

2012

Southeast Research Farm Summary

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Southeast Research Farm Summary

Abstract

Includes Farm and Weather Summary and Research Farm Projects.

Keywords

RFRA1177

Disciplines

Agricultural Science | Agriculture

Southeast Research Farm Summary

RFR-A1177

Southeast Iowa Agricultural Research Association

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Ag Specialist..... Myron Rees

Research and Demonstration Farms Manager..... Dennis Shannon
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Research and Demonstration Farms Coordinator..... Mark Honeyman
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Farm and Weather Summary

Kevin Van Dee, farm superintendent

Farm Comments

Developments. The fifth phase of improving drainage at the research farm was implemented during the fall. This phase consisted of a pattern tile system on the east half of the new farm. Nearly 25,000 ft of tile were both trenched and plowed in on 60-ft spacings throughout the field. The field is used for multiple studies most years, and the goal is to improve the quality of research in this field.

Field Days and Tours. Three events were held in 2011. The spring and fall field days were both well attended as was a CRP event that was held in September. Over 600 people visited the farm in 2011.

New Projects. Soybean insecticide by fungicide study, Iowa soybean association seed treatment study, Bayer experimental seed treatment study, soybean SDS planting date study, Alison Robertson; Soybean high yield study, Kevin Van Dee/Jeff Hedges; Drought tolerant corn demonstration, Kevin Van Dee/Ralph Sandeen; CRP to row crop demonstration, Kevin Van Dee; Soybean replant study, Jim Fawcett; Buffer strip demonstration, Greg Brenneman; and a Corn nematode strip trial, Greg Tylka.

Crop Season Comments

Corn planting began on May 2 and was basically complete by May 19. Wet weather began after planting and continued through most of June. Nitrogen loss issues were not a major problem despite the heavy rains during spring. Areas of corn did go through a brief yellow period but seemingly outgrew this condition after drier weather allowed the soils to aerate. Hot and dry weather continued through fall. Harvest began September 23 and was completed October 25 with yields of 111 to 197 bushels/acre.

Soybean planting began on May 3 and was mostly complete by May 19. There were no major pest problems during 2011. Weed control was generally good, but some common waterhemp survived two post-applications of glyphosate. This situation suggests possible glyphosate tolerance or environmental conditions affecting herbicide efficacy. Harvest began September 21 and was completed October 7 with yields of 42 to 71 bushels/acre.

Weather Comments

Winter 2010–2011. The soil moisture profile was above average going into 2011.

Spring 2011. The early part of spring was dry and seasonably mild. The small grains were planted on March 30 under good conditions. During early April, fertilizers were applied and some tillage work was done. By the middle of April, conditions had turned wet and unseasonably cold. By May, the weather had improved, and most of the planting was completed during the first three weeks of May. Wet weather again returned and lasted through June 27.

Summer 2011. Temperatures were above average for most of the summer. July set a record for the hottest average temperature for any month at the research farm. There were 29 days with temperatures 90°F or above during 2011. Precipitation fell infrequently throughout the summer.

Fall 2011. The weather was nearly ideal throughout most of the fall with warm temperatures and little precipitation. Corn yields were average but fairly consistent. Soybean yields were generally above average. Modest precipitation fell during early November, but soil moisture is short going into 2012.

Table 1. Southeast Research and Demonstration Farm, Crawfordsville, monthly rainfall and average temperatures* for 2011.

Month	Rainfall (in.)		Temperature (°F)		Days 90° or above
	2011	Deviation from normal	2011	Deviation from normal	
March	1.82	-0.70	41.0	2.8	0
April	3.76	0.01	51.7	-0.3	0
May	5.65	0.50	62.3	1.1	1
June	8.17	2.80	71.4	0.2	5
July	1.31	-2.02	80.3	6.3	13
August	1.04	-3.97	75.3	3.0	7
September	1.77	-1.44	63.0	-1.7	3
October	<u>0.59</u>	<u>-2.70</u>	56.1	4.5	<u>0</u>
Totals	24.11	-7.52			29

*Temperature data were downloaded from the National Weather Service's website for the City of Burlington.

Research Farm Projects

<u>Project</u>	<u>Project Leader</u>
Bayer experimental seed treatment study	A. Robertson
Buffer strip demonstration	G. Brenneman
Carbon sequestration study	M. Al-Kaisi
Cardinal corn fungicide study	A. Robertson
Continuous corn hybrid by N by K study	A. Mallarino
Continuous corn insecticide evaluations	P. Weber
Corn breeders' trials	J. Edwards
Corn nematode strip trial	G. Tylka
Corn performance testing	J. Rouse
Corn replant study	R. Elmore
Corn twin row study	K. Van Dee
CRP to row crop demonstration	K. Van Dee
Drought tolerant corn demonstration	K. Van Dee/R. Sandeen
Home garden orchard demonstration	P. O'Malley
Iowa Soybean Association seed treatment study	A. Robertson
K residue study in corn	A. Mallarino
K residue study in soybeans	A. Mallarino
Kalona soil tillage study	G. Brenneman/J. Fawcett/J. Jensen
Long term nitrogen study	J. Sawyer
Native prairie grass demonstration	K. Van Dee
Nira soil tillage study	G. Brenneman/J. Fawcett/J. Jensen
Nut tree demonstration	Iowa Nut Growers' Association
Organic barley variety trial	K. Delate
P and K placement within tillage systems	A. Mallarino
Rye cover crop study	J. Sawyer
SCN breeding nursery	G. Tylka
Soybean high yield study	K. Van Dee/J. Hedges
Soybean insecticide by fungicide study	A. Robertson
Soybean performance testing	J. Rouse
Soybean replant study	J. Fawcett
Soybean SDS planting date study	A. Robertson
Subsurface drainage study	M. Helmers/G. Brenneman
Wetland demonstration for nitrate removal	G. Brenneman
Windbreak demonstration	K. Van Dee