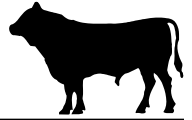


Oregon State University Extension Service
The Prompter / Rancher Review
A Union, Baker and Wallowa County Farm & Ranch Newsletter



June - July 2008



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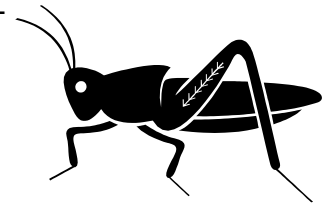
Calendar of Events

- June 10 Pendleton Ag Research Center Field Day - Pend. Ag Res. Center
7:45AM-4PM Contact: 541-278-4186
- June 18 32nd Annual Union County Crops & Conservation Tour
7:30AM- Western Farm Service 64325 Booth Ln
Contact: Darrin L. Walenta 963-1010
- June 24 OSU-EOARC & USDA-ARS Field Day—Jordan Valley
Community Hall 8 AM - 5 PM
Contact: Eastern OR Ag Research Center 541-573-8900
- June 25 Hermiston Potato Field Day - contact Phil Hamm,
541-567-8321 or **philip.b.hamm@oregonstate.edu**
- June 26 OSU Extension Service Union Co. Field Crops Pest Manage-
ment Tour 9AM - 11:45 AM Contact: D. L. Walenta 963-1010
- July 9 Malheur Experiment Station Annual Field Day
Contact: Janet Jones 541-889-2174, or
janet.jones@oregonstate.edu
- Jul 28-Aug 2 Union County Fair
- Aug 6 - 9 Baker County Fair
- Aug 2 - 9 Wallowa County Fair
- Aug 5 - 9 Umatilla County Fair
- August 19 Hermiston Ag Research & Ext Center Sweet Corn Field Day
- August 26 Malheur Exp Station Onion Variety Field Day
9AM - 1 PM Contact Janet Jones 541-889-2174, or
janet.jones@oregonstate.edu
- Oct. 21-22 Oregon Society of Weed Science Annual Meeting
Hood River OR. Contact Rich Affeldt 541-475-7107
Or email: Rich.Affeldt@oregonstate.edu

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Update: Grasshopper Alert for Eastern Oregon

In 2007, we have seen a large buildup of grasshoppers in Eastern Oregon. Almost 600,000 acres were infested with up to 50 grasshoppers per square yard from Elgin in Union County to Baker City in Baker County! Grasshopper outbreaks are unpredictable and largely determined by weather conditions. When they occur they can be very destructive to rangeland and crops. An outbreak can last one to three years before subsiding.



The predominant grasshopper species recorded in 2007 was the clearwinged grasshopper, *Camnula pellucida*. This grasshopper can be an important pest of rangeland and small grains (barley and wheat), and grasses, such as wheat grasses, fescues, bluegrasses, and bromes. The most destructive period is in the spring when *Camnula* can destroy entire spring wheat fields. Swarms of adult grasshoppers may later invade vegetable crops including onions, lettuce, peas, etc. Adult *Camnula* can migrate long distances in huge flying swarms from their feeding grounds to egg laying areas. Each female deposits up to 200 eggs in the soil. In early spring, myriads of the clearwinged grasshopper nymphs hatch in egg beds that may contain as many as 3,000 to 100,000 eggs per square foot.

Oregon Department of Agriculture started the 2008 grasshopper season with surveys in Union and Baker counties. Although the winter was relatively wet and long, we have already seen grasshoppers hatching in economic levels of 12 and more grasshoppers per square yard in various sites in Elgin, Union County, and Sparta, Baker County.

Considering that the immature grasshoppers (nymphs) cause the most damage, early spring surveys of the egg beds are essential in the effort to control grasshopper populations. Control options include flood irrigation of rangeland (where possible) and chemical control. Insect growth inhibitor regulators (IGR), such as Dimilin, have a high success rate for controlling immature grasshopper populations while significantly reducing the risk to other non-target species, such as honey bees and native pollinators, and applicators.

However, application timing of these products is critical since only molting insects are affected. Once the grasshoppers become adults, IGR's are no longer effective. Therefore, we encourage concerned landowners to check their property now for signs of young grasshoppers. In the event of an outbreak of grasshoppers, early detection increases the options available for control and their effectiveness. Also it is very important that all ranchers and growers affected by grasshoppers in an area work together on a control program to avoid re-infestation from non-treated areas.

