (more than two) split applications of nitrogen on corn, cotton and small grains.
 - v. More than two applications of nitrogen on highly on highly managed hayland production systems (other than alfalfa).
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 shall be determined by a soil nitrate test.

4. Total nitrogen application rates (including pre-plant and sidedress) on corn shall not exceed 1 lb./bu. expected crop yield.
5. Participants must be fully implementing their current nutrient management plan prepared and signed by a Virginia 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 were sampled in an appropriate manner. Cost share payments will not be made until a copy of the nutrient management plan and work orders, applied field maps and/or invoices are presented to the SWCD. The nutrient management plan must include all participant controlled production acres of the farm. A copy of the current nutrient application, record keeping and work orders shall be maintained by the participant for the purposes of verification.
6. In order to be eligible for cost-share or tax credit, nutrient management plans must be prepared by a certified planner who holds a current Nutrient Management Planner Certificate issued by the Virginia Department of Conservation and Recreation. Nutrient Management Plans must be written to comply with all requirements set forth in the Nutrient Management Training and Certification Regulations, (4 VAC 50-85-10 et seq.) and the criteria set forth in the Virginia Nutrient Management Standards and Criteria, revised July 2014.
7. The total number of acres that qualify for this practice will be based upon the total acres that were sampled in zones, had mid-season testing such as soil (Pre-sidedress) Nitrate Testing (PSNT), or received Variable Rate or Zone applications of nitrogen, based upon the zone or grid soil nitrate sampling.
8. Participants **shall** provide written verification of the recommendation and the resulting application(s) (examples include but are not limited to: results of laboratory test, a work order or bill; and as-applied application map of field) to the District (SWCD) within forty-five days of the final nitrogen application to verify that the recommendations were followed.
9. The participant **must** sign up for this practice before April 1st of each year that the practice will be utilized.
10. Fields that have received applications of biosolids within the previous 24 months are not eligible.
11. Participants may **not** receive cost-share payments for NM-3C or NM-4 and NM-5N 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 or zone application of nitrogen or multiple split applications of nitrogen on corn, cotton and small grain or more than two applications on highly managed hayland. Acres receiving a zero application rate based on a PSNT result can also receive payment at \$8 per acre.
3. Costs for 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. No per sample cost-share is available for zone soil fertility testing. Many commercial applicators include zone pre-sidedress soil fertility sampling in their variable rate application charge

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.

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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 of Nitrogen on Cropland , NM-5N 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: _____