



Northern Weather Summary

Matthew Schnabel—farm superintendent

Farm Comments

Field days and tours. Seven field day events were held including the North Central Iowa Research Association annual meeting, a summer field day, the herbicide demonstration field day, Corteva herbicide demonstration field days, Iowa Central Community College field day, and the fall field day. A total of 475 people visited the farm.

New projects. Sulfur and Nitrogen in corn, Herbicide Demonstration in soybeans, Cover Crop Interseeding in corn, M. Licht; and Foliar Fertilizer in corn.

Crop Season Comments

Oats were drilled April 1 and 5, including the long-term nitrogen rotation study and oat variety trials. Oats were harvested July 22 to 23. Yields averaged between 100 to 145 bushels/acre with above average test weight.

Corn planting started April 23 and was completed June 4. Harvest began September 16 and finished November 2 with average yields of 150 to 200 bushels/acre. Grain moistures were low compared with past years. Grain test weight was average.

Soybean planting started April 23 and was completed June 4. Harvest was September 22 to October 9 with average yields of 60 to 70 bushels/acre.

Farm yields were above average for all crops, and with above average test weights.

Weather Comments

Winter. At the start of 2021, the groundwater level was normal. The winter started warmer than usual as January averaged 21°F, February 8°F, and March 40°F, with January and March being above long-term trends. In January, February, and March, precipitation was below normal. Frost penetrated to 7 in. below the soil surface, which is much shallower than usual.

Spring. April temperatures were about normal averaging 48.3°F. The average temperature for May was 57.9°F, which is about 2.1°F below the long-term normal. Precipitation was below normal in April with 0.65 in. received compared with the normal 3.3 in. May precipitation was above the long-term average of 4.1 in at 4.6 in. Most of the corn and soybean were planted late April to early May as conditions were dry.

Summer. June was warmer than normal, while July and August had below the long-term normal temperatures. Precipitation was slightly above average in June and July. August received above normal amounts of precipitation totaling 6.3 in. which is 2.4 in. more than usual.

Fall. The first hard frost was October 23 when the temperature dropped to 25°F. Cover crops were drilled October 9 and November 4. Most of the corn had reached maturity in mid-September or early October. Fertilizer application ended December 2. Tillage was completed November 3.

Overall, 29.8 in. of precipitation was measured for the year, making 2021 the driest year at the Northern Research and Demonstration Farm since 2013. The previous year total was 31.3 in. The 5- and 30-yr average at the farm are 40.7 in. and 32.1 in., respectively.

During the growing season (March-October), every month had below normal precipitation except March, April and September (Table 1). Deviation from normal temperatures varied depending on the month, with five months being above normal and three months below taken until October 26, then stopping again November 26.

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