2006

Weather and Growing Season Summary, 2005

Todd Vagts
Iowa State University

Wayne B. Roush
Iowa State University, wroush@iastate.edu

Weather and Growing Season Summary, 2005

Abstract
Includes:

Weather Summary

Insect Pests

Plant Disease

Crop Yields and Quality

Disciplines
Agricultural Science | Agriculture

Weather and Growing Season Summary, 2005

Todd Vagts, crop specialist
ISU Extension
Wayne Roush, farm superintendent

Weather Summary

The 2005 growing season was near normal in terms of temperature and moisture for the first half of the summer, but then turned warmer and drier than normal for the second half of the summer. Excellent corn and soybean yields were obtained across most of the region.

The growing season started out warm with excellent planting conditions in early April, but then turned very cold toward the end of April and into early May. A 14-day period from April 21 to May 4 only accumulated 16 growing degree-days. The remainder of the growing season stayed near normal until September when the area observed the third warmest September since 1950, with only 1998 and 1990 having warmer mean temperatures.

Only five rainfall events, from April through September, exceeded one in. in a 24-hr period. A dryer than normal precipitation trend began in mid-July and lasted through September; culminating in a growing season precipitation deficit of 2.7 in. and year total deficit of 4.2 in (Table 1).

Corn degree-day accumulations fell below normal early in the season, maintained normal accumulations through mid-July, then had greater than normal accumulations through the end of September. The season finished with 150 degree-days above normal. Harvest conditions were excellent from mid-September through late October. Nearly all crops were removed from the field by mid-November.

Insect Pests

Soybean aphids and spider mites infested soybean fields from late July through late August. Infestations of aphids occurred across most of western Iowa with insecticide treatments needed in many fields. Spider mite infestations were common, but most did not require artificial population management. Western bean cutworms (WBCs) were once again present in many western Iowa cornfields. Fortunately, although there is an insecticide for WBC control, few fields required treatment.

Plant Disease

All eyes were on Asian Soybean Rust in the southeastern United States, but the biggest disease threat of the season did not materialize here. No soybean rust was detected in Iowa or surrounding states in 2005. An Asian soybean rust sentinel plot was monitored on the farm during the summer. The growing season was mostly absent of yield, limiting plant diseases until mid-August when anthracnose top-dieback became common in many western Iowa cornfields. The disease caused early senescence in affected fields, but did not appear to affect area-wide corn yield to any major degree.

Crop Yields and Quality

Near-record corn and soybean yields may be observed across the state and in Monona County. The quality was exceptional, with large and very clean seed harvested from most corn and soybean fields.

Table 1. Monthly precipitation, average temperature, and departure from normal for 2005.

	Precipitation (in)			Temperature (°F)	
	Total	*Departure from normal	Days 90°F or above	Mean	*Departure from normal
January	0.4	-0.2		18.6	-0.6
February	1.5	1.0		31.0	5.9
March	0.6	-1.4		37.1	1.4
April	4.6	1.6		49.0	-0.8
May	4.8	0.6		60.2	-0.8
June	6.2	1.5	1	72.7	2.6
July	1.4	-2.5	3	75.9	1.6
August	2.2	-1.5		71.8	-0.6
September	1.4	-1.7		68.2	4.3
October	1.0	-1.2		52.8	0.0
November	0.8	-0.5		36.5	-0.2
December	1.0	0.2			
Total	259	-4.1		-	-

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

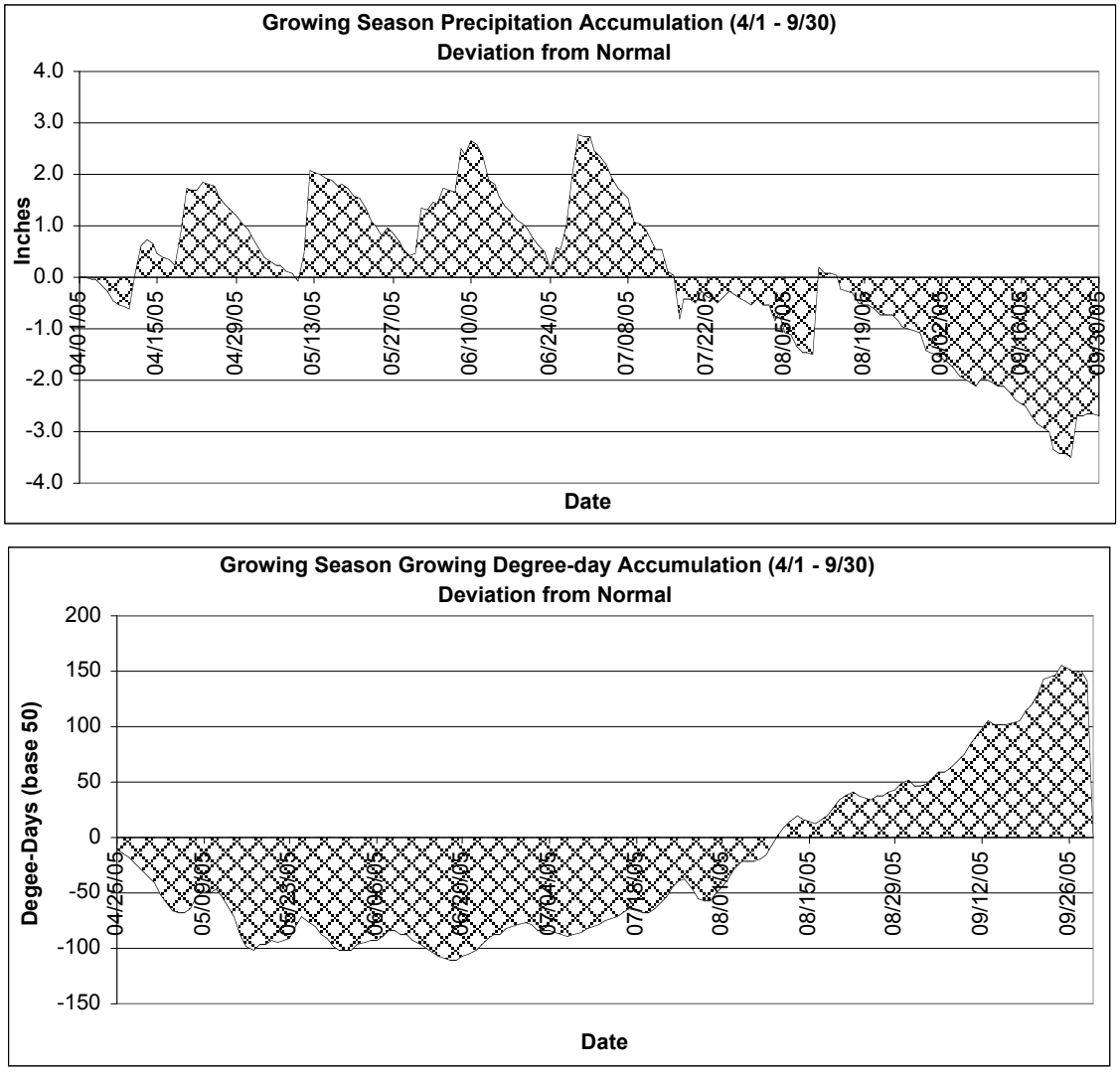

Figure 1. Precipitation and degree-day accumulations.