

# Muscatine Island Research Farm Summary

RFR-A1836

## Muscatine Island Research Farm Association

President..... vacant  
 Vice President ..... Rick Bartenhagen, Muscatine  
 Secretary-Treasurer ..... Vince Lawson, Fruitland  
 Director ..... Keith Bartenhagen, Muscatine  
 Director ..... Greg Wilson, Muscatine  
 Director ..... Ethan Smidt, Fruitland

Research Farm Superintendent ..... Myron Rees

Ag Specialist ..... Dominic Snyder

Associate Dean..... Mark Honeyman  
 Farms Manager ..... Tim Goode  
 103 Curtiss Hall  
 513 Farm House Lane, ISU

## 2018 Acknowledgements

The following companies have provided products or financial support during 2018.  
 Their cooperation and support is greatly appreciated.

Cash-N-Carry Chemicals LLC, 220 N 7<sup>th</sup> Avenue, Washington, IA 52353  
 Crop Production Services, P.O. Box 209, Atalissa, IA 52720  
 DuPont Pioneer, P.O. Box 1000, Johnston, IA 50131  
 Hooks Point Irrigation, 3850 Xavier Avenue, Stratford, IA 50249  
 Muscatine Island Cooperative, 2420 57<sup>th</sup> Street, Muscatine, IA 52761  
 Rupp Seeds, Inc., 17919 Co Rd B, Wauseon, OH 43567  
 Seneca Vegetable Research, Inc., 5267 Flat Street, P.O. Box 128, Hall, NY 14463  
 Sinclair Tractor, 2253, 3309 Lucas St, Muscatine, IA 52761  
 Syngenta Seeds, Inc., P.O. Box 959, Minneapolis, MN 55440

## Farm and Weather Summary

Dominic Snyder, agricultural specialist

### Farm Comments

Ron Shepard stepped down as the farm president in February. He had been on the farm board for 24 years, and his service has been greatly appreciated. At this time, the board has not voted on a new president.

There have been two major improvements on the farm. The JD 2955 tractor was replaced with a JD 6400 to be used for planting and spraying. A single span pivot was constructed using pieces from the pivot that was damaged in 2017. The ground under this new pivot will be used for soybean and corn research.

*Field days and tours.* The home demonstration garden tour was held July 24 featuring a garden established by the Master Gardener Program for donating fresh produce to local food banks. The theme for this year's garden was to attract bees and other pollinators. The annual farm field day was held August 20 with speakers discussing soybean cyst nematodes. Muscatine County Extension held a class for their Master Conservation Program August 30 to observe the native prairie on the southern edge of the farm. The farm had a field day October 11 for the Muscatine Big Brothers/Big Sisters program and was well attended.

*New projects.* Soybean nitrogen trial, D. Snyder; Pepper cultivar trial, A. Nair.

### Crop Season Comments

Horticultural crops were started in the greenhouse in early May and transplanted to the field in late May. The melon crop was planted later than normal so the melons could be sold to local schools.

The pumpkin crop matured faster than expected due to the warm weather, but still presented a good harvest. All pumpkins were donated to the Big Brothers/Big Sisters Program in Muscatine. The farm donated a total of 3,400 lb of produce to the Muscatine Food Pantry throughout the summer.

Like most of Iowa, the farm experienced a very wet, cold spring that delayed planting. By May 8, the corn acres were planted. Soybean planting finished May 23. Corn and soybean harvest occurred October 15-20. The Southeast Research Farm brought their equipment to harvest our crop. Corn and soybeans yielded 195 bushels/acre and 47 bushels/acre respectively.

### Weather Comments

Monthly average rainfall and temperature for the 2018 growing season are shown in Table 1. March and April were much cooler than normal this year, which delayed planting. Temperatures quickly increased in May for crops to be planted on time. Rainfall was below average in June and July, therefore, we supplemented the crop with irrigation pivots. In October, the farm received above average and untimely rainfall that delayed the field crop harvest.

The growing season, as measured by days with temperatures above freezing, was 186 days in 2018. The last freezing temperature (28°F) in the spring was recorded April 29 and the first freezing temperature (30°F) in the fall was recorded October 16.

### Acknowledgements

The staff from the ISU Southeast Research Farm, Crawfordsville, helped on several occasions. Board members from the Muscatine Island Research Farm Association

also provided support and guidance. Their support was much appreciated and proved essential in the gathering of information necessary to achieve the results reported in this publication.

**Table 1. Muscatine Island Research and Demonstration Farm, Fruitland, monthly rainfall and average temperatures for 2018.**

Month	Rainfall (in.)		Temperature (°F)		
	2018	Deviation from normal	2018	Deviation from normal	Days 90° or above
March	3.67	1.03	37.3	-2.1	0
April	0.42	-3.28	42.1	-8.7	0
May	5.08	0.68	70.6	8	6
June	4.04	-0.56	76.0	3.3	9
July	1.74	-2.16	74.6	1.9	10
August	6.54	2.44	74.6	1.5	9
September	6.75	3.25	67.7	3.4	7
October	<u>4.47</u>	<u>1.67</u>	51.3	-1.2	<u>1</u>
Totals	32.71	3.07			42

### 2018 Research Farm Projects

#### Project

Home demonstration garden  
 Milkweed demonstration planting  
 Evaluation of SCN-resistant soybean varieties  
 Yield forecasting–FACTS  
 Corn nitrogen trial  
 Corn variety/treatment evaluations  
 Soybean nitrogen trial  
 Soybean seed treatment  
 Soybean variety/planting date evaluations  
 Soybean root study  
 Soybean root study  
 Cover crop effects on SCN populations  
 Muskmelon cultivar trial  
 Pepper cultivar trial  
 Rye Biomass Project

#### Project Leader

C. Haynes  
 R. Hellmich  
 G. Tylka/C. Marett/G. Gebhart  
 S. Archontoulis  
 J. Michel  
 S. Wiggs  
 D. Snyder  
 S. Cianzo/G. Gebhart  
 D. Mueller/S. Wiggs  
 C. Carley/A. Singh  
 B. Scott/K. Falk/A. Singh  
 C. Harback/G. Tylka  
 D. Snyder  
 A. Nair  
 M. Licht