

# Implementation of nutrient management training program for farmers.

Report to the Legislature and other Stakeholders - December 2015  
ESSB 6052 Senate Bill Section 309(3) (page 120-1)



Washington Department of Agriculture  
Dairy Nutrient Management Program (DNMP)



## Introduction

During the 2015 legislative session, a state appropriation was included in ESSB 6052 Senate Bill Section 309(3) (\$575,000) to fund additional work to implement a nutrient management training program for farmers that would provide training in agronomic application of dairy nutrients (manure). This work was assigned to be completed by Washington State Department of Agriculture (WSDA). *See Entire text of proviso language*

WSDA assigned responsibility for this project to the agency's Dairy Nutrient Management Program (DNMP). An analysis of the language finds the following requirements to be met:

1. Develop an accreditation process to track completion of training by individuals who apply manure. *See Training and Accreditation*
2. Upon request from farmers, review land application records (including when, where, and how much manure to apply) to ensure that applications will meet crop nutrient requirements and to protect waters of the state. *See New Inspectors Add Capacity*
3. The funds may also be used to increase inspection activities in watersheds, including those areas with impaired surface or ground water impairment. *See New Inspectors Add Capacity*
4. Identify gaps in the manure management program, including existing rules and statutory language, and report on a strategy to address those gaps. *See Identify Gaps*
5. Report to the governor and the legislature by December 31, 2015, June 30, 2016, and on June 30, 2017, on the level of participation and results of the program. *See Reporting*

## Training and Accreditation – Agronomic application training

*From proviso language:*

*.. The department shall develop an accreditation process to track completion of training by individuals who apply manure. The department shall also offer to willing farms to review agronomic application of dairy nutrients, as defined in RCW 90.64.010, used in crop production, including when, where, and how much manure to apply to meet crop nutrient requirements and to protect waters of the state.*

*.. In developing the curriculum for agronomic education and certification programs, the department will provide opportunity for input from interested parties including: Washington State University, state conservation commission, department of ecology, conservation district staff, and representatives from agricultural, livestock, and crop organizations, environmental organizations, tribal government representatives, and certified crop advisers. There is \$75K minimum per fiscal year.*

### Training Programs

A request for proposals was issued on September 15, 2015 for agronomic education and outreach. Seven proposals for agronomic education and outreach were received from conservation districts, Washington State University, and one private organization.

Total funding obligated for FY2016 is \$92,195. These grants for training and outreach will cover many of the dense agriculture areas in the state. Washington State University has agreed to hold classes in areas that are not adequately covered by one of the other grants. All training events are open to any crop producer who use nutrients in their cropping systems, regardless of source. Additionally, DNMP staff has communicated with conservation districts and other organizations that did not participate to encourage participation in the next grant cycle.



Figure 1- Whatcom Conservation District Voluntary Nutrient Management Training, Jan 2015

The following proposals will be funded:

- **Mason Conservation District:** One class and one field day with educational materials and training focused on benefits and potential risks of manure application timing and rates. The field day will be presented by Alayne Bickle of Horses for Clean Water to address manure management and storage to avoid impacts to surface water and shellfish.
- **Pierce Conservation District:** Two classes and two field days (one of each on the Key Peninsula, and in the Puyallup River watershed) will be offered to livestock producers to help them maximize value of nutrients and minimize risk to water quality. All materials will be published on the Pierce Conservation District website.

- South Yakima Conservation District: One class and one field day targeting dairy producers, farmers, farm managers and custom manure applicators who apply manure as a nutrient. Soil sampling and analysis, agronomic manure application, irrigation management, and equipment calibration will be the focus of class and field outreach.
- Thurston Conservation District: Two classes and two field days (one of each in Thurston and Grays Harbor counties, with outreach to producers in Lewis, Pacific, Clark, Cowlitz and Wahkiakum counties) focused on recordkeeping, regulations, agronomy, and risk management. The field days will focus on soil test protocols and interpretation and will be hosted by a local dairy.
- Whatcom Conservation District: Two classes and two field days (one of each in Whatcom and King Counties, with outreach to Skagit, Snohomish, and Pierce counties) focused on the principles of nutrient management. Outreach materials and trainings will address regulations, recordkeeping, agronomics and application risk management. The field days will focus on soil testing and analysis, as well as manure equipment calibrations. The sessions will be videoed and posted on Whatcom Conservation District's website.
- Washington State University: Four classes and two field days (covering counties on west side and east side of the state yet to be determined) which will be tailored to the different regions. The focus on the west side of the state will address topics such as reducing farm import of nutrients through feed management, manure management through composting, factors affecting soil nitrate levels, and lagoon liners. The focus on the east side of the state will include irrigation management.

