

# Muscatine Island Research Farm Summary

RFR-A9026

## Muscatine Island Research Farm Association Members

President.....	Ron Shepard, Fruitland
Vice President .....	Rick Bartenhagen, Muscatine
Secretary-Treasurer.....	Vince Lawson, Fruitland
Director .....	John Kiwala, Muscatine
Director .....	Keith Bartenhagen, Muscatine
Research Farm Superintendent .....	Vince Lawson
Ag Specialist .....	Joe Hannan
Ag Specialist .....	Myron Rees
Research and Demonstration Farms Manager .....	Dennis Shannon 32 Curtiss Hall, ISU
Research and Demonstration Farms Coordinator .....	Mark Honeyman 32 Curtiss Hall, ISU

## 2009 Acknowledgements

The following companies have provided products or financial support during 2009.  
Their cooperation and support is greatly appreciated.

Bayer Cropscience, 2 T.W. Alexander Drive, Research Triangle Park, NC 27709  
Centest Seeds, 23017 Route 173, Harvard, IL 60033  
Crookham Co., P.O. Box 520, Caldwell, ID 83606  
Dow Agrosiences LLC, 9330 Zionsville Road, Indianapolis, IN 46268  
Dupont Crop Protection, Laurel Run Building, Chestnut Run Plaza, Wilmington, DE 19898  
FMC Corp, 1735 Market Street, Philadelphia, PA 19103  
Heartland Renewable Energy, 407 West Mississippi Drive, Muscatine, IA 52761  
Hilleshög Brand, Syngenta Seeds, 1020 Sugarmill Road, Longmont, CO 80501  
Hollar & Company, P.O. Box 106, Rocky Ford, CO 81067  
Rogers Brand, Syngenta Seeds, Inc., P.O. Box 4188, Boise, ID 83711-4188  
Rispen Seeds, Inc., 1357 Dutch American Way, Beecher, IL 60401  
Stokes Seeds, Inc., P.O. Box 548, Buffalo, NY 14240

## Farm and Weather Summary

Vince Lawson, farm superintendent

### Farm Comments

*Developments.* A farm Website has been established and can be found at: <http://mirdf.ag.iastate.edu/>. It is believed that the Website will make farm activities and the objective, research-based, information generated at the farm more accessible to a greater audience. Also, it is an excellent medium for posting information not suited to formal reports such as this publication. For example, on the Website, we have posted full-color pictures of all cultivars in the 2009 muskmelon and sweet corn trials.

The 'Melon Club' was established this summer to raise awareness of the research farm and reward farm supporters with top-quality melons at a reasonable price. It was a popular project and should expand in 2010.

*Field days and tours.* The annual meeting of the Muscatine Island Research Farm Association was held on March 10, 2009, at the Elms Restaurant, Muscatine, IA. Association business, including election of directors, was conducted and an update on research farm activities was presented. Over 130 persons attended the Open House and Home Demonstration Garden Tour on Tuesday evening, August 4. The tour featured the home demonstration garden, AAS vegetable trials, blueberry planting, sugar beet investigations and other projects at the research farm. Other groups that visited the farm during the past year included the Midwest Flying Farmers and the Louisa County Master Gardeners.

*New projects.* Sugar beets, a potential biofuel crop for southeast Iowa, were investigated during 2008 and 2009. Project objectives were

to explore cultural methods and determine expected yields. Observations during 2008 led to a sugar beet boron study in 2009.

Muskmelon and sweet corn cultivar trials were initiated in 2009 to evaluate new cultivars that will be useful to Iowa growers.

The corn earworm control study was expanded in 2009 to include several new treatments and provide reliable data on which to base sweet corn caterpillar control recommendations. A grape project investigating the influence of soil pH and potassium-magnesium ratios on grape growth and development was initiated by Joe Hannan and Paul Domoto.

### Weather Comments

Rainfall records at the research farm go back to 1960 and this season will be the second wettest on record topped only by the historic flood filled year of 1993. Rainfall was 17 in. above normal for the season (Table 1) while monthly average temperatures were below normal every month. The growing season, as measured by days with temperatures above freezing (32°F), was 177 days in length from April 15 through October 10.

*Spring.* Cool and wet conditions hindered and delayed field work and planting.

*Summer.* Abnormally cool temperatures continued through the summer months slowing crop growth. Rainfall amounts of 8 in. during June, 5 in. during July, and 10 in. during August caused flooding of low areas and disease problems in several crops. The use of plastic mulch, which protected fertilizer from leaching out of the root zone and warmed the soil, was very advantageous this year.

*Fall.* Cool temperatures continued into fall making 2009 our second coolest growing season recorded on the farm. September was the only dry month of the fall and growing season. The growing season ended on October 10 with a low temperature of 25°F.

### Acknowledgements

Thanks to our crew for their hard work and efforts during the 2009 season: Joe Hannan and Myron Rees, agricultural specialists; and Jackson Kiwala, student intern.

**Table 1. Muscatine Island Research and Demonstration Farm, Fruitland, monthly rainfall and average temperatures for 2009.**

Month	Rainfall (in.)		Temperature (°F)		
	2009	Deviation from normal	2009	Deviation from normal	Days 90° or above
March	NA	NA	39.2	-1.6	0
April	4.78	1.15	47.4	-3.3	0
May	6.97	2.83	61.3	-0.9	0
June	8.36	4.16	68.0	-3.6	4
July	5.21	1.41	68.6	-6.9	0
August	10.17	6.18	68.7	-4.4	1
September	0.55	-2.99	61.3	-2.9	0
October	<u>6.80</u>	<u>4.24</u>	47.3	-4.8	<u>0</u>
Totals	42.84	16.98			5

### Research Farm Projects

#### Project

AAS vegetable trials  
 Home demonstration garden  
 Cherry tree cultivar demonstration  
 Grape potassium-magnesium nutrition study  
 Wine grape cultivar trial (SERF)  
 Muskmelon cultivar trial  
 Using row covers for cucumber beetle control  
 Sugar beet demonstration  
 Effect of boron fertilizer on sugar beet  
 Sweet corn cultivar trial  
 Corn earworm control study  
 Callisto, Impact, and Laudis herbicide study  
 Effect of harvest date on potato yield  
 Soybean planting date and development study  
 Evaluation of SCN-resistant soybean varieties

#### Project Leader

V. Lawson/J. Hannan  
 C. Haynes  
 J. Hannan  
 J. Hannan/P. Domoto  
 P. Domoto/J. Hannan  
 V. Lawson  
 M. Gleason/J. Batzer/E. Saalau  
 V. Lawson/R. Larson/C. Stael  
 V. Lawson  
 V. Lawson  
 V. Lawson/H. Taber  
 V. Lawson/H. Taber  
 V. Lawson  
 P. Pedersen/J. DeBruin  
 G. Tylka/C. Marett/G. Gebhart