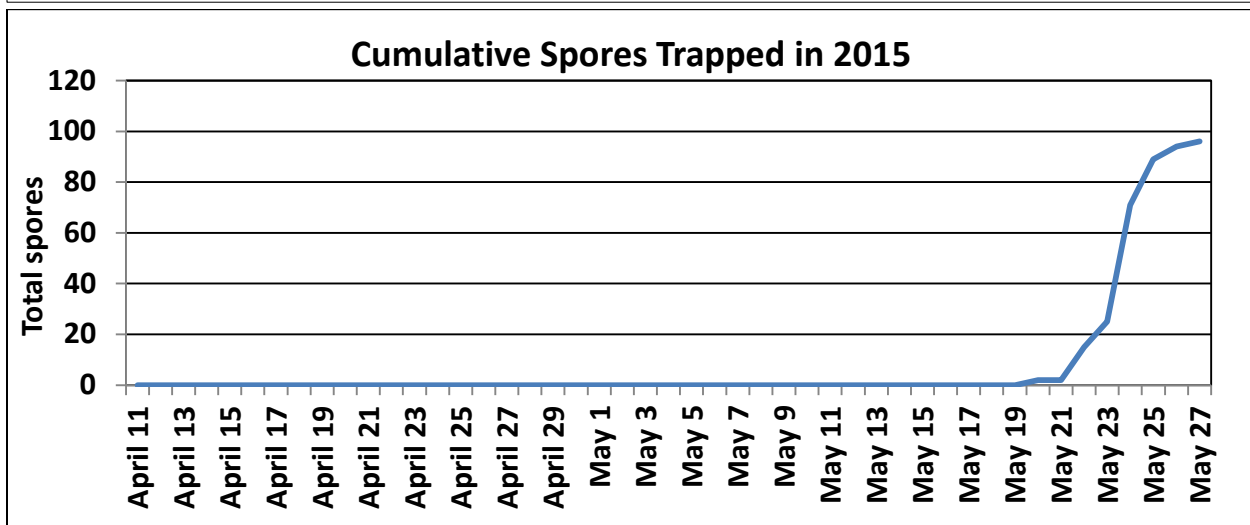
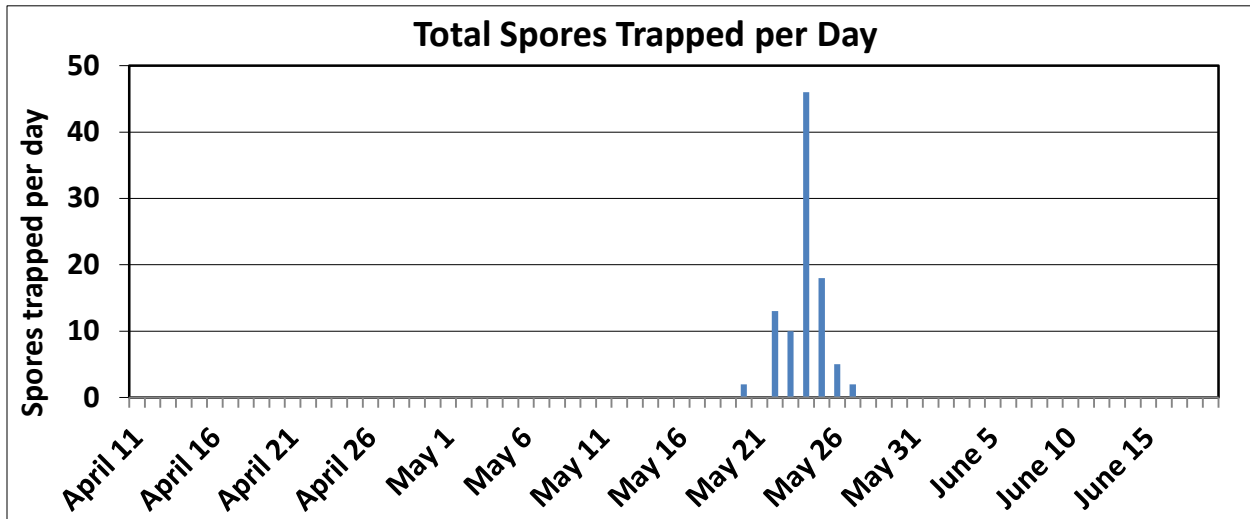


Central Oregon (Jefferson County) – June 3, 2015

Jeremiah Dung¹, Stephen Alderman², Kenneth Frost³, Navneet Kaur^{3, 4}, Darrin Walenta, and Philip Hamm³
¹OSU Central Oregon Agricultural Research Center, Madras; ²USDA-ARS NFSPRC, Corvallis; ³OSU Hermiston Agricultural Research and Extension Center, Hermiston; ⁴OSU Union Co. Ext. Service, La Grande.