#### *Accreditation (and Tracking)*

DNMP is working with a database contractor to provide a module to track participation by individuals and anticipates completion by mid-2016. Participants who complete a class or attend a field day will receive a Certificate of Training.

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*Agronomic Application – the application of nutrients, regardless of source, to maximize plant growth and protect water quality. Applying at the right rate, at the right time, and in the right place are components of agronomic application of nutrients.*

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## *New Inspectors Add Capacity*

*From proviso language:*

*.. These funds may also be used to increase inspection activities in watersheds, including those areas with impaired surface or ground water impairment.*

DNMP hired two additional inspectors in September 2015 to add capacity to meet the additional work. One inspector was added to the Northwest Region office and one to Eastern Region office. Staff spent the first few months completing required training, shadowing inspectors during inspection, investigation and water sampling activities. DNMP introduced staff to dairy producers through site visits and written communication. New staff also participated in regional stakeholder meetings, field days and educational events to learn about the unique issues associated with farming nutrient management in those regions. By the end of November, our new staff was responding to complaints, conducting investigations, initiating outreach to dairy and non-dairy agricultural producers, and providing valuable input to the program.



*Figure 2- Kyrre - training new inspector's Kerri and Anthony about water quality sampling.*

Additional staff has allowed DNMP to expand activities that include:

- GIS map building and application skills to track and visually display lagoon inspections, land application of manure tracking and water quality sampling activities. These maps are shared with producers to help raise awareness of management practices that may need to be modified in order to protect Washington's waters.
- Producers and stakeholders in Northwest Region have requested DNMP to share water quality results in numerical formats and visually with maps. In addition, they have asked for more information to be available online; DNMP is on track to have this information available by mid-January 2016.
- The Eastern Region staff has completed two steps of a three-step process to evaluate lagoon operation and maintenance at all dairies in the Yakima Valley, utilizing the Natural Resource Conservation Service (NRCS) Engineering Technical Note 23 – *Risk Assessment Procedure for Existing Waste Storage Pond (WSP)*. The third step will require assistance from local conservation district and NRCS, but is on track to be completed during January. All results will be shared with individual dairies, local conservation district and NRCS for additional assessments by engineering staff. DNMP producer follow-up regarding management practices is pending completed results of the assessments.
- The Northwest Region is working with Whatcom Conservation District to develop a document for producers and the public to explain agronomic application of nutrients, and provide links to additional information.
- Additional activities and tools are in the works to help all agricultural producers use all nutrient sources to meet agronomic rates, maximize production, and protect Washington's waters.
- DNMP staff are taking opportunities to discuss manure storage and utilization management practices with all agricultural producers who use manure, regardless of whether they have a dairy or not.

## Identify Gaps

*From proviso language:*

*.. The department in consultation with interested stakeholders shall identify gaps in the manure management program, including existing rules and statutory language, and report on a strategy to address those gaps.*

The program will begin a process to discuss gaps and strategies to address identified gaps in the next six months. Two things are driving this strategy:

1. Washington Department of Ecology is currently drafting a CAFO permit and it will provide a starting point for this important work.
2. Several stakeholders have expressed interest in participating, but have asked the program to be mindful of timing and workload in early 2016.

## Reporting

*From proviso language:*

*.. This program shall be a two-year pilot and the department shall report to the governor and the legislature by December 31, 2015, June 30, 2016, and on June 30, 2017, on the level of participation and results of the program.*

Reporting to:

- Governor
- Legislature
- House Agriculture & Natural Resources Committee
- Senate Agriculture, Water & Rural Economic Development Committee
- Office of Financial Management

With copies to:

- Agriculture
- Ecology
- Washington State Conservation Commission
- Washington Dairy Federation
- Washington Farm Bureau
- Washington Association of Conservation Districts

*If you need additional information or have questions – Please contact*

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<http://agr.wa.gov/FoodAnimal/Livestock-Nutrient/>

## Proviso Language

\$575,000 of the state toxics control account—state appropriation is provided solely to implement a nutrient management training program for farmers that provides training in agronomic application of dairy nutrients, as defined in RCW 90.64.010. **The department shall develop an accreditation process to track completion of training by individuals who apply manure. The department shall also offer to willing farms to review agronomic application of dairy nutrients,** as defined in RCW 90.64.010, used in crop production, including when, where, and how much manure to apply to meet crop nutrient requirements and to protect waters of the state. These funds may also be used to **increase inspection activities in watersheds, including those areas with impaired surface or ground water impairment.** The department in consultation with interested stakeholders shall **identify gaps in the manure management program,** including existing rules and statutory language, and report on a strategy to address those gaps. This program shall be a two-year pilot and the department shall **report to the governor and the legislature** by December 31, 2015, June 30, 2016, and on June 30, 2017, on the level of participation and results of the program. In developing the curriculum for agronomic education and certification programs, the department will provide opportunity for input from interested parties including: Washington State University, state conservation commission, department of ecology, conservation district staff, and representatives from agricultural, livestock, and crop organizations, environmental organizations, tribal government representatives, and certified crop advisers.



