## WHEAT PERFORMANCE IN ILLINOIS TRIALS - 2016 Crop Sciences Special Report 2016-01, July 2016

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The 2015-16 wheat season was a very good one in Illinois, with good yields and good quality. The biggest problem by far was an unprecedented and unexpected outbreak of stripe rust, which hit the crop in early April in southern Illinois and very quickly decreased leaf area in susceptible varieties. Planted acres for 2016 were up slightly from 2015, at 560,000 acres. The July yield estimate for Illinois wheat was 75 bushels per acre, 10 bushels above the yield in 2015 and 8 bushels above the previous record of 67, the state average yield in in 2006, 2013, and 2014.

Wheat planting in the fall of 2015 was delayed moderately by wet weather; the 50% planted date was about October 14. The fall and winter were relatively warm, however, and the crop made more than normal growth during the fall and spent less time in dormancy than it normally does. There was heavy rainfall in late December, but most of the water drained off the surface before things froze up, and stands were good coming out of dormancy.

March was a warmer and a little wetter than normal, and April was close to normal with some areas a little drier than normal. Wheat came out of dormancy early and grew rapidly, with 50% heading by May 6, nearly a week ahead of normal. Most of the Illinois crop experienced rainfall during at least part of the flowering period, but the anticipated cool Fusarium head blight (scab) did not develop nearly as much as expected, and this disease had little effect on wheat grain quality in 2016. As mentioned above, stripe rust, which has seldom been a disease of economic consequence in Illinois wheat, was the big story in 2016. It arrived during vegetative growth and in some cases took most of the leaf area off before or during heading. Many widely-grown varieties have low levels of resistance to this disease, and as we noted on several of the tables in this report, this meant a very wide spread in yields, with the highest yields at a location often double the lowest yields. Levels of the disease are not uniform across a trial, which adds to the variability.

The 2015-16 wheat variety trials were planted on time in most locations, with the Belleville trial delayed by a week or so by wet weather. Plots in these trials were seeded at the rate of 36 seeds per square foot, and consisted of six, 7.5-inch rows trimmed to about 16 feet long before harvest. There were three replications. Yields were corrected to 13.5% moisture. Entries treated with seed-applied insecticide have insecticide treatment identified by product trade name in the tables.

<b>Location</b>	<b>Cooperators</b>	Soil type	<u>Planted</u>	N fertilizer	<u>Harvest</u>
Elkville	Trent Funk	Hurst silt loam	Oct. 5	30 Fall 100 Spring	June 25
Belleville	Ron Krausz	Ebbert silt loam	Oct. 16	30 Fall 85 Spring	June 25
Brownstown	Lindell Deal	Cisne silt loam	Oct. 05	30 Fall 100 Spring	June 21
Orr Center	Mike Vose	Clarksdale silt loam	Sept. 30	30 Fall 80 Spring	June 23
Urbana	Jeff Warren	Flanagan silt loam	Sept. 28	30 Fall 40 Spring	June 24
DeKalb	Greg Steckel	Elpaso silty clay loam	Sept. 25	40 Fall 40 Spring	July 11

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 2016.

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

Beck's Hybrids 6767 E 276<sup>th</sup> St Atlanta, IN 46031 (317) 984-3508

BioTown Seeds Box 299

Reynolds, IN 47980 (219) 984-6038

DeRaedt Seed Corp. 10 N 971 Tower Road Hampshire, IL 60140 (847) 514-8844

DuPont Pioneer 421 Detroit Drive Bloomington, IL 61704 (800) 950-3489

Dyna-Gro Seed 2660 Orr Rd. Bloomville, Ohio 44818 419-310-6370

Equity Seed PO Box 978 Westfield, IN 46074 (888) 898-7333

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

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

Hartke Seed Farms 22679 Sunset Rd Litchfield, IL 62059 (217) 324-2680 Hoffman Seed House PO Box 66, 200 E 4<sup>th</sup> St 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) 644-9426

Lewis Hybrids, Inc. 530 West Maple Ave. Ursa, IL 62376 (217) 964-2131

Limagrain Cereal Seeds 2040 SE Frontage Rd Ft. Collins, CO 80525 (970) 498-2200

Martin Seeds, Inc. 10045W Second Williamsport, IN 47993 (765) 986-2030

Merschman Seeds, Inc 103 Ave D, PO Box 67 West Point, IA 52656 (800) 848-7333

Miller Bros. Farm & Fertilizer 2001 Niemansville Trail Walshville, IL 62091 (217) 456-9311

Moiner Seed and Service 846 Yankee Lane Sparland, IL 61565 (309) 469-2511

Pro Harvest Seeds, Inc. 2737 N 700 E Rd Ashkum, IL 60911 (815) 698-2204 Pro Seed Genetics N 4297 City Hwy E Kewaunee, WI 54216 (920) 988-2824

Sedlacek 633 Cedar Road St Jacob, IL 62281 (618) 644-4789

Stone Seed Group 5965 W State Route 97 Pleasant Plains, IL 217-546-8006

Sunstar Hybrids 14993 State Road 17 Culver, IN 46511-9642 (574) 842-2775

Syngenta 14031 Trestle Rd Highland, IL 62249 (765) 412-5420

UniSouth Genetics, Inc. 3205C HWY 46 S Dickson, TN 37055 (615) 515-3133

Virginia Crop Improvement 9225 Atlee Branch Lane Mechanicsville, VA 23116 (804) 746-4884