

PLANT, SOIL, AND ENVIRONMENTAL SCIENCES

Program of Study

The Department of Plant, Soil, and Environmental Sciences is a multidisciplinary department whose research and graduate training programs emphasize the biogeochemistry and sustainability of agricultural, forested and wetland ecosystems. Areas of emphasis for graduate work include nutrient dynamics in agricultural and forest ecosystems, soil chemistry and plant nutrition, soil microbiology, crop physiology, diversified cropping systems, weed ecology and management, and plant pathology. The department plays a strong role in many of the University of Maine's nationally recognized programs, such as the Sustainable Agriculture program, the Potato Ecosystem Project, Bear Brook Watershed in Maine, the George J. Mitchell Center for Environmental and Watershed Research, and Acadia National Park programs. Graduate students can earn the Master of Science degree through programs in Plant, Soil, and Environmental Sciences; and Ecology and Environmental Sciences. The Doctor of Philosophy degree can be pursued through programs in Ecology and Environmental Sciences, Forest Resources, Plant Biology, and Biological Sciences. More information is available at the following address: <http://www.umaine.edu/pse>.

Research Facilities

Facilities are available for laboratory, greenhouse, farm field, forest stand, and watershed-scale research. The Maine Agricultural and Forestry Experiment Station Analytical Laboratory provides analytical services to faculty and graduate students.

Financial Aid

Departmental assistantships, involving both teaching and research, are available on a competitive basis. Graduate students are supported both internally and externally through a variety of funded research grants.

Students

Graduate students in the department come from throughout the U.S. as well as a number of foreign countries including Germany, Indonesia, Thailand, China, the United Kingdom, Australia, and Mexico.

Applying

Graduate training programs in the department are built from foundations in soil science, agronomy, plant physiology, ecology, microbiology, plant pathology, and statistics. Prospective graduate students should have completed course work in chemistry, mathematics, and biology, and in subject matter areas closely related to their interests and those of their advisor. Prospective students should contact faculty who might serve as their supervisors to discuss which degree option is appropriate for their particular interests and goals, as well as possibilities for financial aid. Applications for admission are accepted throughout the year. Forms can be obtained at <http://www2.umaine.edu/graduate>.

Correspondence and Information

The Graduate School
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Environmental Sciences
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Graduate Faculty

Gregory A. Porter, Ph.D. (Pennsylvania State, 1985), Chair, Professor of Agronomy. Crop physiology, dry matter partitioning in crop plants, plant pest interactions, and crop management.

Stephanie Burnett, Ph.D. (University of Georgia, 2004), Assistant Professor of Horticulture.

M. Susan Erich, Ph.D. (Cornell, 1984), Professor of Plant and Soil Chemistry. Soil and environmental chemistry, plant-soil interactions, and soil testing.

Ivan J. Fernandez, Ph.D. (Maine, 1981), Professor of Soil Science and Cooperating Professor of Forest Resources. Forest soils, biogeochemical cycling in forested ecosystems, environmental research.

Eric R. Gallandt, Ph.D. (Wisconsin-Madison, 1994), Associate Professor of Weed Ecology and Management. Sustainable agriculture, cropping systems, and weed ecology and management.

David Handley, Ph.D. (University of New Hampshire, 1993), Cooperating Professor of Horticulture. Vegetable and small fruit variety evaluation, and integrated pest management strategies.

Mark Hutton, Ph.D. (New Hampshire, 1988), Assistant Professor of Vegetable Crops and Vegetable Extension Specialist. Vegetable production, season extension technologies, disease and insect management, vegetable genetics and varietal evaluation.

David Lambert, Ph.D. (Pennsylvania State, 1979), Associate Professor of Plant Pathology. Biology and control of late blight of potato, effects of management on soil-borne potato diseases, biology and control of diseases of low-bush blueberry.

Ellen Mallory, Ph.D. (University of Maine, 2007), Assistant Professor of Sustainable Agriculture. Sustainable agriculture, soil quality, nutrient management, cover crops.

Renae E. Moran, Ph.D. (University of Arkansas, 1996) Associate Professor. Variety evaluation and postharvest fruit quality.

Tsutomu Ohno, Ph.D. (Cornell, 1983), Associate Professor of Plant and Soil Chemistry. Environmental soil chemistry, soil organic matter, and kinetics of soil reactions.

Marianne Sarrantonio, Ph.D. (Cornell, 1987), Associate Professor of Sustainable Agriculture. Cropping systems, cover crops, nitrogen transformations, organic soil amendments.

John M. Smagula, Ph.D. (Massachusetts, 1973), Professor of Horticulture. Blueberry physiology, plant development, and management systems for intensive fruit production. Tissue culture propagation.

David E. Yarborough, Ph.D. (Massachusetts, 1991), Professor of Horticulture. Blueberry and cranberry weed management, weed/crop ecology.

Donglin Zhang, Ph.D. (Georgia, 1997), Associate Professor of Horticulture. Ornamental plants, greenhouse and nursery management, floriculture, horticultural taxonomy and molecular markers.

Updated: 9/29/2009