## Dairy Nutrient Management Program Nutrient Application Training Project Grant Program and Application

The Dairy Nutrient Management Program was appropriated funding by the legislature in the FY15-17 budget “*to implement a nutrient application training program for farmers that provides training in agronomic application of dairy nutrients*”. In developing the curriculum for agronomic education and certification programs, the department (WSDA) will provide opportunity for input from interested parties. The budget includes approximately \$75,000 for agronomic education curriculum grants for FY15-16 and again FY16-17.

**Application Window** – *The application period for this program will open Sept 15, 2015 and close on November 1, 2015.*

**Call for Proposals** – The proposed educational opportunity will **provide land applicators of manure with tools and information to make good decisions that include the right amount of nutrients applied in the right place and at the right time.** Educational opportunities could consist of classroom training, field days or both to be completed between January 1, 2016 and June 30, 2016. The following subjects related to land application of manure will be emphasized during FY15-16 grant cycle:

### **Agronomic Nutrient Applications – Right Amount, Right Time, and Right Place**

How to calculate? Crop Need? Accounting for all sources

Soil Testing and Manure Testing Protocols

Application Risk Management – Weather Forecasting, Setbacks, V-Ditch management and Maintenance Practices

Application Equipment Calibrations

Nutrient Application Recordkeeping

### **Irrigation Water Management**

Soil Water Measurements

Irrigation Scheduling

Efficiency/Uniformity

Irrigation Equipment Calibrations/Maintenance

Irrigation Application Records

**Match Requirement** – No match required but encouraged

**Cooperative Projects** – Not required but *strongly* encouraged

**Restrictions** – Grant funds cannot be used to purchase equipment.

**Overhead** – Not to exceed Federal Overhead 17.7%

**Application Criteria** –A successful grant application will clearly identify how the proposal helps the land applicator of manure apply nutrients at the right amount, at the right place and at right time to achieve compliance with state and federal water quality laws. The proposal should:

- ✓ Describe whether this project is part of a larger or long term project, and if so, how this project fits into the larger project;
- ✓ Describe whether this is a local project or has statewide applicability;
- ✓ Detail any partners that are involved in the project and what their participation is;
- ✓ Clearly define the targeted audience and learning objective;
- ✓ Describe the product; such as educational materials and tools, and how the materials/tools will be delivered;

**Application Evaluation** – Applications will be evaluated by considering:

- ✓ Quality and clarity of the proposal
- ✓ Education will help the land applicators of manure achieve compliance with state and federal water quality laws
- ✓ Education will help land applicators of manure protect drinking water sources?
- ✓ Education will help land applicators of manure protect shellfish beds

### **Grant Reimbursement rates**

*Educational events are eligible for reimbursement up to a rate of \$150 per attending agricultural produce for a 4 hour class or field day with a maximum of \$7000 per event.* The Dairy Nutrient Management Program will not reimburse for other participants that are not agricultural producers or that are employees for a government entity. For the purposes of this grant application an agricultural producer means any livestock operator, manager or employee, any crop producer who uses manure in their cropping system, and any custom applicator of livestock manure.

**Eligibility** – Conservation districts, Land Grant University, or other organizations that can show expertise in agronomic application of manure or irrigation water management.

**Application Review** – Applications received, will be reviewed and ranked by Dairy Nutrient Management Program staff. Recommendations will be forwarded to Assistant Director for the Pesticide Management Division who will make the final selection

**Statewide Vendor Registration** - The Washington State Office of Financial Management (OFM) maintains a central contractor registration file for Washington State agencies to use for processing contractor payments. This allows many contractors to receive payments by direct deposit. Contractors are required to be registered in the Statewide Vendor Payment system, <http://www.ofm.wa.gov/accounting/vendors.asp>, prior to submitting a request for payment under this Contract. No payment shall be made until the registration is completed.

Applications must **be received in the DNMP office by November 1, 2015**. If you have any questions, you may call Ginny Prest, 360 902-2894 or by email [vprest@agr.wa.gov](mailto:vprest@agr.wa.gov). Applications will be reviewed and selection(s) will be offered grant contract(s) by December 1, 2015