## WHEAT PERFORMANCE IN ILLINOIS TRIALS - 2021 Crop Sciences Special Report 2021-01, July 2021

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The 2020-21 wheat growing season in Illinois was excellent. Winter wheat area harvested was 650,000 acres, up 25% from the previous growing season. Average yield was 80 bushels/acre, up 18% from the previous year.

The weather conditions were favorable. Winter was mild and spring was cool and rainy. A period of dry weather occurred between flowering and maturity, which lead to ample solar radiation during grain filling. This is important for yield and may have been a major contributing factor to the high average yield observed, this season.

Diseases were generally not a problem. Stripe rust, caused by P. striiformis var. tritici was sighted in some fields, but did not reach epidemic levels. Fusarium Head Blight, also known as Scab, caused by Fusarium graminearium was generally not a problem, although outbreaks were noted in some fields where susceptible varieties were planted.

For much of the state, heavy rain occurred around harvest time. Some were able to harvest before the rain arrived. For others, the rain occurred before harvest when the grain was still at high moisture levels and test weights were largely unaffected. Those that experienced heavy rain after the grain was dry likely lost test weight due to preharvest sprouting. In one of our breeding trials we observed a 4 pound/bushel decrease in test weight after a 6-day delay in harvest due to rain. Interestingly, a 3 bushel/acre decrease in yield was also observed. This is a good reminder that timely harvest is critical for wheat to be profitable. Harvesting wheat at high moisture levels, followed by drying, can be a good way reduce the risk of wheat yield and quality loss at harvest. Selecting a variety with high test weight can also help ensure that test weights remain above the discount threshold even when some test weight is lost due to weather.

To aid variety selection decisions, we present these wheat variety testing results from 6 locations across the state of Illinois. Plots were seeded at the rate of 36 seeds per square foot, and consisted of six, 7.5-inch rows trimmed to about 16 feet before harvest. Yields were corrected to 13.5% moisture. Entries treated with seedapplied insecticide have insecticide treatment identified by the product trade name in the tables.

			Planting	N	Harvest
Location	Cooperator	Soil type	date	fertilizer	date
Elkville	Trent Funk	Hurst silt loam	Oct. 6	30 Fall 110 Spring	June 22
Belleville	Dane Hunter	Ebbert silt loam	Oct. 8	30 Fall 85 Spring	June 23
St Peter	Russ Schwarm	Hoyleton silt loam	Oct. 6	0 Fall 120 Spring	June 24
Perry/Orr Center	Luke Merritt	Clarksdale silt loam	Oct. 8	30 Fall 80 Spring	July 2
Urbana	Nick Eisenmenger	Flanagan silt loam	Sept. 27	30 Fall 40 Spring	June 29
Hampshire	Dezeri DeRaedt	Drummer silt loam	Oct. 7	30 Fall 80 Spring	July 8

Participating companies are listed on Page 2, regional data in Tables 1 and 2, individual location data in Tables 3 to 8, wheat variety characteristics in Table 9, and the Fusarium head scab ratings in Table 10.

## **Participating Companies**

We thank these companies for their support of this program in 2021.

AgriMAXX Wheat Co 7167 Highbanks Rd Mascoutah, IL 62258 (855) 629-9432

AgriPro 1521 N Convent St. Bourbonnais, IL 60914 (815) 370-3291

Albert Lea Seed 1414 W. Main Albert Lea, MN 56007 (800) 352-5247

American Organic 1676 CR 2200 E St Joseph, IL (217) 469-2351

BioTown Seeds 373 N Diener Rd Reynolds, IN 47980 (219) 984-6038

DeRaedt Seed Corp. 10 N 971 Tower Road Hampshire, IL 60140 (847) 514-8844 Dyna-Gro Seed 200 W 2<sup>nd</sup> St. Flora, IL 44818 (618) 578-0660

FS Wheat 1701 Towanda Ave., PO 2500 Bloomington, IL 61701 (309) 557-6399

Green Valley Seed 121 West College St Kahoka, MO 63445 (800) 748-7943

Hoffman Seed House PO Box 66 Hoffman, IL 62250 (618) 495-2617

Kitchen Seed Company PO Box 286 Arthur, IL 61911 (217) 543-3476

Kratz Farms LLC 4380 Sherman Road Slinger, WI 53086 (262) 305-6631 KWS Cereals 4101 Colleen Dr Champaign, IL 618/22 217-800-1008

Monier Seed & Service 846 Yankee Lane Sparland, IL 61565 (319) 464-5708

Michigan State University 1066 Bogue St A286 East Lancing, MI 48824 (217) 353-0142

Pioneer Hi-Bred Int'l Inc. 7100 NW 62<sup>nd</sup> Ave. Johnston, IA 50131 (800) 247-6803

VCIA 9225 Atlee Branch Lane Mechanicsville, VA 23116 (804) 746-4884

Williamsfield Seed Co. 1122 Knox Highway 18 Williamsfield, IL 61489 (309) 639-2248