

## Weather and Growing Season, 2002

Todd Vagts, crop specialist  
ISU Extension  
Wayne Roush, ag specialist

*Weather Summary.* In complete contrast to the previous year, the winter of 2001–2002 was one of the warmest on record for most of Iowa. March was cold, but April temperatures were near normal, creating good seeding conditions and thereby provoking planters into the field. The ideal planting conditions disappeared by the last week of April. Through much of May the very cool weather persisted, creating a stressful period on the area's newly planted crops. By the end of May, the area had a 100 degree-day deficit (Figure 2). This deficit was short-lived because temperatures soon turned around and above normal temperatures were experienced from late May all the way through early September. The growing season ended with a surplus of 200+ degree-days (Figure 2).

Precipitation was near normal to slightly more than normal through mid-June (Table 1), creating fairly good soil moisture conditions for the early portion of the growing season. But then a month long precipitation deficit from late June to late July created stress conditions when the area's corn was attempting to pollinate. Near normal rainfall was received August through October to finish out the growing season (Figure 1). The March through October period received 17.0 inches of rainfall, about 4.5 inches below normal for that time period. Only one extreme

rain was observed during the growing season when 2.1 inches of rain fell on May 11.

*Insect pests.* Insect pests once again were a problem to both corn and soybeans throughout much of the season. Grasshoppers hit the soybean crop early, creating a season-long battle for producers as they sprayed ditches, waterways, and terraces. The bean leaf beetle was observed in record high numbers across the state of Iowa. The western bean cutworm continued to be a problem to corn across much of northwest Iowa.

*Plant disease.* Early season cool conditions created some seedling disease problems, but by far the greatest disease problems were observed later in the season. Corn smut was observed in most fields, and created crop loss in some areas. Scattered reports of aflatoxin problems in corn created some concern regarding quality.

*Crop yield and quality.* Even though the environment wasn't always conducive for optimum crop growth and development, surprisingly good yields were observed for both corn and soybeans across the region. The soybean crop particularly benefited from the late season rain and milder temperatures. Corn yields were depressed in some regions due to pollination problems and corresponding smut infections. Quality was relatively good in both crops except for isolated pockets of aflatoxin contamination in corn and seed-coat discoloration in soybeans.

**Table 1. Monthly precipitation, average temperature and departure from normal for 2002.**

	Precipitation (in)		Days 90°F or above	Temperature (°F)	
	Total	*Departure from normal		Mean	*Departure from normal
January	-	-	0	28	8.8
February	-	-	0	29	3.3
March	1.9	-0.14	0	28	-7.7
April	4.0	0.97	0	49	-0.7
May	4.3	0.13	0	58	-3.0
June	2.3	-2.41	6	74	3.9
July	1.6	-2.34	18	78	3.7
August	3.6	-0.08	3	72	-0.4
September	1.4	-1.71	4	65	1.1
October	2.9	0.67	0	44	-8.8
November	-	-	0	35	-1.7
December	-	-	0	29	4.7
Total	22.0	-	31	-	-

\*Deviation from 40-yr. average recorded at the ISU Western Research Farm weather station.



