

Farm and Weather Summary, Ag Engineering and Agronomy Farm

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Farm Comments

Field Days and Tours. Several events and field days were held with approximately 500 people visiting the farm. A crop production field day was successfully held.

Developments. The merging of the Ag Engineering Farm and the Agronomy Farm is nearly completed after three years. The final stage is the combining of the shop activities into an expanded shop building. The combined staff of the Ag Engineering and Agronomy Farms will not be working out of one building. The new shop was constructed in the old courtyard between the Ag Engineering and Agronomy wings. Biomass harvesting research continued to develop with modifications to harvesting equipment to collect corn stover and preliminary plans for a research biomass processing facility on the farm. Other activities included continued soil and water quality research, swine mortality composting project in cooperation with the Canadian government, and transition of 35 acres to organic crop research. The farm also continues to support plant breeding efforts, undergraduate teaching, and also extension and student club activities.

Facilities. Improvements were completed with the construction of a new machine storage shed and a new shop building. New doors were also installed in main building entrances to improve on energy efficiency. An irrigation system was installed on the Curtiss Farm, near Ames, to support the genetic corn research unit.

New Projects. Organic research area establishment; Swine mortality composting experiment in association with the Canadian

government; First crop production field day associated with a central Iowa research farm in several years; Biomass research plot at Bruner farm started by Matt Liebman; and a jack rabbit behavior study conducted by Sue Fairbanks of the Department of Natural Resource Ecology and Management.

Crop Season Comments

Corn planting started April 21 and was completed May 22. Harvest began October 2 and was completed November 22. Yields were good to excellent with a range of 175–200 bushels/acre.

Soybean planting began May 17 and was completed June 15. Harvest began October 2 and was completed November 1. Average yields were 45–65 bushels/acre.

Weather Comments

Winter. A total snowfall of 18.1 in. was recorded with the largest single snowfall of 4 in. on December 8, 2005. Total moisture equivalent of snowfall and rainfall was 3.56 in.

Spring. A total of 9.35 in. of rainfall was recorded, including a 7.1 in. spring snow on March 21. The last frost date was April 9. Oats seeding started April 6. Soil temperatures at the 4-in. depth began to average 50°F on April 12. Corn planting started April 21 and soybean planting started May 17.

Summer. A total of 19.14 in. of rain fell during the summer months, with a majority falling in July, August, and September. June had one of the driest years on record with a rainfall total of 0.81 in. Corn yields were reduced 20–30 bushel/acre due to the dry June and hot weather in July. Soybean yields were hurt by high bean leaf beetle infestations in July and August. Oat

harvest was completed with good yields of approximately 100 bushels/acre.

Fall. A total of 5.52 in. of rain fell in the fall with the first snowfall on November 10. The first frost date was October 12, which was also the first killing frost at 26°F.

Table 1. Monthly rainfall and average temperatures during the 2006 growing season at the Ag Engineering/Agronomy Research Farm, Boone, Iowa.

Month	Rainfall (in.)		Temperature (°F)		Days 90°F or above
	2006	Deviation from normal	2006	Deviation from normal	
March	2.63	0.56	38	0.7	0
April	4.30	1.14	55	5.7	0
May	2.15	-2.34	62	1.6	1
June	0.81	-4.96	72	1.3	2
July	5.56	2.13	76	2.2	11
August	6.16	2.53	72	1.3	1
September	7.51	4.23	61	-2.8	0
October	<u>2.53</u>	<u>0.34</u>	50	-2.8	<u>0</u>
Totals	31.65	3.63			15