WHEAT PERFORMANCE IN ILLINOIS TRIALS - 2023 Crop Sciences Special Report 2022-01, July 2023

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Illinois producers planted 650,000 acres of winter wheat in the fall of 2021 and harvested 560,000 acres in 2022, with an average yield of 79 bushels per acre. Boosted by high world wheat prices, high wheat and good double-crop soybean yields, and dry fall weather, planted acreage jumped to an estimated 940,000 acres for the 2023 crop – the highest planted wheat acreage in Illinois since 2008.

Overall the 2023 winter wheat growing season was good to very good. The USDA projections in May and June estimated 790,000 acres of harvested area, and average yields were forecasted at 78 bushels per acre, down 1 bushel from 2022. While the estimated harvested area decreased to 780,000 acres in July's report, the USDA increased the yield average forecast to a record level of 84 bushels per acre – up 5 bushels from 2022. The crop was planted at about the usual time last fall, with 50% planted by October 17. Crop growth and development was ahead of normal, given the warm and dry weather in most of spring. Statewide wheat heading was at 74% compared to the 5-year average of 56%, with ratings 62% good + excellent. Wheat harvest begun the second half of June and ended the first half of July. While the actual average yield is still being determined, it seems that many growers were pleasantly surprised by the yield in spite of the circumstances.

Beyond yield, grain quality tended to be high. Dry conditions during grain filling and during harvest promoted high test weights and low vomitoxin levels. In fact, very little vomitoxin was detected this year. In part due to high wheat prices, most wheat growers applied a fungicide at flowering to control head scab. Without a doubt, this fungicide application played a role in keeping vomitoxin at bay.

To aid variety selection decisions, we present these wheat variety testing results from 6 locations across the state of Illinois. We had a total of 1288 entries for the 2023 season. 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 the product trade name in the tables.

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 2023.

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

American Organic 1676 CR 2200 E St Joseph, IL (217) 469-2351

BioTown Seeds 373 N Diener Rd Reynolds, IN 47980 (219) 984-6038

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

Dyna-Gro Seed 200 W 2nd St. Flora, IL 44818 (618) 578-0660

FS Wheat

1701 Towanda Ave., PO 2500 Bloomington, IL 61701 (309) 557-6399 Green Valley Seed 121 West College St Kahoka, MO 63445 (800) 748-7943

Hoffman Seed House PO Box 66 Hoffman, IL 62250 (618) 495-2617

Kennel Seed Farms 2153 County Rd D South Wayne, WI 53587 (608) 293-2200

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

Kratz Farms LLC 4380 Sherman Road Slinger, WI 53086 (262) 305-6631

KWS Cereals 4101 Colleen Dr Champaign, IL 618/22 217-800-1008 Langdon Bros Seed 3590 S 100E Hartford City, IN 47348 (800) 526-4366

Martin Seed 10280 West SR 28 West Lebaon, IL 47991 (217) 649-6348

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

Viking

1414 W Main, PO Box 127 Albert Lea, MN 56007 (800) 352-5247

VCIA 9225 Atlee Branch Lane Mechanicsville, VA 23116 (804) 746-4884

Williamsfield Seed Co. 1122 Knox Highway 18 Williamsfield, IL 61489 (309) 639-2248