

## Farm and Weather Summary, Ag Engineering and Agronomy Farm

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### Farm Comments

*Field Days and Tours.* Several field days and events were held with approximately 718 visitors in attendance.

*Developments.* Plans are underway for construction of a Biomass Processing Facility for the New Century Farm. Site surveying and site preparation started in summer of 2007.

*Facilities.* The new shop addition to the main headquarters building was completed and used extensively in 2007. The wide overhead door allowed access of modern harvest equipment for a John Deere training school, servicing of Stuart Birrell's biomass combine project, and also Mark Hanna's combine cleanout experiment.

*New Projects.* A long-term, continuous corn plot for Mahdi Al-Kaisi to study different tillage systems associated with continuous corn production was started.

### Crop Season Comments

Oat seeding started April 9 and was completed April 19. Harvest began in mid-July, with yields of 80–85 bushel/acre.

Corn planting started April 19 and was completed May 22. Harvest began October 1 and was completed November 25. Yields were good to excellent with a range of 155–200 bushels/acre.

Soybean planting began May 16 and was completed June 8. Harvest began September 25 and was completed November 5. Average yields were 45–67 bushels/acre.

### Weather Comments

*Winter.* A total snowfall of 32.5 in. was recorded with the largest single snowfall of 8 in. on February 25. Total moisture equivalent of snowfall and rainfall was 7.39 in.

*Spring.* A total of 15.77 in. of rainfall was recorded, including a 2 in. snowfall on April 11. The last frost date was April 14. A cold snap April 4–9 brought freezing temperatures with six mornings in a row of 21°F or less. Soil temperatures at the 4-in. depth began to average 50°F on March 23, but cooled down on April 2 and did not get back to the 50°F temp until April 20.

*Summer.* A total of 13.22 in. of rain fell during the summer months, with 7.89 in. during August. June and July were below normal with 2.03 in. and 2.95 in., respectively. Good subsoil moisture from May rainfalls sustained corn and soybean crops in June and July, with good rainfall from mid-July thru August to sustain the crop until harvest.

*Fall.* A total of 9.55 in. of rain was recorded with the first snowfall on November 21. The first frost date was October 23, and the first killing frost was November 1.

**Table 1. Monthly rainfall and average temperatures during the 2007 growing season at the Ag Engineering/Agronomy Research Farm, Boone, Iowa.**

Month	Rainfall (in.)		Temperature (°F)		Days 90°F or above
	2007	Deviation from normal	2007	Deviation from normal	
March	3.18	1.11	43	7	0
April	6.01	2.85	48	-2	0
May	6.67	2.18	66	5	2
June	2.03	-3.74	72	2	1
July	2.95	-0.48	74	0	5
August	7.89	4.26	76	4	4
September	1.90	-1.38	68	4	0
October	<u>5.40</u>	<u>3.22</u>	57	4	<u>0</u>
Totals	36.03	8.02			12