Please contact your OSU Extension agent or ODA if you find grasshoppers on your property or if you have further questions regarding grasshoppers.

Helmuth Rogg, ODA 503-986-4662

News and Upcoming Events!

OSU Extension Service—Union Co. Field Crop Pest Management Tour June 26th, 2008 9:00 a.m. to 11:30 a.m.

Growers and pest managers are invited to attend a field tour of local research trials being conducted by OSU faculty from Union Co., Columbia Basin Ag Research Center, and the Hermiston Ag Research and Extension Center. Topics to be covered include:

Stop 1: Insko-Cuthbert Field A-4 (approx. 1/8 mile west of Alicel PGG Elevator on Standley Lane, turn left onto field road, park among trees between shed and Standley Lane.

9:00-9:15 a.m. Ergot Management in Kentucky Bluegrass with Registered Fungicides and Spore Flight Monitoring - Darrin Walenta and Phil Hamm

9:20-9:35 a.m. Billbug Biology and Management with Beneficial Nematodes - Silvia Rondon

Stop 2: DeLint Farm seedling KBG field (~1/8 mile north of Standley Lane on Case Rd)

10:00-10:15 a.m. Witchgrass Biology and Management in Seedling Kentucky Bluegrass - Dan Ball

Stop 3: Rasmussen Farm (~1.5 miles East of HWY 82 on Market Lane, north side)

10:45-11:00 a.m. Weed Control in Dry Pea Production - Dan Ball

Stop 4: TRICO Farms Headquarters (west side of the driveway closest to Island City).

11:30-11:45 a.m. Factors Influencing Beyond Herbicide Carryover - Dan Ball and Darrin Walenta

Transportation not provided so please arrange to carpool or drive yourself. Oregon pesticide applicator recertification credits have been requested.



JOHN BUCKHOUSE'S RETIREMENT !!

We will be celebrating John Buckhouse's retirement on June 24th after our Range Field Day in Ontario, Oregon for the East side of the state. John is a professor of OSU's Rangeland Ecology & Management.

We invite all to join us at 7:00PM at Fiesta Guadalajara, a local restaurant in Ontario. Everyone will be on his/her own for meals and beverages.

We thank John for his years of service and wish him the best!

News and Upcoming Events

OSU-EOARC and USDA-ARS Range Field Day 2008

When: Tuesday, June 24, 2008, 8AM-5PM

Location: Jordan Valley, Community Hall

Program Topics:

Western Juniper Ecology

Management Medusahead

Fire and Grazing Interactions in Sagebrush Steppe

Schedule:

8:00AM - 10:00AM Scheduled talks

10:00AM - 12:00PM Medusahead field tour

12:00PM - 1:00PM Lunch – (not sure yet if this will be provided)

1:00PM - 5:00 PM Field tour focus on juniper control and watershed processes. It will be about a one hour drive to the field site on South Mountain, with one or two stops on the way. The road is rough and requires good clearance.



Scheduled talks:

Medusahead Management – Roger Sheley

Joint Fire Science Juniper Project – Rick Miller

Fire on Grazed and Ungrazed Sagebrush Steppe –
Kirk Davies

Grazing After Fire in sagebrush Steppe - Jon Bates

South Mt. Juniper Control Projects - Jon Bates and
Fred Pierson

Time to Prepare for the Western Cherry Fruit Fly!

Emergence of the first cherry fruit fly (CFF) for the 2008 season in the Grande Ronde Valley is ***predicted to occur on June 17th (approx.)*** according to the Western cherry fruit fly online phenology model (AliNiasee, 1979). The prediction is based upon phenology model calculations performed on June 10th using actual and historical National Weather Service data for La Grande. The cherry fruit fly online phenology model (and models for other important fruit and crop pests), hosted by the OSU-Integrated Plant Protection Center, can be accessed at <http://www.ipmnet.org/> and is available for your use also!

Please note that this date may change depending upon actual weather events that occur between June 10th and the actual date of emergence. The model is a tool used strictly for planning purposes and is used in conjunction with the Union County adult CFF trapping program conducted by Greg Franklin, CFF Inspector (963-0469). Notice of emergence of the first adult fruit fly will appear in local newspaper and radio announcements.

