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*Deputy Director for  
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Floodplain Management and  
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Laura Ellis  
*Deputy Director for  
Administration and Finance*

**COMMONWEALTH of VIRGINIA**  
DEPARTMENT OF CONSERVATION AND RECREATION

March 20, 2024

Date Received by DCR 3/14/2024

John W. Mason  
Virginia Peninsula Community College-Historic Triangle  
99 Thomas Nelson Drive  
Hampton VA 23670

Your nutrient management plan (NMP) dated 3/14/2024 located in James City County has been approved by the Virginia Department of Conservation and Recreation (DCR). The approved plan is for 8 acres. Only nutrient recommendations for applications to be made after the date of this letter are approved by this letter. Your NMP was written by Christy Smith, a nutrient management planner certified by DCR.

This site has not been inspected by DCR and this approval is contingent upon site conditions being as stated in the NMP. Any revisions to this plan must be approved by DCR. Any change in personnel resulting in a change to the plan manager should be reported to the Certified Nutrient Management Planner who will then make DCR aware. Please note that this letter should be kept with the NMP and supporting documentation including nutrient application records. This plan expires on 3/13/2027. Please feel free to contact me with any questions or concerns regarding this approval.

Best regards,

A handwritten signature in cursive script that reads "Anita Tuttle".

Anita Tuttle  
Urban Nutrient Management Coordinator  
Division of Soil and Water Conservation  
600 East Main Street, 24<sup>th</sup> Floor  
Richmond VA 23219  
(804) 513-5958

600 East Main Street, 24<sup>th</sup> Floor | Richmond, Virginia 23219 | 804-786-6124

*State Parks • Soil and Water Conservation • Planning and Recreation Resources  
Natural Heritage • Dam Safety and Floodplain Management • Land Conservation*

# Nutrient Management Plan

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VA Peninsula CC/Historic Triangle

Prepared For:

John W. Mason  
99 Thomas Nelson Drive  
Hampton, VA 23670  
757-825-3694

Prepared By:

Christy F. Smith  
3160 Jacobia Lane  
Cape Charles, VA 23310  
757-678-6129

Certification Code: 297

Total Acreage: 8 acres

The purpose of this Nutrient Management Plan is to ensure minimum movement of nitrogen and phosphorus from the specified area of application to surface and groundwaters where they can potentially have a detrimental effect on water quality as well as ensuring that plants have optimum soil nutrient availability for good productivity and quality. By following this soil test based plan you are helping to protect local waters and the Chesapeake Bay.

If you have questions, please contact your plan writer, local Virginia Cooperative Extension



# Nutrient Management Plan for: Virginia Peninsula CC/Historic Triangle Campus

<b>Landowner Information</b>	
Company Name	<i>Virginia Peninsula CC/Historic Triangle Campus</i>
Customer Name	<i>John W. Mason</i>
Mailing Address	<i>99 Thomas Nelson Drive</i>
City State Zip	<i>Hampton, VA 23670</i>
Phone	<i>757-825-3694</i>
Email	<i>MasonJ@vpcc.edu</i>

<b>Planners Informaiton</b>	
Planner Name	<i>Christy F. Smith</i>
Mailing Address	<i>3160 Jacobia Lane</i>
City State Zip	<i>Cape Charles, VA 23310</i>
Phone	<i>757-678-6129</i>
Fax	<i>757-331-3957</i>
Email	<i>christy@smithagronomic.com</i>
Certification Code	<i>297</i>

<b>Location Information</b>	
Physical Address	<i>4601 Opportunity Way</i>
City State Zip	<i>Williamsburg, VA 23188</i>
<a href="#">Coordinates</a>	<i>37.335916</i>
Please Use NAD 83 Deg Min Sec	<i>-76.755489</i>
<a href="#">VAHU6 Watershed Code</a>	<i>JL31</i>
County	<i>James City County</i>

<b>Square Footage</b>	
Total	<i>8 acres</i>
Area 1	<i>135,036 sq ft</i>
Area 2	<i>213,444 sq ft</i>
Area 3	
Area 4	

Plan Start Date	<i>3/14/24</i>
Plan End Date	<i>3/13/27</i>

Planner Signature	<i>Christy F. Smith</i>
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# Narrative

Virginia Peninsula Community College/Histric Triangle Campus is located on 4601 Opportunity Way, Williamsburg, VA 23188, just off of Centerville Road. The site is seeded with fescue.

