

2012

# Western Research Farm Summary

Wayne B. Roush

*Iowa State University*, [wroush@iastate.edu](mailto:wroush@iastate.edu)

Follow this and additional works at: [http://lib.dr.iastate.edu/farms\\_reports](http://lib.dr.iastate.edu/farms_reports)



Part of the [Agricultural Science Commons](#), and the [Agriculture Commons](#)

---

## Recommended Citation

Roush, Wayne B., "Western Research Farm Summary" (2012). *Iowa State Research Farm Progress Reports*. 127.  
[http://lib.dr.iastate.edu/farms\\_reports/127](http://lib.dr.iastate.edu/farms_reports/127)

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](mailto:digirep@iastate.edu).

---

# Western Research Farm Summary

**Abstract**

Includes Farm Summary and Research Farm Projects.

**Keywords**

RFRA1164

**Disciplines**

Agricultural Science | Agriculture

# Western Research Farm Summary

RFR-A1164

**Western Iowa Experimental Farm Association  
Founded 1946**

## Officers

Chairperson .....	Kyle Bohnker, Charter Oak
Vice Chairperson .....	Linda Herman, Pisgah
Secretary-Treasurer .....	Richard Pope, Logan

## Directors

Aaron Gress .....	Crawford County
Kyle Bohnker .....	Crawford County
Linda Herman .....	Harrison County
Brandon McHugh .....	Harrison County
Keith Zediker .....	Monona County
James Else .....	Monona County
Lloyd Henderson .....	Woodbury County
James Brown .....	Woodbury County
Brian Sadler .....	At large

## Western Research Farm

Wayne Roush .....	Superintendent
Mark Honeyman .....	Coordinator, Research Farms
Dennis Shannon .....	Manager, Research Farms 32 Curtiss Hall, ISU Ames, IA 50011

## Sustaining Members

Community Bank, Dunlap	US Bank, Onawa
First State Bank, Mapleton	Valley Bank and Trust, Mapleton/Danbury
Iowa/Nebraska State Bank, South Sioux City, NE	Western Iowa Power Coop, Denison
Senator Chuck Grassley's office, Donny Barry	Soil and Water Conservation Districts of:
Sloan State Bank, Sloan and Whiting	Crawford County
	Harrison County
	Monona County
	Woodbury County

## Farm Summary

Wayne Roush, farm superintendent

### Farm Comments

*Developments.* The year 2011 saw the metamorphosis of the old Corn/Soybean Initiative on-farm trials into the new ISU Farmer Assistant Research and Management (FARM) trials (see page 8). Equipment changes included trading for a new  $\frac{3}{4}$  ton pick-up and purchase of a used weigh wagon for crop trials. An unused 1,500 bushel bin was removed and replaced with a 1,000 gallon LP tank to service existing dryer bins. Dirt work in fields, removal of volunteer trees and old fence helped to consolidate various fields. General clean-up, scrap iron sales, livestock building maintenance, installation of new tarps on the pig mini-hoops, and new border fence installation also occurred. An ISU ag business student was hosted for the summer. He participated in the Intern Program and received credit plus work experience. Also, a former ISU summer intern stopped in to announce his graduation from ISU last semester. He started working at the farm for a high school experience, continued as an intern, and worked at ISU throughout his academic experience. He credited his time at the Western Research Farm for "Starting it All!" And, Dr. Wilsey's prairie work conducted at the Western Research Farm was highlighted in the summer issue of "Nature" magazine, a noted scientific journal.

*Field days and tours.* Five events were held during the year with a total of 182 people visiting the farm. Some of the events included the Annual Meeting and informational meeting, Manure Applicator Certification Training, and the first On-farm trials participant meeting with 14 in attendance. The participant meeting covers all trials statewide, with an emphasis on the local ones. Participants can see how their trial/ideas mesh

with others and get a chance to interact with ISU crops personnel.