April 10 thru May 27 Ergot Spore Trapping

- In 2014, a spore trap was deployed in an established Kentucky bluegrass field at the Central Oregon Agricultural Research Center (COARC) between May 9th and the 4th of July. A total of 55 spores were detected between May 20th and June 19th.
- Twelve Kentucky bluegrass cultivars (KBG) were planted in the fall of 2014 at COARC (Table 1) and a Burkard spore trap was deployed on April 10, 2015.
- **A total of 96 spores have been detected on spore traps between May 20th and May 27th and germinating sclerotia have been observed in infested areas of the COARC cultivar plots.**



Suggestions for Ergot Management

- Ascospores (sexual spores) and germinating sclerotia have been detected in infested plots at COARC.
- Although some KBG cultivars are at the mid to late flowering stage, most plots at COARC are still flowering and some cultivars are in the early to mid-flowering stage. The potential exists for ergot infection in KBG cultivars that are still flowering, which is the only susceptible stage for ergot infection.
- ***Regular fungicide applications may be required based on the developmental stage of the cultivar and the history of ergot epidemics in your area.****
- ***Fungicide applications for ergot are protective and not curative.***
- ***It is important to monitor fields that had some level of infection in 2014 (honeydew and/or ergot sclerotia in the field or during clean-out). It is also important to monitor fields that are in proximity to previously established fields that had ergot in 2014.***
- Infections that occur later in the season can result in the presence of honeydew at harvest, which can make swathing and combining more difficult.
- Spore traps sample only a small fraction of the air (2.6 gal/min) and do not capture ergot conidia (asexual spores), which are contained in honeydew and have the potential to be splash-, contact-, or insect-dispersed.
- Ergot has a wide host range among grasses, so earlier emerging cultivars, off-types, and grassy weeds can be potential sources of honeydew inoculum.
- Please consult the PNW Plant Disease Management handbook for fungicide products available for ergot suppression in OR/WA grass seed crops or search the Pesticide Information Center Online. Links to the web resources are listed below:
 - *Pacific Northwest Plant Disease Management Handbook:*
<http://pnwhandbooks.org/plantdisease/grass-seed-ergot>
 - *Washington State Pest Management Resource Service Pesticide Information Center Online Databases:* <http://cru66.cahe.wsu.edu/LabelTolerance.html>

Phase I Survey Online!

Growers, consultants, field representatives, ag service providers, and grass seed company reps – please take a minute or two and fill-out this optional survey. The Ergot Team would like your participation in collecting some vital information regarding ergot management and impact on the grass seed industry. The survey is short (less than 5 minutes), simple and confidential. The combined results will help the E-Team tremendously in our efforts to find solutions for management of this fungal disease and tap into resources beyond the state level.

http://oregonstate.qualtrics.com/SE/?SID=SV_b3j5S4iNbU1Pfut

****Application of a pesticide to a crop or site not on the label, or in a manner inconsistent with label directions, is a violation of pesticide law and may subject the applicator to civil penalties.***

Table 1. Location, cultivar, and growth stage of Kentucky bluegrass cultivars at the KBG-5 ergot spore monitoring site in Central Oregon.

County	Latitude/Longitude	Grass species	Cultivar	Feekes growth stage ¹
Jefferson, OR	44°40'46.75"N / 121°8'54.95"W	Kentucky Bluegrass	Bluechip	10.51 to 11 ~30% of tillers at 10.51
Jefferson, OR	44°40'46.75"N / 121°8'54.95"W	Kentucky Bluegrass	Blue Ghost	10.51 to 11 ~70% of tillers at 10.51
Jefferson, OR	44°40'46.75"N / 121°8'54.95"W	Kentucky Bluegrass	DB-1013	10.51 to 11 ~5% of tillers at 10.51
Jefferson, OR	44°40'46.75"N / 121°8'54.95"W	Kentucky Bluegrass	Fielder	10.51 to 11 ~10% of tillers at 10.51
Jefferson, OR	44°40'46.75"N / 121°8'54.95"W	Kentucky Bluegrass	Gateway	10.51 to 11 ~25% of tillers at 10.51
Jefferson, OR	44°40'46.75"N / 121°8'54.95"W	Kentucky Bluegrass	Gladstone	10.51 to 11 ~25% of tillers at 10.51
Jefferson, OR	44°40'46.75"N / 121°8'54.95"W	Kentucky Bluegrass	Jumpstart	10.51 to 11 ~10% of tillers at 10.51
Jefferson, OR	44°40'46.75"N / 121°8'54.95"W	Kentucky Bluegrass	Midnight II	10.5 to 10.51 ~90% of tillers at 10.51
Jefferson, OR	44°40'46.75"N / 121°8'54.95"W	Kentucky Bluegrass	Nuglade	10.5 to 10.51 ~90% of tillers at 10.51
Jefferson, OR	44°40'46.75"N / 121°8'54.95"W	Kentucky Bluegrass	PST-K4-7	10.51 to 11 ~30% of tillers at 10.51
Jefferson, OR	44°40'46.75"N / 121°8'54.95"W	Kentucky Bluegrass	Right	10.51 to 11 ~5% of tillers at 10.51
Jefferson, OR	44°40'46.75"N / 121°8'54.95"W	Kentucky Bluegrass	Shamrock	10.51 to 11 ~5% of tillers at 10.51

¹Feekes 10.5 = head fully emerged. Feekes 10.51 = anthesis begins (first appearance of stigmas/anthers). Feekes 11 = anthesis complete/heading. **Ratings are current as of June 2, 2015.**

Cumulative Degree Days (Jan 1 thru June 1):

Air: 483

Soil (4" depth): 455

Cumulative growing degree days are calculated using data from the MRSO weather station in the AgriMet Cooperative Agricultural Weather Network (<http://www.usbr.gov/pn/agrimet/>). A lower baseline of 50° F and an upper baseline of 77° F are used in the calculations for both air and soil calculations. Cumulative growing degree days were calculated starting January 1, 2015.

*Please contact Jeremiah Dung, Plant Pathologist, with any question, comments or ergot observations at:
OSU Central Oregon Agricultural Research Center, 850 NW Dogwood Lane, Madras, OR, 97741
Phone: 541-475-7107 or Email: jeremiah.dung@oregonstate.edu*