



Applying knowledge to improve water quality

Pacific Northwest

Regional Water Program

A Partnership of USDA CSREES
& Land Grant Colleges and Universities

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EPA – Landgrant Partnership:

AG 101 — How Agriculture Works

The traditional regulatory and enforcement approaches that EPA has successfully used with industry and other “end of pipe” pollution problems does not work well for farming. The environmental concerns of agriculture tend to be diffuse, non-point, and variable across the landscape. This means that a different approach is required, and that to be successful, EPA staff need to understand agriculture and the infrastructure that supports agriculture. This is the premise behind AG 101, a course designed to mentally and physically immerse EPA staff into the workings of agriculture. The land grant institutions in the Pacific Northwest partnered with EPA Region 10 to develop and conduct the field tours associated with this program.



The goal of this training is to introduce EPA staff to the workings of agriculture: how crops are grown and marketed, and the challenges that growers face, economically as well as environmentally. Through this training EPA staff will begin to understand the infrastructure that supports agriculture, which will serve as a foundation for collaboration.

The first part of AG 101 was an in-house training. This day and a half provided an overview of EPA’s programmatic roles with respect to agriculture. Presentations by EPA staff and representatives from state agencies presented issues ranging from pesticides to air quality to TMDLs. The session ended with a panel of three farmers: Mark Sheffells, a dryland wheat farmer from Eastern Washington; Anne Schwartz, a Skagit Valley organic farmer; and Jay Gordon, director of the Washington State Dairy Federation. They provided their perspectives regarding the environmental issues confronting growers and their ideas on how EPA could be most successful. The farmers’ panel was engaging and informative. It was clear that all of these growers had a strong interest in environmental protection and would be valuable partners in achieving EPA goals.

AG 101 also included two tours, one of Western Washington Agriculture, and one of Eastern Washington Agriculture. AG 101 students, other EPA staff, as well as representatives of state agencies (NRCS, Conservation Districts, NGOs, CSREES, and universities) visited with growers and learned directly from them how crops are grown and marketed, as well as the most significant challenges of farming. EPA had help in the planning of these tours from NRCS, Conservation Districts, and university faculty. This help at the local level resulted in great conversations with growers about their operations. Additionally, growers were more than willing to provide EPA with candid advice on how best to work with farmers.

The tour of Western Washington included visits to a potato farm, a diverse organic farm, a dairy, and ended up at the St. Michelle Winery in Woodinville. Besides learning how crops are grown and marketed, attendees were



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Quality Coordination Project
Partners**

Land Grant Universities

Alaska

Cooperative Extension Service
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<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/>

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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,
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introduced to the infrastructure that supports farmers: Extension, NRCS, and Conservation Districts. The Eastern Washington tour included visits to a beef operation, a potato farm, an orchard, a vineyard, and a dryland wheat farm. These tours had a strong effect on EPA staff. Here are some comments from the tour evaluations:

“The most important lesson was that farmers are also interested in environmental protection, but they have unique challenges that commodity markets impose on them.”

“If they can afford it they will do the right thing...their first priority is paying the bills, feeding and housing their families....making a profit but once they have a bit of a buffer they want to try new things... they pay attention to what their neighbor is doing and don't want to get left behind in the dust so to speak...word of mouth is huge in the farming community.”

“Farming is a very complex and risky business and most farmers are farmers because it is a life/family connection and decision. It's not about money making but making money so they can continue to farm.”

“I'm continually impressed about how much passion and energy each of them have for their individual piece in the process and that they care deeply and want to make a difference.”

“Open communication, patience, and persistence works. Change takes time. Focus on goals of clean water for fish for example to benefits to farmers with respect to economic profitability.”

“The global economy they work in. How Japanese/Chinese etc., requests on agricultural practices shape their decisions and concerns more than some regulatory decisions/drivers.”

“That they are knowledgeable, fiercely independent, and proud.”

“They are dedicated, hard-working individuals that want to do the right thing — for the environment and the resources they have to work with.”

“There is hope for change to more environmentally friendly farming. Developing relationships with farmers will make a difference. Things are changing. There are programs with a more environmentally friendly aspect.”

Finally, completion of this certificate course requires that students take on a capstone project, designed to tie what they have learned in the course to their EPA work. These projects cover a range of interests and concerns and will help achieve the goal of promoting collaboration with the agricultural community.

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 Cooperative State Research, Education, and Extension System.

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

CSREES is the Cooperative States Research, Education, and Extension Service, a sub-agency of the United States Department of Agriculture, and is the federal partner in this water quality program.