Name of Practice:
WHOLE FARM APPROACH – NUTRIENT MANAGEMENT BUNDLE
VACS Program Specification for No. WFA-NM

This document specifies terms and conditions for the Virginia Agricultural Best Management Practices Cost-Share Program's Whole Farm Approach – Nutrient Management practice for bundled agricultural best management practices which are applicable to all contracts entered into with respect to that practice.

A. Description and Purpose

This practice will collect data and assure that implemented Nutrient Management Plans are accurate and up to date in order to minimize the impact of nutrients used in crop and highly managed hay production, and reduce nutrient losses to groundwater. The Chesapeake Bay Program Watershed Model separates nutrient management into independent sets of practice elements for Nitrogen and Phosphorus, which stack onto a required core set of management elements known as Core Requirements; this practice is intended to enable reporting for each of these practice elements.

In addition, the practice is also intended to offer financial assistance to agricultural producers to ensure implementation of core nutrient management requirements and support multiple enhanced nutrient management components such as precision nutrient management. Participants are provided an incentive to annually revise plans to accurately reflect field conditions so that farmers can maintain eligibility for other cost-share practices.

This practice bundles components of the following best management practices:

- NM-3C Split Application of Nitrogen on Corn, Grain Sorghum, and/or Cotton;
- NM-4 Late Winter Split Application of Nitrogen on Small Grains;
- NM-5N Precision Nutrient Management on Cropland – Nitrogen Application;
- NM-5P Precision Nutrient Management on Cropland – Phosphorus Application;
- NM-6 Manure Injection

B. General Policies and Specifications

Review the following standards and specifications for the individual practice components of the Whole Farm Approach. Producers receiving cost-share funding for this practice must be implementing recommended nutrient application rates on all agricultural production acres in the Tract to be in compliance with this specification, with the exception of unimproved pasture acres. Unimproved pasture acres (pasture acres that do not receive nutrient management or nutrient applications) may be excluded from the tract within the Nutrient Management Plan.

This is an annual practice with a cost-share payment issued annually. There is no guarantee that cost-share funds will be approved by the local District.

1. Eligibility
    i. This practice applies to crops, highly managed hay, and pasture as applicable.

ii. Cropland which receives applications of pelletized Class A biosolids that do not require a permit are eligible for the WFA-NM framework since these products are considered commercial fertilizer. However, many of the individual WFA-NM nutrient application options are not allowed on fields that have received past applications of biosolids. Participants should review each option for relevant biosolids rules.

iii. The Nutrient Management Plan must cover at least twelve months of crop and management practices after the begin date on the NMP cover sheet.

iv. Plans must be developed based on soil analyses taken within a three-year period prior to the begin date of the plan and must be performed by soil testing laboratories approved by DCR.

v. **Core Nutrient Management Plan Requirement** - A Nutrient Management Plan must be written according to the Nutrient Management and Training Certification Regulations, 4VAC50-85 et seq.

vi. In order to be eligible for cost-share or tax credit, producers must be fully implementing a current Nutrient Management Plan (NMP) on all agricultural production acreage contained within the field on which this practice will be implemented. The NMP must comply with all requirements set forth in the Nutrient Management Training and Certification Regulations, (4VAC50-85 et seq.) and the Virginia Nutrient Management Standards and Criteria (revised July 2014); must be prepared and certified by a Virginia certified Nutrient Management Planner; and must be on file with the local District before any cost-share payment is made to the participant. Plans shall also contain any specific production management criteria designated in the BMP practice (4VACV50-85-130G).

2. Ineligible
   i. Participants may **NOT** receive cost-share payments on the same crop and field for the WFA-NM and the following VACS practices simultaneously: NM-3C, NM-4, NM-5N, NM-5P, NM-6.

C. Rates

VACS payment rates for the following components may stack; see the WFA-NM Rate Worksheet for assistance with sign-up. The WFA-NM core and components are not eligible for tax credit.

1. **Core Nutrient Management Plan Requirement:** The VACS payment rate is **$6.00 per acre** for all eligible acres on a Tract, including cropland, highly managed hayland, and/or pasture; that receives commercial fertilizer or a combination of imported or on-farm generated animal manure and commercial fertilizer. Any manure applied must be from a farm within Virginia to receive payment. Participants must provide the District a copy of the current plan, which includes amendments or revisions that match all management practices to be implemented in the cropping year to the District to receive the annual payment. Unimproved pasture acres are not eligible for the Core Nutrient Management Requirement incentive.

