



Applying knowledge to improve water quality

Pacific Northwest

Regional Water Program

A Partnership of USDA NIFA
& Land Grant Colleges and Universities

Winter 2009
PNWWATER 171

February 2010 Webinar:

Livestock Manure Management in the PNW

Industry trends in livestock management are expected to continue through the next decade. There will be fewer livestock operations that manage many more livestock on a farm. In addition, more people are raising livestock on small rural properties. While dairy farms and most animal feedlots are required to maintain an up-to-date Concentrated Animal Feeding Operations (CAFO) permit that regulates manure management on their farm, there is still a need to improve manure management on many farms. In addition to appropriate facilities for collecting, storing, and distributing manure, Best Management Practices (BMPs) must be used to limit the chance of surface or ground water contamination and odors.

The Pacific Northwest Extension Water Quality Team is sponsoring a one-day webinar for Extension agents, Soil and Water Conservation personnel, and anyone working with livestock owners on manure management facilities and techniques. The free webinar will be broadcast on Tuesday, February 16th, 2010.

“This is a chance for those helping livestock producers with manure management to tool up for better service to clients,” says Mike Gamroth, Extension dairy specialist for Oregon State University.

Gamroth and Joe Harrison, Nutrient Management specialist with Washington State University, will present the information on basic manure management and ideas for solving specific animal manure problems. The program will feature management practices for livestock producers and those using manure as a fertilizer, including the basics of “Keep clean water clean” and “Collect and use contaminated water and solid manure correctly.”

Topics covered during the 4 hour session will include:

- ◆ How to keep clean water clean by collecting roof drainage and uncontaminated field runoff before it reaches open exercise lots, manure-treated fields, etc.
- ◆ Estimating the concentration of nitrogen, phosphorus, and potassium in manure. And how to apply only enough to satisfy crop needs.
- ◆ Applying manure nutrients when crops can use them.
- ◆ How to distribute manure liquids and solids evenly over all cropland, paying special attention to getting nutrients onto fields farthest from storage and over-application near storages.
- ◆ Knowing how much spreading equipment applies at a given speed over a given amount of time. Keeping equipment in good condition.
- ◆ Spreading techniques to save nutrients and reduce odors.
- ◆ Applying only when wind and weather allow.
- ◆ Soil testing fields that are typical of application practices to determine how manure nutrients applied are matching those removed in crops.



Pacific Northwest Regional Water Quality Coordination Project Partners

Land Grant Universities

Alaska

Cooperative Extension Service
Contact Fred Sorensen:
907-786-6311

<http://www.uaf.edu/ces/water/>

University Publications:

<http://www.alaska.edu/uaf/ces/publications/>

Idaho

University of Idaho
Cooperative Extension System
Contact Bob Mahler: 208-885-7025

<http://www.uidaho.edu/wq/wqhome.html>

University Publications:

<http://info.ag.uidaho.edu/Catalog/catalog.html>

Oregon

Oregon State University
Extension Service
Contact Mike Gamroth: 541-737-3316

<http://extension.oregonstate.edu/>

University Publications:

<http://extension.oregonstate.edu/catalog/>

Washington

Washington State University
WSU Extension
Contact Bob Simmons:

360-427-9670 ext. 690

<http://wawater.wsu.edu/>

University Publications:

<http://pubs.wsu.edu/>

Northwest Indian College

Contact Dan Burns:
360-392-4328

dburns@nwic.edu or

<http://www.nwic.edu/>

Water Resource Research Institutes

Water and Environmental Research
Center (Alaska)

<http://www.uaf.edu/water/>

Idaho Water Resources
Research Institute

<http://www.boise.uidaho.edu/>

Institute for Water and
Watersheds (Oregon)

<http://water.oregonstate.edu/>

State of Washington
Water Research Center

<http://www.swwrc.wsu.edu/>

Environmental Protection Agency

EPA, Region 10

The Pacific Northwest

<http://www.epa.gov/r10earth/>

Office of Research and Development,
Corvallis Laboratory

<http://www.epa.gov/wed/>

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The Project

Land Grant Universities, Water Research Institutes, and EPA Region 10 have formed a partnership to provide research and education to communities about protecting or restoring the quality of water resources. This partnership is being supported in part by the USDA's National Institute of Food and Agriculture (NIFA).

Our Goal and Approach

The goal of this Project is to provide leadership for water resources research, education, and outreach to help people, industry, and governments to prevent and solve current and emerging water quality and quantity problems. The approach to achieving this goal is for the Partners to develop a coordinated water quality effort based on, and strengthening, individual state programs.

Our Strengths

The Project promotes regional collaboration by acknowledging existing programs and successful efforts; assisting program gaps; identifying potential issues for cross-agency and private sector collaboration; and developing a clearinghouse of expertise and programs. In addition, the Project establishes or enhances partnerships with federal, state, and local environmental and water resource management agencies, such as by placing a University Liaison within the offices of EPA Region 10.

- ◆ What records to keep: manure applications, crop yields, and all analyses to help improve nutrient use year after year.

Whole farm nutrient budgeting requires that producers realistically look at what nutrients they bring on the farm minus the nutrients shipped off the farm to develop their farm nutrient balance.

The program will be interactive allowing participants to ask questions on-line and via the phone. Educational materials and related Extension bulletins will be posted on-line for future use.

Training materials will include modules from the Livestock and Poultry Environmental Stewardship (LPES) program. The LPES project delivers a curriculum and supporting educational tools to U.S. livestock and poultry industry advisors, who in turn, will help producers acquire certification and/or achieve environmentally sustainable production systems. Producers will also benefit directly from the information and the assessment tools that the curriculum provides.

More information on connecting to the webinar will be sent to county Extension offices in early 2010.



National Water Quality Program Areas

The four land grant universities in the Pacific Northwest have aligned our water resource Extension and research efforts with eight themes of the USDA's National Institute of Food and Agriculture.

1. Animal Waste Management
2. Drinking Water and Human Health
3. Environmental Restoration
4. Nutrient and Pesticide Management
5. Pollution Assessment and Prevention
6. Watershed Management
7. Water Conservation and Management
8. Water Policy and Economics

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