WHEAT PERFORMANCE IN ILLINOIS TRIALS - 2017 Crop Sciences Special Report 2017-01, July 2017

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The 2016-17 wheat season was a very good one in Illinois, with good yields and good quality. Planted acres for 2017 were 520,000, the same as in the previous year. Harvested area was 490,000 acres in 2017, up slightly from 470,000 acres in 2016. The July 1 yield estimate for Illinois wheat was 75 bushels per acre, one bushel above the yield in 2016 and a new record-high yield for Illinois.

Wheat planting in the fall of 2016 was delayed by late harvest of corn and soybeans and by wet weather; 50% of the crop was planted by October 20, compared to the 5-year average of October 16. 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 an unusual pattern to the winter weather, with February much warmer than normal and average March temperatures close to normal overall but with some temperatures below 20 degrees in mid-March. Winter survival was very good, and even with the setback of low temperatures in mid-March, crop development in the spring was ahead of normal.

April was a little warmer than normal, and heading was much earlier than normal. Statewide, 50% of the wheat crop was headed by April 29, almost two weeks earlier than normal. Harvest also started early, with almost half of the crop harvested by June 15, some 10 days earlier than normal. Most of the Illinois crop experienced rainfall sometime during the flowering period, but the Fusarium head blight (scab) did not develop nearly as much as expected, and this disease had little effect on yield or grain quality in 2017. Stripe rust, which was serious in 2016, was not a problem in 2017. The only unusual thing we saw in the variety trials was some lodging in some varieties at some locations. We don't know the reason for this, but we rated it at locations where the amount of lodging appeared to affect yield of some varieties.

The 2016-17 wheat variety trials were planted on time – see the table below. 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.

| Location | Cooperator | Soil type | Planting date | N fertilizer | Harvest date |
|---------------------|----------------|-------------------------|------------------|-----------------------|-----------------|
| Elkville | Trent Funk | Hoyleton silt loam | Oct. 10 | 30 Fall 100 Spring | June 12 |
| Belleville | Ron Krausz | Ebbert silt loam | Oct. 11 | 30 Fall 85 Spring | June 12 |
| Neoga | Dennis Brown | Wynoose silt loam | Oct. 5 | 30 Fall 100 Spring | June 19 |
| Perry/Orr Center | Mike Vose | Clarksdale silt loam | Sept. 30 | 30 Fall 80 Spring | June 20 |
| Urbana | Jeff Warren | Flanagan silt loam | Sept. 26 | 30 Fall 40 Spring | June 22 |
| Hampshire | Dezeri DeRaedt | Drummer sily clay loam | Sept. 29 | 30 Fall 80 Spring | July 17 |

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 2017.

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

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

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

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

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

Hoffman Seed House PO Box 66, 200 E 4th 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

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

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

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

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