2. **In-Furrow OR Banded (2" x 2") Application of Nitrogen and/or Phosphorus:**

i. A VACS payment rate of **$2.50 per acre** is available for either a banded (2" x 2") application or in-furrow application of Nitrogen.
ii. A VACS payment rate of **$2.50 per acre** is available for either a banded (2" x 2") application or in-furrow application of Phosphorus.

3. **First Sidedress of Nitrogen on Corn, Grain Sorghum, and/or Cotton:** A VACS payment rate of **$2.50 per acre** is available for the first sidedress application or injection, based on the contracted sidedress application acreage.

4. **Second Topdress Application of Nitrogen on Small Grain:** A VACS payment rate of **$2.50 per acre** is available for the second topdress application. If only one late winter application is made, no reimbursement is to be provided.

5. **Nitrogen Management:**
   i. A VACS payment rate of **$5.00 per acre**, is available for the acres receiving a **second sidedress application of nitrogen** on corn, cotton, and highly managed hayland (other than alfalfa).
   ii. A VACS payment rate of **$5.00 per acre**, is available for the acres receiving a **third topdress application of nitrogen** on small grains.
   iii. A VACS payment rate of **$7.50 per acre**, is available for the acres receiving a **variable rate application of nitrogen** on row crops or small grains.

6. **Phosphorus Management:** A VACS payment rate of **$7.50 per acre** is available for the acres receiving **variable rate application of phosphorous** on row crops, small grains, or highly managed hayland production systems.

7. **Manure Injection:** A VACS payment rate of **$45.00 per acre** is available for the acres receiving manure injection on row crops, small grains, highly managed hayland, or pasture.

8. **Soil PSNT and/or Fall Soil Nitrate Test (as seasonally appropriate)**: Costs for PSNT and/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 **$12.00 per sample**. Payment will be made only for those PSNT or Fall Soil Nitrate tests that are submitted for laboratory analysis. The reimbursement flat rate can only be utilized once per sample. PSNT or Fall Soil Nitrate Test samples should represent a minimum of 7 acres on average and a maximum of 20 acres on average.

D. Technical Responsibility

Technical and administrative responsibility for all Components of the WFA-NM is assigned to qualified technical DCR and District 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 verification procedures and any other quality control measures.

WFA-NM Nitrogen/Phosphorus Management Option – In-Furrow or Banded Applications:

This document specifies terms and conditions for the Virginia Agricultural Best Management Practices Cost-Share Program's WFA-NM Nitrogen/Phosphorus Management Option for In-Furrow or Banded Applications which are applicable to all contracts entered into with respect to this practice.

A. Description and Purpose

This practice will encourage the in-furrow or banded applications, also known as 2" x 2" applications, of nitrogen and phosphorus. For fields receiving only nitrogen fertilizer, in-furrow or banded applications will be based upon the Nutrient Management Plan (NMP). For fields receiving nitrogen and phosphorus OR only phosphorus fertilizer, in-furrow or banded applications will be based upon soil sample results and the Nutrient Management Plan (NMP). All in-furrow or banded applications will be applied at planting. Banded 2" x 2" applications are placed two inches beside and two inches below the seed.

B. Policies and Specifications

1. Eligibility for this practice is limited to the length of the plan recommending the in-furrow or banded practice.

2. A producer must provide written verification to the District prior to payment, such as records, a work order, or bill.

3. The total number of crop acres specified by the Nutrient Management Plan to be applied in-furrow or banded will determine the maximum acres that qualify, with payment being made only to those acres which actually receive an in-furrow or banded application of nitrogen and/or phosphorus.

4. In order to be eligible for cost-share, producers must be fully implementing a current Nutrient Management Plan (NMP) on all agricultural production acreage contained within the field on which this practice will be implemented. The NMP must comply with all requirements set forth in the Nutrient Management Training and Certification Regulations (4VAC50-85 et seq.) and the Virginia Nutrient Management Standards and Criteria (revised July 2014); must be prepared and certified by a Virginia certified Nutrient Management Planner; and must be on file with the local District before any cost-share payment is made to the participant. Plans shall also contain any specific production management criteria designated in the BMP practice (4VACV50-85-130G).

5. District staff should utilize the NMP maps, nutrient balance sheets, and summary sheets to confirm practice implementation. A comparison between crop recommendations and in field conditions shall be used when certifying conservation practice compliance.

