

2005

Weather and Growing Season Summary, 2004

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Weather and Growing Season Summary, 2004

Abstract

Includes:

Weather Summary

Insect Pests

Plant Diseases

Crop Yields and Quality

Disciplines

Agricultural Science | Agriculture

Weather and Growing Season Summary, 2004

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Weather summary. The 2004 growing season was cooler and drier than normal through most of the year, with the yearly and growing season rainfall totals much less than normal. Five months were recorded above and five months were recorded below normal precipitation.

The growing season will be mostly remembered for the exceptionally cool July and August followed by a warm September. The year was characterized by a very warm March followed by a cooling trend starting in June, which lasted through August. Temperatures were mostly higher than normal from September through December. Only four days recorded temperatures at or above 90°F (Table 1).

The summer of 2004 recorded some of the coolest average temperatures in the last 50 years. The month of June (66.2°F) and the month of July (70.9°F) were the fourth and third coolest, respectively, since 1950. This was followed by the average August temperature of 67.5°F, which tied with 1992 for the coolest August since 1950. With the very same average temperature as August, the growing season ended with the fourth warmest September (67.5°F) since 1950. If it had not been for the warm September, much of the area crops would not have reached normal maturity.

Only four rainfall events (April–September) exceeded one inch in a 24-hour period. A dryer than normal trend began in late June and lasted through early September, culminating in a growing season precipitation deficit of five inches. Corn degree-day accumulations were

near normal through mid-June but neared a 200 degree-day deficit by the end of August (Figure 2).

The spring planting season started very early in April with good moisture and soil temperature conditions. Planting conditions remained good through May except for a near- or below-freezing temperature event in late May. Harvest conditions were excellent from mid-September through late October. Rainfall events in November delayed the late harvest of corn, but all crops were removed from the field by early December.

Insect pests. Insect pests were relatively light throughout most of the season. Soybean aphids reached economic thresholds in scattered soybean fields in the month of August. Western bean cutworm infestation levels in corn were also scattered, and for the most part, were not an issue in most areas.

Plant diseases. The 2004 season saw many foliar diseases both corn and soybean fields. Holcus leaf spot was prevalent in most cornfields. White mold, downy mildew, and powdery mildew could be found in most soybean fields.

Crop yields and quality. Record corn yields were observed across the state, but for the most part did not reach record levels in Monona County, mostly due to an extended dry period in late July and August. Given the dry and cool conditions, corn yields were still very good. Soybean yields were relatively good as well, with large and very clean seed of exceptional quality harvested out of most fields.

Table 1. Monthly precipitation, average temperatures, and departures from normal for 2004.

	Precipitation (in.)		Days 90°F or above	Temperature (°F)	
	Total	*Departure from normal		Mean	*Departure from normal
January	1.0	0.4		17.0	-2.2
February	0.6	0.1		21.9	-3.8
March	3.5	1.5		39.8	4.1
April	1.9	-1.1		50.3	0.5
May	5.6	1.4		60.9	-0.1
June	2.8	-1.9	1	66.2	-3.9
July	2.5	-1.4	3	70.9	-3.4
August	0.9	-2.8		67.5	-4.9
September	4.2	1.1		67.5	3.6
October	0.6	-1.6		52.1	-0.7
November	2.5	1.2		39.1	2.4
December	0.8	0.0		28.4	4.1
Total	26.9	-3.1	4	-	-

*Deviation from 30-year averages recorded at the ISU Western Research Farm weather station.

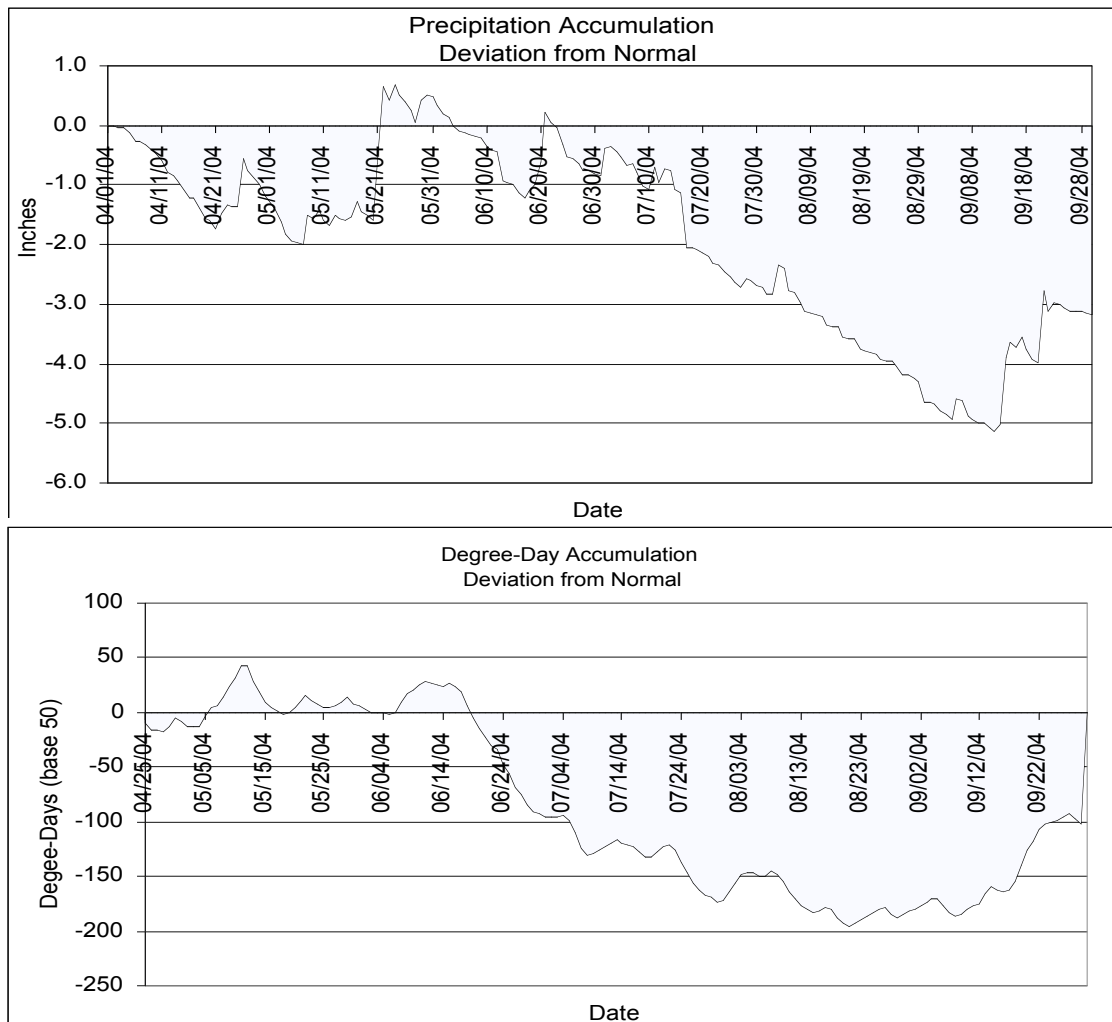


Figure 2. Precipitation and degree-day accumulations.