

Pendleton Agricultural Research Center Field Day

Tuesday, June 9, 2015

7:45	Registration and Refreshments		
8:00	Welcome and Introductions		
	Group 1 Tour		Group 2 Tour
8:30	Load Buses		
8:40	<i>Update on the OSU Winter Wheat Breeding Program</i> Dr. Bob Zemetra, OSU Wheat Breeder	8:40	<i>On-combine Mapping of Straw Yield Using an Off-The-Shelf LiDAR Sensor</i> Dr. Dan Long, USDA-ARS Agronomist
9:00	<i>State Wide Wheat Variety Trials</i> Dr. Mike Flowers, OSU Extension Cereal Specialist	9:00	<i>Aerial Imaging with Inexpensive Digital Cameras</i> Dr. John Sulik, USDA-ARS Physical Research Scientist
9:25	<i>New Wheat and Barley Projects</i> Dr. Valtcho Jeliakov, CBARC Director, Agronomist <i>Weeds and Ecological Weed Management</i> Dr. Judit Barroso, OSU Weed Scientist	9:20	<i>Plant Available Water and Water Use Efficiency</i> Dr. Stewart Wuest, USDA-ARS Soil Scientist Dr. John Williams, USDA-ARS Hydrologist
9:50	<i>Maximizing Yield: Importance of Soil pH</i> Dr. Stephen Machado, OSU Dryland Agronomist	9:45	<i>Clearfield Wheat Trials</i> Dr. Mike Flowers, Dr. Andrew Hulting, Dr. Judit Barroso

10:

Sherman Experiment Station Field Day

Wednesday, June 10, 2015

7:30	Refreshments
7:45	Welcome and Introductions
8:00	Load Buses
8:10	<i>Update on Wheat Diseases and Screening for Resistance</i> Dr. Chris Mundt, OSU Plant Pathologist
8:30	<i>Maximizing Yield: Importance of Soil pH</i> Dr. Stephen Machado, OSU Dryland Agronomist
8:50	<i>Soil Borne Pathogens</i> Dr. Richard Smiley, Emeritus Plant Pathologist
9:10	<i>Clearfield Wheat Trials</i> Dr. Mike Flowers, Dr. Andrew Hulting, Dr. Judit Barroso
9:30	<i>New Wheat and Barley Projects</i> Dr. Valtcho Jeliakov, CBARC Director, Agronomist <i>Weeds and Ecological Weed Management</i> Dr. Judit Barroso, OSU Weed Scientist
9:50	<i>Break (refreshments available)</i>
10:10	<i>Blackleg disease in canola</i> Dr. Don Wysocki, OSU Extension Soil Scientist
10:30	<i>Plant Available Water and Water Use Efficiency</i> Dr. Stewart Wuest, USDA-ARS Soil Scientist Dr. John Williams, USDA-ARS Hydrologist
10:50	<i>Plant Nutrients: Phosphorus and Nitrogen</i> Dr. Larry Lutcher, OSU Extension Specialist
11:10	<i>Update on the OSU Winter Wheat Breeding Program</i> Dr. Bob Zemetra, OSU Wheat Breeder
11:30	<i>State Wide Wheat Variety Trials</i> Dr. Mike Flowers, Extension Cereal Specialist
11:50	Hosted Lunch

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Blackleg Found in Umatilla County

Blackleg, a disease of Brassica species including canola, has been found. It can become a serious disease of canola, causing heavy yield losses under certain conditions.

Recent finds of blackleg in Idaho, and in the Willamette Valley in 2014, prompted us to carefully inspect fields here this spring. Fields of growing winter canola and stubble in fields that grew winter canola in 2014 were inspected over the last 45 days. Initially, tissue suspected of being blackleg infected was collected and sent to the OSU Hermiston pathology lab for identification. Lab work confirmed the presence of blackleg.

In early April, we identified a light infection (2-4% of plants) of blackleg on the lowest leaves of growing canola in a local field. The infection took place

from spore deposition last fall. This infection is minor and has only slightly moved off the lower leaves. Rapid plant growth followed by bloom has closed the canopy and umbrella-covered the lower leaves preventing splash from moving spores upward. Fungicides are registered for blackleg, but the degree of infection does not warrant an application at this time.

We are finding basal stem lesions with tiny black specks (perithacia) on 2014 canola stubble from both production fields and our research trials (Figure 1).

Symptoms on growing plants can occur on cotyledons, leaves, stems or pods, depending on when the infection takes place. A diagnostic symptom is the appearance of dull white, more or less round leaf spots (lesions). Blackleg lesions are dotted with numerous small, black pepper-like spore-bearing structures (pycnidia) (Figure 2). Pycnidia are better seen with aid of a hand lens. There are other causes of light colored lesions, but only blackleg lesions contain pycnidia.

We are currently in a learning phase about blackleg on canola in the area. At this stage, we don't know how it will progress, nor do we know when and how it got here. We have found blackleg on 2014 stubble, so we know it's been here at least that long.

Races of blackleg can vary from weakly to highly virulent. The race or

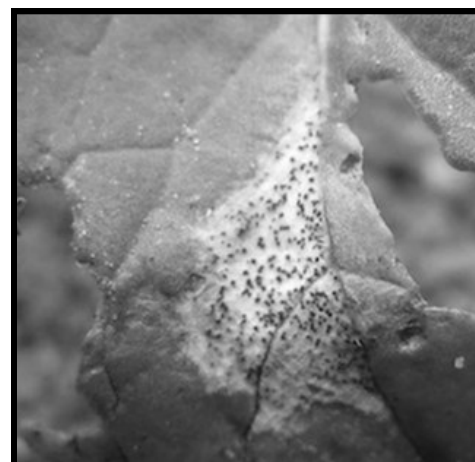


Fig. 2 Blackleg lesion with pycnidia

racers present here have yet to be determined. Samples are being sent to Canada for this determination. Also canola varieties have differences in tolerance and resistance to blackleg, but most of our commonly grown lines have not been screened.

What should we do? We need to remain wary and continue to practice the guidelines that were set up for growing canola: 1.) Grow canola, other Brassica crops (mustard) or cover crops containing Brassica species only 2 in 5 years, 2.) Control volunteers, and 3.) Plant only certified blackleg-free and fungicide treated seed.

We will be covering blackleg at the Pendleton and Sherman Station fields on June 9 and 10, respectively.

~Don Wysocki and Alan Wernsing



Fig. 1 Blackleg perithecia on 2014 stubble

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CALENDAR

June

June 8 8:30 AM	Hermiston Experiment Station Wheat Field Day Location: HAREC Contact: 541-567-8321	June 17 7:00 AM	Union County Crops and Conservation Tour Location: Crop Production Services, Booth Ln Contact: 541-963-3735
June 8 5:00 PM	Pendleton-Ruggs Crop Tour Location: CBARC Contact: 541-278-4186	June 23 TBA	Union County Field Day Location: La Grande Contact: 541-963-1010
June 9 7:45 AM	Pendleton Experiment Station Field Day Location: CBARC Contact: 541-278-4186		
June 10 7:30 AM	Sherman Experiment Station Field Day Location: Moro, OR Contact: 541-565-3230		



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