

# Muscatine Island Research Farm Summary

RFR-A1327

## Muscatine Island Research Farm Association

President.....	Ron Shepard, Fruitland
Vice President .....	Rick Bartenhagen, Muscatine
Secretary-Treasurer.....	Vince Lawson, Fruitland
Director .....	Keith Bartenhagen, Muscatine
Director .....	Greg Wilson, Muscatine
Research Farm Superintendent .....	Vince Lawson
Ag Specialist .....	Justin Rinas
Research and Demonstration Farms Manager .....	Tim Goode 103 Curtiss Hall, ISU
Research and Demonstration Farms Coordinator .....	Mark Honeyman 103 Curtiss Hall, ISU

## 2013 Acknowledgements

The following companies have provided products or financial support during 2013.  
Their cooperation and support is greatly appreciated.

- BASF Corporation, 100 Park Avenue, Florham Park, NJ 07932
- Bayer CropScience, P.O. Box 12014, Research Triangle Park, NC 27709
- Chemtura USA Corp., 199 Benson Road, Middlebury, CT 06749
- Dow AgroSciences, 9330 Zionsville Road, Indianapolis, IN 46268
- Dupont Crop Protection, 1007 Market Street, Wilmington, DE 19898
- FMC Corporation, 1735 Market Street, Philadelphia, PA 19103
- Halane Farms, 2312 Fruitland Road, Muscatine, IA 52761
- Hollar & Co., P.O. Box 106, Rocky Ford, CO 81067
- Muscatine Island Cooperative, 2420 57<sup>th</sup> Street, Muscatine, IA 52761
- Rispens Seeds, Inc., 1357 Dutch American Way, Beecher, IL 60401
- Rupp Seeds, Inc., 17919 County Road B, Wauseon, OH 43567
- Sakata Seed, 18095 Serene Drive, Morgan Hill, CA 95037
- Seneca Vegetable Research, 5267 Flat Street, Hall, NY 14463
- Siegers Seed Co., 13031 Reflections Drive, Holland, MI 49424
- Sweetland Ag Tech, 3094 170<sup>th</sup> Street, Muscatine, IA 52761
- Syngenta Seeds, Inc., Rogers Brand, P.O. Box 4188, Boise, ID 83711
- Twilley Seeds, 121 Gary Road, Hodges, SC 29653

## Farm and Weather Summary

Vince Lawson, farm superintendent

### Farm Comments

The research farm expanded in 2013 with the purchase of a 20-acre property located south of and adjoining the Fruitland location. The acquisition included 15 acres of irrigated crop ground, a 28 ft × 44 ft pole shed, a 10-in. irrigation well, 30 HP submersible electric pump, and a 650 ft long, 4 tower, Zimmatic center irrigation pivot system. The new property includes ample and convenient space for equipment storage as well as expanding our crop production base and research options. It was put to use in 2013 by producing a good cash crop of corn and providing a location for the sweet corn herbicide and corn sulfur fertilizer study.

*Field Days and Tours.* The annual meeting of the Muscatine Island Research Farm Association was held on June 18, 2013, at the research farm in Fruitland. A wagon tour of the farm was followed by a catered meal and the business meeting. The Home Demonstration Garden Tour was held on August 8 and included presentations on tomato grafting, biochar soil amendment, and new varieties of flowers and vegetables. An all day class and field workshop on cover crops was held on October 11 for ISU Extension personnel and interested ag professionals.

*New Projects.* Five new research projects were initiated in 2013: an evaluation of Verimark (cyantranilipole) insecticide for potato insect control, Vince Lawson; an evaluation of Zidua (pyroxasulfone) herbicide in a sweet corn weed management program, Vince Lawson; effect of dry micronutrient use at planting on soybean, Antonio Mallarino; epidemiology of charcoal rot in soybean, Daren Mueller; SCRI cover crop and row

cover evaluation in vine crops, Ajay Nair and Mark Gleason.

### Weather Comments

The growing season, as measured by days with above freezing temperatures, was 184 days long in 2013. The last freezing temperature in the spring was recorded on April 20 (27°F) and the first freezing temperatures in the fall were recorded on October 21 and 24 (30 and 28°F). We did not experience any extreme storms with crop damaging winds or hail during 2013, and the year, although not perfect, generally supported good crop production.

Monthly rainfall and temperature averages for the 2013 growing season are shown in Table 1. April and May started the season cool and wet with rainfall totaling almost twice the normal amount for these months. Rainfall frequency declined during the summer and recorded amounts were well below normal for critical crop growing months of July, August, and September. Needless to say, irrigation systems were used extensively during this time and were necessary for good crop production on our sandy soils. The summer months provided mostly normal temperatures but there were 28 days the temperature exceeded 90°F.

### Acknowledgements

This year's crew included: Justin Rinas, agricultural specialist; and Brenden McCleary and Julia Lihs, summer interns. Their dedication and willingness to work on some very busy days is greatly appreciated and was critical in gathering information necessary to achieve the results reported in this publication.

**Table 1. Muscatine Island Research and Demonstration Farm, Fruitland, Iowa, monthly rainfall and average temperatures for 2013.**

Month	Rainfall (in.)		Temperature (°F)		
	2013	Deviation from normal	2013	Deviation from normal	Days 90° or above
March	NA	NA	31.6	-8.1	0
April	7.06	3.31	47.4	-3.3	0
May	8.85	4.48	63.3	0.9	1
June	4.21	-0.22	72.2	0.7	3
July	2.64	-1.18	73.4	-2.2	9
August	0.14	-3.87	73.6	0.4	7
September	1.39	-2.05	66.0	2.1	8
October	<u>3.35</u>	<u>0.65</u>	<u>53.1</u>	<u>0.9</u>	<u>0</u>
Totals	27.64	1.12		-8.6	28

### Research Farm Projects

#### Project

AAS vegetable trial  
 Home demonstration garden  
 Biochar use in home garden  
 Rye cover crop use for pumpkin production  
 Melon food safety  
 Effects of biochar on sweet corn and potato  
 Evaluation of SCN-resistant soybean varieties  
 Potato insecticide evaluation  
 Corn response to sulfur fertilizer  
 Dry micronutrient fertilizer trial  
 Muskmelon cultivar trial  
 Epidemiology of soybean charcoal rot  
 SCRI (specialty crop research initiative)

#### Project Leader

V. Lawson  
 C. Haynes  
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 V. Lawson  
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 D. Mueller/S. Wiggs  
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