

## Farm and Weather Summary

Bernie Havlovic, superintendent

### Farm Comments

**Developments:** A 1/2-acre addition to the existing vineyard was planted in early spring. The wine grape trial contains 20 cultivars selected to be evaluated under Iowa's climate and soil types. The farm's need for machinery storage was addressed with the construction of a 30 × 80-foot fabric-covered hoop building located in the main yard of the Armstrong Farm.

**Field Days and Tours:** The farms had 33 educational events conducted throughout the year, with a total of 3,504 people attending the various field days, classes, and group tours.

**New Projects:** Wine Grape Cultivar Trial, Paul Domoto; Maximum Yield Corn Study, Clarke McGrath; Soybean Management Study, Palle Pedersen; Triticale Fertility Residual Study, Lance Gibson; Triticale Date of Planting Study, Lance Gibson; and Bean Leaf Beetle Control in Muskmelon, Mark Gleason.

**Livestock:** Cattle performance in feedlot trials was good throughout the year. Weather and pasture conditions during spring calving were ideal. The summer drought did affect grazing trials because grass production in the pastures pretty much shut down by early August.

### Crop Season Comments

Corn planting started on April 23 and was completed by May 13. Harvest began September 20 and was completed by October 6

with an average yield of 125 bushels/acre. Grain quality was good and moisture content was low despite the early harvesting dates.

Soybean planting started May 22 and was completed on May 29. Harvest began September 24 and was completed October 7 with an average yield of 32 bushels/acre.

### Weather Comments

**Winter 2002–2003:** Winter temperatures and snowfall totals were near normal. Fields were snow-covered for most of the winter preventing frost from penetrating very deeply. The coldest temperature for the winter was -14° recorded on January 6 (Tables 1 and 2).

**Spring 2003:** The soil moisture profile was measured to be only half full on April 1. Cool spring temperatures caused a slight delay in early fieldwork and planting.

**Summer 2003:** The farms experienced a third consecutive year of well below normal summer precipitation. June through August rainfall totaled only 55% of normal, and moisture stress was evident in row crops by the end of July.

**Fall 2003:** The pattern of warm and dry summer temperatures persisted into fall resulting in ideal harvesting conditions but did little to replenish subsoil moisture reserves. Yields of both corn and soybeans were well below the farm's 11-year average. By the end of the cropping season subsoil moisture sampling showed reserves to be less than 50% of normal.

**Table 1. Armstrong Research and Demonstration Farm, Lewis, monthly rainfall and average temperatures for 2003.**

<b>Month</b>	<b>Rainfall (inches)</b>		<b>Temperature (F)</b>		<b>Days 90 or above</b>
	<b>2003</b>	<b>Deviation from normal*</b>	<b>2003</b>	<b>Deviation from normal</b>	
March	1.04	-1.25	38.3	-4.1	0
April	3.78	0.77	52.0	1.5	0
May	4.68	0.19	59.9	-1.7	0
June	2.43	-3.20	68.0	-3.0	1
July	2.15	-1.76	75.2	-0.8	9
August	0.68	-2.89	75.7	1.6	9
September	1.93	-2.20	62.1	-3.2	0
October	<u>0.71</u>	<u>-1.38</u>	54.5	8.3	<u>0</u>
Totals	17.40	-11.72			19

\*Normal rainfall and temperatures recorded at US Weather Bureau Station, Atlantic, Iowa.

**Table 2. Neely-Kinyon Research and Demonstration Farm, Greenfield, monthly rainfall for 2003.**

<b>Month</b>	<b>Rainfall (inches)</b>		<b>Days 90 or above</b>
	<b>2003</b>	<b>Deviation from normal*</b>	
March	1.12	-1.2	0
April	5.39	1.7	0
May	5.63	1.4	0
June	4.43	0.1	4
July	2.54	-2.1	11
August	0.96	-2.7	12
September	3.37	-0.6	0
October	<u>1.28</u>	<u>-1.2</u>	<u>0</u>
Totals	24.72	-4.6	27

\*Normal rainfall recorded at US Weather Bureau Station, Greenfield, Iowa.