Management Options: CFF biological control with parasitic wasps has not proven to be effective at preventing serious losses. Cultural practices include the following: Grow early maturing varieties like “Bing”, “Van”, and “Celeste”. Pick fruit within 8-9 days of catching the first flies which will be prior to egg hatch. Remove all fruit from the trees to eliminate sites for CFF to reproduce. CFF pupae in the soil are very hard-shelled so soil cultivation is not effective. Insecticide products available to the Homeowner (Table 1) and for Agricultural/Commercial Uses (Table 2) are provided as a quick reference to use in conjunction with the PNW Insect Management Handbook and “Managing Diseases and Insects in Home Orchards—EC 631”.

Table 1. Homeowner Products for Cherry Fruit Fly Management – 2008.

Product	Use	Active	Pre-Harvest
Trade Name	Classification	Ingredient	Interval (days)
Various	General	malathion	varies
Various	General	spinosad	varies

- Active ingredients listed in Table 1 are available to the homeowner for purchase and application and are sold under many different trade names (see partial list below for examples).
- Pesticides must be applied according to label directions on the pesticide container. Read label before purchasing a product to make sure the Use Site (stone fruit, cherry, etc.) and the pest (cherry fruit fly) is identified on the product label.

Examples of products available to Homeowners for CFF mgmt include (not limited to):

Bonide Complete Fruit Tree Spray (captan, carbaryl, malathion) EPA Reg. 4-122

Bonide Liquid Rotenone-Pyrethrins Spray Conc. (pyrethrin, rotenone) EPA Reg. 4-315

Bonide Malathion Insect Control Conc. (malathion) EPA Reg. 4-99

Monterey Garden Insect Spray Conc. (spinosad) EPA Reg. 62719-314-54705 (Con't on Page 6)

Gordon's Liquid Fruit Tree Spray (captan, carbaryl, malathion) EPA Reg. 4-122-33955
 Garden Tech Sevin Concentrate Bug Killer (carbaryl) EPA Reg. 264-334-71004
 Eliminator Ant, Flea & Tick Killer II Conc. (esfenvalerate) EPA Reg. 1021-1778-59144
 Gordon's Tree & Shrub Insect Killer (imidacloprid) EPA Reg. 2217-908
 Ortho Bug B Gon Max Lawn & Garden Insect Killer RTS (esfenvalerate) EPA Reg. 1021-1582-239
 Spectracide Triazicide Once & Done Insect Killer Conc. (g. cyhalothrin) EPA Reg. 9688-237-8845

Follow label instructions to determine application frequency/timing and mixing/application details. *Please be advised this list is not comprehensive, therefore, does not include all currently registered products available to the homeowner.* Listing of any product *does not* imply any endorsement by OSU Extension Service.

Table 2. Agriculture / Commercial Use Products Registered for Cherry Fruit Fly Management in 2008.

Product	Use	Active	Other	Pre-Harvest
Trade Name	Classification	Ingredient	Info	Interval (days)
<i>various</i>	General	carbaryl	various trade names	3
Lorsban 50W	General	chlorpyrifos	tart cherries only	6
Diazinon 50W	Restricted	diazinon		21
<i>various</i>	General	dimethoate	can burn leaves	21-28
Asana XL	Restricted	esfenvalerate		14
<i>various</i>	General	imidacloprid	various trade names	7
<i>various</i>	General	malathion	various trade names	1 - 3
Imidan 70W	General	phosmet	tart cherries only	7
Success 2L	General	spinosad		7
Entrust**	General	spinosad	OMRI listed	7
GF-120 NF	General	spinosad	Bait formulation	zero
Delegate WG	General	spinetoram		7
Assail 70WP	General	acetamiprid		7
Actara	General	thiamethoxam		14
<i>various</i>	Restricted	lambda-cyhalothrin	various trade names	14
Mustang Max	Restricted	Zeta-cypermethrin		14
<i>various</i>	Restricted	cyfluthrin	various trade names	7
<i>various</i>	General	pyrethrins	various trade names	zero-12 hours

- Products listed in Table 1 are recommendations for Agricultural / Commercial uses.
 - Restricted use products require an Oregon Pesticide Applicators license in order to purchase.
 - Pesticides must be applied according to label directions on the pesticide container.
- ** Organic Materials Review Institute (OMRI).

