

Farm and Weather Summary

Nick Howell, farm superintendent

Farm Comments

Developments. Nick Howell was appointed superintendent of the Horticulture Research Station in January 2006. He was formerly with the ISU Reiman Gardens. Jim Kubik transferred from the Northeast Research Farm as operations manager; Chris Blume, a graduate student in horticulture, was hired as turf research manager. Also, Rich Clayton was appointed aquaculture extension specialist for the NREM department and retained a 10% station appointment to manage the Aquatic Research Facility at the Horticulture Station.

A high tunnel structure was completed late March 2006. Tomatoes were planted April 15 and brambles were planted the end of May. The stand pipe in the lake was raised two feet, adding an estimated 12 million gallons of water (the equivalent of two years of irrigation water) to the lake. Also, the above ground irrigation piping system was expanded.

A computer mapping project of the station was implemented to document land use, infrastructure, and permanent landscape plantings. This is the first phase of a project to develop a computer network database of research project protocols, land use, fertilizer, and pesticide records.

Extensive cleanup of building, storage areas, and grounds was completed. Inmate labor from the Iowa Department of Corrections was utilized to remove brush from landscape plantings and assist with harvest. A master plan using undergraduate students in horticulture will be developed to renovate and redevelop the permanent landscape areas.

Field Days and Tours. The station had seven field days, five tours, and a memorial service. A total of 1,250 people attended the field days and tours.

Weather Comments

Winter 2005–2006. Winter months were relatively warm and dry. The lack of snow cover did not adversely affect perennial crops however, because temperature fluctuations were minor.

Spring 2006. March and April temperatures and rainfall were close to normal allowing perennial crops to emerge from dormancy at a normal rate. On May 6, there was a significant frost causing damage to the flower buds in the Chieftain apple orchard. This event benefited the crop however because it had a thinning effect. Chemical thinning was not needed in the Chieftain orchard. Damage to the strawberries was minimal because irrigation was used for frost control. May was extremely dry, but irrigated crops established and grew normally.

Summer 2006. Dry and humid conditions prevailed during the month of June with a 3.8 in. shortfall in rain. Irrigation allowed normal plant growth for most crops. The dry and humid conditions resulted in an increase in insect and disease infestation, thus a heavier spray program in most fruit and vegetable crops was required.

Fall 2006. Fall was unseasonably moist. Several hard rains raised the water level of the lake three feet during August and September. Due to the dry conditions earlier in the season, the heavy rains did not interfere with harvest and field work. A hard freeze predicted for October 11–12 accelerated the Chieftain apple harvest. All other apple varieties were harvested prior to the freeze and were unaffected. The freeze did however severely damage the foliage on the

apple trees and grape vines causing it to drop prematurely.

Acknowledgments

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Table 1. Horticulture Research Station, Ames, monthly rainfall and average temperatures for 2006.

Month	Rainfall (in.)		Temperature (°F)		Days 90° or above
	2006	Deviation from normal	2006	Deviation from normal*	
March	2.72	0.69	35.5	-0.5	0
April	3.87	0.41	53.1	3.1	0
May	1.69	-2.77	58.8	-2.2	0
June	1.11	-3.8	70.9	0.9	5
July	4.12	0.08	75.4	1.4	10
August	6.43	2.23	72.7	0.7	1
September	6.68	3.45	59.1	-4.9	0
October	<u>2.32</u>	<u>NA</u>	46.6	NA	<u>0</u>
Totals	28.94	0.29			16