6. Checks to ensure compliance with this practice may be conducted by the District or appropriate agency personnel and failure to comply may result in forfeiture of cost-share funds.

7. The producer must provide a written verification of contracted in-furrow or banded application cost to the District within two weeks of the sample analysis.

8. Application of the in-furrow or banded nitrogen and/or phosphorus must be made at time of planting.

9. Total nitrogen to be applied to the cornfield must be consistent with the Nutrient Management Plan consistent with procedures contained in the Nutrient Management Training and Certification Regulations (4VAC50-85 et. seq).

10. This is an annual practice.

C. Rate(s)

1. **In-Furrow or Banded Nitrogen:** A VACS payment rate of **$2.50 per acre** for **EITHER** a banded (2" x 2") application **OR** in-furrow application (i.e. not both), shall be paid based on the contracted in-furrow or banded application acreage. Participants may also be eligible for in-furrow or banded (2" x 2") application of phosphorus.

2. **In-Furrow or Banded Phosphorus:** A VACS payment rate of **$2.50 per acre** for **EITHER** a banded (2" x 2") application **OR** in-furrow application (i.e. not both), shall be paid based on the contracted in-furrow or banded application acreage. Participants may also be eligible for in-furrow or banded (2" x 2") application of nitrogen.

WFA-NM Nitrogen Management Option:
First Sidedress Application of Nitrogen on Corn, Grain Sorghum, and/or Cotton

This document specifies terms and conditions for the Virginia Agricultural Best Management Practices Cost-Share Program's WFA-NM Nitrogen Management Option for the First Sidedress Application of Nitrogen on Corn, Grain Sorghum, and/or Cotton which are applicable to all contracts entered into with respect to this practice.

A. Description and Purpose

This practice will encourage the sidedress application of nitrogen (organic OR inorganic) on corn, grain sorghum, and/or cotton. For fields receiving only nitrogen fertilizer, sidedress applications will be based upon soil sample results and the Nutrient Management Plan (NMP). All secondary or sidedress applications will be applied at a growth stage when the plant is entering the highest demand for nitrogen: corn at 15" to 24" tall; grain sorghum at 12" to 18" tall; cotton between first square and first (white) bloom.

For fields that have previously received manure or biosolids applications according to the current NMP or have high biomass legume cover crop, a pre-sidedress nitrate test (PSNT) will be used to determine the amount of nitrogen, necessary in the split applications.

B. Policies and Specifications

1. Eligibility:
   i. Eligibility for this practice is limited to the length of the plan recommending the sidedress practice.
   ii. The producer must provide written verification to the District, such as a work order or bill, within two weeks of the sidedress application when the application has been contracted out.
   iii. The total number of corn, grain sorghum, and/or cotton acres specified by the Nutrient Management Plan to be sidedressed will determine the maximum acres to qualify.
   iv. In order to be eligible for cost-share, producers must be fully implementing a current Nutrient Management Plan (NMP) on all agricultural production acreage contained within the field on which this practice will be implemented. The NMP must comply with all requirements set forth in the Nutrient Management Training and Certification Regulations (4VAC50-85 et seq.) and the Virginia Nutrient Management Standards and Criteria (revised July 2014); must be prepared and certified by a Virginia certified Nutrient Management Planner; and must be on file with the local District before any cost-share payment is made to the participant. Plans shall also contain any specific production management criteria designated in the BMP practice (4VACV50-85-130G).
   v. District staff should utilize the NMP maps, nutrient balance sheets, and summary sheets to confirm practice implementation. A comparison between crop recommendations and in field conditions shall be used when certifying conservation practice compliance.
2. The total number of corn acres specified by the Nutrient Management Plan to receive manure, or have a high biomass legume cover crop, will determine the maximum

acres to qualify for cost-share payment in accordance with the PSNT. Cost-share payment for PSNT will be made only for those PSNT tests that are submitted for laboratory analysis.

i. The PSNT must be done when corn is approximately 12 inches in height.
ii. PSNT samples should represent a minimum of 7 acres on average and a maximum of 20 acres on average.

3. Checks to ensure compliance with this practice may be conducted by the District or appropriate agency personnel and failure to comply may result in forfeiture of cost-share funds.

4. The producer must sign up prior to April 1 and provide written verification of contracted sidedress application cost, including the PSNT results, to the District within two weeks of the sample analysis.

