

Southeast Research Farm Summary

RFR-A1791

Southeast Iowa Agricultural Research Association

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103 Curtiss Hall
 513 Farm House Lane, ISU

Farm and Weather Summary

Myron Rees, farm superintendent

Farm Comments

Developments. Southeast Research Farm (SERF) and Muscatine Island Research Farm (MIRF) collaborated resources this year, sharing equipment, field operations, and labor. Several barn upgrades were made in the fall. A new overhead door was installed and the soffit was repaired. After several years of hiring a lawn service, the farm purchased a new lawn mower.

Field days and tours. Three field days were held in 2017, including the annual spring and fall field days plus Nitrogen Week. The Agronomy New Student Learning Community brought incoming ISU freshman students to tour the farm. The Council for International Visitors to Iowa City brought a group of Russian Ag Delegates to the farm to discuss our ag practices. Nearly 750 people visited the farm.

New projects. Syngenta corn seed treatment trials, A. Robertson; K sidedress in corn, A. Mallarino; Nitrogen x tillage, J. Sawyer; Cover crop termination demo, M. Anderson; Organic soybeans following rye crimping demo, K. Delate; and Sweetcorn grain for specialty use, GPC, K. Braun.

Crop Season Comments

Planting began the third week of April. Due to a tractor breakdown at MIRF, SERF planted the corn crop at Fruitland the first week in May. Planting finished May 25. Five acres of sweetcorn were raised to maturity for GPC. Wind damaged the sweetcorn late in the growing season. Yields were better than expected and produced nearly 100 bushels/acre.

Harvest started October 2 and ended November 9. Yields were very good; bulk acres averaged 225 bushels/acre corn and 65 bushels/acre soybeans.

Weather Comments

Winter 2016-17. The moisture was surplus going into 2017.

Spring 2017. Normal planting conditions, with the majority of the crops planted in May.

Summer 2017. Very dry and hot with timely rain to keep the crops going. There were 34 days above 90°F (Table 1). Five months (May, June, July, August, and September) were below normal precipitation (Table 1).

Fall 2017. It was dry during harvest continuing into early 2018.

Table 1. Southeast Research and Demonstration Farm, Crawfordsville, monthly rainfall and average temperatures for 2017.

Month	Rainfall (in.)		Temperature (°F)		Days 90°F or above
	2017	Deviation from normal	2017	Deviation from normal	
March	2.35	0.27	40.3	0.6	0
April	4.42	0.92	54.9	3.1	0
May	3.40	-1.32	61.9	-0.7	2
June	1.20	-3.69	73.8	2.0	12
July	3.25	-0.46	75.6	0.5	12
August	2.15	-2.15	68.8	-4.5	0
September	3.00	-0.12	67.8	2.3	8
October	4.95	2.27	56.5	3.1	0
Totals	24.72	-4.28			34

Research Farm Projects

<u>Project</u>	<u>Project Leader</u>
Automated weather station	E. Taylor
Carbon sequestration study	M. Al-Kaisi
Cardinal corn fungicide study	A. Robertson
Continuous corn insecticide evaluations	P. Weber
Continuous corn sulfur by N by K study	A. Mallarino
Corn breeding trials	J. Edwards
Corn date of planting	M. Licht
Corn performance testing	J. Rouse
Corn seed treatment	A. Robertson
Cover crop studies	E. Juchems
Cover crop termination	M. Anderson
Fall cover crop demonstration	S. Carlson, PFI
FACTS crop modeling	S. Archontoulis
Fungicide standability trial	A. Robertson
K sidedress study in corn	A. Mallarino
K residue study in soybeans	A. Mallarino
Kalona soil tillage study	G. Brenneman
Long-term nitrogen study	J. Sawyer
Milkweed demonstration	R. Hellmich
Miscanthus trial	E. Heaton/N. Boersma
Native prairie grass demonstration	M. Rees
Nira soil tillage study	G. Brenneman
Nitrogen x tillage	J. Sawyer
Nut tree demonstration	Iowa Nut Growers Association
Orchard demonstration	P. O'Malley
Organic barley variety trial	K. Delate
Organic soybean following rye crimping demo	K. Delate
P and K placement within tillage systems	A. Mallarino
Pollinator habitat	R. Hellmich
SCN breeding nursery	G. Gebhart
Sorghum biomass yield trial	M. Salas
Soybean date of planting	M. Licht
Soybean seed treatment trial	A. Robertson/J. Shriver
Soybean performance testing	J. Rouse
STRIPS	M. Helmers
Statewide soybean fungicide trial	D. Mueller/S. Wiggs
Subsurface drainage study	M. Helmers/G. Brenneman
Sweetcorn grain production	GPC, K. Braun
Switchgrass biomass production trial	G. Brenneman
Wetland demonstration for nitrate removal	G. Brenneman
Windbreak demonstration	M. Rees