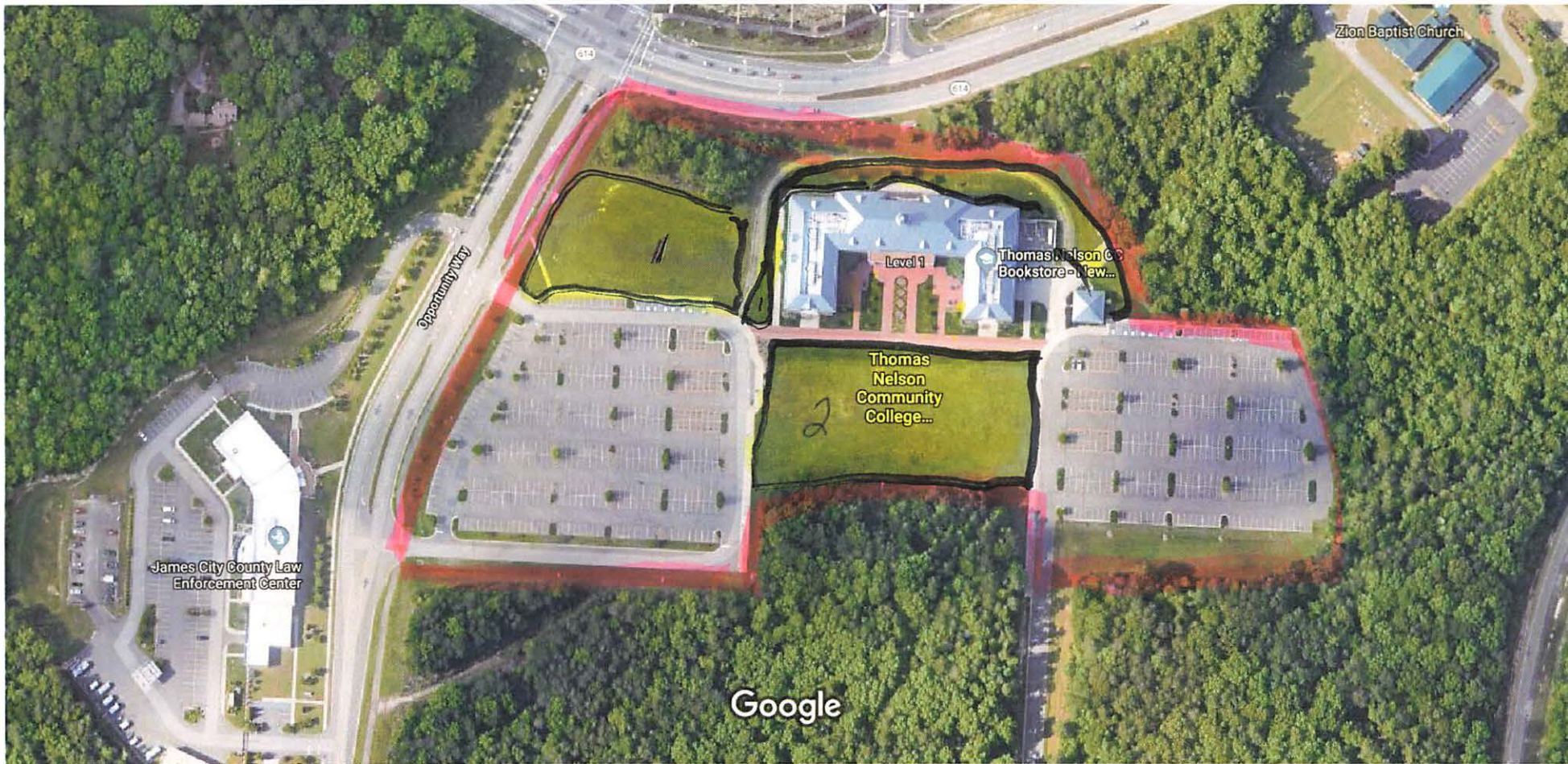
Currently 8 acres of turfgrass (348,480 square feet) receive nutrient applications. The acreage was measured by laser. Lime is not needed at this time. The agency must not apply nutrients at higher rates or more frequently than specified in the nutrient management plan.

