## WHEAT PERFORMANCE IN ILLINOIS TRIALS - 2019 Crop Sciences Special Report 2019-01, July 2019

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The 2018-19 Illinois wheat crop was a fairly average one: yields were less than in recent years, and grain quality was generally acceptable. Planted acres for 2019 were 640,000, up from 600,000 acres in 2018, and harvested area was 590,000 acres, up from 560,000 acres in 2018. The 2019 Illinois wheat yield was 63 bushels per acre, down from 66 bushels per acre in 2018 and the record-high 76 bushels per acre in 2017.

Wheat planting in the fall of 2018 was delayed by wet weather: only 86% of the wheat crop emerged by November 25, and 54% of it was in good or excellent condition on that date. The crop overwintered without any serious issues; the good + excellent rating was 55% on April 7. April was cool and May was wet; the G+E crop condition rating fell to 40% by May 5 and fell further, to 30%, by June 2. Only 9% of the crop was headed by May 5, and 35% by May 12, compared to a 5-year average of 53% in that date. Only 87% of the crop was reported to have headed by June 2, compared to 95% averaged over the previous five years.

With May rainfall ranging from 25 to 50% above normal in most of southern Illinois, and more than twice normal in much of the northern half of the state, there were considerable fears that Fusarium head blight (FHB), or scab, would turn out to be a major problem. Frequent rain also made it difficult to apply fungicide at the right time. As it turned out, there was some FHB in many fields, but levels were not as high as had been feared, and there were few reports of market discounts due to high DON levels. Wet June weather brought harvest delays, however: only 47% of the Illinois wheat crop was harvested by the end of June, and it was the end of July before harvest was completed. Although FHB amounts were not high, test weights were in the mid-50s in many fields, likely due to some drying and rewetting as harvest was delayed.

The 2018-19 wheat variety trials were planted on time, but harvest was later than usual at most locations—see the table below. 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 seed-applied insecticide have insecticide treatment identified by product trade name in the tables.

All trials were harvested in 2019, but data from Urbana and St. Peter (south-central IL) are not included in this because of high variability, mostly related to water damage. Lodging was rated at Hampshire, where heavy rain several days before harvest resulted in some lodging, but lodging did not affect yield, and also at Perry, where lodged varieties yielded a little less. It's not clear why some entries lodged at Perry, nor whether lower yields were directly related to lodging.

|                     |                     |                         | Planting | N                     | Harvest |
|---------------------|---------------------|-------------------------|----------|-----------------------|---------|
| Location            | Cooperator          | Soil type               | date     | fertilizer            | date    |
| Elkville            | Trent Funk          | Wynoose<br>silt loam    | Oct. 2   | 30 Fall<br>110 Spring | June 28 |
| Belleville          | Ron Krausz          | Ebbert<br>silt loam     | Oct. 9   | 30 Fall<br>85 Spring  | June 28 |
| St Peter            | Russ Schwarm        | Wakeland<br>silt loam   | Oct. 9   | 0 Fall<br>120 Spring  | July 2  |
| Perry/Orr<br>Center | Mike Vose           | Clarksdale<br>silt loam | Oct. 2   | 30 Fall<br>80 Spring  | July 8  |
| Urbana              | Nick<br>Eisenmenger | Flanagan<br>silt loam   | Oct. 3   | 30 Fall<br>40 Spring  | July 10 |
| Hampshire           | Dezeri DeRaedt      | Octagon silt loam       | Sept. 24 | 30 Fall<br>80 Spring  | July 23 |

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 2019.

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

AgriPro 200 E 4<sup>th</sup> St Hoffman, IL 62250 (618) 495-2617

BioTown Seeds Box 299 Reynolds, IN 47980 (219) 984-6038

CROPLAN by Winfield 1050 CR F West/MS5850 Shoreview, MN 55126 www.winfield.com

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) 838-5024

GO Wheat 1530 HWY 79 South Stuttgart, AR 72160 (800) 264-4433 Green Valley Seed 121 West College St Kahoka, MO 63445 (800) 748-7943

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

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

KWS Cereals 4101 Colleen Dr Champaign, IL 618/22 217-800-1008

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

Monier Seed & Service 846 Yankee Lane Sparland, IL 61565 (309) 238-1227

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

Pro Seed Genetics N 4297 City Hwy E Kewaunee, WI 54216 (920) 988-2824

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