WHEAT PERFORMANCE IN ILLINOIS TRIALS - 2010 Crop Sciences Special Report 2010-01, July 2010

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The 2010 wheat season in Illinois will go down in the books as one of the worst in Illinois history. As the result of wheat quality and price problems in 2009, followed by a very wet fall and late harvest of the 2009 corn and soybean crops, planted acreage in Illinois dropped by 59%, from 850,000 acres in 2009 to 350,000 acres in 2010. Yields in 2010 were highly variable, ranging from 37 bushels per acre in the West crop reporting district to 74 in the East. The preliminary state yield estimate for 2010 is only 54 bushels per acre. This will be the lowest yield since 2002, and is about 6 bushels per acre less than the average over the previous nine years.

One factor that affected yield in most Illinois wheat fields in 2010 was late planting in the fall of 2009, along with planting into wet soils. While some intended planting was undoubtedly not attempted in the end, the official estimates showed only 35% of the crop planted by November 1. The winter was favorable for keeping wheat alive, but most of the late-planted crop had to do much of its tillering in the spring. April was a very good month, with warm and mostly dry weather. This encouraged tillering early, though the early warm up may also have ended tillering; head numbers were not exceptionally high. April weather also resulted in good nitrogen nutrition and low levels of foliar disease, and helped the crop catch up in its development. Heading/flowering was not much later than normal. Rainfall during the heading period, especially in western Illinois, resulted in heavy scab infestations. Most areas of southern Illinois had less scab than in 2009, but few areas escaped it entirely.

In contrast to many fields in Illinois, the 2010 wheat variety trials were planted more or less on time, though planting conditions weren't great at some locations. The trial at Belleville was deluged with rain after planting and never had even minimal stands, so was abandoned. The trial at DeKalb was planted on time and got off to a fair start, but suffered from standing water later and was also abandoned. Some plots in the Brownstown trial were affected by wet soils, but we had enough plots among the three replications to allow us to use these results. Even so, some varieties in such cases may be favored by chance location and others hurt, so we want to look at averages with other locations (in this case, with Dixon Springs) and not to place too much weight on the results of that single trial.

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 17 feet long before harvest. There were three replications. Yields were corrected to 13.5% moisture. The final table of the report includes Fusarium head scab ratings from Dr. Fred Kolb's misted, inoculated scab trial at Urbana. Seed companies were allowed to include entries treated with seed-applied insecticide, with the insecticide treatment identified in the name. We also entered both treated and untreated seed of several varieties at each location as a test of yield response to this input. Averages from those comparisons were used to generate the statement at the bottom of each table.

Location	<u>Cooperators</u>	Soil type	Planted	<u>N fertilizer</u>	<u>Harvest</u>
Dixon Springs	Steve Ebelhar Carl Hart, Jr.	Grantsburg silt loam	Oct. 21	30 Fall 125 Spring	June 16
Belleville	Ron Krausz	Ebbert silt loam	Oct. 16, 2008	30 Fall 80 Spring	June 23, 2009
Brownstown	Lindell Deal	Cisne silt loam	Oct. 5	30 Fall 70 Spring	June 18
Orr Center	Mike Vose	Clarksdale silt loam	Sept. 30	40 Fall 60 Spring	June 24
Urbana	Bob Dunker Mike Kleiss	Flanagan silt loam	Sept. 29	40 Fall 40 Spring	June 25
DeKalb	Lyle Paul Dave Lindgren	Drummer silty clay loam	Oct. 2, 2008	30 Fall 40 Spring	July 14, 2009

Participating companies are listed on Page 2, regional data in Tables 1 and 2, individual location data in Tables 3 - 8, wheat variety characteristics in Table 9, and the Fusarium head scab ratings in Table 10. Because we did not have data from Belleville and DeKalb in 2010, we are repeating the results from the 2009 trials at those two locations.

Participating Companies

We thank these companies for their support of this program in 2010.

AgriMAXX Wheat Co 7167 Highbanks Rd Mascoutah, IL 62258 618-566-7022

Agrinetics, Inc. 1764 Windward Ave Naperville, IL 60563 (630) 417-4265

AgriPro/Syngenta 520 E 1050 S Brookston, IN 47923 (765) 563-3111

Beck's Hybrids 6767 E 276th St Atlanta, IN 46031 (800)937-2325

BioTown Seeds 373N Diener Rd Reynolds, IN 47980 (219) 984-5247

Brownstown Ag Center 622 S Brownstown Rd Brownstown, IL 62418 (618) 427-3242

Delta Grow Seed 220 NW 2nd England, AR 72046 (501) 842-2572

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

Direct Enterprises PO Box 978 Westfield, IN 46074 (888) 895-7333

Dyna-Gro Seed 6221 Riverside Drive, Suite 1 Dublin, OH 43017 (614) 761-4110, ext 3 Excel Brand Seed PO Box 320 Camp Point, IL 62320 (217) 593-7359

Green Valley Seed, LLC P O Box 35 Kahoka, MO 63445 (660) 727-3341

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

Hoffman Seed House PO Box 66, 200 E 4th St Hoffman, IL 62250 (618) 495-2617

Horizon Genetics, Inc. 36161 SR 10 Mason City, IL 62664 (217) 482-3281

Kaltenberg Seed P O Box 278, 5506 St Rd 19 Waunakee, WI 53597-0278 (608) 849-2051

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

Lewis Hybrids, Inc 530 West Maple Ave. Ursa, IL 62376 (800) 252-7851

Miles Seed PO Box 22879 Owensboro, KY 42304 (270) 926-2420 Miller Bros. Farm & Fertilizer 2001 Niemansville Trail Walshville, IL 62091 (217) 456-9311

MWS Seeds, LLC 2737 N 700 E Rd Ashkum, IL 60911 (815) 698-2204

Pioneer Hi-Bred International 421 Detroit Drive Bloomington, IL 61704 (309) 821-9940

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

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

Synergy Seeds, Inc. P O Box 508 Herscher, IL 60941 (815) 426-9885

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

Walter Seed 7216 Maxon Rd Harvard, IL 60033 (815) 790-8568

Wilken Seed Grains, Inc. P O Box 770 Pontiac, IL 61764 (815) 844-3458