There are no environmentally sensitive sites located on campus.

Nutrient applications are prohibited on frozen/snow covered ground.

Virginia Peninsula Community College agrees to comply with all requirements set forth in the Nutrient Management Training and Certification Regulations, 4VAC5-15-10 et seq., and to follow recommendations for turf fertilization and management as described in the attached Virginia Nutrient Managemet Standards and Criteria, Revised July 2014. This includes implementing the Department of Conservation and Recreation's approved Nutrient Management Plan and maintaining fertilization records. Soil testing is recommended at least once every three years. This plan is effective for 3 years, expiring 3/13/2027 or until any major renovation or major changes to maintenance practices occur which effects the fertilized/lime areas.


Google Maps Thomas Nelson Community College, Historic Triangle Campus



Imagery ©2018 Commonwealth of Virginia, DigitalGlobe, U.S. Geological Survey, USDA Farm Service Agency, Map data ©2018 Google 100 ft

Area 1 - 3.1 acres  
Area 2 - 4.9 acres

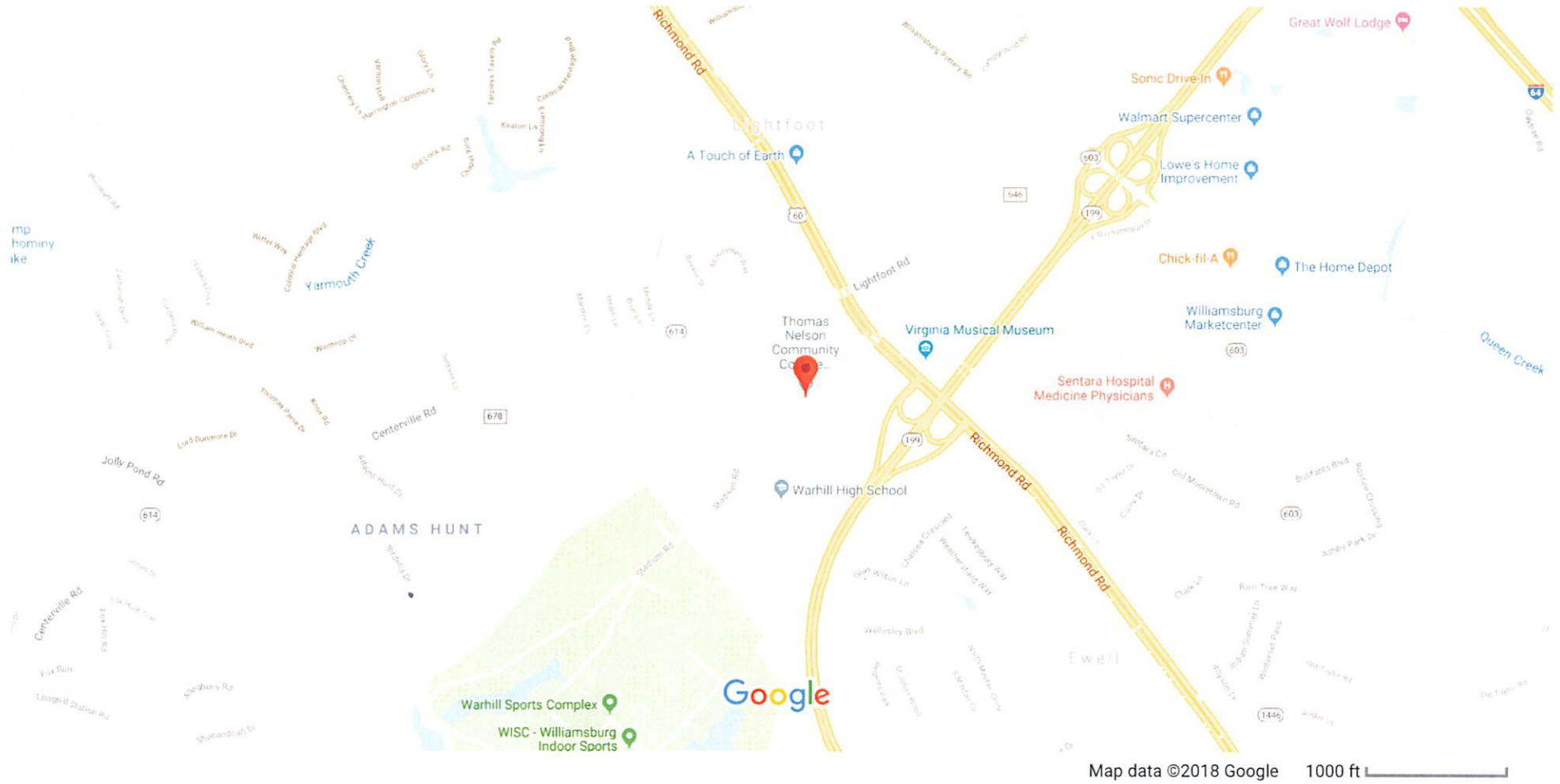
 Campus

 Fertilized areas  
8 acres





# Thomas Nelson Community College, Historic Triangle Campus









# Virginia Cooperative Extension

## Soil Test Report

**Questions? Contact:**  
**Roanoke Office**  
 3738 Brambleton Ave., S.W.  
 Roanoke, VA 24018-3639  
 540-772-7524

Virginia Tech Soil Testing Laboratory  
