

## **Executive Summary of Statewide Extension Programs in the Department of Crop and Soil Sciences**

The Extension programs in the Department of Crop and Soil Science address many important agricultural issues for individuals and industry across Washington state. Extension faculty work closely with both State and USDA faculty and scientists, supporting the interrelationship of the research, education, and outreach missions of the Department and University.

The WSU Extension Uniform Cereal Variety Testing program provides growers and the agribusiness industry with comprehensive information on the adaptation and performance of winter and spring wheat and barley varieties across the different climatic regions of eastern Washington. The program also provides WSU and USDA/ARS wheat breeding programs a uniform testing and evaluation program for preliminary wheat and barley lines to assist in determinations for variety release recommendations to the Washington Agricultural Research Center.

Similarly, the WSU Extension Weed Science program conducts annual summary of herbicide weed control trials that are conducted as a part of the Extension Weed Management Project in the dryland cropping region of eastern Washington. The results of each individual trial are considered preliminary and are accompanied by a brief discussion. Also, the program is home to the popular Weed Identification program where samples sent digitally or otherwise by individuals, Extension offices, Noxious Weed boards, and others, are identified by a highly respected taxonomist. These weed identification and location records also contribute to the greater PNW weed database titled "Invaders."

In Washington's central basin, the Weed Science Extension program at WSU's Irrigated Agriculture Research and Extension Center at Prosser focuses on weed agronomic, horticultural and specialty crops as well as weed control in aquatic sites. Further west at WSU's Mount Vernon Northwestern Washington Research and Extension Center, the Weed Science Extension program focuses on activities related to weed control systems in western Washington, such as weed management in small fruit, bulb crops, seed crops, vegetable, and organic systems.

The WSU Extension Cropping Systems program works to facilitate the adoption of new technologies and management systems such as conservation-till and no-till farming methods to reduce cropland soil erosion, wind erosion, and improve farm profitability and soil productivity in the Inland Northwest region of Washington, Oregon and Idaho. This work is facilitated by two USDA special research grants known as Solutions to Environmental and Economic Problems (STEEP), and the Columbia Plateau PM<sup>10</sup> Project.

The WSU Extension Soil Fertility program strives to balance the needs of production, economics, and the environment in developing nutrient management guidelines and methods to assess nutrient performance in Washington's dryland agriculture. Extension faculty at WSU's Irrigated Agriculture Research and Extension Center at Prosser are focusing on agricultural and municipal wastes for crop production. Similarly, on the west side of the Cascade mountains at the WSU Puyallup Research and Extension Center, the Organic Nutrient Management and Soil Management program works to close the recycling loop for organic materials produced in urban areas (biosolids, yard debris, compost, and animal manure from surrounding agricultural areas), using them as a source of nutrients and organic matter for crop production, soil renovation, and environmental protection.

Also at the WSU Puyallup Research and Extension Center, the Turfgrass Extension program provides information on turfgrass in the Pacific Northwest, primarily west of the Cascade

mountains. Topics addressed are golf courses, athletic fields, lawn care, turfgrass diseases, pest management, maintenance issues, and other environmentally related issues.

Several Extension bulletins have been published on these issues and are available at the WSU Extension Publishing and Printing department. Additional delivery of these programs is accomplished by web sites, annual reports, numerous field days, and, in some cases, Master Gardener education programs.

Sample of web sites:

Uniform Cereal Variety Testing (Pullman):

<http://variety.wsu.edu>

Organic Nutrient Management and Water Quality (Puyallup):

<http://www.puyallup.wsu.edu/soilmgmt>

PNW Conservation Tillage Systems Information Source (STEEP):

<http://pnwsteep.wsu.edu>

Turfgrass Science (Puyallup):

<http://www.puyallup.wsu.edu/turf>

Weed Science (Mt. Vernon):

[http://mtvernon.wsu.edu/WeedScience/index\\_WS.html](http://mtvernon.wsu.edu/WeedScience/index_WS.html)