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## Western Research Farm Summary

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# Western Research Farm Summary

**Abstract**

Includes Farm Summary and Research Farm Projects.

**Keywords**

RFRA1084

**Disciplines**

Agricultural Science | Agriculture

# Western Research Farm Summary

RFR-A1084

Western Iowa Experimental Farm Association, 2010  
Founded 1946

## Officers

|                          |                           |
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| Lloyd Henderson.....  | Woodbury County |
| James Brown.....      | Woodbury County |
| Larry Kettleson ..... | 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              |

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| Main Street Tax Service, Mapleton | Monona County                             |
|                                   | Woodbury County                           |

## Farm Summary

Wayne Roush, farm superintendent

### Farm Comments

*Developments.* The year 2010 saw several changes at the Western Research Farm; the retirement of Don Hummel December 31, 2009 marked the first of these changes. The Western Research Farm joined the Corn/Soybean Initiative and completed 11 On-farm Research trials. (See page 6 of this report.) Equipment changes were marked by the transfer to other farms of two pickup trucks, the cattle feed wagon, and half interest in the grain drill. Machinery purchases included a small emergency generator, gravity wagon, and a 10 ft pull mower. An existing 9,000 bushel bin was updated with the addition of a full drying floor with fan and dryer. Internet service was upgraded from dial-up to hi-speed wireless. The purchase of a small utility trailer and preparations to convert 40 acres of pasture to crop production was completed to help serve expanding crop trial needs. General clean-up, scrap iron sales, livestock building maintenance, volunteer tree removal, old pasture fence removal, new border fence installation, and consolidation of some old field borders also occurred.

*Field days and tours.* Seven events were held during the year with a total of 703 people visiting the farm. Some of the events included the annual meeting, Manure Applicator Certification Training, and Loess Hills Seminar Tour. The farm had a “traveling” field day at the Mapleton Elementary School when a lack of travel funds prevented the students from coming to the research farm. The day included an agriculture presentation by the farm and a visit from the Iowa Learning Farm (ILF) rainfall simulator to 176 students. The Importance of Residue field day attracted 105 people. The field day was certified for Certified Crop Advisor credits. A soil pit, field

demonstration of planter options for crop residue management, residue removal trial discussion, and a visit by the ILF’s new Conservation Station were some of the day’s highlights. The most popular event of the day was the homemade ice cream tent!

*New projects.* The effects of bedding on finishing pig performance and feed digestibility, J. Patience and M. Honeyman; and 11 new on-farm research projects.

*Livestock.* With reduced labor and the addition of row-crop based on-farm research trials to the Western Farm’s research mix, livestock production has been sized to match the available labor. Livestock production at the farm will focus on research-based trials. Livestock production in 2010 included 41 heifers that were finished in the feedlot and marketed in the spring; these heifers were part of the McNay Research Farm’s cattle breeding trial. Another group of 43 McNay heifers were pastured during the summer; these heifers were shipped to another farm for finishing. Swine production consisted of 300 head finished during the year. A trial examining the effects of bedding on finishing pig performance and feed digestibility was conducted twice in the mini-hoop facilities. The farm also supplied some finished pigs to the Allee Demonstration Farm for use in their youth swine program.

### Crop Season Comments

Corn planting started on April 17 and was completed on April 20. Harvest started and was completed on November 10, with an average yield of 161 bushels/acre. Soybeans were planted May 5 and completed May 16. Harvest started November 13 and was completed November 14, with an average yield of 61 bushels/acre. Spring 2010 started with many suitable days for fieldwork and

planting. April was warmer and dryer than normal, and crops were planted at the research farm in a timely manner with good soil and moisture conditions. A cold snap on May 8 frosted off all corn; soybeans were not yet emerged and suffered no damage. The cooler and wetter than normal conditions over the next two weeks slowed the re-growth of corn and emergence of soybeans. Even though 2010 had below normal annual rainfall, it will be remembered as wetter than normal due to the rains of June, July, and August. Rainfall amounts varied greatly depending on your location, with on-farm precipitation records

showing a total of 20.55 inches of rain for June through August. This is nearly eight inches above normal. June and July had 18 days of rain and August had a total of 11 days with rain. None of the rains were excessive or flooding; however, the frequency of rain made poor field conditions. This delayed herbicide applications and hay harvests. Fall conditions greatly improved, crops matured rapidly and harvest was completed in a timely manner. Crop yields for soybeans were above average and better than expected; corn yields were below average but in line with expectations.

### **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  
Bomgaars, Mapleton  
Brad Hanson Farms  
CPS, Wall Lake  
Greg Schmitz

LG Seeds  
Mapleton Press  
Renze Seeds  
Syngenta

### **Research Farm Projects**

| <b><u>Project</u></b>                                                                  | <b><u>Project Leader</u></b> |
|----------------------------------------------------------------------------------------|------------------------------|
| Insect monitoring traps for the black cutworm moth                                     | M. Licht                     |
| Dominant grass effects on diversity and functioning of restored grasslands             | B. Wilsey                    |
| Cattle breeding project                                                                | J. Tait                      |
| Optimizing corn populations                                                            | M. Licht                     |
| Optimizing soybean populations and planting dates                                      | M. Licht                     |
| Plant species effects on diversity and weed invasion resistance in restored grasslands | B. Wilsey                    |
| Native cover crops: effects on prairie establishment and weed invasion                 | B. Wilsey                    |
| Synergistic effects of ungulate grazing in a tall grass prairie                        | B. Wilsey                    |
| National Phenology network study                                                       | M. Schwartz                  |
| Effects of bedding on pig performance and feed digestibility                           | J. Patience/M. Honeyman      |
| 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                                                                 |                              |