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Southeast Research Farm Summary

Kevin Van Dee Iowa State University

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Southeast Research Farm Summary

Abstract Includes Farm and Weather Summary and Research Farm Projects.

Keywords RFR A1017

Disciplines Agricultural Science | Agriculture

Southeast Research Farm Summary

RFR-A1017

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Farm and Weather Summary

Kevin Van Dee, farm superintendent

Farm Comments

Developments. The four-row, 30-in. planter generally slowed planting progress last spring, mainly due to the planter's narrow size and to short windows of weather without rain. Consequently, we have purchased an eightrow, 30-in. planter to increase the rate of planting progress in future years. This wider planter will also fit studies with eight-row plots better by alleviating the guess row caused by the four-row planter.

Field Days and Tours. Four events were held in 2010. A district soil conservationists' tour and the spring field day, both held in June, were successful events. The fall field day and a CRP event were also well attended. Over 820 people visited the farm in 2010.

New Projects. NC-IPM corn fungicide study, Alison Robertson; Soybean pest control study, Kevin Van Dee/Jim Fawcett; Sorghum biomass trials, Maria Salas-Fernandez; Corn replant study, Roger Elmore; Corn twin-row demonstration, Kevin Van Dee; Manure applicator demonstrations, Greg Brenneman; and Soybean bean pod mottle virus study, Forrest Nutter.

Crop Season Comments

Corn planting began on April 15 with 85 percent of the corn planted for the first time by April 22. Corn planting was delayed several times due to wet conditions and was not completed until May 27. More favorable weather returned after June and continued throughout the summer and into fall. Harvest began September 16 and was completed October 19 with yields of 85 to 214 bushels/acre. Soybean planting began May 20 and was mostly completed by June 1; however, the organic soybean trial was not planted until July 1. There were no major insect pest problems during 2010, but there were some fungal diseases. The research farm did not experience a great deal of Sudden Death Syndrome (SDS), possibly because of our later soybean planting dates. Harvest began September 13 and was completed October 22 with yields of 40 to 64 bushels/acre.

Weather Comments

Winter 2009–2010. The first measurable snowfall was on December 7, 2009. The soil moisture profile was above average going into 2010.

Spring 2010. Modest precipitation fell during the early part of spring, but rainfall increased substantially by late April through the rest of spring. Precipitation total for June set a record at the farm. The June total was also only 0.14 of an inch below the all-time record for any month at the farm, set during July 1993. Temperatures were cold during early May, yet monthly averages were above average for the entire spring. Cold, wet conditions during early May resulted in seedling diseases in corn, requiring that a quarter of the corn acres be replanted. Almost all of this replanted corn was on continuous corn ground.

Summer 2010. Temperatures were above average for most of the summer, yet there were only 12 days with temperatures 90°F or above during all of 2010. Precipitation returned to more average amounts during July and August but increased again in September. September also was the only month during the growing season that posted a below-average monthly temperature. *Fall 2010.* The weather was nearly ideal throughout most of the fall with warm temperatures and little precipitation. Corn yields were variable with low yields occurring

where stands were thin and soils were wet earlier in the year. Soybean yields were generally above average. Soil moisture was at capacity going into 2011.

 Table 1. Southeast Research and Demonstration Farm, Crawfordsville, monthly rainfall and average temperatures for 2010.

	Rainfal	l <u>l (in.)</u>	Tempera	ture (°F)	Days
		Deviation		Deviation	90° or
Month	2010	from normal	2010	from normal	above
March	2.73	0.39	41.8	3.3	0
April	4.32	0.68	56.2	4.7	0
May	6.14	1.20	61.7	0.2	3
June	12.62	7.99	72.0	1.2	0
July	3.95	0.47	75.5	1.8	2
August	4.93	0.24	74.9	2.7	7
September	8.14	5.48	64.1	-0.7	0
October	1.04	<u>-2.28</u>	53.7	1.8	<u>0</u>
Totals	43.87	14.17			12

Research Farm Projects

Research Project	<u>Project Leader</u>
Blueberry soil amendment study	P. O'Malley
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 breeder trials	J. Edwards
Corn performance testing	J. Rouse
Corn replant study	R. Elmore
Corn twin-row demonstration	K. Van Dee
Grape variety trial	P. Domoto
Home garden orchard demonstration	P. O'Malley
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
Manure applicator demonstrations	G. Brenneman
Native grasses demonstration	K. Van Dee
Native plants establishment demonstration	G. Brenneman
NC-IPM corn fungicide study	A. Robertson
Nira soil tillage study	G. Brenneman, J. Fawcett, J. Jensen
Nut tree demonstration	Iowa Nut Growers' Association
Organic soybean variety trial	K. Delate
P and K placement within tillage systems	A. Mallarino
Rye cover crop study	J. Sawyer
SCN breeding nursery	G. Tylka
Sorghum biomass trials	M. Salas-Fernandez
Soybean bean pod mottle virus study	F. Nutter
Soybean performance testing	J. Rouse
Soybean pest control study	K. Van Dee, J. Fawcett
Subsurface drainage study	G. Brenneman
Wetland demonstration for nitrate removal	G. Brenneman
Windbreak demonstration	K. Van Dee