5. Application of any sidedress nitrogen must be made after the corn is at the 6-leaf stage or at least 15 inches in height, grain sorghum is at the 5-leaf stage or at least 12 inches in height, or cotton is between the first square and first bloom stage.

6. A minimum of 20 lbs. of inorganic nitrogen per acre must be applied to be considered a sidedress application for the management of nitrogen.

7. Total nitrogen to be applied to the corn, grain sorghum, and/or cotton field must be consistent with the Nutrient Management Plan or determined by using a PSNT (as applicable for corn) consistent with procedures contained in the Nutrient Management Training and Certification Regulations (4VAC50-85 et. seq).

8. Acres receiving a zero application rate based on a PSNT result also qualify for a payment rate of $2.50 per acre. This is for manure or high biomass legumes only; biosolids are not eligible for payment.

9. This is an annual practice.

C. Rate(s)

1. **First Sidedress Application of Nitrogen on Corn, Grain Sorghum, and/or Cotton:** A VACS payment rate of **$2.50 per acre** for the sidedress application shall be paid based on the contracted sidedress application acreage. Producers applying their own sidedress application will receive $2.50 per acre applied.

2. Costs for PSNT sample collection and analysis by a commercial laboratory that are used to implement this practice will be reimbursed at a flat rate of **$12.00 per sample**. The reimbursement flat rate can only be utilized once per sample. Samples should represent a minimum of 7 acres on average and a maximum of 20 acres on average.

WFA-NM Nitrogen Management Option:
Second Topdress Application of Nitrogen on Small Grain

This document specifies terms and conditions for the Virginia Agricultural Best Management Practices Cost-Share Program's Second Topdress Application of Nitrogen on Small Grain option which are applicable to all contracts entered into with respect to that practice.

A. Description and Purpose

Late winter split application of nitrogen on small grain consists of applying nitrogen during the late winter in two increments based on the progression of growth of the small grain crop. Applying nitrogen based on the progression of growth of the small grain crop in the late winter minimizes the amount lost through leaching and run off.

B. Policies and Specifications

1. Eligibility
   i. Eligibility for this practice is limited to the length of the plan recommending the split nitrogen application.
   ii. The producer must provide a written verification (such as a work order or bill) to the District within two weeks of the second application when the application has been contracted out.
   iii. The total number of small grain acres specified by the Nutrient Management Plan to receive split nitrogen applications will determine the maximum acres to qualify, with payment being made only to those acres which actually receive split nitrogen applications.
   iv. In order to be eligible for cost-share, producers must be fully implementing a current Nutrient Management Plan (NMP) on all agricultural production acreage contained within the field on which this practice will be implemented. The NMP must comply with all requirements set forth in the Nutrient Management Training and Certification Regulations (4VAC50-85 et seq.) and the Virginia Nutrient Management Standards and Criteria (revised July 2014); must be prepared and certified by a Virginia certified Nutrient Management Planner; and must be on file with the local District before any cost-share payment is made to the participant. Plans shall also contain any specific production management criteria designated in the BMP practice (4VACV50-85-130G).
   v. District staff should utilize the NMP maps, nutrient balance sheets, and summary sheets to confirm practice implementation. A comparison between crop recommendations and in-field conditions shall be used when certifying conservation practice compliance.

2. The total number of small grain acres specified by the Nutrient Management Plan 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. Cost-share payment for soil nitrate test laboratory analysis will be made only for those soil nitrate tests that are submitted for laboratory analysis.

i. The soil nitrate test must be done prior to small grain planting.
ii. Soil nitrate test samples should represent a minimum of 7 acres on average and a maximum of 20 acres on average.
iii. For late winter split application of nitrogen, the two applications must be at least 30 days apart with the first application no earlier than growth stage 25, with nitrogen rates determined based on tiller counts and tissues tests as explained in the Virginia Nutrient Management Standards and Criteria revised July, 2014.
iv. In lieu of tiller counts and tissue tests, as listed in the Virginia Nutrient Management Standards and Criteria, revised July, 2014, late winter split application of nitrogen must not exceed 40 pounds of nitrogen for the first application and must not exceed 50 pounds of nitrogen for the second application.

3. Checks to ensure compliance with this practice may be conducted by the District or appropriate agency personnel and failure to comply may result in forfeiture of cost-share funds.

