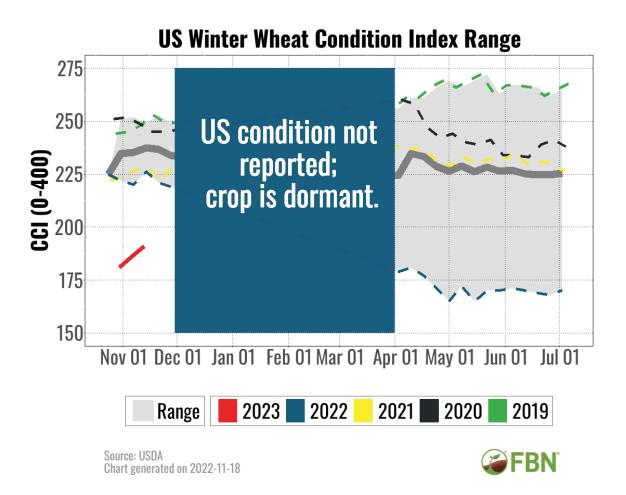
US Winter Wheat Conditions Low: Could Yields be Impacted?

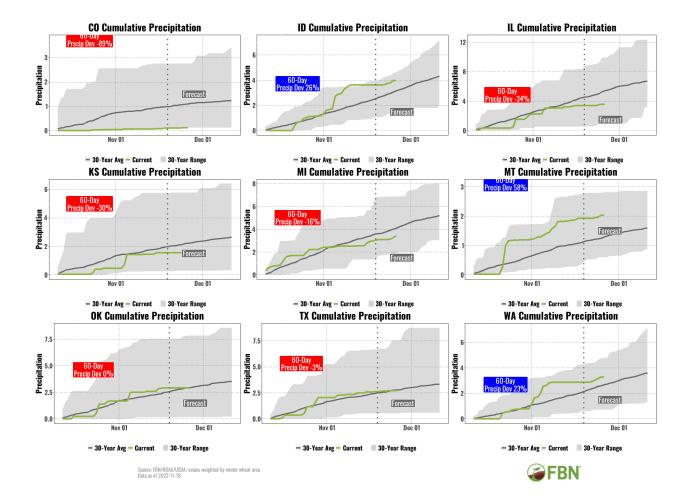
The latest US winter wheat crop condition reading came in at 32% good to excellent; versus last year, that combined percentage is off 14 points. But, the national rating was up from the previous two weeks. The main driver behind the low conditions is weather; key-producing states in the Southern Plains have faced dry conditions for months (which negatively impacted the 2022 HRW wheat growing season).



Current Weather

Colorado has had essentially no moisture the past 60 days while Kansas has had only one good run of moisture. Texas and Oklahoma accumulations are near normal over the past 60 days but the states were parched before with our bias being that the rainfall has not been sufficient enough to displace the current drought conditions across the Plains.

In fact, the latest US Drought Monitor map <u>found here</u> shows that a solid chunk of Kansas, especially the southwestern area, is in an extreme/exceptional drought. That persists into parts of Oklahoma and parts of the Texas Panhandle.



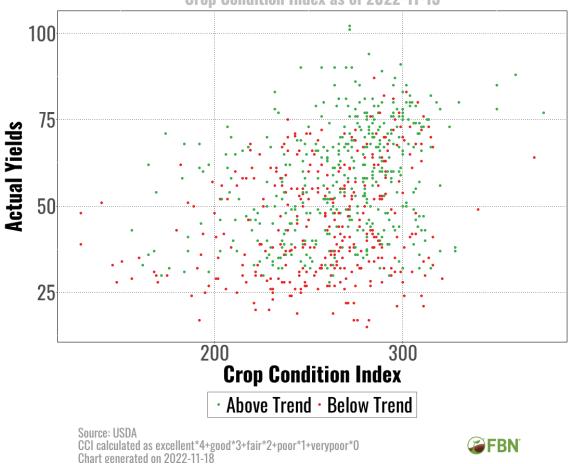
Model Explanation

We examined state-level crop condition readings for this time of the year and whether those readings have a clear impact on final yields. First, we gathered condition and yield data across winter wheat producing states. We calculated trend-like yields for each state and the difference between realized and trend yields. Then, we calculated a crop condition index from a scale of 0-400 by summing the percent rated excellent times four, good times three, fair times two, poor times one, and very poor by zero, referred to as the crop condition index or CCI. We created a range of CCI buckets (0-100, 101-150, 151-200, etc), pulling years and states that fell into the specific range. Those observations were then tested to see if in those instances yields came in above or below trend.

