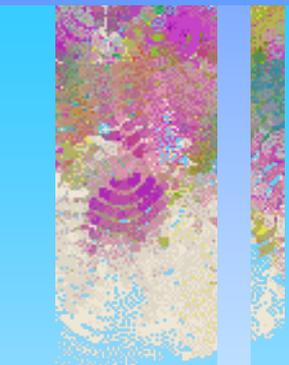


Nutrient Management Incentive and Regulatory Programs



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Virginia Programs Requiring Nutrient Management Plans

- DEQ Virginia Pollution Abatement (VPA) permits
- DEQ Poultry Waste Management permits
- DEQ VPDES permits
- DEQ Biosolids Regulations
- DEQ Municipal Waste and Industrial Waste permits
- DEQ Water Reclamation and Reuse Regulations



Virginia Programs Requiring Nutrient Management Plans

- Chesapeake Bay Preservation Act
- DCR Ag BMP Cost-Share Program
 - Animal waste storage structures
 - Nutrient management practices
- VA Ag BMP Income Tax Credit
- VA Precision Nutrient & Pesticide Application Equipment Income Tax Credit



Nutrient Management Training and Certification Regulations - Guiding Philosophy

- NM T&C Regs do not require farmers to have NMPs That is left to other laws, regulations, or incentive programs.
- Developed baseline standards for NMP content and technical criteria.
- NMPs required by other laws and regulations may specify additional more restrictive content and/or criteria.
- Allows for “add ons” based on existing or future laws, regulations or programs.

DCR Nutrient Management Guidance Documents

- May be written when needed to clarify technical criteria or procedures related to NMPs.
- May be used to address situations unforeseen when training and certification program was developed or to address new laws.
- May provide for interpretation of broader requirements in underlying laws or regulations related to nutrient management plans.

VA Pollution Abatement (VPA) permits



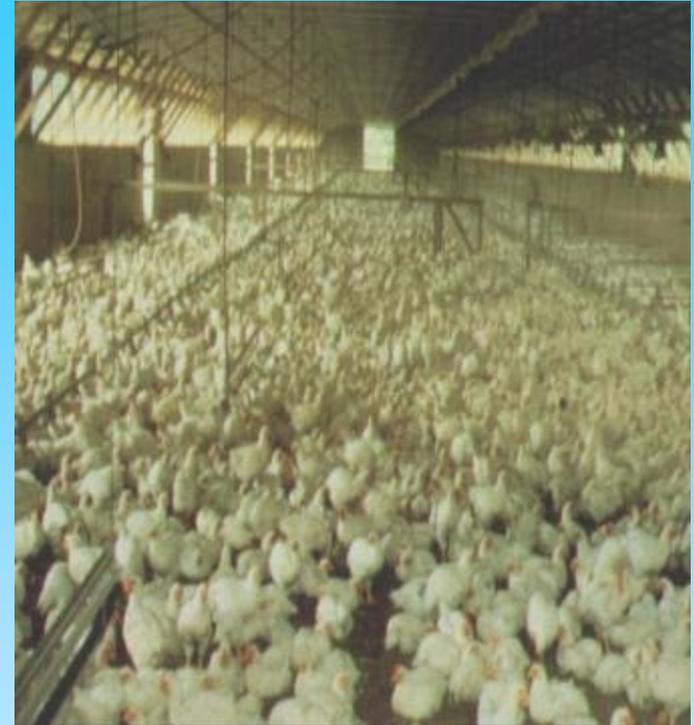
- Required for farms having 300 or more animal units (A.U.) of livestock in confinement
- 300 A.U. = 300 beef cattle
= 200 dairy cattle
= 750 swine over 55 lbs. each
- DEQ issues and enforces permit
- DCR approved NMP required for each permitted farm

VPA Permit Requirements

- NMP is enforceable part of permit
- DEQ personnel inspect farms annually
- Manure storage requirements to address:
 - no discharge unless greater than a 24 hour - 25 year storm event
 - times when application won't occur when crop uptake is limited, saturated ground, or frozen ground
- Manure spreading setbacks from rock outcrops, streams, wells, etc. (see NMP Special Conditions for VPA Permit Plans)
- Farmer record keeping required for manure application fields (when, how much, crops)
- DCR plan approval letter must be filed with DEQ
- Nitrogen and Phosphorus based NMPs are required as of 1/1/2006.