 145 Smyth Hall (0465)  
 185 Ag Quad Ln  
 Blacksburg, VA 24061  
[www.soiltest.vt.edu](http://www.soiltest.vt.edu)

SEE NOTES:  
**1 3**  
 at [www.soiltest.vt.edu](http://www.soiltest.vt.edu) under Report Notes

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**SMITHAG AND ENVIRONMENTAL**  
 3160 JACOBIA LN  
  
 CAPE CHARLES, VA 23310

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### SAMPLE HISTORY

Sample ID	Field ID	LAST CROP		LAST LIME APPLICATION		SOIL INFORMATION				
		Name	Yield	Months Prev.	Tons/Acre	SMU-1 %	SMU-2 %	SMU-3 %	Yield Estimate	Productivity Group
TNHT1	TRIANGLE									III

### LAB TEST RESULTS (see Note 1)

Analysis	P (lb/A)	K (lb/A)	Ca (lb/A)	Mg (lb/A)	Zn (ppm)	Mn (ppm)	Cu (ppm)	Fe (ppm)	B (ppm)	S.Salts (ppm)
Result	13	110	1544	165	0.8	6.4	0.3	59.6	0.3	
Rating	M-	M	H-	H-	SUFF	SUFF	SUFF	SUFF	SUFF	

Analysis	Soil pH	Buffer Index	Est.-CEC (meq/100g)	Acidity (%)	Base Sat. (%)	Ca Sat. (%)	Mg Sat. (%)	K Sat. (%)	Organic Matter (%)
Result	6.5	6.34	5.0	7.1	92.9	76.6	13.5	2.8	

### FERTILIZER AND LIMESTONE RECOMMENDATIONS

Crop: Native or Unimproved Pasture (42)

Lime, TONS/AC	
Amount	Type
0	

Fertilizer, lb/A		
N	P2O5	K2O
See Comment	90	80

825. If stand contains less than 25 percent clover, apply 40-60 lbs N/A.

131. If additional production is needed later on, apply 40 to 60 lbs/A of N during the grazing season. If you are planning to overseed a legume into the stand, omit the N recommendation.

