

2021 Wheat Update: April 26, 2021

Trending in the Right Direction *by Paul W. Bodenshtine, agronomist*

When we started on this high-yield wheat journey in 1982, wheat yields jumped impressively from 38 to 67 bu./acre from 1982-1997 (see graph below).

The ride since then has not been as exciting.

The adaption of no-till to reduce costs coupled with a series of excessive May rains increased scab infections. Colder April and May temperatures increased freeze damage frequency. Both have proven to difficult to overcome.

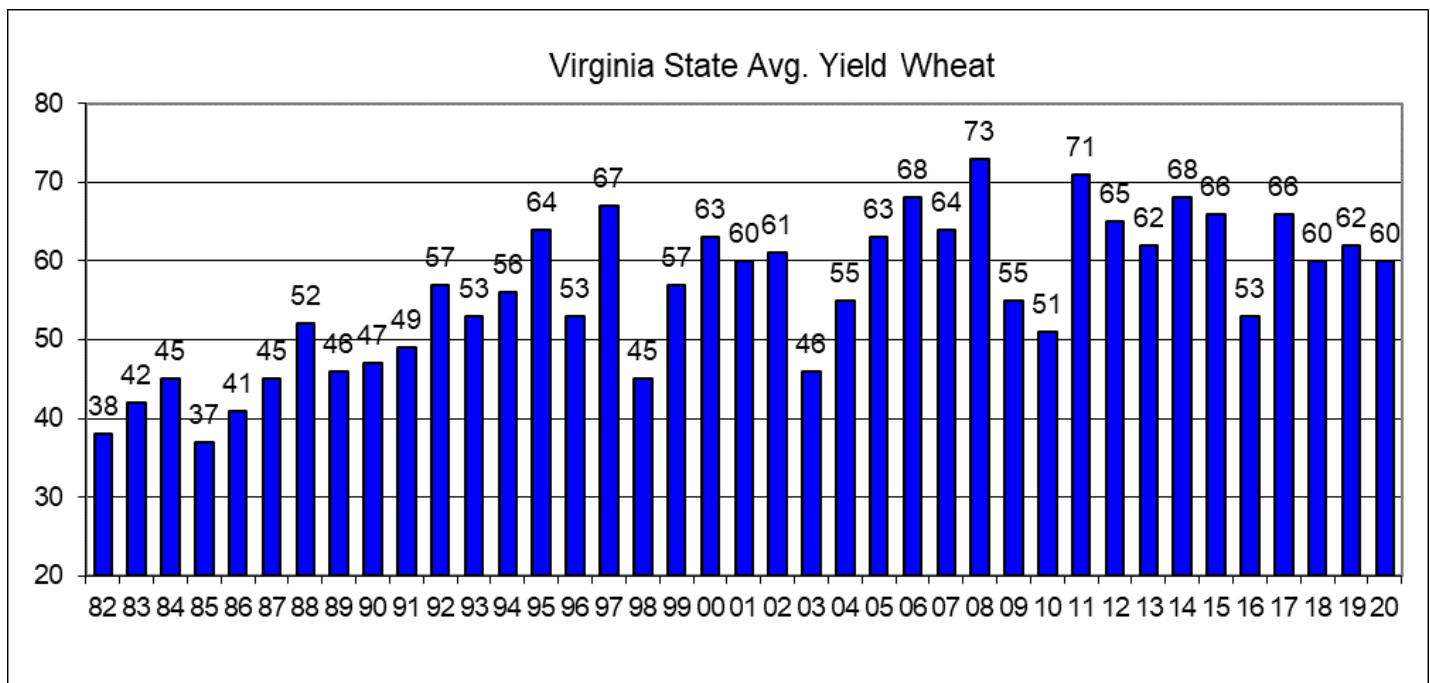
For 2021, the good news is that the 2021 wheat crop has fewer GDU than average on March 31: 1253 GDU for 2021 compared to 1380 GDU average.

Year	YTD Mar 31 GDU	State Avg. Yield
2004	1171	55
2005	1212	63
2006	1159	68
2007	1374	64
2008	1382	73
2009	1381	55
2010	1291	51
2011	1310	71
2012	1925	65
2013	1243	62
2014	1268	68
2015	1226	66
2016	1876	53
2017	1712	66
2018	1319	60
2019	1130	62
2020	1487	60
2021	1253	



Flag leaf emerging in Caroline CO., VA on April 10 in 2016. Plants are more susceptible to freeze damage the closer to heading and flowering. Flag leaf emergence will start this week in many fields, a full nine days later than average.

As of April 26, the accumulated GDU for Oct 15th planted wheat makes this crop nine days later than "average". This should help protect from any late freeze damage. The May 10, 2020 (Mother's Day) freeze at 26F was the latest freeze in Central VA since 1960 and destroyed a very promising cereal crop.





Renwood Farms
17303 Sandy Point Rd
Charles City, VA 23030

Customer Service: (804) 829-2450

Paul Bodenshtine, Consulting Agronomist:
(804) 314-7463
paulb@agsystemsva.com

Trending in the Right Direction

Even more good news: according to the ag.systems wheat models, the best VA state wheat yields have come when the wheat receives **between 305 and 325 GDU in March** (2008 and 2011). In 2021, March produced 314 GDU which indicates a very high wheat yielding year if all goes well from here.

At 1647 year-to-date GDU, we will see wheat heading very soon with flowering coming about 10 days later. Harvest is possible (20% kernel moisture) about 30 days after heading putting harvest at mid-June.

Spring freeze is a real threat to Mid-Atlantic winter wheat every year. Selecting specific late or early heading varieties to plant in the proper window reduces this threat dramatically and is a key component of high-yield wheat.

Wheat Nutrient Status

Wheat plant tissue samples at GS30 (GS5) were surprising in some respects. For whatever reason, several samples had higher-than-normal nitrogen levels in spite of wet weather. A flag leaf tissue sample testing below 3.8% nitrogen will indicate a foliar nitrogen application is needed with any fungicide.

Boron and zinc lead the pack as usual for nutrients that were considered at yield-limiting levels. Hopefully, fields received these treatments. We believe it is too late to correct either of these after the flag leaf emerges.

Molybdenum has proven to be effective in its role of limiting dockage from low falling numbers and low test weight. Iron has been identified as yield limiting in wheat and foliar applications have been recommended.

Going Forward

To finish this crop, with the CBOT price of wheat coupled with a warm, wet May forecast, growers are encouraged to apply a scab fungicide at flowering.

Either Miravis Ace®, Caramba® or Prosaro® can be used to suppress the fusarium fungus that cause yield loss and vomitoxin when applied at flowering.

Glume blotch is a serious wheat disease. Wheat varieties with the Fhb1 scab gene seem to be most susceptible. At-flowering applications of these fungicides will control this disease in addition to scab and rust.

