



CEREAL Newsletter

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Wheat Head Armyworm Trapping Starts Early

This year our wheat head armyworm trapping program is starting two months earlier than in 2009. We established the traps the first week of April. Last week, collecting on April 21st, we found our first WHAW moths (4 moths). This early start will allow us to better understand how early the adults start to fly, the number of adults flying and where the largest populations might happen later in the season.

Wheat Head Armyworm



Our trapping effort also expanded to 25 locations covering much of the area from the Holdman area to Duroc and from

Midway to South Juniper. We have selected locations where WHAW has been found over the last three years. We also will sweep the wheat plants weekly to see when larva start to appear.

Last year we actually collect two closely related wheat head armyworm species: *Faraonta terrapicathlis* and *Faronta diffusa*. We hope to collect larve this year, and rear them to adults so that we can confirm which of the species is damaging the wheat heads.

Here are a few reminders about this pest:

- More than one generation per year
- First generation larvae feed on mature wheat heads.

- Larvae vary in coloration from greenish to cream-colored, with longitudinal white and brown lines down each side of body.
- Larvae feed on the wheat heads from evening to early morning, typically hanging onto the awns upside down and hollowing out kernels.
- Larvae rest in the soil at the base of the plant during the day.

Leaf feeding Sawfly



The leaf feeding sawfly is also found out in the same general area and on east towards Athena and the Blue Mountain

foothills. If you need help with a correct identification between these two worms please feel free to call and we will assist you.

YOUR HELP IS NEEDED!!

If you find wheat head armyworms in your field, please call so that we can come and collect samples!

LIVE SAMPLES WANTED!

Announcements

Notes from Mary's Desk:

Change is always easier if someone else is doing it. The University and OSU Extension have been talking a lot about changing and transform over the last several months. My hope is that when changes are finally implemented, we will still be able to serve your needs for timely and valuable information. We keep hearing about an overall smaller footprint....

I have made a few changes over the last few months and want to let you know about them. As a means to help the Extension Ag program balance their budget shortfall, I voluntarily reduced my job appointment by 20%. This means that I now am working four days a week for the foreseeable future. I am changing how I deliver some of my information to save time and resources while continuing to meet your needs for timely information. I am also trying to concentrate my efforts where they will make the most impact. If you have any suggestions, I would welcome your comments.

I will now be writing the Cereal Newsletter four times a year and mailing out hard copies plus posting it online. Other information that is more time sensitive will go up on my website, www.cerealcentral.com and into news releases to local media outlets, making it readily available. I am also doing two blogs currently. I am using one for general agronomic information and issues in wheat. It is called the Northwest Wheat Field Report, and it located on the Farm Journal Website:

<http://www.agweb.com/Blogs/Default.aspx>. The second blog is OSU Cereal Central at <http://osucerealcentral.blogspot.com/>. This blog is more specific to field research I am conducting, such as the Wheat Head Armyworm, and I will give updates as the season progresses.

If you need me for a field visit, or have any questions that I can help you with, please don't hesitate to call. If I am not available, leave a message and I will return your call as soon as possible. As we work together, I know that we can succeed and even thrive in our changing world.



New Publications:

1. A new publication on the impact of nematodes in wheat is now available in print and on-line: *"Root-lesion nematodes: Biology and management in Pacific Northwest wheat cropping systems,"* By: Dr. Dick Smiley
<http://ir.library.oregonstate.edu/jspui/bitstream/1957/15119/1/pnw617.pdf>
2. *"Wheat Head Armyworm True or False: A Tale from the Pacific Northwest"*
<http://ir.library.oregonstate.edu/jspui/bitstream/1957/13523/1/em9000.pdf>



Soil-borne Wheat Disease Expands

The wheat disease, soilborne wheat mosaic virus, has made itself known this spring in parts of the Walla Walla Valley in southern Washington and northeastern Oregon. This is the second time it has appeared, but this time it is more noticeable and wider spread than 2 years ago according to local crop consultant Jerry Zahl of Walla Walla. Two years ago affected areas were small and limited to low lying areas. This time around more fields are affected and larger areas are showing symptoms. Spofford area near Milton-Freewater, Oregon and in the Mill Creek and Russell Creek areas east of Walla Walla, Washington are again seeing the disease.

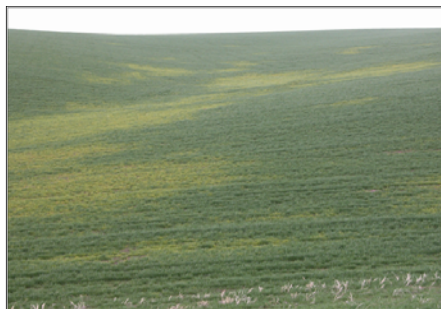
The impact of the virus on the affected areas is unknown at this time and will be determined largely by the weather and related growing conditions this coming spring.

