Mundt: Keep an Eye Out for Sharp Eyespot

Oregon State University researchers are unsure what caused last year’s widespread outbreak of sharp eyespot in Willamette Valley wheat.

Plant pathologist Chris Mundt reported at the Extension wheat and seed production meetings this month that he typically sees the soil-borne disease, which is caused by Rhizoctonia cerealis, once every five years or so, and then not much of it.

Last year, he said: “Over a three-day period it was in every field I looked at from Junction City to Forest Grove.”

Most growers didn’t take too big of a hit, he said. But he did encounter a grower who suffered 20 percent yield loss in one field and another who lost 50 percent of his yield to the disease.

“We don’t know what is going on,” he said. “We’re hoping that it was just oddball weather conditions. We know the disease is favored by a combination of wet winters and wet springs, and clearly that is what we had last year.”

Also, Mundt said, fieldmen have reported that they have seen this disease start to develop over the years in Europe and New Zealand, two sites where growers have used a lot of fungicides in recent years to control foliar diseases.

“There are some people who are thinking the fungicides that they have been using are actually wiping out some of the competitors that formerly kept Rhizoctonia in check on the stems,” Mundt said.

“There is some evidence to support that,” he added, “but it is up in the air at this point.”

He advised growers in the Willamette Valley to keep an eye on the disease.

“I hope that it goes away and we never see it again,” he said, “but I think that there is a possibility that it could come back.

“The good news on that,” he said, “is that I think we have some resistance to it in some of our varieties.”

Rosalyn and Bobtail, particularly, looked as if they have good resistance to the eyespot, he said.

“If this does come back again, I think we do have some options,” he said.

“I don’t think we are going to have very many options out there chemically at this point in time,” he said, “but I think on the genetics side we might have something.”
Slowing Septoria Resistance to Fungicides

Oregon State University researchers in recent years have documented that in the Willamette Valley, the wheat disease Septoria has rapidly developed resistance to commonly used fungicides.

At this year’s winter wheat and seed production meetings, held January 6 and 7 in Albany, Salem and Forest Grove, OSU plant pathologist Chris Mundt provided growers tactics to slow the spread of resistance.

Overall, the most important practice a grower can do to slow resistance is to reduce the number of times a fungicide is used, he said.

Mundt suggested growers:

- Grow varieties, such as Bobtail, that show good resistance to Septoria and stripe rust;
- Delay fall planting, when possible, to reduce exposure to disease inoculum;
- Consider minimizing early- and late-season sprays; and
- Rotate chemistries and utilize strategic tankmixes.

Battling resistance in production pests is always challenging, Mundt said. When it comes to Septoria, “It is kind of a worst-case scenario.”

“Septoria is a highly variable pathogen because it goes through a sexual stage every year,” he said, “it always maintains a high population size and you never eliminate any of that genetic variation in the population.”

Tests conducted in the Willamette Valley last growing season showed an average of 62 percent of Septoria isolates tested were resistant to strobilurin fungicides, and that the resistance was present throughout the Valley.

“It seems to be everywhere at this point,” he said.

Isolates also showed some resistance to triazoles, he said.

“It looks like, unfortunately, the strobilurins are pretty much gone for the control of Septoria,” he said. “It also looks like Septoria is becoming more tolerant to the triazoles.”

Researchers now are looking at SDHIs to determine the current level of disease resistance to that class of fungicide. The base line researchers establish then will be used to analyze how fast diseases are developing resistance to that class, Mundt said.

“We expect that resistance (among the Septoria pathogen) is going to be kind of like the strobilurins,” he said. “My guess is it is going to be fairly easy for the pathogen to develop resistance.

“For that reason, I think it is really critical that we do something to try and protect these SDHIs, because they are really good against Septoria,” he said.

Mixing together different fungicides can help protect the SDHIs, he said, given that if a strain of the disease is resistant to one of the products, it may not be resistant to another.

As for delaying planting, Mundt said it often isn’t possible for growers to do so, but when it is possible, the practice can be beneficial.

“Essentially, if you can delay planting, your crop is escaping those initial spores,” he said. “If you are in a situation where that works for you, you can probably pick up a little bit of disease control.”

Minimizing early and late treatments, also can be risky, and, at times, is not a good idea. But if stripe rust is not developing early, it may be possible to avoid the early fungicide treatment. And, in some cases, late treatments can be avoided, he said.

He advised growers to keep in mind that when treating for stripe rust, they may not be targeting Septoria, but the Septoria pathogen is being exposed to the fungicide and likely will be selecting for resistance to it. For that reason, he said, planting varieties that show good resistance to stripe rust can be a good strategy, given that it may help reduce overall fungicide use.

“If you have a variety that is susceptible to rust, you are going to be spraying a lot, and the Septoria is going to be exposed to (the sprays),” he said.

Bobtail and Rosalyn show good resistance to rust, he said. SY Ovation, Kaseberg and LCS Art Deco show moderate resistance to the disease.

Another strategy involves using the SDHIs as little as possible in order to extend their efficacy against Septoria.