A simple scatter chart of the latest CCI versus realized yields does not paint a clear picture of how the rating can impact final harvest numbers. If an abundance of red dots were present in the bottom left area, then we could conclude risks are currently present. However, there is a mix of red and green dots scattered across the chart.

US Winter Wheat Conditions vs Yields

Crop Condition Index as of 2022-11-13



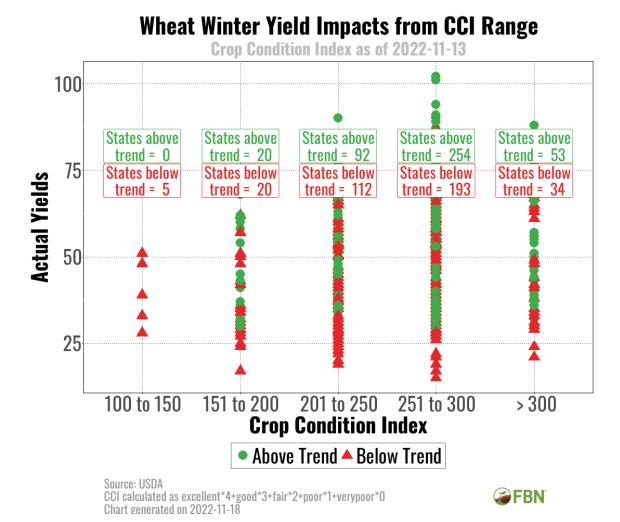
Model Results

The results indicate that lower CCI ratings this early in the crop season do not necessarily indicate yields will be below trend. For CCIs ranging from 100 to 250, in 137 cases, states had below-trend yields versus 112 cases of above-trend yields. However, when CCIs are above the 250 mark, a slightly clearer picture is drawn. Then, we do see a larger disparity between above-and below-trend yield differences. In 307 cases, states reported above-trend yields versus 227 cases of below-trend yields. Thus, there is a slightly better chance of having above-trend yields when CCIs are higher than there is of a below-trend yield when CCIs are lower.

Summary of Historical CCI & US Winter Wheat Yield Results

	CCI 100-250 (249 Cases)	CCI 251-400 (534 Cases)
Above Trend Yield	112 (45%)	307 (57%)
Below Trend Yield	137 (55%)	227 (43%)

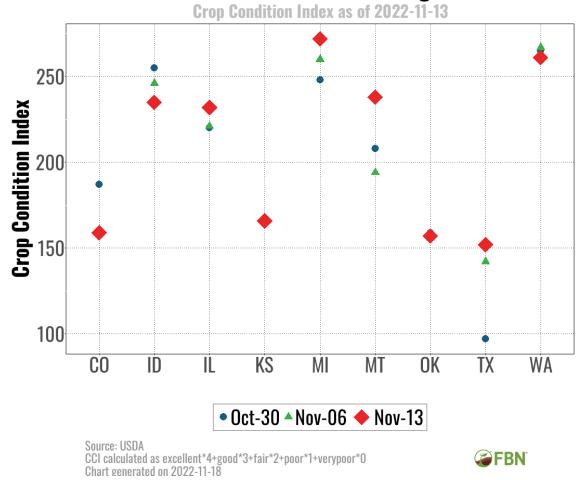
Source: FBN/USDA



Current Condition Ratings for Key-States

When looking at the CCI range from 100-150, while in all five observations states reported below-trend yields at harvest, the sample size is not large enough to quantify that yield losses will definitely happen. Further, right now, no states have a CCI that is below 150 (Texas did earlier in the season, but the latest rating came in at 152). The big four states in the Southern Plains - Texas, Oklahoma, Kansas, and Colorado - all have CCIs in the 151-200 range. And when we examine the top winter wheat producing states, none have CCIs that are in a risky area at this point.

Current Condition Ratings



FBN's Take on What it Means for the Farmer: The takeaway is that despite the poor condition ratings overall for the US crop, we are not necessarily setting the stage for a below-trend like yield for the crop. Weather in the spring will be key to determining final yields. But, even with a return to trend-like yields, we likely will not produce enough of a crop to create an overly burdensome situation in the US.

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