Muscatine Island Research Farm Summary

Muscatine Island Research and Demonstration Farm

Vincent Lawson
Iowa State University, vlawson@iastate.edu

Follow this and additional works at: http://lib.dr.iastate.edu/farms_reports

Part of the Agricultural Science Commons, and the Agriculture Commons

Recommended Citation
Muscatine Island Research and Demonstration Farm and Lawson, Vincent, "Muscatine Island Research Farm Summary" (2013). Iowa State Research Farm Progress Reports. 1929. http://lib.dr.iastate.edu/farms_reports/1929

This report is brought to you for free and open access by Iowa State University Digital Repository. It has been accepted for inclusion in Iowa State Research Farm Progress Reports by an authorized administrator of Iowa State University Digital Repository. For more information, please contact digirep@iastate.edu.
Muscatine Island Research Farm Summary

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

Keywords
RFR A1206

Disciplines
Agricultural Science | Agriculture

This muscatine island farm is available at Iowa State University Digital Repository: http://lib.dr.iastate.edu/farms_reports/1929
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

The following companies have provided products or financial support during 2012.
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
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.

<table>
<thead>
<tr>
<th>Month</th>
<th>Rainfall (in.)</th>
<th>Deviation from normal</th>
<th>Temperature (°F)</th>
<th>Deviation from normal</th>
<th>Days 90° or above</th>
</tr>
</thead>
<tbody>
<tr>
<td>March</td>
<td>NA</td>
<td>NA</td>
<td>52.5</td>
<td>1.7</td>
<td>0</td>
</tr>
<tr>
<td>April</td>
<td>4.23</td>
<td>0.54</td>
<td>67.6</td>
<td>5.2</td>
<td>6</td>
</tr>
<tr>
<td>May</td>
<td>6.61</td>
<td>2.32</td>
<td>73.6</td>
<td>2.1</td>
<td>12</td>
</tr>
<tr>
<td>June</td>
<td>3.66</td>
<td>-0.78</td>
<td>80.7</td>
<td>5.1</td>
<td>22</td>
</tr>
<tr>
<td>July</td>
<td>0.78</td>
<td>-3.06</td>
<td>72.2</td>
<td>-0.9</td>
<td>12</td>
</tr>
<tr>
<td>August</td>
<td>4.48</td>
<td>0.40</td>
<td>61.1</td>
<td>-2.8</td>
<td>2</td>
</tr>
<tr>
<td>September</td>
<td>2.20</td>
<td>-1.28</td>
<td>50.3</td>
<td>-1.90</td>
<td>0</td>
</tr>
<tr>
<td>October</td>
<td>2.70</td>
<td>0.01</td>
<td>40.3</td>
<td>-0.90</td>
<td>0</td>
</tr>
<tr>
<td>Totals</td>
<td>24.66</td>
<td>-1.85</td>
<td>8.5</td>
<td>54.0</td>
<td></td>
</tr>
</tbody>
</table>

Research Farm Projects

**Project** | **Project Leader**
--- | ---
AAS vegetable trial | V. Lawson
Home demonstration garden | C. Haynes
Biochar use in home garden | C. Haynes
Rye cover crop use for pumpkin production | A. Nair
Melon Food Safety | A. Nair
Effects of biochar on sweet corn and potato | A. Nair
Using row covers to control cucumber beetles | M. Gleason/J. Batzer
Evaluation of SCN-resistant soybean varieties | G. Tylka/C. Marett/G. Gebhart
Potato response to boron and sulfur fertilizer | V. Lawson
Field corn response to sulfur fertilizer | V. Lawson/J. Sawyer
Dry micronutrient fertilizer trial | A. Mallarino
Muskmelon cultivar trial | V. Lawson
Tomato cultivar trial | V. Lawson