References: 2008 PNW Insect Management Handbook and the Pesticide Center On-Line <http://picol.cahe.wsu.edu/LabelTolerance.html>

Ergot Biology & Mgmt Research in Kentucky Bluegrass. D. Walenta & S. Alderman.**Objective**

The study was initiated in the spring of 2007 on established Kentucky bluegrass to: 1) evaluate the potential for ergot suppression with a single application of Quilt® (propiconazole + azoxystrobin) fungicide applied at initiation of anthesis; and 2) determine the start of ergot ascospore release and duration of ascospore flight.

Materials and Methods

The study was conducted in a commercial Kentucky bluegrass (var. Midnight) seed production field infested planted on April 5, 2001 at 4 lbs/acre in the Grande Ronde Valley, Union Co. and was infested with ergot. Irrigation, fertilization, and weed management activities followed typical production practices for the area. Disease management actions included treatment of the entire field for powdery mildew control with Laredo EC® (myclobutanil) fungicide at 10 oz/a on May 15, 2007. Fungicide applications for ergot management were limited only to the study site located within the commercial field.

The study design was a randomized complete block with 3 replications. Individual plots were 8 ft wide by 20 ft long. Foliar fungicide treatments (Table 1) were applied on June 3, 2007 to Kentucky bluegrass at initiation of anthesis. Applications were made with a hand boom sprayer delivering 20 gallons of water per acre using DG-8003 nozzle tips at 35 psi. Quilt® fungicide is registered for use in grasses grown for seed in Oregon, Washington, and Idaho for rusts (*Puccinia* spp.), powdery mildew (*Erysiphe graminis*), stem eyespot (*Selenophoma* spp.), and ergot (*Claviceps purpurea*).

Table 1. Fungicide treatments and application rates - 2007.

Treatment	Rate/acre	Petroleum Spray Oil*
Untreated Check	-	-
Quilt	14 oz/a	-
Quilt	14 oz/a	1% v/v
Quilt	14 oz/a	2% v/v

*Adjuvant applied was Saf-T-Side Spray Oil Emulsion Fungicide, Insecticide and Miticide® (80% refined petroleum spray oil).

Ergot ascospore traps were utilized from May 29 until July 2 to determine initiation and duration of ascospore flight before, during, and after grass seed crop anthesis. Traps consisted of glass cylindrical rods coated with an adhesive material and suspended at crop canopy height. The traps were replaced every 3 days and analyzed to determine number of ascospores.