123. P2O5 and K2O recommendations are for single applications made every 3 to 4 years. After this time, soils should be re-tested.

991. "Explanation of Soil Tests, Note 1" and other referenced notes are viewable at [www.soiltest.vt.edu](http://www.soiltest.vt.edu) under Report Notes.

# Virginia Cooperative Extension

## Soil Test Report

**Questions? Contact:**  
**Roanoke Office**  
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**SMITHAG AND ENVIRONMENTAL**  
 3160 JACOBIA LN  
  
 CAPE CHARLES, VA 23310

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### SAMPLE HISTORY

Sample ID	Field ID	LAST CROP		LAST LIME APPLICATION		SOIL INFORMATION				
		Name	Yield	Months Prev.	Tons/Acre	SMU-1 %	SMU-2 %	SMU-3 %	Yield Estimate	Productivity Group
TNHT2	TRIANGLE									III

### LAB TEST RESULTS (see Note 1)

Analysis	P (lb/A)	K (lb/A)	Ca (lb/A)	Mg (lb/A)	Zn (ppm)	Mn (ppm)	Cu (ppm)	Fe (ppm)	B (ppm)	S.Salts (ppm)
Result	46	144	3976	214	2.0	14.3	0.3	38.0	1.0	
Rating	H-	M	VH	H+	SUFF	SUFF	SUFF	SUFF	SUFF	

Analysis	Soil pH	Buffer Index	Est.-CEC (meq/100g)	Acidity (%)	Base Sat. (%)	Ca Sat. (%)	Mg Sat. (%)	K Sat. (%)	Organic Matter (%)
Result	7.4	6.60	11.0	0.0	100.0	90.3	8.0	1.7	

### FERTILIZER AND LIMESTONE RECOMMENDATIONS

Crop: Native or Unimproved Pasture (42)

Lime, TONS/AC	
Amount	Type
0	

Fertilizer, lb/A		
N	P2O5	K2O
See Comment	0	80

825. If stand contains less than 25 percent clover, apply 40-60 lbs N/A.

131. If additional production is needed later on, apply 40 to 60 lbs/A of N during the grazing season. If you are planning to overseed a legume into the stand, omit the N recommendation.

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## Standards and Criteria

### Section VI. Turfgrass Nutrient Recommendations for Home Lawns, Office Parks, Public Lands and Other Similar Residential/Commercial Grounds

#### Definitions

For the purposes of this section, the following definitions, as presented by the Association of American Plant Food Control Officials (AAPFCO), apply:

“Enhanced efficiency fertilizer” describes fertilizer products with characteristics that allow increased plant nutrient availability and reduce the potential of nutrient losses to the environment when compared to an appropriate reference product.

“Slow or controlled release fertilizer” means a fertilizer containing a plant nutrient in a form which delays its availability for plant uptake and use after application, or which extends its availability to the plant significantly longer than a reference “rapidly available nutrient fertilizer” such as ammonium nitrate, urea, ammonium phosphate or potassium chloride. A slow or controlled release fertilizer must contain a minimum of 15 percent slowly available forms of nitrogen.

“Water soluble nitrogen”, “WSN” and “readily available nitrogen” means: Water soluble nitrogen in either ammonical, urea, or nitrate form that does not have a controlled release, or slow response.

