Tour forecasts Kansas production at 290.4 million bus. Courtesy of Sosland Publishing

MANHATTAN, KAN. — Though fewer acres were seeded, June and July could bring the largest hard red winter wheat harvest since 2021.

That's what 70 wheat scouts found during their three-day trek across central and western Kansas May 14-16 on the Wheat Quality Council's 66th annual Hard Winter Wheat Evaluation Tour. The tour presents the first wide look at the developing crop that will be milled for flour used primarily to make bread. This year, variability was the watchword from tour organizers and wheat experts who closely monitored the crop from seeding through a strong emergence period last fall, dormancy, a late freeze event and a troubling lack of precipitation from February to April.

Variability aptly described a crop mostly in good shape, especially compared with the spotty, short stands and abandoned fields of 2022 and 2023. However, occasional short wheat areas adjacent to tall plants within the same field gave a wavy appearance. Also, conditions worsened as the tour moved west into cropping districts that largely missed out when rains finally arrived in the Plains in May. Grower Stewart Whitclaw, who farms near Leoti, Kan., told a group of scouts on the Day 2 green route that precipitation had come in a pitchfork pattern that blessed some fields with rain but left others nearly dry.

The US Department of Agriculture on March 28 estimated 24.3 million acres seeded to hard red winter wheat compared with 26 million acres a year earlier. On May 10, the USDA projected winter wheat production in top producer Kansas at 267.9 million bus, up 33% from 201.3 million bus in 2023, based on a forecast yield of 38 bus per acre and 7.05 million harvested acres, which compared with 35 bus an acre and 5.75 million harvested acres a year earlier.

Late rains across the Plains in May perhaps expanded the crop's potential, the wheat tour found. Scouts in foursomes followed one of six color-coded routes established years ago, a system that allows historical comparison. Avoiding fenced fields and those with no trespassing signs, scouts appraised stands (how the plants are growing in the fields and whether there are areas of spotty or no emergence), checked for freeze damage (a result of extended overnight low temperatures recorded in late March) and checked the development (most were headed with kernels in the late-milk stage) and took a series of measurements. Those included plant height, row spacing, wheat heads in a 12-inch section, spikelets per head and kernels per spikelet.

Each scout's personal averages for a field were then averaged with the findings of the three other scouts in the vehicle in order to calculate a yield forecast using a proprietary formula customized each year by the USDA's National Agricultural Statistics Service in Kansas. Each vehicle's daily average yield then was used to generate an average for comparison with the same six routes in previous years. On the basis of 449 field stops over three days, scouts forecast the average 2024 yield at 46.5 bus per acre, compared with 30 bus per acre from 652 stops in 2023. Scouts at the May 16 final tour meeting at the International Grains Program Institute in Manhattan estimated Kansas wheat production in 2024 at 290.4 million bus.

"We're close to what we would consider an average crop," said tour organizer Dave Green, executive vice president of the Wheat Quality Council. "This is a snapshot of where we think the crop is today. That doesn't mean some of us don't think the crop will improve or worsen before harvest."

Though yields and production appear likely to exceed those of the past two years and the USDA's May forecasts, several other factors were at play, including instances of freeze damage, which can stop wheat heads from developing; the foliar disease stripe rust, which inhibits sunlight absorption during grain fill; the virus wheat streak mosaic carried by wheat curl mites, which blocks wheat head development; and Fusarium root rot, which can decay and kill plants prematurely.

Weather will continue to be a factor for the crop in the home stretch, said Romulo Lollato, associate professor and extension wheat and forages specialist with Kansas State University in Manhattan.

"Where is this crop going to go?" Lollato asked. "If things go very well down the road with nice weather, this will remain a good crop. But if there is hot humid weather in the next couple weeks, it could go downhill from there. Variability is the name of the game we're seeing. Fields estimated at 25 bus an acre and then 30 miles down the road, 65 bus. We will see quite a bit of abandonment and are already getting calls from farmers who have called insurance adjusters out to their fields. It has been another odd, unusual year. The major concerns are freeze damage, stripe rust is active with weather remaining on the moist side at this stage, and of course, western Kansas drought."