

June 13, 2017

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Welcome to the fourth issue of the 2017 Ergot Alert Newsletter, brought to you by Oregon State University and USDA-ARS, and sponsored by the Washington Turfgrass Seed Commission, the Oregon Seed Council, 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 information about ergot spore production in the Columbia Basin, the Grande Ronde Valley, and Central Oregon in an effort to aid in decisions related to ergot management during the course of the 2017 growing season.

Spore Trap Results

This year we have seven spore traps deployed in three grass seed production areas: the Columbia Basin (Umatilla Co., OR and Benton Co., WA), the Grande Ronde Valley (Union Co., OR), and central Oregon (Jefferson Co., OR) (Fig. 1). We are using a DNA-based method (qPCR) coupled with traditional microscopic methods to detect spores from spore traps. **To date, spores have been detected in all locations (Table 1).**

Table 1. Spore trap results from five Kentucky bluegrass (KBG) and two perennial ryegrass (PRG) seed fields.

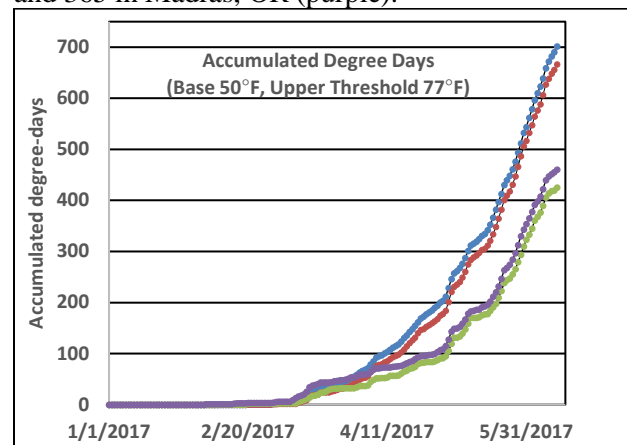
Location	Spore traps	Spores first detected	Total spores (season)
Columbia Basin, WA	KBG-1	May 20	2
	KBG-2		0
Grande Ronde Valley, NE OR	KBG-3	May 4	42
	KBG-4	May 7	58
Madras, OR	KBG-5	May 15	866
Hermiston, OR	PRG-1	May 5	733
	PRG-2		63



Fig. 1. Location of spore traps in the Columbia Basin (Umatilla Co., OR and Benton Co., WA), the Grande Ronde Valley (Union Co., OR), and central Oregon (Jefferson Co., OR).

Accumulated Degree-Days:

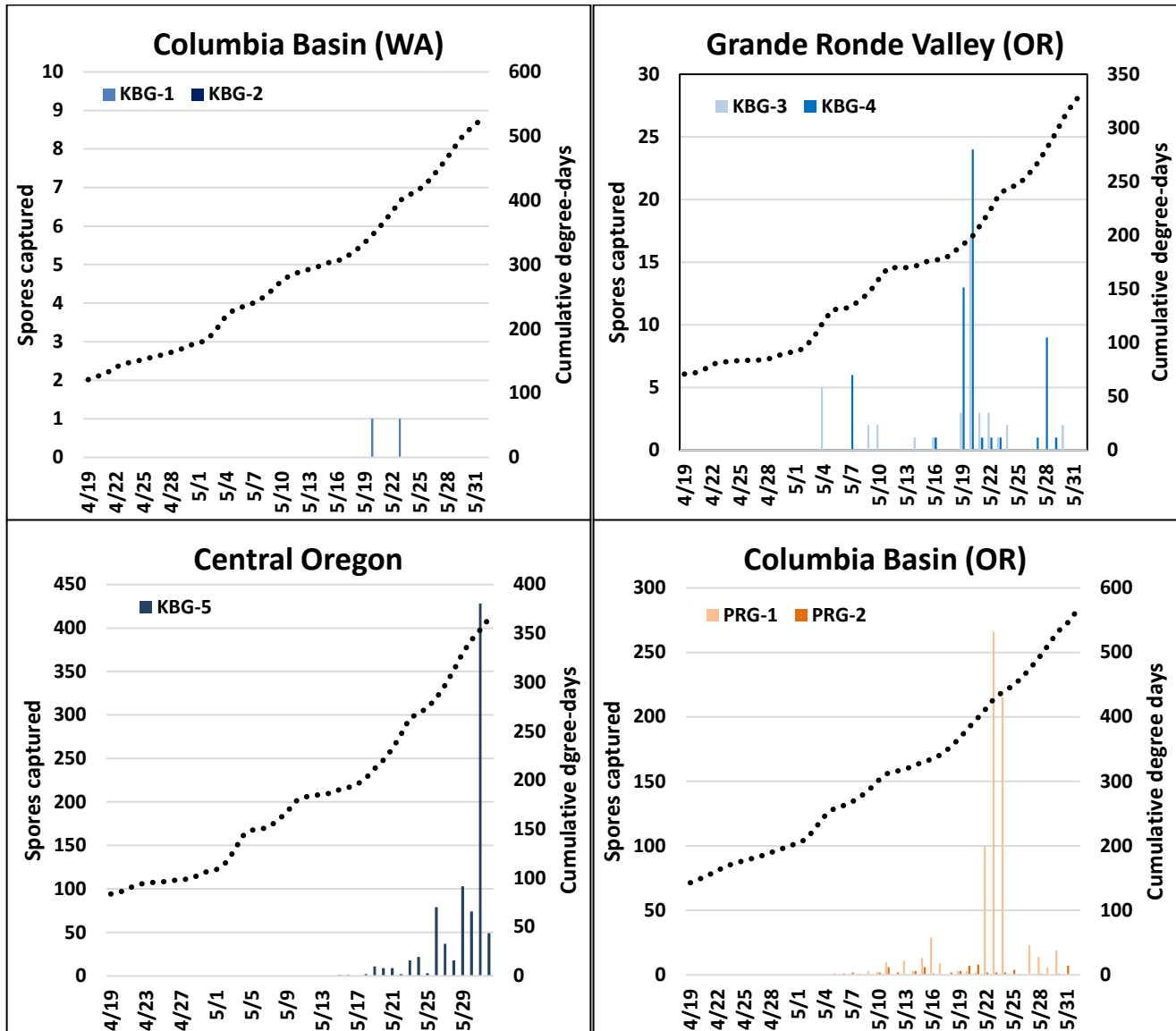
Accumulated degree-days as of June 11 were: 561 in Hermiston, OR (blue), 532 in Paterson, WA (red), 333 in the Grande Ronde Valley, OR (green), and 365 in Madras, OR (purple).



According to the ergot forecasting model for the Columbia Basin of Oregon, most ascospores are produced when accumulated degree-days are between 414 and 727.

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Observations from the Field...

Columbia Basin of OR and WA:

- KBG and PRG fields are in various stages of anthesis and some KBG varieties have completed flowering. Honeydew has not yet been detected in artificially infested plots of 'Midnight'.

Grande Ronde Valley, NE OR:

- KBG-3 Variety Trial: All KBG varieties are in various stages of flowering. Early maturing varieties "Jumpstart", "Thermal Blue" and "Wildhorse" were in advanced flowering stage. Remaining varieties were at or near 50% flowering.
- KBG-4 "Gaelic" KBG monitoring site: 25-50% flowering stage.

Central OR:

- The KBG-5 variety trial at COARC is in various stages of flowering. No symptoms or signs of ergot yet.

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