Poultry Waste Management VPA Permits

- Became effective 10/1/2001
- Impacts all poultry farms with at least 200 animal units
 - 20,000 broilers
 - 11,000 turkeys
- Similar requirements as other VPA permits
- DCR approved NMP required
- Poultry litter storage requirements in NMP
- Growers had to have P based NMPs beginning 10/1/2001





VPDES (Virginia Pollutant Discharge Elimination System) Permits for Concentrated Animal Feeding Operations

- Required for confined animal feeding operations that have had a discharge violation or other serious violation of a VPA permit.
- Operations with more than 1000 animal units
- Similar requirements as VPA permits, but can be enforced by either the state DEQ or U.S. E.P.A.
- More detailed farmer record keeping requirements



NMP Special Conditions for VPA & VPDES Animal Waste and Poultry Permits

- Address nutrient management issues relevant to all animal waste permits.
- More specifically explains requirements of animal waste laws and regulations as part of the NMP narrative.
- Contains enforceable language.
- Special conditions must be inserted as worded for NMPs written for VPA animal waste and poultry waste permits to be approved.
- DCR reserves right to amend special conditions for future plans or for specific NMPs based on site conditions or farm compliance problems.

Biosolids Use Regulations (Treated Sewage Sludge)

- Administered by Dept of Environmental Quality
- Permits held by land application contractor
- Land application requires NMPs.
- Most permits are for “infrequent application” = no more than once every 3 years, or for less than 50% of agronomic rate
- “Frequent application” permits are more restrictive - additional monitoring, require an approved NMP.



Biosolids Changes

- Law changes require Biosolids Regulations to require NMPs on all application sites.
- New Biosolids Regulations being presented to SWCB in Dec. 2009. Open for public comment.
- Localities are now able to be reimbursed by state collected permit fees to hire biosolids monitors to observe and inspect biosolids land application activities, including soil and sludge sampling.



Biosolids Changes

- NMP requirement in VDH regulation became effective 12/17/07 and is currently in DEQ program
- “A nutrient management plan shall be developed for all application sites prior to biosolids applications” (12 VAC 5-585-630A.2.)
- DCR Approved plans for application sites:
 - Applications are more frequent than once every three years at >50% annual agronomic rate
 - Owned or operated in conjunction with a CAFO
 - Site Specific conditions which impact Water Quality



Biosolids changes

- Biosolids Land application responsibility was transferred to Dept. of Environmental Quality – January 1, 2008
- Current language of VDH regulations has been adopted to DEQ Program
- Regulatory Revisions in progress, presented to SWCB in Dec. 2009. Following public comment period, final regs expected sometime in 2010



Municipal Waste and Industrial Waste VPA Permits

- Administered by DEQ.
- Sewage treatment plant owner or industrial waste generator holds permitted acreage.
- Somewhat similar to individual VPA animal waste permits.



