Department of Crop and Soil Science
Internship, Research and Thesis Topic Possibilities
Academic Year 2013-2014

Faculty web pages may be found at HTTP://cropandsoil.oregonstate.edu

Prof. Julie Pett-Ridge, Corvallis (Specialty Area: Soils)

- Mineral identification in rocks and soils using x-ray diffraction

Prof. Silvia Rondon, Hermiston (Specialty Area: Entomology)

- Applied irrigated agricultural entomological issues in Eastern Oregon. Main crops: potatoes, maize, onion, wheat

Prof. Amy Dreves, Corvallis (Specialty Area: Entomology)

- Where do invasive flies reside over the winter months?
- Is it important to clean up fallen post-harvest, fly-infested fruit?
- Can we catch enough flies in traps to reduce load affecting crop?
- Can we correlate trapped flies with damage in fruits?
- How do invasive flies move throughout the landscape and can we use information to develop management tools?
- What non-chemical prevention tools are working for fruit growers?

Prof. Jennifer Parke, Corvallis (Special Area: Soils)

- Soil solarization in horticultural nurseries to kill soilborne plant pathogens
- Quantifying root infection of crop plants by mycorrhizal fungi
- Creating a visual index of soilborne *Phytophthora* species with photomicroscopy
- *Nostoc:* how to get rid of a blue-green alga that creates a slippery slime on the surface of nursery soils?

Prof. Maria Dragila, Corvallis (Specialty Area: Soils)

- Experiments on how water wets soil
- Assessing long term impact of 6 soil management practices on soil properties
- Remediating hydrophobic soil

Prof. Sujaya Rao, Corvallis (Specialty Area: Entomology)

- Many projects involving native bees, insects and other subjects in Entomology

Prof. David Hannaway, Corvallis (Specialty Area: Forages)

- Eco-physiology of forage plants. Defining quantitative tolerances of forage plants to climatic and edaphic factors.
- Forage plant identification database.
- Alfalfa fall dormancy, winter survival, and pest resistance characteristics for selecting cultivars for Oregon.
- Matching forage quality with animal nutrition requirements.
- Exploring the links among soil, plant, animal, and human nutrition.

Prof. Patrick Hayes, Corvallis (Specialty Area: Barley)

- Breeding and producing barley for food, feed, and malting

Prof. Richard Roseberg, Klamath Falls (Specialty Area: Agronomy)

- Wheat: Opportunities and problems when trying to adapt no-till to drained lake bottom soils.
- Teff: (Ethiopian grass for grain and forage). Selecting and evaluating cultivars (plant selection) to find improved variety. Agronomic questions such as planting & harvest timing,

water & nutrient response.

- Agronomic studies on Alternative/Industrial Crops. Especially on potential crops that seem to have low water usage: Russian dandelion, euphorbia, camelina, and grindelia.
- Potato variety development or agronomy (with Prof. Brian Charlton)

Prof. Jay Noller, Corvallis (Specialty Area: Soils)

- Digital soil mapping of Pacific Northwest forests – GIS data collection and analysis
- Sustainable Cemetery Management – Role of soil in cadaver and coffin decomposition