“I would maintain that because the SDHIs are so good against Septoria, and because Septoria is so good at becoming resistant to fungicides that we should try to limit ourselves to only using those once or less per year,” Mundt said. “And I would say target the flag leaf, because that is when you get the biggest bang for your buck as a Septoria spray.”

Mundt said it also is important to mix a fungicide, such as a triazole, with the SDHIs to protect the SDHIs from losing efficacy on Septoria and to improve rust control, particularly if you have rust in your flag leaf.
Oregon State University Extension agent Nicole Anderson unveiled new fertility recommendations for tall fescue seed crops at the Extension Service’s winter wheat and seed production meetings in early January.

Anderson advised growers to apply nitrogen as early as the last week of January or first week of February for turf-type tall fescue, two weeks earlier than past recommendations, which called for growers to begin applying nitrogen in mid-February. For forage tall fescue, the Extension Service is recommending growers apply nitrogen as early as mid-January, or six to twelve days earlier than on turf type tall fescue.

Anderson said that in going over 20-years of data, she, retired OSU soil scientist John Hart and OSU Professor Tom Chastain determined that tall fescue begins taking up nitrogen earlier than previously thought. “Based on the uptake information that we have recently compiled, it appears that tall fescue starts using nitrogen about two weeks earlier than perennial ryegrass and other grass seed crops which begin nitrogen uptake when approximately 200 growing degree days have been accumulated,” Anderson said.

The peak nitrogen uptake by tall fescue is highest in late March to early April. In contrast, peak N uptake for perennial ryegrass occurs in mid-April. Anderson said the OSU group also determined that tall fescue is finished accumulating nitrogen in May, whereas perennial ryegrass continues to use nitrogen into June.

The current OSU recommended spring nitrogen rate is 100-140 lbs N/acre, with the assumption that 30-40 lbs N/acre was applied in the fall.

On-farm trials have not shown any yield difference between single and split applications, however, split applications are recommended to provide even fertilizer coverage, accommodate crop uptake and allow for more flexibility when unfavorable weather conditions occur.

A detailed description of current nitrogen and other nutrient recommendations can be found in the new OSU Tall Fescue Grown for Seed Nutrient Management Guide: [http://ir.library.oregonstate.edu/xmlui/bitstream/handle/1957/52093/em9099.pdf](http://ir.library.oregonstate.edu/xmlui/bitstream/handle/1957/52093/em9099.pdf)
There is still time to plant winter wheat, according to Oregon State University Extension Cereals Specialist Mike Flowers, but that window is closing fast, and there are some risks involved.

At the OSU Extension wheat and seed production meetings, held January 6 and 7 in Albany, Salem and Forest Grove, Flowers identified February 15 as the “drop dead date for planting winter wheat.”

After that, he said, spring wheat is the best option for growers looking to produce wheat this season.

As far as varieties for late-planted winter wheat, Flowers said Goetze it tops. Short of that, he said, SY Ovation, Kaseberg and Art Deco are reasonable options.

“One thing I don’t think you want to do is plant Bobtail or Rosalyn right now,” he said, noting that neither variety puts on a lot of biomass quickly.

Also, he said, if planting winter wheat between now and February 15, treat it as a spring wheat.

“Bump that seed rate up to 150 pounds or maybe a little more,” he said. “And expect a yield reduction. It is not going to yield like it would if you planted it in October.”

Also, Flowers said, yields in late-planted winter wheat can be highly variable.

“The yield that you get is going to depend on what the season does moving forward,” he said. “If it turns out to be a bad year where you get too much rain, or not enough rain, or just not at the right times, you just aren’t going to get the yields that you expect.

“But you can be successful if everything lines up,” he said.

The bottom line, Flowers said, is if growers can’t find a variety that suits their conditions or if the conditions aren’t suitable for planting, they may be better off delaying planting a month or so and put in a spring wheat.

The top spring wheat varieties available, he said, are Diva, Whit and Louise, with Diva standing out.

“Diva is going to have the highest yield and it has the best disease resistance,” he said.

Flowers noted that the top spring wheat varieties were all developed under dryland conditions in Eastern Oregon and can get tall and lanky.

“Be aware that lodging is going to be an issue,” he said. “Make sure you are paying attention to your nitrogen rates, and if you are really pushing the yield envelope, a growth regulator will help you shorten up that stem and help keep things standing.

“It may not prevent complete lodging, but it certainly will give you some help in that area,” he said.

He also advised growers to use high seeding rates of up to 33 seeds per square foot and to plant no earlier than February 15 and no later than April 1.

“We see our best yields in that March planting time frame for irrigated spring wheat,” Flowers said.

Flowers also advised growers to keep in mind that spring wheat is highly susceptible to damage.

“We don’t want to bang it up with herbicides, or not having the nitrogen there, or missing an irrigation schedule,” he said. “You want to make it nice for the plant to maximize that yield.

“In spring wheat we don’t have the forgiveness that we have in winter wheat,” he said.