The diseased wheat foliage exhibits mosaic symptoms similar to wheat streak mosaic, which is already known to occur in the region, but wheat streak mosaic is expressed later in the growing season.



Soilbourne Wheat Mosaic Virus, March 2008

In Oregon, this virus was first detected in winter wheat in the Willamette Valley in 1994 and in winter wheat in western Umatilla County in 2005 and 2006. The disease is transmitted from root to root by the fungus *Polymyxa graminis*. It is a virus that is only moved by soil, and likely to be a problem in years when cool moist conditions occur



Infection of Soilbourne Wheat Mosaic Virus

in the fall after seeding as moisture is needed for the infection to take place.

“Some PNW wheat varieties are likely to have resistance to the disease,” according to Jim Peterson, OSU

Wheat Breeder, because their parent lines come from areas where SBWM has been a problem for a number of years. Several growers have already observed a difference between varieties which lends supports this idea.

Peterson is working with John Moffatt, AgriPro Breeder, to complete a screening trial of current PNW varieties for resistance. This screening will help identify susceptible and resistant varieties. In another year they will be able to make recommendations for current varieties and will start to incorporate selection for resistance into their breeding programs.

For now in the PNW control options are limited to sanitation between fields since the pathogen can be transmitted from field to field on soil clinging to equipment. Once a field has the virus it will always be there as it does not need a wheat crop to survive. Other management options are unlikely to be helpful. –MKC

Sources:

Dr. Dick Smiley, Columbia Basin Ag Research Center
Dr. Tim Murray, WSU Department of Pathology
Dr. Jim Peterson, OSU Wheat Breeder, Corvallis, OR

New Xerpha – New experiences.

The new winter wheat variety, Xerpha, is experiencing some of the vulgarities that Mother Nature can throw at her here in the Pacific Northwest. Various reports from across eastern Washington show an assortment of responses to the growing conditions created by above average temperatures in February, followed by a couple of weeks of cold weather. Tim Paulitz, USDA ARS plant pathology researcher, noted some brown discoloration, and browning of the subcrown internodes in some fields of Xerpha in the Ritzville/Lind area last week. Additional field experience with this new variety will tell us a more complete story of its suitability for different growing conditions found across eastern Oregon and Washington, until then we will continue to gather information and see what the final outcome is at harvest time.

While some concerns were raised about the discoloration being from intolerance to herbicide applications, feedback from both Dan Ball and Joe Yenish, university weed scientists, is that current research indicates a good level of crop safety if label precautions are followed. More studies are underway and additional information will be available perhaps later this spring.

Xerpha, released in 2008, is adapted to a broad range of production areas and consistently ranks among the top cultivars in all agronomic categories in the PNW. It was released as a replacement for Madsen and Eltan based on its high grain yield potential, test weight, cold tolerance, and high-temperature adult-plant resistance to local races of stripe rust.

With wheat development still ahead of “normal” we continue to see the potential for impact to our local wheat fields from late spring frosts, but for today we are happy with recent rain showers and the continuing advance of spring. We just keep glancing over our shoulders at the fresh snow each morning on the Blue Mountains, keep our thermal coveralls handy and wait for warmer temperatures to return.

OSU/Umatilla County Extension Service
2411 NW Carden, Umatilla Hall, PO Box 100
Pendleton, OR 97801

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CALENDAR

May 2010

- May 18** **Wheat Foundation Golf Scramble**
Location: Wildhorse Golf Resort
Pendleton, OR
Contact: OWGL 541-276-7330
Registration/Payment Due Tuesday, May 11
- May 27** **Grass Seed Field Day**
8:30am-
12:30pm **Location:** HAREC
Hermiston, OR
Contact: Annette Teraberry 541-567-8321
- May 27** **Drosophila Suskii Workshop**
1:30pm-
3:30pm (Spotted Wing Drosophila fruit fly)
Location: HAREC Conference Room
Hermiston, OR
Contact: Silvia Rondon 541-567-8321
silvia.rondon@oregonstate.edu

June 2010

- June 15** **CBARC Field Day**
Location: Pendleton, OR
Contact: CBARC 541-278-4186
- June 16** **CBARC Field Day**
Location: Moro, OR
Contact: CBARC 541-278-4186
- June 29** **Potato Field Day**
8:30am-
12:30pm **Location:** HAREC
Hermiston, OR
Contact: Annette Teraberry 541-567-8321

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