Idaho Crops & Soils News

A newsletter for Idaho crop producers

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The goal of this monthly newsletter is to serve the best interests of Idaho crop producers. Correspondence and inquiries should be addressed to: Olga Walsh, Cropping Systems Extension Specialist, Southwest Research and Extension Center, 29603 U of I Lane, Parma, ID 83660, Phone: (208)722-6701 (ext. 218), Fax: (208)722-6708, Email: owalsh@uidaho.edu

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WHAT’S NEW?
Parma R&E Center Welcomes New Agricultural Technician

Jordan McClintick-Chess, newly hired Agricultural Technician, Cropping Systems Agronomy program, UI Parma R&E Center.

We are happy to announce that Ms. Jordan McClintick-Chess has joined the UI Parma R&E Center’s Cropping Systems Agronomy Research and Extension program. Originally hired as a temporary employee in May 2015, Jordan has proven herself as an excellent asset to the program. Her outstanding work ethic, hard-working personality and excellent knowledge of crop production practices make Jordan perfect for the Agricultural Technician position. For the past several months, numerous members of clientele, as well as Parma R&E Center’s faculty and staff have complimented Jordan on her skills and teamwork.

Jordan’s duties include: assisting in the implementation of experiments in the field and the greenhouse, care of field experiments according to treatment structure, seed preparation, planting, plot maintenance, harvest, and grain processing, irrigation, fertilization, and weed and pest management, collecting soil and plant samples and preparing them for analysis, and coordinating extension outreach activities.

Jordan will be working hand-in-hand with our Research Technician – Kelli Belmont – on coordinating our multiple cropping systems projects. Please help us welcome Jordan to our program!

Submitting Plant Samples

UI Parma R&E Center’s Plant Pathology faculty position is in the process of being filled hopefully in the next couple of months. Meanwhile, we continue to get questions and enquiries about where and how to submit plant samples for diagnosis.

Here are some useful information about sample submission provided to us by Dr. Liz Vavricka. Samples will be processed through the Idaho State Dept. of Agriculture Plant Pathology Lab rather than the Parma Research & Extension Center. The sample information can be submitted in two ways:

Via DDDI (Distance Diagnostics through Digital Imaging) (http://www.dddi.org/idahoO

notification:
• Should include pictures if possible.
• If a diagnosis can be made based on the photo, then no physical sample will be necessary.

Physical sample:
• Physical samples sent to ISDA should be dry and placed in a brown paper bag.
• If roots are included, they should be wrapped with saran wrap and rubber banded.
• Samples should be kept cool (refrigerated if possible) until shipped. Most can be shipped in the regular mail.
• Please mark the outside of the shipping container (box or envelope) with a note that says "SAMPLE ENCLOSED" and ship to: Liz Vavricka, Idaho State Dept. Agriculture, Plant Pathology Lab, 2230 Old Penitentiary Rd., Boise, ID 83712.

An email message (Liz.Vavricka@agri.idaho.gov) or DDDI (Distance Diagnostics through Digital Imaging) (http://www.dddi.org/idaho) notification of the incoming sample is encouraged.

Remembering Dr. Marvin Stone

Dr. Marvin Stone
(June 22, 1950 - October 24, 2015)
Regents Professor, Biosystems and Agricultural Engineering, College of Agricultural Sciences and natural Resources, Oklahoma State University (retired)

The precision agriculture community, the Oklahoma State University students, faculty, friends and family are remembering Dr. Stone and his wife Bonnie Stone. They were two of four fatal victims of the OSU Homecoming Parade tragedy that occurred October 24, 2015. What a terrible loss!

I first got to know Dr. Stone in 2004, while I was a graduate student at the OSU. Although technically retired, Dr. Stone has continued working on a variety of engineering projects, teaching classes and mentoring many graduate students for many years.

Dr. Stone’s patient, humble and thoughtful manner and fun teaching style has made his students appreciate his mentorship. His passion to solving tough problems, fixing all sorts of things, and his talent to have a vision and his inventor’s spirit were admirable, and has sparked many students to focus on their career in agriculture, to working with crop producers and to making the difference.

Dr. Stone’s collaboration with Drs. Bill Raun and John Solie has produced one of the break-through inventions of our time in the area of precision agriculture - an active-light handheld crop sensor known as the GreenSeeker. The sensor is utilized worldwide to guide nitrogen fertilizer decisions based on crop yield potential, crop nitrogen status and estimated crop response to added nitrogen fertilizer.

The system’s development is detailed step-by-step in the OSU’s extension publication: “The History of the GreenSeeker™ Sensor”.