Chesapeake Bay Preservation Act

- Administered by the Chesapeake Bay Local Assistance Division of DCR
- 31 eastern Virginia tidewater counties - mainly east of I - 95
- Resource Protection Areas (RPA) - Requires 100 foot wooded or grass buffer from streams, wetlands, rivers, lakes connected to Chesapeake Bay when no BMPs are implemented



Chesapeake Bay Preservation Act (cont)

- May reduce to 50 foot buffer with sediment or nutrient BMPs
- May reduce to 25 feet by implementing soil and water quality conservation plan (includes nutrient management component)
- Other land in Resource Management Areas (RMAs), lands adjacent to RMA's, may require site assessments and plans



DCR Cost-Share Program

- Administered through local soil and water conservation districts
- 75% of eligible costs for BMPs
- Up to \$50,000 per producer per year
- Individual conservation districts may impose more restrictive payment limits
- Covers a number of BMPs



DCR Cost-Share Program

- Producers participating in:
 - SL-6, Grazing Land Protection
 - WP-4, Animal Waste Control Facility
 - WP-4B, Loafing Lot Management System
- Up to \$70,000 per producer per year, for these specific practices. May not be used for other practices.



Cost-Share Practices Requiring NMPs

- NM1 - Nutrient management plan development cost to hire a private certified planner
- NM2 – Nutrient Management Plan Implementation and Record Keeping
- NM3 - Split applied N on corn
- NM3B - Manure application to corn followed by Presidedress nitrate test
- NM4 - Split application of late winter/spring N to small grain



Cost-Share Practices Requiring NMPs

- SL-3 – Strip Cropping Systems
- SL-3B – Buffer Strip-cropping
- SL-4 - Terrace Systems
- SL-6A – Small Acreage Grazing System



Cost-Share Practices Requiring NMPs

- SL 8B – Small Grain Cover Crop for NM and Residue Management (Largest participation in \$ in Va.)
- SL 8H – Harvestable Crop
- SL 15A – Continuous No-Till
- SL 15B – Continuous No-Till Forage Prod.
- LT-CNT – Long Term Continuous No-Till Planting Systems



Cost-Share Practices Requiring NMPs

- WP-4 - Animal Waste Control Facilities
 - storage pits, lagoons, tanks
 - poultry mortality composter
- WP-4B – Loafing Lot Mgt. Systems
- WP-4C – Composting Facilities
- WP-4D – Soil Test in Support of a NMP
- WP-4F – Animal Mortality Incinerator Facility
- WP-6 – Ag. Chemical & Fert. Handling Facility

State Income Tax Credit on Precision Nutrient & Pesticide Application Equipment

- Equipment must meet state criteria
- 25% of the purchase cost
- Maximum credit of \$3,750 = \$15,000 purchase
- May carryover unused tax credit for 5 years
- Requires NMP approved by conservation district
- Must be engaged in agricultural production for market





Tax Credit Equipment Categories

1. Sprayers for pesticides and liquid fertilizers
2. Pneumatic fertilizer applicators
3. Manure applicators
4. Tramline adapters
5. Starter fertilizer banding attachments for planters
6. Variable rate application equipment using spatial positioning systems

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Tax Credit Equipment Categories

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Tax Credit Equipment Categories

