## WHEAT PERFORMANCE IN ILLINOIS TRIALS - 2009 Crop Sciences Special Report 2009-01, July 2009

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The 2009 wheat season in Illinois will go down in the books as a rather average one, with the July yield estimate from NASS at 59 bushels per acre. Yields in northern Illinois averaged about 70, while in central Illinois yields ranged widely, from only 46 in the west to 83 in the east. Yields were consistent across southern Illinois, averaging in the mid- to upper 50s among the four southern crop reporting districts.

The low yields in western Illinois were somewhat surprising, but acreage was down by nearly half there, and it's likely that much of the problem was related to late planting and planting into wet soils. The response of wheat to late planting varies a lot among years, and the penalty in 2008-09 was larger than it is in many years. Planting into wet soils didn't help. The winter and early spring conditions were not too stressful, though late-planted wheat needed more recovery time and tillering than the spring provided. Wet weather in the spring contributed to N loss and to problems with disease, especially Fusarium head blight, or scab.

With constant rainfall during the flowering period, application of fungicides for scab control was either not feasible or was not particularly effective. Many fields showed high levels of head blight early, and in many of those fields, kernels were very light, and many such kernels were likely blown out of the combine. This helped to improve quality, but couldn't cure all problems. At least some of the low test weight came, as it often does, from the crop's having gotten rainfall after maturity, with kernels swelling as they took on moisture and then drying again, but with lower density. It was not as wet when the wheat flowered and matured in central and northern Illinois, so quality there was much better.

The story in southern Illinois was more focused on grain quality than on yields, though these were related. Yields were not particularly high in many fields, but they were better than in some poor wheat years in the past. Test weights were as low as we have seen, and dockage due to low test weights was common. Some elevators tested for vomitoxin (DON) that is produced in grain by Fusarium, and docked according to DON level.

The wheat variety trial at Brownstown was one of the casualties of the wet weather in spring 2009. This trial was in a field with some drainage problems, and while yields were not terrible, there was a great deal of variability in the study that was not related to variety. So while we report the Brownstown results as a single location here, we did not include these results in the southern regional average. Because some varieties in such cases are "lucky" and some are "unlucky" it pays to look at other locations in addition to this one when choosing varieties.

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 also treated seed of several varieties with insecticide at each location as a test of yield response to this input.

<u>Location</u>	<u>Cooperators</u>	Soil type	<u>Planted</u>	N fertilizer	<u>Harvest</u>
Dixon Springs	Steve Ebelhar Carl Hart, Jr.	Grantsburg silt loam	Oct. 17	30 Fall 125 Spring	June 23
Belleville	Ron Krausz	Ebbert silt loam	Oct. 16	30 Fall 80 Spring	June 23
Brownstown	Lindell Deal	Cisne silt loam	Oct. 10	30 Fall 70 Spring	June 24
Orr Center	Mike Vose	Clarksdale silt loam	Oct. 1	40 Fall 60 Spring	June 30
Urbana	Bob Dunker Mike Kleiss	Flanagan silt loam	Oct. 3	40 Fall 40 Spring	June 27
DeKalb	Lyle Paul Dave Lindgren	Drummer silty clay loam	Oct. 2	30 Fall 40 Spring	July 14

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.

## **Participating Companies**

We thank these companies for their support of this program in 2009.

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

AgriPro Seeds 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

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

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

Crop Production Services PO Box 1467 Galesburg, IL 61402-1467 (309) 342-4100

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

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

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 Cty Hwy E Kewaunee, WI 54216 (920) 988-2824

Steyer Seeds 6154 N Co Rd 33 Tiffin, OH 44883 (800) 231-4247

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

Virginia Tech 2229 Menokin Rd Warsaw, VA 22572 (804) 333-3785

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