4. The producer must sign up prior to February 1 and provide written verification (such as a work order or bill) of contracted sidedress application cost (including the soil nitrate test results) to the District within two weeks of the second application and prior to cost-share payment.

5. A minimum of 20 lbs. of inorganic nitrogen per acre must be applied to be considered a split application for the management of nitrogen.

6. The amount of late winter nitrogen to be applied to the small grain field must be consistent with the Nutrient Management Plan or determined by using a soil nitrate test consistent with procedures contained in the *Virginia Nutrient Management Standards and Criteria, revised July 2014*.

7. Acres enrolled for this component are ineligible to receive payment for the SL-8H or the WFA-CC Cover Crop – Harvestable component.

8. This is an annual practice.

C. Rate(s)

1. **Second Topdress Application of Nitrogen on Small Grain:** A VACS payment rate of **$2.50 per acre** is available for the second application in the late winter. **If only one late winter application is made, no reimbursement is to be provided.**

2. Costs for soil nitrate test sample collection and analysis by a commercial laboratory that may be used to implement this practice will be reimbursed at a flat rate of **$12.00 per sample**. The reimbursement flat rate can only be utilized once per sample, samples should represent a minimum of 7 acres on average and a maximum of 20 acres on average.

WFA-NM Nitrogen Management Option:
Precision Nutrient Management Application - Nitrogen

This document specifies terms and conditions for the Virginia Agricultural Best Management Practices Cost-Share Program's Precision Nutrient Management Application - Nitrogen option for the enhanced nutrient management of nitrogen on crop land which are applicable to all contracts entered into with respect to this practice.

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 production systems (see Glossary for definition).

This practice supports multiple enhanced nutrient management components such as soil pre-sidedress nitrate tests (PSNT), fall soil nitrate tests, 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 of nitrogen applies to corn, cotton, small grains crops, grain sorghum/milo, canola, specialty crops, produce, turf/sod farms 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, which is not eligible). Other macro-micro nutrients or soil amendments may be applied concurrently.

B. Policies and Specifications

1. 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; 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) or fall soil nitrate test. Samples must be submitted at the correct growth stage and handled in accordance with laboratory guidelines to ensure sample viability and usability. The results of these tests may be used by the participant to support this practice. PSNT or fall soil nitrate test samples should represent a minimum of 7 acres on average and a maximum of 20 acres on average.
   ii. Variable rate nitrogen applications or zone application of nitrogen based upon the soil test results of (subfield) sampling on row crops, specialty crops or small grains. Other macro-micro nutrients may be applied concurrently.
   iii. Three or more split applications of nitrogen on small grains.
   iv. Two or more split sidedress applications of nitrogen on corn or cotton.

v. Two or more applications of nitrogen on highly managed hayland production systems (other than alfalfa, which is not eligible).
vi. Injection at sidedress.

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. All split applications will be applied at a growth stage when the plant is entering the highest demand for nitrogen. Application of any sidedress nitrogen, including the first split, must be applied after the corn is at the 6-leaf stage or at least 15 inches in height, grain sorghum is at the 5-leaf stage or at least 12 inches in height, or cotton is between the first square and the first bloom stage.

5. Subsequent sidedress applications must be applied at least 14 days after the most recent application

6. Total nitrogen application rates (including pre-plant and sidedress) on corn shall not exceed 1 lb./bu. expected crop yield.

7. A minimum of 20 lbs. of inorganic nitrogen per acre must be applied to be considered a split or sidedress application for the management of nitrogen.

8. Where this practice is applied, there must be a note in the narrative or elsewhere in the Nutrient Management Plan indicating that the soils were sampled in an appropriate manner.

9. In order to be eligible for cost-share, producers must be fully implementing a current Nutrient Management Plan (NMP) on all agricultural production acreage contained within the field on which this practice will be implemented. The NMP must comply with all requirements set forth in the Nutrient Management Training and Certification Regulations (4VAC50-85 et seq.) and the Virginia Nutrient Management Standards and Criteria (revised July 2014); must be prepared and certified by a Virginia certified Nutrient Management Planner; and must be on file with the local District before any cost-share payment is made to the participant. Plans shall also contain any specific production management criteria designated in the BMP practice (4VACV50-85-130G).

10. Acres receiving a zero application rate for a second sidedress application of nitrogen based on a PSNT result also qualify for a payment rate of $5.00 per acre. Acres receiving a zero application rate for a variable rate application of nitrogen based on a PSNT result also qualify for a payment rate of $7.50 per acre.