*New projects.* Development of Berkshire Growth Curves, J. Mabry, M. Swantek, and M. Honeyman; Effects of Biochar and Manure Applications to Prairie Establishment, L. Biederman; Soybean Yield Response to Rhizobium Inoculation on Converted Grass Pasture, J. DeJong and W. Roush.

*Livestock.* With the addition of ISU FARM trials to Western's research mix, livestock production has been rearranged to more closely match the available labor. Livestock production at the farm will focus on research-based trials. Livestock production in 2011 included a group of 25 heifers that were pastured during the summer and then shipped to another farm for finishing. These heifers were part of the McNay Research Farm's (Chariton, IA) cattle breeding trial. Swine production consisted of 300 head finished during the year. A two-year trial examining the effects of bedding on finishing pig performance and feed digestibility was concluded. A new trial was started that will help define growth curves for purebred Berkshire pigs, which are in demand for export niche markets. These pigs will be weighed and ultra-sounded every 21 days for muscle and fat deposition from a starting weight of 50 lb to a market weight of 280 lb. The farm also supplied finished pigs to the Allee Farm, Newell, Iowa for use in their youth swine program.

### Crop Season Comments

Corn planting started on May 7 and was completed on May 10. Harvest started on October 11 and was completed on October 13, with an average yield of 193 bushels/acre. Soybeans were planted May 4 and completed May 7. Harvest started October 8 and was

completed October 9, with an average yield of 63 bushels/acre.

The major weather news in 2011 for western Iowa was the severe flooding of the Missouri river bottom due to excessive spring rains on top of a heavy winter snow pack in the western drainage basin. The flooding, which was confined to the river bottom and continued throughout most of the summer, caused the loss of one ISU FARM trial with a participant near Onawa.

For the Loess Hills region of western Iowa, the spring of 2011 started off with few suitable days for fieldwork and planting in April due to the excessive rainfall and temperatures below normal. Early May was much warmer and dryer and planting progressed at a record pace. Plantings at the research farm were generally timely and soil moisture was at capacity by the beginning of the growing season. Precipitation remained at near normal levels until mid-August when rainfall generally ceased for the year. High temperatures during corn pollination in July stressed the crops but temperatures abated for

August. With the adequate soil moisture reserves, few fields showed any stress symptoms. The lack of late summer and fall rain also allowed harvest to progress at a record pace. However, fall soil moisture samples (taken down through the 5-ft depth) showed there was no plant available water by season end. Crop yields were variable but generally better than expected and near long-term normal for most of the region.

### **Acknowledgements**

We would like to thank all members, sustaining members, and donors who support the Western Research and Demonstration Farm through donations of time, money, and products. Their support has made many of this year's trials possible.

Berne Coop, Ute  
Bomgaars, Mapleton  
Conklin Products, Preston Grobe  
LG Seeds, Brad Hanson  
Mapleton Press, Mapleton  
Renze Seeds, Dennis Boyler  
Syngenta, Paul Snyder

### Research Farm Projects

<u>Project</u>	<u>Project Leader</u>
Beef cattle breeding project	JR Tait
Development of purebred Berkshire swine growth curves	J. Mabry/M. Swantek/ M. Honeyman
Dominant grass effects on diversity and functioning of restored grasslands	B. Wilsey
Effects of bedding on finishing pig performance and feed digestibility	J. Patience/M. Honeyman
Effects of biochar and manure applications to prairie establishment	L. Biederman
National Phenology network study	M. Schwartz
Native cover crops: effects on prairie establishment and weed invasion	B. Wilsey
Optimizing soybean planting dates	W. Roush
Plant species effects on diversity and weed invasion resistance in restored grasslands	B. Wilsey
Soybean yield response to Rhizobium inoculation on converted grass pasture	J. DeJong/W. Roush
U.S. Weather Service weather station	
Air temps; hi, lo, current	
Soil temps; 1, 2, 8, 20, 40 inch	
Evaporation dish	
Daily precipitation	
Severe weather spotter	