

WINTER WHEAT VARIETY SELECTION



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Nathan Mueller, Water & Integrated Cropping Systems Extension Educator provides timely information about growing wheat in southeast Nebraska. Here is an update he provided concerning winter wheat variety selection.

Winter wheat variety selection is one of the first key management decisions that you make each year as a wheat farmer in southeast Nebraska. The three-year average yield difference in currently planted varieties evaluated at the University of Nebraska Jefferson County trial is 12 bushels per acre. I consider southeast Nebraska to include the 23 counties south of Highway 30 and west of Highway 14. In 2021, there was nearly 40,000 acres of wheat in southeast Nebraska. Given the limited acres and my experience indicate that most wheat farmers only plant one or two varieties each season. Therefore, how do you select the best variety for your farm?

There are several variety selection tools I encourage you to use in making data-driven decisions. First, the University of Nebraska-Lincoln Agronomy Department conducts statewide winter wheat variety trials including locations in Saunders, Lancaster, Jefferson, and Clay counties. Those results are posted each July online at cropwatch.unl.edu/variety-test. There is a new wheat variety app that helps you use the data more efficiently. Second, there is a regional data analysis website (ramwheatdb.com) hosted by Colorado State University. This tool allows for analysis of wheat variety performance across a broader region, for example southeast Nebraska, northeast Kansas, and north-central Kansas. As an agronomist local individual trial data is helpful, but multiple location and multiple year data analysis of variety performance helps me find consistently performing varieties for farmers.

What variety traits should you look for? Yield, protein, and test weight all determine the price you receive at the elevator, so these are at the top of the list. Standability or resistance to lodging is important given our higher yield environment and growing conditions in southeast Nebraska. Disease resistance to Fusarium head blight is high of my list. Fusarium damaged kernels and vomitoxin is assessed at the grain elevator to and can lead to dockage or even rejection of the load. There are no varieties completely resistant to Fusarium head blight, but resistance ratings above average are needed most years along with a well-timed fungicide application during flowering to avoid issues. Varieties with moderately resistant ratings for 4 to 6 are preferred (scale of 1 to 10, 1 is resistant and 10 is susceptible). Varieties moderately resistant to leaf and stripe rust is preferred too. The varieties that match most of my preferred traits for this upcoming growing season include, but not limited to, WB4401 and WB4699 from WestBred, LCS Valiant from Limagrain Cereal Seeds, AP Bigfoot from AgriPro, CP7017AX from Croplan, Siege from NuPride, Rock Star from Polansky Seed. You can find the list of certified seed growers to purchase wheat seed from through the Nebraska Crop Improvement Association online at necrop.org.

As a reminder, you can find more information on variety selection, a seeding rate calculator, target planting date map, and much more on my locally focused website for growing winter wheat in southeast Nebraska at croptechcafe.org. For inquiries about these and other agronomy-related resources from Nebraska Extension, contact nathan.mueller@unl.edu or 402-821-1722. Know your crop, know your tech, know your bottom line.

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