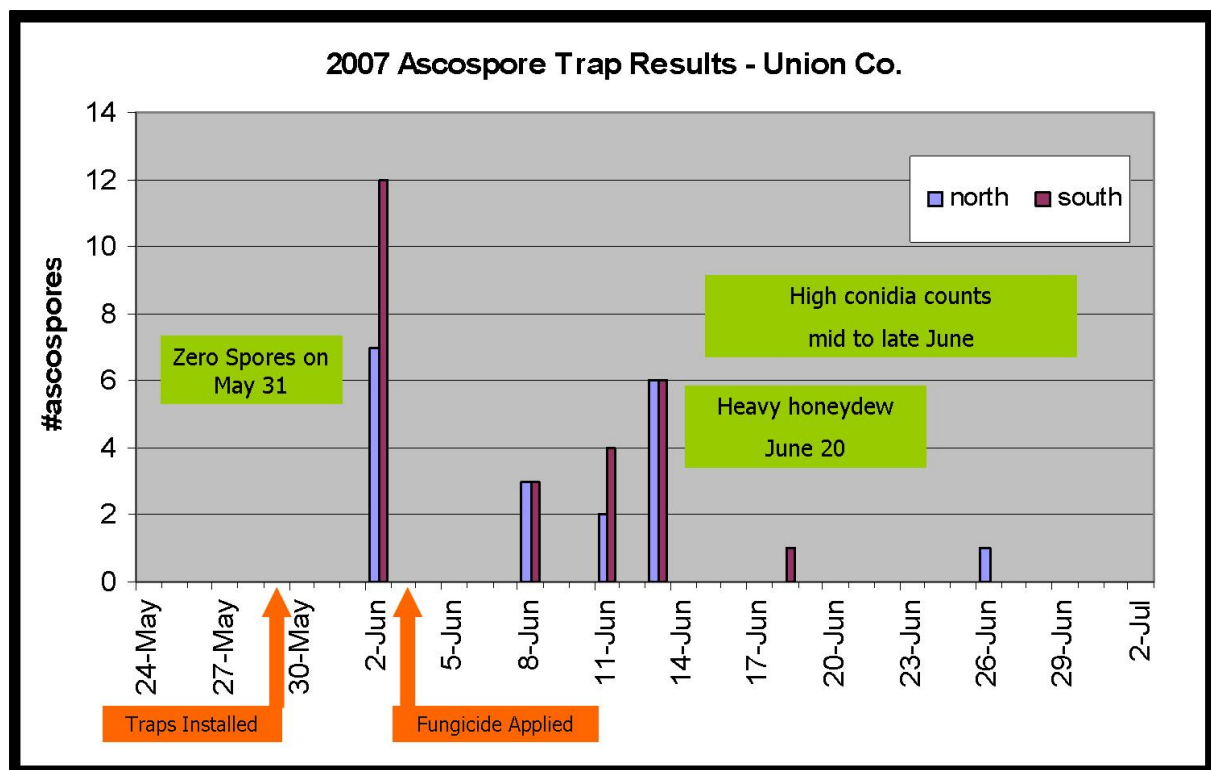
Ergot Biology & Mgmt Research in Kentucky Bluegrass. D. Walenta & S. Alderman.

Plots were harvested by hand on July 3, 2007 immediately prior to swathing of the commercial field. Approximately 70 individual Kentucky bluegrass panicles were randomly collected from within each plot to determine ergot incidence and severity levels. Panicles were visually evaluated to determine ergot incidence (+ or – ergot sclerotia) and ergot severity (number of sclerotia per panicle). Following visual evaluation, the panicles were then hand-threshed and cleaned with hand sieves to remove chaff and other large debris. Ergot was separated from seed with additional air column and hand separation techniques. Clean seed and ergot sclerotia were then weighed and ergot severity determined on % weight by weight basis. Analysis of variance was performed using Statistix 8 with treatment means separated using Tukey’s HSD multiple comparison test.

Results and Discussion

Ergot disease pressure was very high during the 2007 growing season in the Grande Ronde Valley. Ergot ascospore flights (Figure 1) began during the period of May 31 to June 2 and continued through June 26. The highest number of ascospores captured was recorded between the afternoon of May 31 and noon June 2. Kentucky bluegrass anthesis began June 2 to June 4. Fungicide treatments were applied mid-morning of June 3. Untreated areas of the study and field exhibited high levels of honeydew in mid-June. High levels of conidia (source of secondary infection) were observed on ascospore traps from mid- to late June and it is suspected that direct contact of infected panicles with the trap and insects were the probable vectors of the conidia.

Figure 1.



