



University of Vermont

A Closer Look at Ecological Agriculture



College of Agriculture
and Life Sciences

Plant and Soil Science Department
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CORE COURSES:

- Introduction to Ecological Agriculture
- Principles of Plant Science
- Entomology and Pest Management
- Plant Pathology
- Commercial Plant Propagation
- Fundamentals of Soil Science
- Ecology, Ecosystems and the Environment
- Principles of Agriculture and Resource and Community Development Economics
- Agricultural Policy and Ethics
- Ecological Farm Management
- Ecological Agriculture Internship

ADVANCED LEVEL COURSES:

- Vegetable Crop Production
- Greenhouse Operations and Management
- Forage Crop Management
- Pasture Production and Management
- Garden Flowers and Indoor Plants
- Woody Landscape Plants
- Composting Ecology and Management
- Permaculture
- Soil Ecology
- Weed and Crop Ecology
- Ecological Agriculture Senior Seminar

Become an advocate for environmentally-friendly food production. Learn how to produce food in a sustainable and ecologically-sound manner. Gain a solid foundation in ecology and practical experience through our student-run Community Supported Agriculture cooperative, internships and field trips. Nationally there is a growing need for professionals who can understand and apply ecological principles to agriculture.

The Ecological Agriculture Program integrates course work in ecology, plant science, soil science, entomology, economics, and policy with an experiential learning internship to create educated professionals.

A Look at Our Program

The Ecological Agriculture major focuses on applying ecological concepts to the field environment. Students in this major are interested in growing horticultural or agronomic crops or diversified agriculture systems. Ecology is the unifying thread that integrates the course-work and ties the curriculum together. Faculty in Plant and Soil Science will help you develop an excellent individualized program of study based on your agricultural interests and career goals.

What Will I Study?

The Ecological Agriculture major offers a strong background in science. It includes economic, policy, and ethics course-work, and an internship that allows students to gain hands-on experience. All students who enroll in the program must complete the basic core requirements for a bachelor of science degree from the College of Agriculture and Life Sciences. In addition you will be required to complete courses within the program in such areas as botany, ecology, plant and soil science, economics and policy. This course-work supports your internship experience.

Exciting Field Experience

The Plant and Soil Science faculty work very closely with farmers and growers in Vermont and the Northeast, and state and federal agencies. The disciplines represented in this department include vegetables, fruit, forages for animals, soil science, compost science, pest management, and ornamental plants. All of these areas are important in diverse agriculture systems and for students who want to study them. Your internship experience will allow you to put your knowledge to work, earn credit and develop skills to improve your employment opportunities. Students have worked on farms, for community compost projects, and in greenhouses during the summer gaining valuable experience.

Students also have opportunities to work with College of Agriculture and Life Sciences faculty doing research in campus laboratories, in the field on farms, at UVM's 97-acre Horticultural Research Center, or in our state-of-the-art greenhouse. For example, students run a Community Supported Agriculture Cooperative.

Looking to the Future

Pursue a career in production of specialty crops, organic farming, soil conservation, environmental science and management, precision agriculture technology, phytoremediation, plant inspection, food biosecurity or science policy.

Faculty and Area of Expertise

JOHN ALEONG, PH.D.	IOWA STATE UNIVERSITY; design and analysis of experiments.
LORRAINE P. BERKETT, PH.D.	PENNSYLVANIA STATE UNIVERSITY; integrated pest management in apple production, plant pathology.
SIDNEY C. BOSWORTH, PH.D.	UNIVERSITY OF KENTUCKY; agronomy, forage and grain crop management and production for animal agriculture.
SCOTT COSTA, PH.D.	NORTH CAROLINA STATE UNIVERSITY; entomology, biological control using insect-killing fungi.
ALEXSANDRA DRIZO, PH.D.	UNIVERSITY OF EDINBURGH; constructed wetlands for pollution control.
JOHN HAYDEN, M.S.	MICHIGAN STATE UNIVERSITY
FREDERICK R. MAGDOFF, PH.D.	CORNELL UNIVERSITY; soil science, soil fertility, soil chemical and physical problems associated with waste disposal and bioremediation.
DEBORAH A. NEHER, PH.D.	UNIVERSITY OF CALIFORNIA - DAVIS; soil ecology.
BRUCE L. PARKER, PH.D.	CORNELL UNIVERSITY; entomology, insect pest management, fungal pathogens for integrated pest management of greenhouse and forest pests.
LEONARD P. PERRY, PH.D.	CORNELL UNIVERSITY; horticulture, production of perennials, hardiness of plant species, perennial cut flower production.
DONALD S. ROSS, PH.D.	UNIVERSITY OF VERMONT; soil science, chemistry of soils in terrestrial ecosystems, soil and compost testing.
MARGARET SKINNER, PH.D.	UNIVERSITY OF VERMONT; entomology, insect pest management in greenhouse and forest environments, biological control using fungi.
MARK C. STARRETT, PH.D.	NORTH CAROLINA STATE UNIVERSITY; horticulture, propagation and production of woody ornamental plants.
MILTON E. TIGNOR, JR., PH.D.	UNIVERSITY OF FLORIDA; horticulture, vegetable production, compost utilization, curriculum development, greenhouse operations and management.
JON P. TURMEL, M.S.	UNIVERSITY OF NEW HAMPSHIRE; Vermont State entomologist.