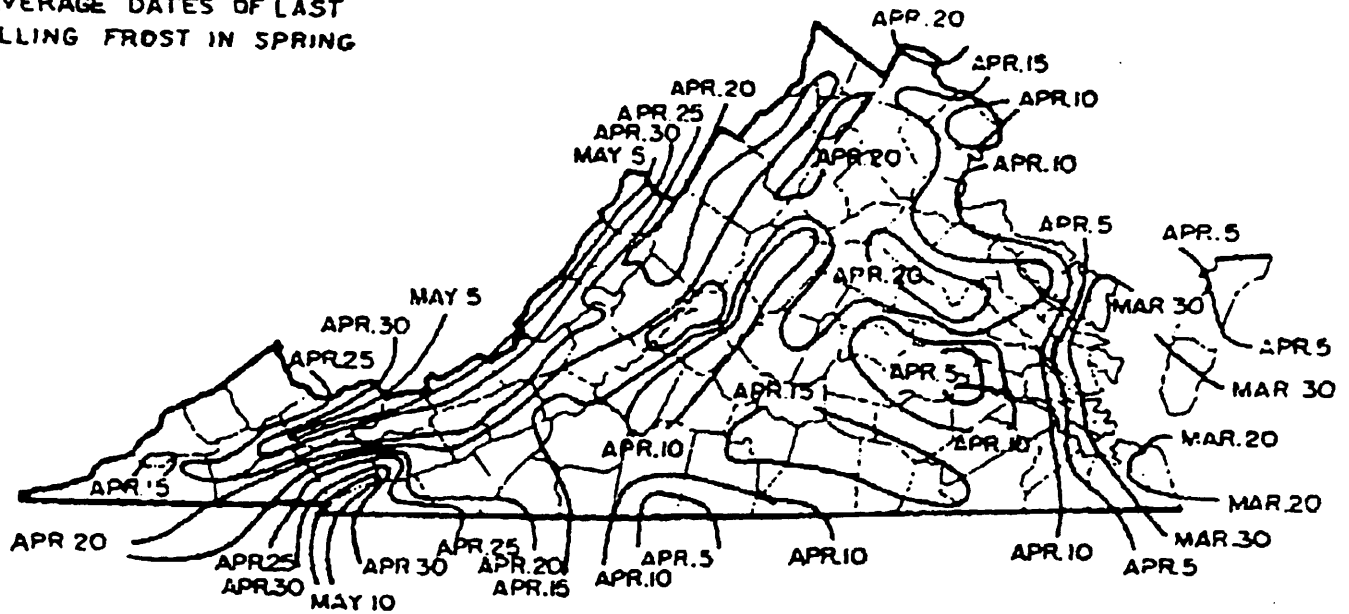
#### Recommended Season of Application For Nitrogen Fertilizers - Applies to all Turf

A nitrogen fertilization schedule weighted toward fall application is recommended and preferred for agronomic quality and persistence of cool season turfgrass; however, the acceptable window of applications is much wider than this for nutrient management. The nutrient management recommended application season for nitrogen fertilizers to cool season turfgrasses begins six weeks prior to the last spring average killing frost date and ends six weeks past the first fall average killing frost date (see Figures 6-1 & 6-2). Applications of nitrogen during the intervening late fall and winter period should be avoided due to higher potential leaching or runoff risk, but where necessary, apply no more than 0.5 pounds per 1,000 ft<sup>2</sup> of water soluble nitrogen within a 30 day period. Higher application rates may be used during this late fall and winter period by using materials containing slowly available sources of nitrogen, if the water soluble nitrogen contained in the fertilizer does not exceed the recommended maximum of 0.5 pounds per 1,000 ft<sup>2</sup> rate. Do not apply nitrogen or phosphorus fertilizers when the ground is frozen.

The acceptable nitrogen fertilizer application season for non-overseeded warm season turfgrass begins no earlier than the last spring average killing frost date and ends no later than one month prior to the first fall average killing frost date (see Figures 6-1 & 6-2).

