



**GARFIELD COUNTY  
EXTENSION**

**MAY 2025**

# AG NEWS

## Lahoma Wheat Tour Friday, May 16, 2025

- 8:30 Check-in  
Coffee and Donuts Oklahoma Wheat Growers
- 9:00 Program Start
- 15 min DASNR updates - Dr. Scott Senseman, Associate Vice President, Ag Research
- 15 min Impact Analysis of OSU Wheat Varieties  
Dayton Lambert, Professor, Willard Sparks Chair in Agricultural Sciences and Natural Resources
- 30 min Wheat Improvement Breeding for the North Central Region  
Brett Carver, Regents Professor, Wheat Genetics Chair
- 20 min Wheat Disease Update and Management  
Meriem Aoun, Assistant Professor, Small Grains Pathologist
- 20 min Late-Planting Wheat Research  
Amanda Silva, Assistant Professor & Extension Specialist, Small Grains
- 20 min Herbicide injury symptomology  
Liberty Galvin, Assistant Professor & Extension Specialist, Weed Science
- 20 min Wheat Herbicide Trait Stewardship  
Josh Bushong, Area Extension Agronomist
- 30 min Testing of Wheat Varieties in North Central Oklahoma  
Amanda Silva, Assistant Professor & Extension Specialist, Small Grains
- 12:30 Lunch-Provided by Farm Credit of Western Oklahoma
- 1:30 Conclusion

\*ODAFF Private Pesticide Applicator Credits applied for.



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# Wheat Condition and Foliar Fungicide Considerations

Josh Bushong, West Area Extension Specialist Agronomist

Wheat conditions are highly variable this spring. Overall stands are inconsistent, but still viable. “Spring green-up” was somewhat delayed this year, but once the wheat plants hit first hollow stem or jointing stage rapid growth has developed the past couple of weeks.

Along my travels I have noticed some chlorotic, or yellowing, in some of the wheat fields. I attributed the main potential culprits to have been either nitrogen deficiencies or response to herbicides. Crop response to nitrogen applications is always going to be determined on a field-by-field basis. While some of the crop has been under fertilized for lack of optimistic outlook reasons, I have also received reports of farmers claiming they have yet to see a response from their N-Rich strip.



As far as the crop response to herbicides, there have been a few fields where the crop has shown symptomology from applications of Acetolactate Synthase inhibitors (Group #2, Sulfonylurea & Imidazolinone). These products have been widely used in wheat for decades and a vast majority of the time farmers expect zero crop injury from using these products.

Occasionally when applications are made on stressed wheat within a couple days of cold temperatures crop injury can be found. Rarely will these instances reduce grain yield. The wheat usually recovers once growing conditions improve with more rain and warmer temperatures.

There have been a couple reports of mites throughout the region. Brown wheat mites are easiest to find in the afternoon on warm days. Wheat may show symptoms of being scorched or bronzed and withered. Treatment thresholds for an acaricide application in 25-50 per leaf on 6–9-inch plants. Heavy rainfall can reduce mite numbers significantly but will not eliminate them. Crop rotation is a good management option going forward.

I have found aphids starting to come in some fields, mostly greenbug and bird cherry-oat. Using the “Glance-N-Go” method (factsheet or phone app) is a great tool for scouting for greenbugs. Bird cherry-oat aphids typically don’t cause much visible damage to the wheat plant, but high numbers can reduce forage and grain yields. If populations exceed an average of 25-30 per tiller prior to the wheat heading a 5% yield loss could occur and if populations average 50 or more a 10% yield loss could occur.

I have started to receive some questions about fungicide applications to protect the flagleaf. As with all crop protection products this year, the price and potential return on investment of fungicides is a major concern. From reviewing an eight-year data set from the OSU wheat variety trials near Lahoma, on average there was about 20 percent yield savings comparing no fungicide versus a single flagleaf timed fungicide application. This average is across all varieties tested including those with and without adequate disease resistance.

Knowing your wheat variety and how good a disease package it is expected to have always been our first line of defense. Next is scouting and reviewing reports of diseases as they progress through the

region. A fungicide application will only protect yield potential, so the decision to spray or not will ultimately depend on the risk of having the disease present.

County wheat field tours and research field days are starting later this month. The Lahome Wheat Field Day is on May 16th. There are about 18 other county wheat field tours across the state. State and area specialists will discuss wheat variety characteristics and provide agronomic updates. Oklahoma Department of Agriculture, Food, and Forestry pesticide applicator continuing education units (ODAFF CEUs) will be offered at many of the tours and field days. Please visit <https://extension.okstate.edu/programs/wheat-research-and-extension/plot-tours.html> to find the full schedule, or contact your local OSU Extension Office.



## **New OSU Orange Blossom CL+ Wheat Variety Brings a Strong Resistance Package**

Oklahoma wheat fields are overdue for another groundbreaking wheat comparable to the Doublestop CL Plus variety with strong disease resistance and good protein content.

Oklahoma State University Agriculture will launch a new Clearfield wheat variety this summer with all the strong qualities the wheat industry needs, such as high yield potential, strong tolerance to leaf rust, stripe rust and spring freezes, and good milling quality.