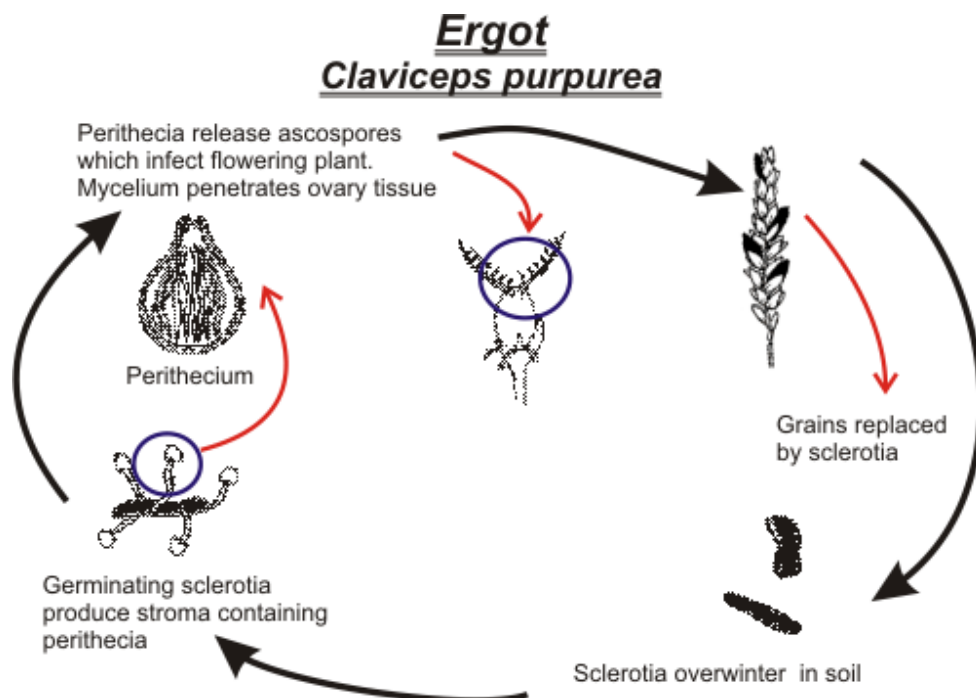
Ergot Biology & Mgmt Research in Kentucky Bluegrass. D. Walenta & S. Alderman.

The results from this study indicate that timely fungicide application, regarding anthesis, is important for ergot management in Kentucky bluegrass grown for seed. In this study, the application of fungicide with or without an adjuvant at the beginning of anthesis suppressed ergot infection levels below the Oregon Seed Certification Service inert material tolerance for blue tag Oregon Certified KBG seed (max 5% inert matter content). Additional research will be conducted in 2008-09 to further determine the effect of fungicide application timing on ergot suppression and to conduct more detailed observations of ascospore flight dynamics in the Grande Ronde Valley and the Columbia Basin.

Table 2. Ergot Incidence and Severity Levels in Established Kentucky Bluegrass – 2007.

Fungicide Treatment	Panicles + with Sclerotia (%)	Sclerotia per Panicle (avg. #)	Sclerotia in Clean Seed (% w/w)
Untreated	90 a	5.3 a	7.5 a
Quilt w/o HSO	52 b	1.8 b	1.9 b
Quilt + HSO 1% v/v	48 b	1.8 b	1.4 b
Quilt + HSO 2% v/v	45 b	1.6 b	1.8 b
LSD (0.05)	17	1.0	2.4

Acknowledgements: Steve Alderman, Phil Hamm, and I would like to thank the Oregon Seed Council, Oregon Department of Agriculture-Alternatives to Field Burning Program, Union Co. Seed Growers Association, and the Columbia Basin Seed Growers for providing financial support to continue ergot research in 2008.



~ 32nd Annual Union County Crops & Conservation Tour - June 18, 2008 ~



Time: Coffee & donuts 7:00 a.m. Program starts 7:30 a.m. and ends about 2:00 p.m.
Location: Western Farm Service on Booth Lane, 2.6 miles NE of Island City on HWY 82
Audience: Growers, Ranchers, Ag Service Providers, University Faculty, Local Business, General Public, and anyone else interested in Union County Agriculture!

You are invited to participate in a half-day bus tour of selected sites in Union County to view first-hand and learn about agricultural production, research, and conservation efforts in the area. Some of the topics to be covered this year include: the 2007 Conservation Farm of the Year— The Hassinger Family; Specialty Crops – Camelina & Waxy Barley; Elkhorn Valley Wind Farm; timber/livestock; and other interesting topics!

A short program will take place at 7:30 a.m., immediately followed by the bus tour. Buses will be provided at no charge due to contributions by our great sponsors. No reservations are necessary - just show up before 7:30 a.m.! As with tradition, a free lunch including barbecue steak, baked potato, and salad will be served at approx. noon at a site along the tour route. After lunch, bus passengers will be returned to Western Farm Service between 1:30 and 2:00 p.m.

For more information, please contact Darrin L. Walenta, OSU Extension Agronomist, at 541-963-1010 (email: darrin.walenta@oregonstate.edu) or Lenard Porfily, Western Farm Service, at 963-3735. Accommodation requests related to a disability should be made by contacting Darrin. For full consideration, please contact no later than June 13th.

JUNE-JULY 2008

PROMPTER/RANCHER REVIEW

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