

## WHEAT PERFORMANCE IN ILLINOIS TRIALS - 2007 Crop Sciences Special Report 2007-01, July 2007

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Following record wheat yields and good doublecrop soybean yields in 2006, wheat acreage increased moderately in Illinois for 2007, with 970,000 acres planted in the fall of 2006. The fall was relatively cool and wet in many areas, and the crop got off to a rocky start.

December and January were relatively mild, and crop caught up some on growth, before very cold February weather set in. The cold caused winter injury to some varieties at the northern locations. March was much warmer than normal, and growth of the crop was excellent by early April, with height and growth stage both ahead of normal. On April 5-10, however, an unusually widespread and severe cold spell settled over Illinois, with temperatures in the upper teens to low 20s over the entire state on April 7 and 8. Leaf damage was extensive, and damage to the lower stems was common throughout Southern Illinois, where the wheat had jointed. Damage to main stalk heads also occurred, especially in fields that had been planted early. Some producers, especially south of I-64 (Mt. Vernon) destroyed the crop, as did some producers in the northern half of Illinois, especially where stands and growth had not been very good before the freeze. The variety trial at Dixon Springs, which had not emerged well, was abandoned.

After the freeze, the weather in April and May was outstanding for wheat in most areas, with below-normal rainfall and warm temperatures. The excellent weather encouraged growth of secondary tillers, which in some fields supported nearly all of the heads that formed. A substantial amount of barley yellow dwarf virus (BYDV) appeared in some fields, probably carried by aphids in March, before the freeze. Heading time ranged from later than normal in much of southern Illinois (where tillers had to grow back) to about normal in the northern part of the state. The warm weather fostered very rapid grainfill, and harvest started earlier than normal.

The freeze resulted in the greatest amount of abandonment in recent years, with harvested acreage estimated at only 810,000 (83%) of the 970,000 acres planted. Yield on acres harvested this year is estimated at 57 bushels per acre, which is the third-lowest yield of—and 2 bu less than the average of—the past 10 years. Test weights were good, and the quality of the crop was generally good, though there was some Fusarium head scab in fields in southwestern Illinois. Seed treatment insecticide (Gaucho), which provides some protection against the aphids that transmit BYDV, produced a yield increase in three or four selected varieties at most locations.

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 (Gaucho or Cruiser), with the insecticide identified in the name. We treated seed of four varieties with Gaucho at each location as a test of yield response to this input.

<u>Location</u>	<u>Cooperators</u>	<u>Soil type</u>	<u>Planted</u>	<u>N fertilizer</u>	<u>Harvest</u>
Dixon Springs	Steve Ebelhar Ron Hines	Grantsburg silt loam	Oct. 12	25 Fall 95 Spring	Abandoned
Belleville	Ron Krausz	Ebbert silt loam	Oct. 12	30 Fall 80 Spring	June 20
Brownstown	Lindell Deal	Cisne silt loam	Oct. 9	30 Fall 70 Spring	June 15
Orr Center	Mike Vose	Clarksdale silt loam	Oct. 3	40 Fall 60 Spring	June 20
Urbana	Bob Dunker Mike Kleiss	Flanagan silt loam	Sept. 28	40 Fall 40 Spring	June 21
DeKalb	Lyle Paul Dave Lindgren	Drummer silty clay loam	Sept. 21	40 Fall 40 Spring	July 2

Participating companies are listed on Page 2, regional averages on Pages 3 and 4, individual site results in Pages 5-10 (data from 2006 at Dixon Springs are repeated here, since the 2007 trial was abandoned), wheat variety characteristics on Page 11, and the Fusarium head scab ratings on Page 12.

## Participating Companies

We thank these companies for their support of this program in 2007.

Adler Seeds  
6085W 550N  
Sharpsville, IN 46068  
(800)-536-2676

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

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

Brown Seed Enterprises, Inc.  
289 Co. Rd. 550 N  
Neoga, IL 62447  
(217) 895-2335

CPS-Vigoro Seeds  
PO Box 1467  
Galesburg, IL 61402-1467  
(309) 342-4100

Coops Creek Acres, Inc.  
12102 Chesterfield Rd  
Shipman, IL 62685  
(618) 836-7736

DeRaedt Seed Corp.  
10 N 971 Tower Road  
Hampshire, IL 60140  
(847) 464-5553

Excel Brand Seed  
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Camp Point, IL 62320  
(800) 969-6717

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

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

Haas Seed House  
305 N. Broadway  
Albers, IL 62215  
(618) 248-5165

Hartke Seed Farms  
22679 Sunset Rd  
Litchfield, IL 62056  
(217) 324-2680

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

JGL, Inc  
3540 S. US 231  
Greencastle, IN 46135  
(765) 653-5402

Kaltenberg Seed  
P O Box 278, 5506 St Rd 19  
Waunakee, WI 53597-0278  
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Kitchen Seed Company  
PO Box 286  
Arthur, IL 61911  
(217) 543-3476

Lewis Hybrids, Inc  
530 West Maple Ave.  
Ursa, IL 62376  
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Miles Seed  
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Owensboro, KY 42304  
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Miller Bros. Farm & Fertilizer  
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Walshville, IL 62091  
(217) 456-9311

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

Pioneer Hi-Bred International  
14171 Carole Drive  
Bloomington, IL 61704  
(309) 821-9940

UAP Distribution  
1267 W. Washington  
Pittsfield, IL 62363  
(800) 533-8309

Wilken Seed Grains, Inc.  
P O Box 770, 1487 N 1800 E Rd  
Pontiac, IL 61764  
(815) 844-3458