11. 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.

12. Participants **shall** provide written verification of the recommendation and the resulting application(s) (e.g. results of laboratory test, a work order or bill; and as-applied application map of field) to the District within 45 days of the final nitrogen application and prior to payment.

13. The participant **must** sign up for this practice before April 1st of each year that the practice will be utilized.

14. Fields that have received applications of biosolids within the previous 24 months are not eligible.

15. This is an annual practice.

16. *This practice does not apply to the first or second split application of nitrogen on small grains. See the WFA-NM Second Topdress Application of Nitrogen on Small Grain for more information.*

C. Rates

1. **Second Sidedress Application of Nitrogen:** A VACS payment rate of **$5.00 per acre per year** is available for a second sidedress of nitrogen on corn, cotton, or a second topdress application on highly managed hayland (other than alfalfa).

2. **Third Topdress Application of Nitrogen on Small Grains:** A VACS payment rate of **$5.00 per acre** per year is available for a third topdress application of nitrogen on small grains.

3. **Variable Rate Nitrogen:** A VACS payment rate of **$7.50 per acre per year** is available for a variable rate or zone application of nitrogen on row crops or small grain.

4. Costs for 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 **$12.00 per sample**. Payment for PSNT or fall soil nitrate tests will be made only for those tests that are submitted for laboratory analysis. The reimbursement flat rate can only be utilized once per sample. PSNT or fall soil nitrate test samples should represent a minimum of 7 acres on average and a maximum of 20 acres on average.

5. No per sample cost-share is available for zone/grid (subfield) soil fertility testing. Many commercial applicators include zone/grid (subfield) soil fertility sampling in their variable rate application charge.

WFA-NM Phosphorus Management Option:
Precision Nutrient Management Application - Phosphorus

This document specifies terms and conditions for the Virginia Agricultural Best Management Practices Cost-Share Program's WFA-NM Precision Nutrient Management Application - Phosphorus Management option for the enhanced nutrient management of phosphorus on crop land which are applicable to all contracts entered into with respect to this practice.

A. Description and Purpose

This practice will encourage the use of precision nutrient management practice components that support a higher intensity of phosphorous management in the field than existing standard nutrient management practices.

This practice is intended for row crops, small grains, grain sorghum/milo, canola, specialty crops, produce, turf/sod farms and highly managed hayland including alfalfa hay production systems.

This practice supports multiple enhanced nutrient management components such as zone or grid soil fertility samples and all variable rate phosphorous application technologies based upon the soil test results of zone or grid (subfield) sampling. This practice may only be used on fields that apply phosphorous based upon test results identified in Section B, whether they have organic nutrient applications or not, with the exception of biosolids applications.

The variable rates of phosphorus listed below in Section B apply to all row crops, small grains and highly managed hay crops. Other macro-micro nutrients or soil amendments may be applied concurrently.

B. Policies and Specifications

1. Results from any test conducted to develop a phosphorous application prescription must be used to determine the phosphorous application rates for the current or following crop as appropriate, and that prescription must be followed during the application of phosphorous.

2. Phosphorous applications must be based upon the soil test results of zone or grid (subfield) sampling recommendations; other macro-micro nutrients may be applied concurrently.

3. Total phosphorus application rates shall not exceed the zone or grid sampling recommendations.

4. In order to be eligible for cost-share, producers must be fully implementing a current Nutrient Management Plan (NMP) on all agricultural production acreage contained within the field on which this practice will be implemented. The NMP must comply with all requirements set forth in the Nutrient Management Training and Certification Regulations (4VAC50-85 et seq.) and the Virginia Nutrient Management Standards and Criteria (revised July 2014); must be prepared and certified by a Virginia certified

Nutrient Management Planner; and must be on file with the local District before any cost-share payment is made to the participant. Plans shall also contain any specific production management criteria designated in the BMP practice (4VACV50-85-130G).

5. Acres receiving a zero application rate based upon the soil test results of zone or grid (subfield) sampling recommendations also qualify for a payment rate of $7.50 per acre.

6. The total number of acres that qualify for this practice will be based upon the total acres that were sampled in zones (zones shall be no larger than 20 acres and based upon soil type), grids (grid size shall be 1 to 4 acres), or had mid-season testing such as variable rate or zone/grid (subfield) applications of phosphorus, based upon the zone or grid soil sampling recommendations.