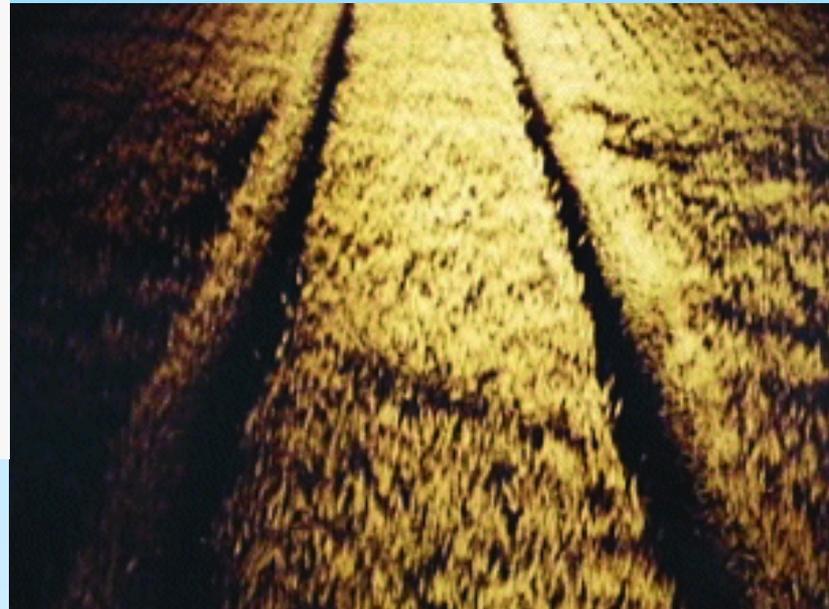
4. Tramline Adapters



WITHOUT TRAMLINES



WITH TRAMLINES



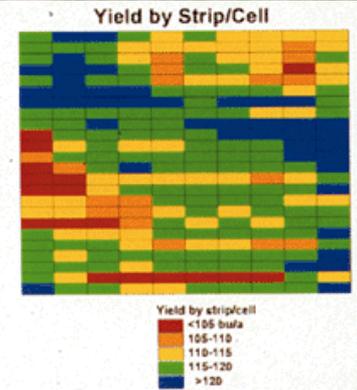
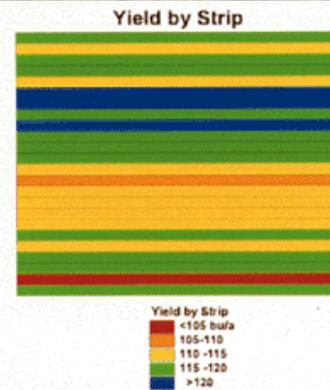
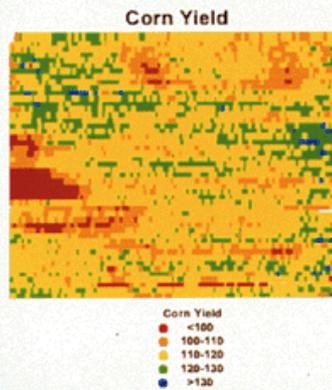
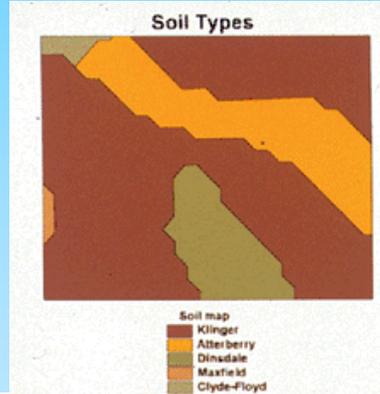
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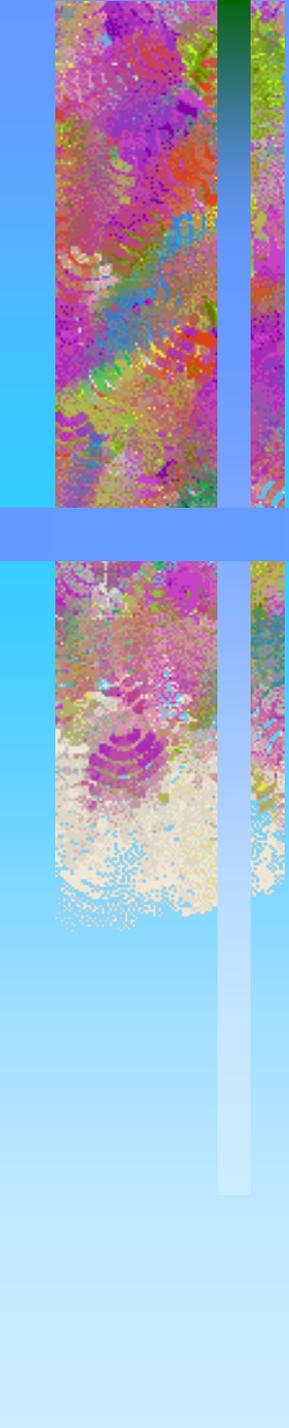
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Questions ?