

Southeast Research Farm Summary 2018

RFR-A1883

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. In 2018, the Southeast Research Farm (SERF) began an expanded role with the Muscatine Island Research Farm (MIRF), planting some of the plots and harvesting all the corn and soybean. In the spring, Josh Michel left his position at MIRF to work in Extension as a field agronomist. The windbreak renovation continues with the planting of new evergreens and control of the shrub row. Two apple and two pear trees were added to the orchard. A new soil finisher was purchased and the 3-point sprayer was replaced. Maintenance was done on the septic system. Three tons of lime was applied to the Louisa County land. Of special mention, Greg Brenneman retired from his long-time position as Extension ag engineer. Greg had major contributions developing the research farm, serving as association treasurer, and conducting trials. He will be greatly missed.

Field days and tours. Three field days were held in 2018, including the annual spring and fall field days and Nitrogen Week. A young farmers meeting was held after the spring field day. Three demonstration days also were held—a local landscaping service used the yard for mower training; Patrick O'Malley taught a class in fruit tree pruning; and a meeting on pollinator habitat management concluded with a controlled burn demonstration using the native grasses. SERF hosted three WACO Community School district students for a week of job shadowing in January. Extension led the Henry County leadership group in a meeting. ISU delegates hosted Senator Joni Ernst at the farm. A manure applicator certification meeting was held. Approximately 700 people visited the farm during 2018.

New projects. Soybean predictive model, D. Mueller/S. Wiggs; Singh soybean breeding, B. Scott.

Crop Season Comments

The start of planting was delayed due to a colder than normal April. Planting began April 26 and was completed May 24. Rain events were infrequent from April to early August, with 8 in. below average during that period.

Harvest came earlier than normal starting September 27 and concluding November 13. A week was spent at Fruitland harvesting MIRF crops. The lack of rain during the growing season was made up during harvest, causing delays. Yields were good; bulk acres averaged 235 bushels/acre for corn and 65 bushels/acre soybean. Little fall tillage was accomplished due to wet soil conditions.

Weather Comments

Winter 2017-18. The moisture was surplus going into 2018.

Spring 2018. Cooler than normal April. Normal planting conditions once planting started.

Summer 2018. Very hot and dry with timely rain to keep the crop going. There were 43 days of 90°F or above.

Fall 2018. Early start to harvest with numerous rain delays causing a later than normal completion. Minimal fall tillage was completed.

Acknowledgements

Thanks to ISU extension, researchers, MIRF, and SERF staff, local agribusinesses, Nutrien Ag Solutions, Agriland FS, and Sandeen Seeds/Pioneer. Thanks also to the Southeast Iowa Agricultural Research Association for a strong, continuing partnership.

Table 1. Southeast Research and Demonstration Farm, Crawfordsville, monthly rainfall and average temperatures for 2018.

Month	Rainfall (in.)		Temperature (°F)		Days 90° or above
	2018	Deviation from normal	2018	Deviation from normal	
March	3.95	1.87	36.8	-2.8	0
April	0.70	-2.80	43.2	-8.3	0
May	3.85	-0.87	70.7	7.8	6
June	2.90	-1.99	75.3	3.4	10
July	1.40	-2.31	73.7	-1.4	9
August	6.00	1.70	74.8	1.5	9
September	5.75	2.63	68.2	2.6	8
October	<u>4.15</u>	<u>1.47</u>	52.0	-1.4	<u>1</u>
Totals	28.70	-0.30			43

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	A. Gassman
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
FACTS crop modeling	S. Archontoulis
Infurrow fungicide trial	A. Robertson
K sidedress study in corn	A. Mallarino
K sidedress study in soybeans	A. Mallarino
Kalona soil tillage study	K. Tebockhorst
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	K. Tebockhorst
Nitrogen x tillage	J. Sawyer
Nut tree demonstration	Iowa Nut Growers Association
Nutrient reduction strategy	M. Castellano
Orchard demonstration	P. O'Malley
Organic corn variety trial	K. Delate
P and K placement within tillage systems	A. Mallarino
Pollinator habitat	R. Hellmich
SCN breeding nursery	G. Gebhart
Singh soybean breeding	B. Scott
Sorghum biomass yield trial	M. Salas
Soybean date of planting	M. Licht
Soybean performance testing	J. Rouse
Soybean predictive model trial	D. Mueller/S. Wiggs
Soybean seed treatment trial	A. Robertson/J. Shriver
STRIPS	M. Helmers
Statewide soybean fungicide trial	D. Mueller/S. Wiggs
Subsurface drainage study	M. Helmers/K. Tebockhorst
Switchgrass biomass production trial	K. Tebockhorst
Wetland demonstration for nitrate removal	K. Tebockhorst
Windbreak demonstration	M. Rees