



PLANT AND SOIL SCIENCES

plant and soil sciences

The Department of Plant and Soil Sciences at Oklahoma State University offers students the unique opportunity to utilize topics in biology, chemistry and physics, and apply them to the real world. Plant and Soil Sciences have a direct impact on the world every day. It is a multidisciplinary field with many opportunities. If you want to learn about producing crops, managing soil, conserving natural resources or studying ecology, you should investigate the challenging opportunities available in Plant and Soil Sciences. Option areas within this major are described below.

study options

Applied Landscape Ecology

Landscape ecology is the study of how landscape structure affects the abundance and distribution of organisms. Students in this option study the applications of landscape ecology for conservation of natural resources, restoration, environmental management and rangeland ecology and management.

Crop Science

The crop science option emphasizes plant breeding and physiology. Graduates are ready to work as crop consultants or as agronomists for seed, chemical or plant breeding companies. Students in this option are also prepared for further study in the plant sciences.

Ecosystem Management

The objectives of ecosystem management blend long-term needs of people and environmental values so the land will support diverse, productive ecosystems and sustainable ecosystem processes. Some key concepts in the ecosystem management program are: conservation, ecological restoration, park management and wetland rehabilitation.

Soil Science

Students graduating with a Soil Science option

where are you **GOING?**

are prepared for a variety of careers. Professional opportunities include soil mapping, crop consulting, writing nutrient management plans, land use planning, soil remediation, soil and water quality analysis, reclamation and soil conservation.

expanding opportunities

Modern agricultural production requires a highly technical approach to emerging issues in soil and water conservation, introduction of genetically engineered crops, rangeland utilization and management, prevention and abatement of agricultural sources of environmental pollution, and use of agricultural chemicals. Plant and Soil Scientists are in demand for research and marketing positions in universities, industry and government. New technologies for precision application of crop production input using global positioning systems, remote-sensing methods, and newly developed sensor technology are creating many jobs for plant and soil scientists.

scholarships

OSU awards a total of over \$15 million in scholarships annually from university, college, department, and professional sources. The Department of Plant and Soil Sciences awards more than \$30,000 annually to its qualified students.

for more information

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Check us out on the Web at www.casnr.com

destination **CASN**R



roads TRAVELED



Plant and Soil Sciences Alumni Profile:

Name:

Tyson Morley
Woodward, Okla.

Current Occupation:

Soil Scientist

Tyson's Story:

Any student who has taken the fundamentals of soil science courses at Oklahoma State University will tell you "dirt" is a four letter word. Tyson Morley knows "soil" is a more appropriate description, and he has made the study of soil his main focus.

Tyson graduated in December 2003 with a bachelor's degree in Plant and Soil Sciences with an option in soil science, and is currently working for the Natural Resource Conservation Service (NRCS) in Woodward, Okla.

When Tyson first came to school, he wasn't sure what he wanted to do, but after he took his first soils course he realized he had found something he liked. He participated on the soil judging team for two years and interned for two summers with the NRCS.

Tyson is currently a soil scientist and travels to farmers' fields taking soil samples and GPS readings to delineate the soils that lay on the landscape. Once the soils are described by various characteristics and slope classes, they are given a four-letter designation and scribed on a map. The maps are then made available for public use and are used for community planning, resource development, recreational purposes and improving the environment.

What Tyson likes most about his job is working outdoors and making decisions when he is in the field. For students interested in a job like his, he recommends they have good science, math, computer and communication skills. He also recommends that students get involved in departmental clubs because they provide excellent networking opportunities with potential employers.

If Tyson's job sounds interesting to you, explore a major in Plant and Soil Sciences.

"Take an extra step while at OSU and look into a summer internship. It provides great hands-on training."

- Tyson Morley
CASNR Graduate

which PATH are you taking?



Careers for Plant and Soil Sciences Graduates:

- Farm/Ranch Operation and Management
- Crop Consulting
- Seed Technical Sales and Service
- Fertilizer/Chemical Supply
- Soil and Range Conservation
- Research
- State Experiment Station Manager
- Teaching and/or Extension
- Retail Business in:
 - Feed
 - Grain
 - Equipment
 - Seed
 - Fertilizers
 - Chemicals
- Business
- Loan Officer

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This publication is printed and issued by Oklahoma State University as authorized by the Dean of the Division of Agricultural Sciences and Natural Resources and has been printed at a cost of \$942.18 for 2500 copies. 0805 # RKB.



MILE MARKERS

Enrollment:

- 85 Students

Study Options:

- Crop Science
- Ecosystem Management
- Soil Science

Student Organizations:

- Agronomy Club
- Rangeland Ecology and Management Club
- Soil and Water Conservation Club

Judging Teams:

- Crops Judging
- NACTA
- Rangeland Judging
- Soils Judging
- Weeds Judging
- Range Plant Identification
- URME Team (Undergraduate Range Management Exam)

For More Information:

- www.casnr.com