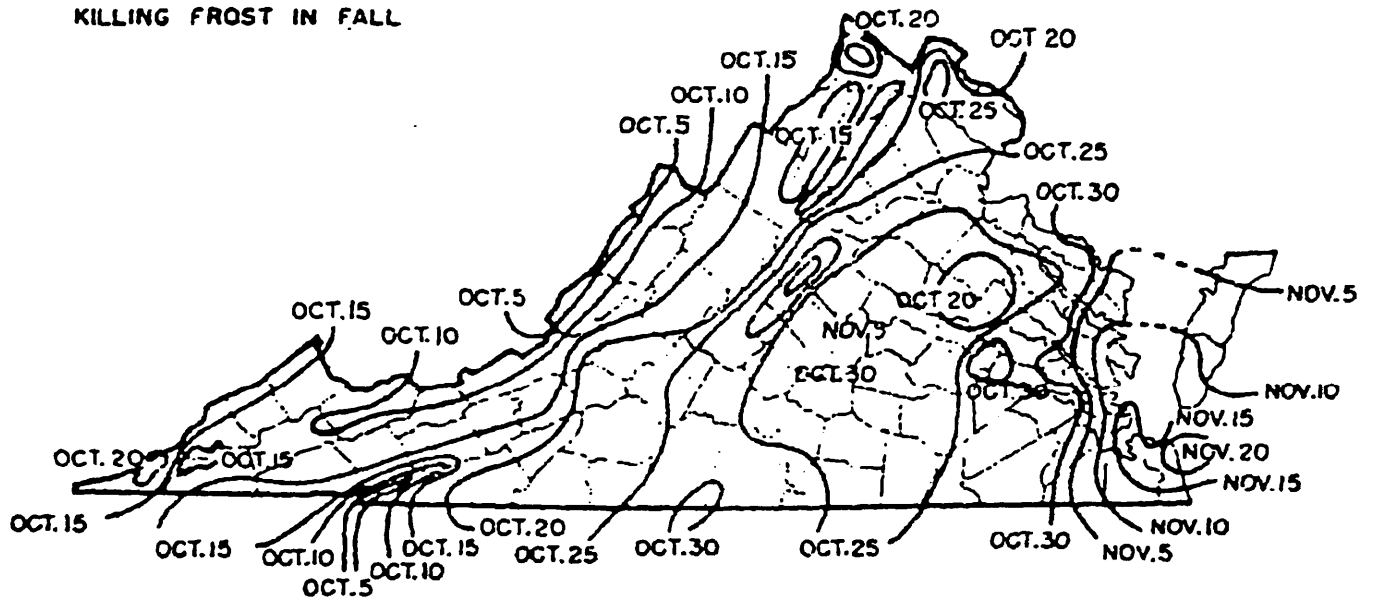
# VIRGINIA

AVERAGE DATES OF LAST  
KILLING FROST IN SPRING



# VIRGINIA

AVERAGE DATES OF FIRST  
KILLING FROST IN FALL



### Per Application Rates

Do not apply more than 0.7 pounds of water soluble nitrogen per 1,000 ft<sup>2</sup> within a 30 day period. For cool season grasses, do not apply more than 0.9 pounds of total nitrogen per 1,000 ft<sup>2</sup> within a 30 day period. For warm season grasses, do not apply more than 1.0 pounds of total nitrogen per 1,000 ft<sup>2</sup> within a 30 day period. Lower per application rates of water soluble nitrogen sources or use of slowly available nitrogen sources should be utilized on very permeable sandy soils, shallow soils over fractured bedrock, or areas near water wells.

