

## Farm and Weather Summary

### Ag Engineering and Agronomy Farm

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#### Farm Comments

*Field Days and Tours:* Four events and field days were held with a total of 500 people visiting the farm.

*Ag Engineering:* Activities at the Ag Engineering Farm for 2004 were marked by the retirement of five faculty members from the Ag and Biosystems Engineering Department, and the subsequent hiring of new faculty. There will be a lot of getting acquainted in the coming year. The large animal composting project is ending during the summer of 2005, which will require gathering of final trial data. In addition, during 2005, the farm will be hosting both a ventilation school and a tractor certification of 4-H youths in the 15–16-year-old age group. The farm continues to support the student quarter-scale tractor pulling team for Iowa State University.

*Developments:* Another organizational move to create more budget and operational efficiencies combined the Agronomy Farm with the Ag Engineering Farm. Both units now operate under one budget, and equipment and labor can be shared more easily and efficiently saving time, labor, and expense.

*New Projects:* Soybean nematode on high pH soils, one-year trial, Palle Pedersen; corn pollination study, one-year trial, Mark Westgate; and soybean aphid study, Matt O'Neal.

#### Crop Season Comments

Corn planting started April 27 and was completed June 9. Harvest began October 15

and was completed November 26. Average yields were 175–200 bushels/acre.

Soybean planting started April 29 and was completed June 8. Harvest began September 13 and was completed October 15. Average yields were 45–65 bushels/acre.

#### Weather Comments

*Winter:* A total snowfall of 34 in. with the largest single snowfall of 6.8 in. on March 15, 2004. Total moisture equivalent of snowfall and rainfall was 4.01 in. The ground had snow cover from January 26 to February 25.

*Spring:* A total of 14.6 in. of rainfall was recorded. Oats were seeded on April 5 at a 4 in. depth and a soil temperature average of 50°F by April 6. Fertilizer applications also started the same week. Corn planting started on April 27 and soybean planting on April 29 on selected plots. The 8.18 in. of rain received in May led to some planting delays, but most of the corn was planted by May 10 (Table 1).

*Summer:* A total of 8.71 in. of rain fell during the summer months, with August recording a total of 5.19 in. Cooler than normal temperatures and August rainfall were beneficial to both corn and soybean crops, with disease and insect pressure low due to cool, wet conditions. Oat harvest was completed with good yields of approximately 100 bushels/acre.

*Fall:* A total of 5.36 in. of rain fell in the fall with 3.01 in. total for November. September was dry and warmer, which helped the crops mature, making up for lost heat units in July and August. The weather during corn and soybean harvest was good, with above average yields in both corn and soybeans. By Thanksgiving, the harvest was completed and tillage work was done the first week in December. The first frost occurred October 2 with the first killing frost on November 3.

**Table 1. Monthly rainfall and average temperatures during the 2004 growing season at the Ag Engineering/Agronomy Research Farm, Boone, Iowa.**

Month	Rainfall (inches)		Temperature (°F)		Days 90°F or above
	2004	Deviation from normal	2004	Deviation from normal	
March	3.52	1.45	42.5	5.4	0
April	2.40	-0.76	53.0	3.2	0
May	8.18	3.69	62.7	1.4	0
June	3.59	-2.18	67.9	-2.5	0
July	1.96	-1.47	71.6	-2.2	0
August	5.19	1.56	67.1	-4.4	0
September	1.34	-1.94	67.5	3.3	0
October	<u>1.79</u>	<u>-0.40</u>	53.8	1.6	<u>0</u>
Totals	27.97	-0.05			0

Table 1 represents weather data for Ag Engineering/Agronomy and Central Iowa Farms and Horticulture Station.