

Nutrient Management Updates

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Nutrient Management Program Manager

DCR Supports Farming

Top Ag Commodities

- 1 Broilers \$649 million/yr
- 2 Beef & Cows \$434 million/yr
- 3 Milk \$358 million/yr
- 4 Turkeys \$324 million/yr
- 5 Soybeans \$302 million/yr
- 6 Turf grass/Nursery/Greenhouse \$272
- 7 Corn \$212 million/yr

Farming is Virginia's Biggest Industry

- Employees 500,000 people
- 46,000 farms
- 32 percent of the total area of the State
- Total of 7.9 million acres
- Average farm size 171 acres
- 87 percent are privately owned farms
- Producing \$70 billion each year

Nutrient Management Update

- 786,000 acres of nutrient management inside the Bay Watershed
- 987,000 acres in Virginia as a whole
- Exceeding our Bay goals for 2013 for the TMDL in the Bay.
- 120 Golf Courses with nutrient management plans for 13,000 acres

Nutrient Management Update

- 21,318 acres of Water Quality Agreements
- 33,192 acres Urban Acres Under Nutrient Management
- 15,163 acres of State Owned Lands
- Permitted Dairy Plans 71 with 60,226 acres
- Unpermitted Dairies 73 Plans 22,345 acres; down from 144 plans
- Permitted Swine 46 Plans 7,965 acres
- Permitted Beef 5 Plans 5,105 acres
- Permitted Poultry 829 Plans 69,913 acres

Virginia Goals for Implementation Bay WIP

- Urban Goals 2025 518,000 acres
inside the bay 2017 goal 310,800 acres
- Ag Goals 2025 1,618,000 acres
- 2017 970,800 acres
- Unpermitted dairies 508 plans by 2013
- Much work to do!

Bay Model Improvements

- Issues discovered with Bay Model as it treats BMP's related to Agriculture.
- Ag Work Group has expert panels developed to address issues.
- So far, six expert panels formed to look at Nutrient Management, Conservation Tillage, Cover Crops, Poultry Litter, Land Use Modeling, and others.

Bay Model Improvements

- Changes Made to model inputs are based upon changes in Nitrogen, Phosphorus, or Sediment **losses**. Not based upon nutrient uptake.
- Recommendations for changes based upon panel experts review of published research data and upon their own years of research

Bay Model Improvements

- Reports with recommendations presented to Ag Work Group for review and approval
- Reports then forwarded to Water Quality Goal Implementation Team for review and approval, then to EPA for changes to Model Inputs
- First reported BMP changes in November 2013
- More initiated in 2014 through 2016

Bay Model Improvements

- Some of the recommended changes go into effect immediately, others will be implemented when Version 6.0 of the model is built by 2016-17 due to limitations of the current version of the Model

Example of BMP Changes

- Cover Crop; does not receive nutrients at planting. Goal is to scavenge nutrients left behind by previous crop. Must have 60 % ground cover.
- Research indicates Rye is the best cover crop in reducing nitrogen losses; therefore it now gets the highest reduction factor of 1.0 in comparison to other species

Example of BMP Changes

- Research indicates that Wheat and Triticale have slightly more nitrogen losses as related to Rye. Efficiency is 0.86
- Ryegrass efficiency is 0.66, Oats 0.55
- Cover Crops can now allow mixtures and legumes Legume and Grass mixture 0.47
- Legume alone 0.16

Nutrient Management Goals

- Virginia Nutrient Management Acres in Watershed Implementation Plan (WIP)
- 2025 Goal 1,292,697 acres inside Bay
- 2009 Progress 574,959 acres
- 2015 Progress 796,465 acres

Nutrient Management Strike Plan

Contract private sector to write NMP's for Confined animal operations and Golf Courses.

Hired two Specialist to assist Unpermitted Animal Operations and Small Farming Operations in getting plans

Valerie Moore- Staunton vbmoore@vt.edu

Tammy Holler- Richmond tammyh3@vt.edu

Strike Plan

- Small Farm Specialists will not be able to do all of the work alone.
 - Funding available to write plans for them.
Additional funding available around 1st of year

Nutrient Management Strike Plan

- Hired additional Urban Nutrient Management Specialist to assist in expanding Urban program
- Chantel Wilson, PhD
- Chantel.Wilson@dcr.virginia.gov
- Continue to contract private sector to assist in meeting goals

Other Nutrient Management Changes

- Regulation Changes
 - Changes made to Standards and Criteria a Possibility. Staff assisting in suggestions.
- Nick Moody Hired as Biosolids Coordinator to replace Rachel McAden who took John Fallon's position. Nicholas.Moody@dcr.virginia.gov

NM Group Moving

- The Central Office Staff will be moving to Innsbrook in the next 2 to 3 months.
Easier client access.
- Will send out memo once more is know about when and mail etc.

Questions?

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