



Bioenergy Cropping Systems Research Field Day

at the Palouse Conservation Field Station

USDA-Agricultural Research Service
WSU Department of Crop and Soil Sciences

Thursday, June 26, 2008

7:30am Field day registration w/coffee, fruit, & pastries

8:00am Field day tours (topics listed below)

Noon Complimentary lunch and short program honoring
Mr. R. Dennis Roe, retired USDA-NRCS conservation agronomist

Oilseed variety trials including 18 spring camelina lines—Stephen Guy (UI Extension) and Ron Sloat (WSU)

Part of a multi-location variety trial, plots were planted in mid April, except for two spring lines and four experimental winter lines which were planted last September. Spring canola, flax and sunflower varieties were planted for comparison.

Economics, energy, fertility, and rotation analysis of canola—Kate Painter (WSU Center for Sustaining Agriculture and Natural Resources), Rich Koenig (WSU Crop and Soil Sciences) and Dave Huggins (USDA-ARS)

The place of canola in a crop rotation, particularly with respect to wheat, is examined in terms of net returns over time and risk. In addition, we present an energy and fertility assessment of producing an oilseed crop in this region.

Residual herbicide effects on canola and weed control options for canola and other potential oilseed crops—Joe Yenish (WSU Crop and Soil Sciences)

Plots have been established to simulate the residual effects of Pursuit herbicide on canola and other brassica crops. Currently, herbicide persistence is the greatest limiting factor in brassica oilseed production in eastern Washington. Additionally, we will discuss weed control options in canola and other potential oilseed crops for the Palouse.

Greenbridge and sprayout herbicide timing effects on Rhizoctonia and other root diseases—Tim Paulitz (USDA-ARS)

Screening wheat and Brassica lines in the field for tolerance to Rhizoctonia.

Added value from oilseed crops: Canola and mustard meal profiles and marketing opportunities—Dennis Roe and Stewart Higgins (WSU Crop and Soil Sciences), and Jerry Reeves (WSU Animal Sciences)

Discussion will focus on basic steps for growing and marketing oilseed crops, chemical profiles of mustard and canola meals, feeding performance of locally grown canola in locally fed cattle and sheep, and how Omega-3 fatty acid in canola meal can improve Omega-3 fatty acid profiles in locally fed beef.

Wheat/straw composition and amount of residue needed to maintain soil quality; pros and cons of tall wheatgrass—Ann Kennedy (USDA-ARS) and Mark Stannard (USDA-NRCS, Pullman Plant Materials Center)

Fiber components and decomposition potential of cultivars of wheat and barley; the importance of increasing organic matter and how much residue is 'enough.' The pros and cons of using tall wheatgrass for ethanol production, gasification, and direct combustion.

USDA-ARS Unit Showcased

The **USDA-ARS Land Management and Water Conservation Research Unit**, located at the WSU-Pullman campus (which oversees the field station) will be **showcased throughout the field day.**

The unit was not included in President Bush's 2009 FY budget recommendations to Congress and is hence **targeted for closure.**

USDA-ARS scientists Frank Young and Don McCool will address past, present, and future directions. Also, Brenton Sharratt will show how a wind tunnel is used for testing tillage, cover, and other treatment effects on wind blown dust and improving air quality.

The **Palouse Conservation Field Station** was established as one of 10 original erosion experiment stations throughout the United States during the period 1929 to 1933. Today, scientists from the USDA-ARS and Washington State University utilize this 200-acre research farm to conduct a wide variety of research projects ranging from soil erosion by wind and water to field-scale cropping and tillage practices on the steep slopes common on the Palouse.

The **Palouse Conservation Field Station** is located 1.5 miles north of Pullman on Highway 27, turn west and go half a mile on the Albion Road.