

2001

2000 Crop Season

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Recommended Citation

Van Dee, Kevin, "2000 Crop Season" (2001). *Iowa State Research Farm Progress Reports*. 1826.
http://lib.dr.iastate.edu/farms_reports/1826

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Abstract

Soil moisture levels were adequate going into the growing season, but March precipitation was below average. Consequently, small grains were planted early and anhydrous ammonia applications were made in a timely manner. Corn and soybean planting began during the second half of April, with most of the corn planted by May 4 and most of the soybeans by May 23.

Disciplines

Agricultural Science | Agriculture

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Kevin Van Dee, superintendent

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The research farm received 25.42 inches of precipitation during the growing season (March through October) as shown in Table 1. This amount was 0.65 inches below average for the Washington area. Although this total was below average, the monthly totals for April through July were above average. Moreover, the period from the second half of June through the first half of July was exceptionally wet, with crops growing less vigorously during this period due to excessive precipitation. Unfortunately, because of wet soils, the crops did not produce a good root system. This caused problems later on during the growing season. One problem was that the corn lodged during an August 9 windstorm. This lodging seemed to reduce yields and made combining difficult. Another problem with the poor root system was that a dry period during the second half of August through most of September caused undue stress on the crops. Consequently, yields suffered more than might be expected with the amount of precipitation that was received.

Temperatures were slightly above average overall for the growing season. March was much above average and May, August, and October were slightly above average. However, April, June, July, and September were below average. In fact, June and July were 3.7 and 3.5 degrees below average, respectively.

Weed control was good this year. Cornfields were very clean, and all but some of the non-Roundup Ready soybean fields were clean as well. However, most weed problems were cleaned up by the end of July.

Corn yields were variable. Corn that lodged yielded from between 115 and 135 bushels per acre. Corn that did not lodge yielded from between 160 and 180 bushels per acre. This year was the fourth year in a row that we had corn that lodged, and although corn harvest was made difficult due to lodging, we finished harvesting all crops by October 20. Fortunately, corn harvest was easier due to the dryness of the crop.

Soybeans yielded in the low 40 to the low 50 bushel per acre range. There were no major problems this year for soybeans except for a dry period in August and September and a moderate infestation of bean leaf beetles. Fall soil sampling revealed that soybean cyst nematode numbers continue to be a concern.

Soil moisture reserves seem to be adequate going into next year's growing season. However, timely rains will be needed during the upcoming year.

Acknowledgments

The following companies are acknowledged for their contributions to this year's research efforts or field day activities. Their support is greatly appreciated. Cargill Hybrid Seeds, Minneapolis, MN; DeKalb Genetics Corp., DeKalb, IL; Garst Seed Co., Slater, IA; Monsanto Co., St. Louis, MO.

Table 1. Monthly precipitation and average monthly temperatures for the 2000 growing season.

Month	Precipitation (in.)			Temperature (°F)		
	2000	Average ^a	Deviation	2000	Average ^a	Deviation
March	0.89	2.49	-1.60	44.5	37.3	+7.2
April	3.18	2.04	+1.14	51.1	52.1	-1.0
May	4.09	3.85	+0.24	64.1	63.2	+0.9
June	5.20	4.27	+0.93	68.5	72.2	-3.7
July	5.45	4.20	+1.25	72.6	76.1	-3.5
August	1.95	3.76	-1.81	74.3	74.0	+0.3
September	3.27	2.85	+0.42	65.8	66.2	-0.4
October	1.39	2.61	-1.22	56.6	55.3	+1.3
Total ^b / Average ^c	25.42	26.07	-0.65	62.2	62.1	+1.1

^aAverage precipitation and temperatures recorded at the U.S. Weather Bureau Station, Washington, IA

^bTotals were only included for precipitation data

^cAverages were only determined for monthly temperature data

Field Days

Kevin Van Dee, superintendent

Six scheduled events were held at the farm in 2000. These events provided visitors with the opportunity to learn more about current agricultural topics.

Two of these events, the spring and fall field days, focused on crop research. The spring field day was held June 15. Topics discussed included weed competition in soybeans, planting soybeans in March, organic crop production, and new herbicides for no-till corn. A program for certified crop advisors was also provided. The fall field day was held September 12. Topics discussed at this event included green-snap in corn, corn flea beetles and Stewart's wilt disease, bean leaf beetle and bean pod mottle virus, and European corn borer resistance and its influence on diseases.

Three additional events focused on information pertinent to producers. These events included a weed commissioners' meeting, a buffer strip initiative program, and a native grasses establishment field day. The weed commissioners' meeting was held June 8 and brought together commissioners from throughout southeast Iowa. The commissioners discussed current noxious weed control strategies for their counties and took a tour of the farm.

Another meeting in June was a buffer strip initiative meeting on June 20. This meeting was sponsored by Trees Forever and was presented to inform landowners about cost-share programs available for establishing buffer strips along waterways. The program was held in the shop due to rain and a meal was also served. After the meal, the weather cleared so we toured the John and Betty Wittrig farm where there were many conservation control structures on display.

On August 24, a native grass establishment field day was held. This event covered many aspects related to establishing native grasses and forbs on CRP land. There were two sessions during the day. There was an afternoon session aimed toward government officials and an evening session aimed toward landowners. Noon and evening meals were provided for the participants.

Finally, one horticultural event was held this year. The garden field day was August 5 with demonstrations of All-American Selection varieties for 2001, and variety trials on tomatoes, peppers, popcorn, edible beans, and potatoes.

More than 910 people visited the research farm this past year, and many individuals were responsible for the good attendance. These individuals include dedicated ISU research and extension personnel and our farm staff. The efforts of these individuals were greatly appreciated.