

June 1, 2016

Central Oregon Edition – June 1, 2016

Jeremiah Dung¹, Navneet Kaur², Kenneth Frost², Darrin L. Walenta³, Stephen Alderman⁴, and Philip Hamm²

¹OSU Central Oregon Agricultural Research Center, Madras, OR; ²OSU Hermiston Agricultural Research and Extension Center, Hermiston, OR; ³OSU Union County Extension Office, La Grande, OR; ⁴USDA-ARS NFSRPC, Corvallis, OR.

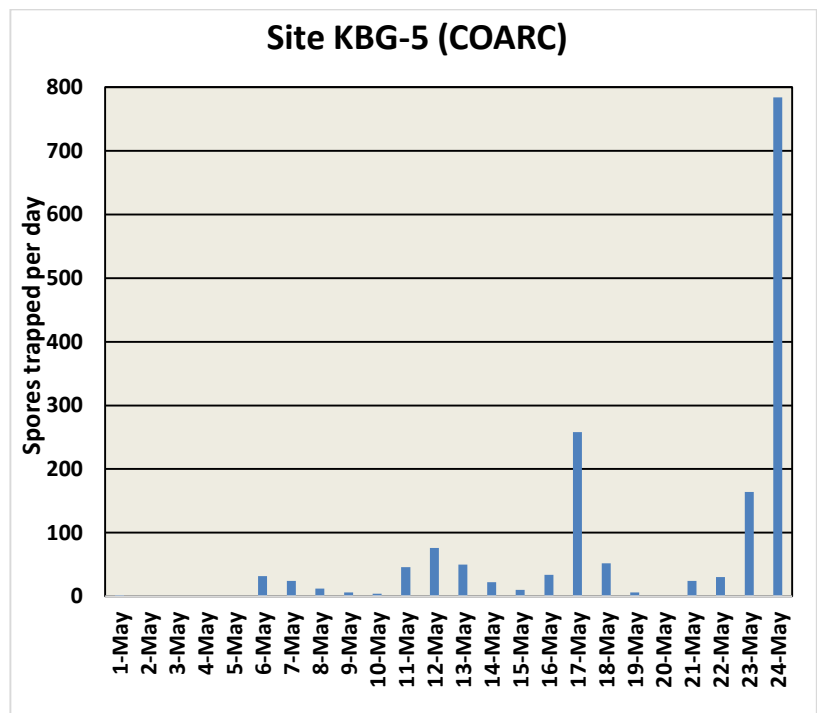
Welcome to the fourth issue of the 2016 Ergot Alert Newsletter, brought to you by Oregon State University Extension Service and USDA-ARS, and sponsored by the Washington Turfgrass Seed Commission, the Oregon Seed Council, the Oregon Department of Agriculture Alternatives for Field Burning Research Financial Assistance Program, the Columbia Basin Grass Seed Growers, the Jefferson County Seed Growers Association, and the Union County Grass Seed Growers Association. The goal of this newsletter is to provide timely information about ergot spore production to Kentucky bluegrass and perennial ryegrass seed growers and field personnel in central Oregon, the Columbia Basin, and the Grande Ronde Valley in an effort to aid in decisions related to ergot management during the course of the 2016 growing season.

April 19 thru May 24 Spore Trapping:

A spore trap was setup in artificially-infested plots located at the Central Oregon Agricultural Research Center (COARC) in Jefferson County, Oregon. Spore trapping was initiated on April 19, 2016 and spore trap drums are changed every Tuesday.

Spores were detected for the first time this season on May 1, 2016 and a total of 1,636 spores have been captured at the central Oregon KBG-5 site to date.

Over 1,000 spores were captured during the previous week of spore trapping (May 17 - May 24). A sharp spike of nearly 800 spores was observed at COARC on May 24th (Fig. 1).



Cumulative Degree Days (Jan 1 thru May 30):

Air: 486

Soil (4" depth): 594

In 2014-2015 ergot spores were first detected when cumulative air degree days were between 295 and 332 and cumulative soil degree days were between 176 and 257. This year, the first spore was observed when cumulative air degree days were 255 and cumulative soil degree days were 195. *Spore production in 2014 and 2015 continued until cumulative air degree days were between 582 and 657 and cumulative soil degree days were between 649 and 692.*

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Ergot Management Recommendations

- The Kentucky bluegrass cultivars being evaluated at COARC are in mid- to late-flowering stages and many are approaching the end of anthesis (Table 1). All but two cultivars (*Merit* and *Midnight II*) exhibited a decrease in the number of panicles at Feekes stage 10.51 over the last week.
- Panicles that are still in the flowering stage mostly consisted of smaller, later emerging flowers.
- Traces of honeydew has been observed on the following cultivars at COARC: *Shamrock*, *PST-K4-7*, *Jumpstart*, and *Right*. **Honeydew can serve as secondary inoculum and infect later flowering cultivars/panicles.**
- Over 1,000 spores were captured in Jefferson County since the last newsletter and the potential exists for mid- to late-season infections in grass cultivars that are still flowering. **Cultivars with prolonged flowering periods may require additional fungicide application(s) to protect flowers from late season infections.**
- Help prevent the development of fungicide resistance: If applying multiple fungicide applications for ergot this year please consult the label(s) to determine the maximum amount(s) of azoxystrobin and/or propiconazole that can be applied in a given season. Applications for powdery mildew and/or rust should also be included in your calculations!
- Field scouting for honeydew at this time can help identify infected fields which may present difficulties during harvest and seed cleaning operations.
- 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>

Ergot Cultivar Trial (thru May 31)

Table 1. Cultivar and growth stage of Kentucky bluegrass cultivars at the KBG-5 ergot spore monitoring site and Kentucky bluegrass cultivar evaluation trial in central Oregon (Jefferson County)

Cultivar	Feekes growth stage
Blue Ghost	10.51 to 11 (~15% of tillers at Feekes 10.51)
Gateway	10.51 to 11 (~30% of tillers at Feekes 10.51)
Shamrock	10.51 to 11 (~10% of tillers at Feekes 10.51)
Merit	10.51 to 11 (~40% of tillers at Feekes 10.51)
Gladstone	10.51 to 11 (~25% of tillers at Feekes 10.51)
PST-K4-7	10.51 to 11 (~30% of tillers at Feekes 10.51)
Fielder	10.51 to 11 (~25% of tillers at Feekes 10.51)
Midnight II	10.51 to 11 (~50% of tillers at Feekes 10.51)
Jumpstart	10.51 to 11 (~10% of tillers at Feekes 10.51)
Right	10.51 to 11 (~5% of tillers at Feekes 10.51)
DB-1013	10.51 to 11 (~15% of tillers at Feekes 10.51)

Please contact Jeremiah Dung with any questions, comments, or ergot observations:

OSU Central Oregon Agricultural
Research Center
850 NW Dogwood Lane
Madras, OR 97741
541-475-7107

jeremiah.dung@oregonstate.edu.