### Annual Application Rates for Home Lawns and Commercial Turf

Up to 3.5 pounds per 1,000 ft<sup>2</sup> of nitrogen may be applied annually to cool season grass species or up to 4 pounds per 1,000 ft<sup>2</sup> may be applied annually to warm season grass species using 100 percent water soluble nitrogen sources. Lower rates of nitrogen application may be desirable on those mature stands of grasses that require less nitrogen for long-term quality. As a result, lower application rates will probably be more suited to the fine leaf fescues (hard fescue, chewings fescue, creeping red fescue, and sheep fescue) and non-overseeded zoysiagrass. Lower rates should also be used on less intensively managed areas.

### Use of Slowly Available Forms of Nitrogen

For slow or controlled release fertilizer sources, or enhanced efficiency fertilizer sources, no more than 0.9 pounds of nitrogen per 1,000 ft<sup>2</sup> may be applied to cool season grasses within a 30 day period and no more than 1.0 pounds of nitrogen per 1,000 ft<sup>2</sup> may be applied to warm season grasses within a 30 day period. Provided the fertilizer label guarantees that the product can be used in such a way that it will not release more than 0.7 pounds of nitrogen per 1,000 ft<sup>2</sup> in a 30 day period, no more than 2.5 pounds of nitrogen per 1,000 ft<sup>2</sup> may be applied in a single application. Additionally, total annual applications shall not exceed 80 percent of the annual nitrogen rates for cool or warm season grasses.

### Phosphorus and Potassium Nutrient Needs (Established Turf)

Apply phosphorus (P<sub>2</sub>O<sub>5</sub>) and potassium (K<sub>2</sub>O) fertilizers as indicated necessary by a soil test using the following guidelines:

<u>Soil Test Level</u>	<u>Nutrient Needs (lbs /1000 ft<sup>2</sup>)*</u>	
	<u>P<sub>2</sub>O<sub>5</sub></u>	<u>K<sub>2</sub>O</u>
L	2-3	2-3
M	1-2	1-2
H	0.5-1	0.5-1
VH	0	0

\* For the lower soil test level within a rating, use the higher side of the range and for higher soil test level within a rating use the lower side of the recommendation range. (For example the recommendation for a P<sub>2</sub>O<sub>5</sub> soil test level of L- would be 3 pounds per 1,000 ft<sup>2</sup>.)

Do not use high phosphorus ratio fertilizers such as 10-10-10 or 5-10-10, unless soil tests indicate phosphorus availability below the M+ level.

### Recommendations for Establishment of Turf

These recommendations are for timely planted turfgrass, that is, the seed or vegetative material (sod, plugs, and /or sprigs), are planted at a time of the year when temperatures and moisture are adequate to maximize turfgrass establishment. These recommended establishment periods would be late summer to early fall for cool-season turfgrasses and late spring through mid-summer for warm-season turfgrasses.

### Nitrogen Applications

At the time of establishment, apply no more than 0.9 pounds per 1,000 ft<sup>2</sup> of total nitrogen for cool season grasses or 1.0 pounds per 1,000 ft<sup>2</sup> of total nitrogen for warm season grasses, using a material containing slowly available forms of nitrogen, followed by one or two applications beginning 30 days after planting, not to exceed a total of 1.8 pounds per 1,000 ft<sup>2</sup> total for cool season grasses and 2.0 pounds per 1,000 ft<sup>2</sup> for warm season grasses for the establishment period. Applications of WSN cannot exceed more than 0.7 pounds per 1,000 ft<sup>2</sup> within a 30 day period.

### Phosphorus and Potassium Recommendations for Establishment

<u>Soil Test Level</u>	<u>Nutrient Needs (lbs /1000 ft<sup>2</sup>) *</u>	
	<u>P<sub>2</sub>O<sub>5</sub></u>	<u>K<sub>2</sub>O</u>
L	3-4	2-3
M	2-3	1-2
H	2-1	0.5-1
VH	0	0

\* For the lower soil test level within a rating, use the higher side of the range and for higher soil test level within a rating use the lower side of the recommendation range.