7. The participant **must** provide written verification of the recommendation(s) and the resulting application(s) (e.g. results of laboratory test(s), a work order or detailed bill/invoice showing application rates, an as-applied application map of field(s)) to the District within forty-five days of the phosphorous application and prior to payment.

8. The participant **must** sign up for this practice before April 1st of each year that the practice will be utilized.

9. Fields that have received applications of biosolids within the previous 24 months are not eligible.

10. This is an annual practice.

C. Rates

1. **Variable Rate Phosphorus:** A VACS payment rate of **$7.50 per acre per year** is available for a variable rate application of phosphorous on row crops, small grains or highly managed hayland.

2. No per sample cost-share is available for zone/grid (subfield) soil fertility testing. Many commercial applicators include zone/grid (subfield) soil fertility sampling in their variable rate application charge.

WFA-NM Manure Injection:

This document specifies terms and conditions for the Virginia Agricultural Best Management Practices Cost-Share Program's manure injection best management practice which are applicable to all contracts entered into with respect to that practice.

A. Description and Purpose

This practice will encourage manure injection on pasture and cropland, which will reduce nutrient transport to waterways and other environmentally sensitive features. Applications must be based upon the Nutrient Management Plan (NMP).

B. Policies and Specifications

1. Definition: Manure injection is the placing of manure below the surface of the ground using direct manure injection equipment as determined by the Soil and Water Conservation District.
2. Eligibility:
   i. This practice is limited to applicants with a current Nutrient Management Plan on file with the District before manure injection application payment is made.
   ii. Application rates of manure shall be consistent with NMP recommendations.
   iii. Only cropland, highly managed hayland, and/or pasture owned or rented by the applicant is eligible.
   iv. Applicants must use no-till planting methods that follow NRCS defined no- till management on all fields receiving manure injection application.
   v. Applicants must provide written verification (such as a work order or bill) to the District within 30 days of the injection application. Invoice/work order or bill must indicate:
      a. Fields and acreages injected
      b. Application rates
      c. Type of injection equipment used
      d. Person applying manure (contractor, etc.)
   vi. Producers must be fully implementing a current Nutrient Management Plan (NMP) on all agricultural production acreage contained within the field on which this practice will be implemented. The NMP must comply with all requirements set forth in the Nutrient Management Training and Certification Regulations (4VAC50-85 et seq.) and the Virginia Nutrient Management Standards and Criteria (Revised July 2014); must be prepared and certified by a Virginia certified Nutrient Management Planner; and must be on file with the local District before any cost-share payment is made to the participant. Plans shall also contain any specific production management criteria designated in the BMP practice (4VACV50-85-130G).

3. The maximum acres eligible for the manure injection shall not exceed the acres specified in the Nutrient Management Plan.

4. Checks to ensure compliance with this practice may be conducted by the District or appropriate agency personnel and failure to comply may result in forfeiture of cost-share funds.

5. Cost-share is available for all acres with application rates in compliance with the NMP Spreading Schedule. Acres that receive application rates above NMP are not eligible for cost-share.

6. Participants may receive cost-share for multiple injections on the same acres in the same program year (e.g. fall and spring), consistent with the Nutrient Management Plan and other requirements of this specification.

C. Rate(s)

1. A VACS payment rate of $45 per acre is available.
2. Eligible equipment purchased for Manure Injection may qualify for a state tax credit through the Virginia Equipment Tax Credit Program.

D. Technical Responsibility

Technical and administrative responsibility is assigned to qualified technical DCR and District 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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WFA - NM VACS Payment Rate Worksheet

Component	Rate Per Acre	Participating Acres
Core Nutrient Management Plan Requirement	$6.00/acre	
In-Furrow or Banded Nitrogen	$2.50/acre	
In-Furrow or Banded Phosphorus	$2.50/acre	
First Sidedress Application of Nitrogen	$2.50/acre	
Second Topdress Application of Nitrogen	$2.50/acre	
Second Sidedress Application of Nitrogen	$5.00/acre	
Third Topdress Application of Nitrogen	$5.00/acre	
Variable Rate Nitrogen	$7.50/acre	
Variable Rate Phosphorus	$7.50/acre	
Manure Injection	$45.00/acre	
PSNT Laboratory Analysis	$12.00/sample	
Fall Soil Nitrate Test	$12.00/sample	