High yield potential means a more profitable crop for producers. The greatest virtue of the Orange Blossom variety is its ability to fight off stripe rust infection in multiple environments, beginning with stem extension. This protects the high yield potential that comes from Clearfield genetics. Stripe rust, which has become a problem in Oklahoma, can cause low yields for farmers, reducing the amount of wheat available in the food industry for bread and other grain products.

OSU has not released a Clearfield variety in several years, with Doublestop CL Plus released in 2013 and Strad CL Plus in 2017. Clearfield Plus varieties have strong resistance to the annual grass control herbicide called Beyond due to two gene mutations within the Clearfield genetic line.

“The time was ripe for an upgrade. Given the popularity of Doublestop CL Plus with Oklahoma and south-central Kansas wheat producers, it made sense that upgrade would come from Doublestop CL Plus genetics,” said Dr. Brett Carver, wheat genetics chair and regents professor in the OSU Department of Plant and Soil Sciences. “I wanted the new variety name to connect to its direct parent, Doublestop CL Plus, in a musical way and to OSU (with orange as the school color) as the variety developer. The name Orange Blossom CL+ was one way to cover both.”



Orange Blossom Special is a famous, fast-paced musical piece created by Ervin T. Rouse in the 1930s, primarily played with a fiddle. The song also uses double stops, a musical technique of simultaneously playing two notes simultaneously on a stringed instrument.

After six years of field trials across the state, OSU Wheat Improvement Team members are confident that this variety, with about 66% Doublestop CL Plus lineage, is well adapted to Oklahoma's various climate conditions and pest pressures.

The following are the variety's characteristics:

- Strong yield potential in the absence of a fungicide – Orange Blossom CL+ exceeded Doublestop CL Plus in yield by nearly 15%, while its test weight was equal to or slightly better than Doublestop.

“This is an extremely rare trait combination inside or outside the Clearfield genetic pipeline,” Carver said. “Surpassing the yield of Doublestop CL Plus alone is not so extraordinary, but to couple this yield advantage with a comparable or slightly higher test weight would be difficult to repeat.”

- Orange Blossom CL+ has a high tolerance to leaf rust, stripe rust and spring freezes. It offers significant improvement over Doublestop CL Plus, and possibly Strad CL Plus, for protection against leaf rust. In Oklahoma and Washington, where stripe rust infections can be catastrophic, the variety displayed developmentally earlier and stronger resistance than almost 95% of the elite germplasm in the OSU wheat variety development program.

“Growers should be aware of a change in the leaf rust pathogen population observed late in the 2023-24 crop season,” Carver warned. “New races exist that could compromise the leaf rust resistance of Orange Blossom CL+ and many other varieties.”

- Orange Blossom CL+ has dual-purpose potential with good forage production and grazing recovery and an extended grazing period similar to the Doublestop CL Plus variety. Orange Blossom CL+ can be planted deeper than most varieties due to a longer-than-average stem-like structure. Dual-purpose means cattle can graze the wheat during its vegetative state before it grows grain. This reduces feed costs for cattle producers.
- The new variety has a high wheat protein concentration that is only slightly below Doublestop CL Plus.
- The milling quality of Orange Blossom CL+ is exceptional, but the baking quality is only average due to an estimated 30% reduction in mixing tolerance compared to Doublestop CL Plus. The protein concentration and water absorption of its flour are above average for hard red winter wheat. This means it will fit well into the grain commodity system, where grains are blended to make bread products.
- Potential weaknesses of the new variety include a variable reaction to barley yellow dwarf, which was moderately susceptible at worst, and a susceptible reaction to wheat soilborne mosaic.

“We have a good combination of yield, protein and test weight, and we have the testing rigor to back it up,” Carver said. “Wheat Improvement Team scientists hesitate to classify the stripe rust resistance in

Orange Blossom CL+ as all-season resistance because seedling assays of the Orange Blossom revealed susceptibility. Nevertheless, this stripe rust resistance package – which only OK Corral can come close to – is robust and currently highly reliable and far superior to that of Showdown, High Cotton and Doublestop CL Plus.”

Carver leads the Wheat Improvement Team, a multi-disciplinary group of scientists committed to strengthening the Oklahoma wheat industry by developing highly adapted winter wheat cultivars with marketable grain quality.

A limited quantity of seeds for Orange Blossom CL+ will be commercially available to producers at the OSU Foundation Seed Stocks this summer for fall planting.



## Tips for Successful Tomatoes

- Select a sunny spot: Gardens will grow in part sun, but generally, the more sun the better.
- Soil prep: Add compost to the soil, either from what you have composted, or consider a cotton bur compost in the planting hole. It will add beneficials to the soil which are not included with most fertilizers.
- Select variety: This is the great debate on which variety is best. Consider planting Celebrity, Jet Star, Big Beef, Cherokee Purple and at least two varieties of cherry tomatoes. There are dozens of varieties to select from this spring; have fun and plant something new along with your favorites.
- Fertilize regularly: Research shows a high phosphorus fertilizer at planting time will dramatically increase yields all season long. Side-dress with a product similar to ferti-lome Tomato and Vegetable Food monthly during the growing season as well.
- Mulch: Cover the garden soil with wheat straw to not only keep weeds down but also conserve water. Mulch also keeps water off of the foliage which will keep leaf spot disease from starting on the bottom leaves of your tomatoes.





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