

2013

Muscatine Island Research Farm Summary

Muscatine Island Research and Demonstration Farm

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Abstract

Contents: Muscatine Island Research Farm Association; 2012 Acknowledgements; Farm and Weather Summary; Research Farm Projects

Keywords

RFRA1206

Disciplines

Agricultural Science | Agriculture

Muscatine Island Research Farm Summary

RFR-A1206

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 Dennis Shannon
 103 Curtiss Hall, ISU

Research and Demonstration Farms Coordinator Mark Honeyman
 103 Curtiss Hall, ISU

2012 Acknowledgements

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 Their cooperation and support is greatly appreciated.

Crookham Co., P.O. Box 520, Caldwell, ID 83606
 Eastern Iowa Light & Power Coop, P.O. Box 3003, Wilton, IA 52778
 Halane Farms, 2312 Fruitland Road, Muscatine, IA 52761
 Harris Moran Seed Co., P.O. Box 4938, Modesto, CA 95352
 Hollar & Co., P.O. Box 106, Rocky Ford, CO 81067
 Hook’s Point Irrigation, 3850 Xavier Avenue, Stratford, IA 50249
 Muscatine Island Cooperative, 2420 57th Street, Muscatine, IA 52761
 Rispens Seeds, Inc., 1357 Dutch American Way, Beecher, IL 60401
 Rupp Seeds, Inc., 17919 Co. Rd. B, Wauseon, OH 43567
 Seneca Vegetable Research, 5267 Flat Street, Hall, NY 14463
 Stokes Seeds, Inc., P.O. Box 548, Buffalo, NY 14240
 Sweetland Ag Tech, 3094 170th Street, Muscatine, IA 52761
 Syngenta Seeds Inc., Rogers Brand, P.O. Box 4188, Boise, ID 83711

Farm and Weather Summary

Vince Lawson, farm superintendent

Farm Comments

Field Days and Tours. The annual meeting of the Muscatine Island Research Farm Association was held on March 22, 2012, at the Elms Restaurant, Muscatine, Iowa. Association business, including election of directors, was conducted and an update on research farm activities was presented. On August 7, approximately 100 visitors attended the Home Demonstration Garden Tour to hear presentations about Biochar garden soil amendment, space saving plants, ornamental foliage plants, super-sweet sweet corn, and new varieties of flowers and vegetables.

New Projects. Several new projects were initiated this season: Biochar use in home garden, Cindy Haynes; effect of rye mulch on pumpkin production, melon food safety study, and effects of Biochar on sweet corn and potato production, Ajay Nair; controlling cucumber beetles and bacterial wilt with row covers, Mark Gleason; and effect of dry micronutrients on corn and soybean, Antonio Mallarino.

Weather Comments

While talk of drought dominated conversations in Iowa this summer we were lucky to receive enough rain, coupled with supplemental irrigation, to produce decent to good crops. July was the driest month with only 0.78 in. of rainfall and temperatures that averaged a full 5.1° above normal for the

month (Table 1). This heat and lack of water came during the critical yield development period for most crops. Effects of this stress and the ability of irrigation to reduce it were seen at harvest when comparing un-irrigated corners, which had no production, to irrigated ground with good yield. Ironically, the most damaging weather during 2012 season wasn't the drought or heat, but a short period of rainy weather during the end of April and early May when 6.5 in. of rain fell causing flooding and damping off problems in early planted crops.

The growing season, as measured by days with above freezing temperatures, was 176 days long in 2012. The last freezing temperatures in the spring were recorded on April 11 and 12 (25 and 27°F, respectively) and the first freezing temperatures in the fall were recorded on October 6 and 7 (28 and 30°F).

Acknowledgements

This year's crew included: Justin Rinas, agricultural specialist; Ben Early, summer intern; and Hannah Howard, summer helper. Their dedication and willingness to work on some very hot days is much appreciated and was critical 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 2012.

Month	Rainfall (in.)		Temperature (°F)		
	2012	Deviation from normal	2012	Deviation from normal	Days 90° or above
March	NA	NA			
April	4.23	0.54	52.5	1.7	0
May	6.61	2.32	67.6	5.2	6
June	3.66	-0.78	73.6	2.1	12
July	0.78	-3.06	80.7	5.1	22
August	4.48	0.40	72.2	-0.9	12
September	2.20	-1.28	61.1	-2.8	2
October	<u>2.70</u>	<u>0.01</u>	50.3	<u>-1.90</u>	<u>0</u>
Totals	24.66	-1.85		8.5	54

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
 Using row covers to control cucumber beetles
 Evaluation of SCN-resistant soybean varieties
 Potato response to boron and sulfur fertilizer
 Field corn response to sulfur fertilizer
 Dry micronutrient fertilizer trial
 Muskmelon cultivar trial
 Tomato cultivar trial

Project Leader

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 G. Tylka/C. Marett/G. Gebhart
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