

Day 16, Kansas Wheat Harvest Report

This is day 16 of the Kansas Wheat Harvest Reports, brought to you by the Kansas Wheat Commission, Kansas Association of Wheat Growers and the Kansas Grain and Feed Association.

Mother Nature can either make or break a crop, and she has put this year's Kansas wheat crop through the ringer. Between rain showers and hail storms, western Kansas farmers have been stop and go since harvest began.

Chris Tanner, Norton, said that his harvest has had a slow start. All of his wheat received snow in the late-April blizzard, but the current condition of the wheat varies largely based on planting date and variety.

"When the snow was laying on the wheat, I thought it was dead and done for," said Tanner. "After that there was a little bit of a dry spell that wasn't good for it, but it's been pretty resilient. They say wheat has nine lives, but this crop is on its 10th or 11th."

In addition to snow, Tanner has also seen his fair share of hail over the last few weeks.

"Hail is what has really hurt it," said Tanner. "I have 800 acres of corn that has been totally defoliated, and a range of 50-70 percent loss on some of my wheat acres."

Yields have been ranging from 20-80 bushels per acre, with hail damage and kinked stems from the snow driving the yields down. Test weights have ranged from 58-62 pounds per bushel and Tanner has heard that proteins have ranged up to 12.5 percent.

Harvest started last Saturday for Brian Linin, a farmer near Goodland. Linin said that what his crew has been able to cut is yielding well above average, but that silver lining is spoiled by the amount of hail damage the area has received.

"We had three quarters get hailed completely out, so we aren't even going to try and cut that," said Linin. "Several others had 40-70 percent damage. People were initially saying that up to half of all wheat acres out here were hailed out. It may not be that high, but it's still substantial."

Linin reports that there are no lines at the elevator this year, an indicator that many farmers in the area don't have a lot to cut. He said that test weights have been good, and he has been pleasantly surprised by proteins.

"We've got some protein out here, that's for sure," said Linin.

Even though what can be cut is yielding above average, the losses from hail damage and wheat streak mosaic virus (WSMV) have taken a toll on the bottom line.

"With the loss of those hailed and diseased out acres, I think we'll be running at right around an average yielding harvest, maybe even a bit below," said Linin.

Dr. Romulo Lollato, wheat and forage extension specialist for Kansas State University Research and Extension, said that except for northwest Kansas, most farmers in the state have already cut their last acre. Dr. Lollato said that there is substantial variability in yields this year thanks to WSMV and hail, both widespread problems for western Kansas.

In northwest Kansas, heat stress during grainfill also hurt some producers in some late maturing varieties with around 10-15 percent yield losses. But even with heat stress, Dr. Lollato said, 'if it escaped hail, it'll probably be above average yields."

While high temperatures during grainfill may limit yields, it could mean good things for proteins. Temperature doesn't usually have much of an effect on protein development, but it does limit carbohydrate creation in the endosperm. More carbohydrates means additional weight is added to kernels, resulting in higher yields. With less carbohydrates taking up space, there is a higher percentage of protein. So, while the high temperatures limited carbohydrate addition, and thus yields, it did mean a higher protein content for those heat stressed acres.

While much of protein development depends on the environment, Dr. Lollato did say that management decisions like nitrogen application can make a difference. Protein is formed from nitrogen that has been moved from the leaves and stems of the wheat plant.

"If there is less than 11.5 percent protein, our data has shown that there was yield left on the table," said Dr. Lollato. "That wheat wasn't able to reach its full yield potential, and both yield and protein content would have benefitted from an application of nitrogen."

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