Wirth Scholarship Deadline March 1

The College of Agriculture Sciences at Oregon State University announced that March 1 is the application deadline for the Timothy Scott Wirth Memorial Scholarship.

The scholarship was established in 1990 by the Byron and Edna Scott family of Linn County in memory of their grandson Tim Wirth.

Wirth was enrolled in the crop science program at OSU but died of cancer in 1989. The purpose of the scholarship is to provide financial assistance to deserving students from Linn County who are, or are expected to be, enrolled in the College of Agricultural Sciences.

Applicants must be graduates of Linn County secondary school programs, and entered or currently enrolled in the college.

Selection preference will be given to students with a farm background and who contribute their own financial resources to their college education.

Scholarship values vary each year, but to date has ranged from $250 to $500. Several individuals can be selected to receive scholarships.

Application forms can be found at http://cropandsoil.oregonstate.edu/content/scholarships-and-financial-aid. For more information, contact the OSU Department of Crop and Soil Science at 541-737-5712.
New Alternative to Phenoxies

Oregon grass seed growers have a new option for broadleaf weed control; one far less volatile than the phenoxy herbicides that have been cited as the source of crop injury in recent years.

Speaking at Oregon State University Extension Service’s wheat and seed production meetings in January, Extension Weed Specialist Andy Hulting said Sharpen, manufactured by BASF, “fits the bill for reducing our reliance on some of the older phenoxy herbicides.”

Sharpen, or saflufenacil, is used extensively in the Midwest as a tankmix partner with glyphosate for controlling glyphosate-resistant weeds in Roundup Ready cropping systems, Hulting said.

“What we’ve noticed, and what BASF noticed, is it has little or no grass activity, so it seems like a natural fit to get it into the grass seed industry for broadleaf weed management,” Hulting said.

“It also is nonvolatile and has very low use rates,” Hulting said.

Hulting said he has worked with saflufenacil extensively in recent years, mostly at the one to two ounce range. The herbicide has performed well in post-emergence use against broadleaf weeds in both newly seeded and established grass.

Hulting advised growers to use the product as a post-emergence herbicide, even though it also is available with a pre-emergence label.

“It seems like we just don’t get the activity pre-emergence with this product than we can with a post-emergence application,” he said.

Hulting said the product is an excellent fit in spring planted tall fescue adjacent to grapes.

“If you are spring planting crops and you are in a situation where you are up next to blueberries or grapes and you need a nonvolatile option to control broadleaf weeds, take a look at Sharpen,” he said.

The product is “very fast acting” and can be mixed with Callisto in cases where growers are looking for some residual control, Hulting said.

“Between the Huskie, the Callisto and now the Sharpen, I think we can be proactive about this drift issue in our grass seed crops,” Hulting said, “because we have some real nice options and we are less reliant on some of that older chemistry.”

Fenoxaprop Grass Seed Usage Receives Federal Label

In one form or another, it looks like Oregon grass seed growers will have access to fenoxaprop-p-ethyl this year.

The access could come from any one of three sources: Tacoma from WinField Solutions; Parity from Tenkoz; and possibly under a supplemental label for Puma from Bayer CropScience.

EPA approved the use of fenoxaprop on grass seed on the full federal label in the spring of 2014 using tolerances established by the IR-4 Program. Containers of herbicide with the revised, or updated, market labels, however, will not be available for at least a few weeks, according to the Oregon Department of Agriculture.

Historically, the use of fenoxaprop on grasses grown for seed was made possible under a Section 18 emergency exemption for Bayer Puma 1EC from 2007 through September of last year, and for Tacoma from WinField Solutions from 2010 to 2014.

Future Section 18s cannot be granted, however, now that the use is on the full federal label, according to Rose Kachadoorian of the ODA’s Pesticides Program. Also, Steve Salisbury, research and regulatory coordinator for the Oregon Seed Council, said Bayer will no longer market fenoxaprop, but that WinField will be distributing Bayer’s fenoxaprop product under the Tacoma name.

WinField executives reportedly told the ODA Pesticides Program in January that they were including grasses grown for seed on the label that they are attaching to Tacoma jugs beginning with a January 19 production run.

Also, a Tenkoz executive reportedly told ODA that Tenkoz could ship Parity to Oregon with grass seed on the label as early as March of this year.

Additionally, growers with older containers of Puma or Tacoma will be able to use it on grass seed when EPA approves a supplemental label for that usage. Growers will need to have the supplemental label in hand, however, before using the older container products on grasses grown for seed, Kachadoorian said.

Growers with older containers of Puma can still use the product on wheat and barley, according to David Priebe of the Oregon Department of Agriculture’s Pesticides Program.

Fenoxaprop provides good control of wild oats, summer grasses and has some activity on roughstalk bluegrass, Salisbury said.

“It is not a silver-bullet answer for roughstalk bluegrass,” Salisbury said, “but it does have activity on it.”

Generally, Salisbury said, fenoxaprop is not as strong on poa annua as Rely or glufosinate, but typically is easier on the crop.

Tacoma will carry a 60-day pre-harvest interval in grasses grown for seed, Salisbury said.