Dr. Marvin Stone working on GreenSeeker variable-rate system. Photo credit: Dr. Bill Raun, www.nue.okstate.edu.

Tremendous contribution of Dr. Stone to agricultural engineering in the area of precision agriculture was recognized with many awards. The GreenSeeker technology has been granted several awards, including the American Society of Agriculture Engineers (ASAE) award as “the best and the brightest developed throughout the world for the agricultural, food, and biological systems industries.”, and the USDA Honor Award “for developing the most revolutionary approach in a century to fertilizing crops …”

For more information about Dr. Stone and his wife life and legacy, please go to: http://bae.okstate.edu/people/stone-marvin/; and https://www.youtube.com/watch?v=vYO17Vdypwg


Our thoughts are with everyone whose lives have been touched by this tragedy.

#StillwaterStrong

The OSU President Hargis’s message: http://www.okstate.tv/?play=President-Hargis-Parade-Tragedy-Message

GUEST CONTRIBUTION

Alert - Hessian Fly in the Treasure Valley

By Nilsa A. Bosque-Pérez (left), University of Idaho, Professor Entomology Director UI-CATIE NSF-IGERT Project; Juliet Marshall (right), Associate Professor, Cereal Cropping Systems Agronomist and Pathologist

The Hessian fly, Mayetiola destructor Say, has been a pest of US wheat since its accidental introduction into the country over 200 years ago. While it has been present in northern Idaho for over two decades, it has never been observed in southern Idaho until this summer when...
latter were found infesting spring wheat field trials in Nampa.

Feeding by fly larvae on wheat results in stunting, reduced grain filling which lowers yield and quality, and weak stems that can break and fall to the ground. Yield reductions due to Hessian fly infestation of susceptible spring wheat range from 11-24%. While barley and rye might also be affected, wheat is the preferred host for Hessian fly, with spring wheat more commonly damaged in Idaho than winter wheat.

![Hessian fly larvae and puparia on spring wheat. Photo credit: Dennis Schotzko.](image)

Adult flies emerge from infested cereal stubble in the spring. Females lay eggs on leaves of young plants. One adult female can lay as many as 200 to 300 eggs. Once eggs hatch, larvae move to the crown area of young seedlings where they feed on plant sap between the outer leaf sheaths and stem base.

The larvae do not enter the stem. In approximately 2 to 3 weeks, larvae form puparia (or “flaxseeds”). Larvae survive the summer within puparia in dry stubble. The puparial stage allows survival during adverse weather conditions in both summer and winter. Since dry stubble can harbor fly puparia, growers are encouraged not to move wheat residue across locations.

While damage may be worse in wet springs, the occurrence of fly infestations is difficult to predict. Therefore, control methods are mostly preventive, with the most common being resistant varieties and earlier spring seeding to escape infestation. Additionally, crop rotation is an important management tool.

The following spring wheat varieties are resistant to the Hessian fly: Jefferson, Jerome Cataldo, Louise, Diva, Whit, Glee, JD (club) and Kelse, and farmers in the Treasure Valley region are encouraged to plant them to prevent losses from Hessian fly attack.

Cataldo is susceptible to stripe rust, while Kelse and Jefferson are moderately susceptible. Application of fungicides is warranted for stripe rust susceptible to moderately susceptible varieties in most years. The other varieties listed are moderately resistant to stripe rust and should not to require spraying unless disease pressure is high.

In collaboration with wheat breeders at the University of Idaho and Washington State University, we continue efforts to develop additional varieties of spring wheat with
resistance to the Hessian fly and various diseases. Our research is supported by the Idaho Wheat Commission, The Washington Grain Growers, and the University of Idaho.

GET TO KNOW ID AG

Updated PNW Pest Alert Site

The website utilizes a network of growers and professionals around the Pacific Northwest. As information about pest infestation becomes available, registered users will receive updates pertaining to the specific crops that they may be growing at the time. Registration is free and users receive email or text alerts only for the crops and locations they choose.

The mission of the Pacific Northwest Pest Alert Network website is to increase crop protection related communications and improve management decisions by fieldmen and growers when pest outbreaks occur.

The website is used as a communication tool to deliver accurate and timely pest outbreak information to the agriculture industry. The site also provides links to control information for pests identified in pest alert news items. The benefits of increased communication provide for more judicious use of pesticides, reduced crop losses, and overall improved pest management.

According to the Impact Statement, the PNW Pest Alert.net is providing useful information to the agriculture industry that is helping to save growers time and money, while benefitting the environment.

To submit an alert: http://pnwpestalert.net/submitalert/

To subscribe to alert updates: http://pnwpestalert.net/user/join/

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