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## East Central Kansas Experiment Field

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# East Central Kansas Experiment Field

## **Abstract**

The research program at the East Central Kansas Experiment Field is designed to keep area crop producers abreast of technological advances in agronomic agriculture. Specific objectives are to (1) identify top performing varieties and hybrids of wheat, corn, soybean, and grain sorghum; (2) establish the amount of tillage and crop residue cover needed for optimum crop production; (3) evaluate weed and disease control practices using chemical, no chemical, and combination methods; and (4) test fertilizer rates, timing, and application methods for agronomic proficiency and environmental stewardship.

## **Keywords**

East Central Kansas soil, East Central Kansas weather, East Central Kansas precipitation

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## **East Central Kansas Experiment Field**

### **Introduction**

The research program at the East Central Kansas Experiment Field is designed to keep area crop producers abreast of technological advances in agronomic agriculture. Specific objectives are to (1) identify top performing varieties and hybrids of wheat, corn, soybean, and grain sorghum; (2) establish the amount of tillage and crop residue cover needed for optimum crop production; (3) evaluate weed and disease control practices using chemical, no chemical, and combination methods; and (4) test fertilizer rates, timing, and application methods for agronomic proficiency and environmental stewardship.

### **Soil Description**

Soils on the field's 160 acres are Woodson. The terrain is upland and level to gently rolling. The surface soil is a dark gray-brown, somewhat poorly drained silt loam to silty clay loam over slowly permeable clay subsoil. The soil is derived from old alluvium. Water intake is slow, averaging less than 0.1 in./hour when saturated. This makes the soil susceptible to water runoff and sheet erosion.

### **2015 Weather Information**

Precipitation during 2015 was about average, though most months were under average, except for May, which was double the 35-year average (Table 1). Overall, the 2015 growing season was warmer than 2014. The summer of 2015 had 37 days exceeding 90, but none of those days exceeding 100°F, compared to 30 days over 90°F and 3 days over 100°F in 2014. The coldest temperatures occurred in January, February, November and December, with 14 days of low temperatures in single digits, compared to 28 days in 2014. The last freezing temperature in the spring was April 4 (average, April 18), and the first killing frost in the fall was October 29 (average, October 21). There were 208 frost-free days, which is more than the long-term average of 185.

After the cool, wet May, the growing conditions were good until July, after corn pollination. The short season and the full season corn hybrid trials averaged 130 and 133 bu/a, respectively. The soybean yields were generally much better than last year, with the soybean variety trial averaging 59 bu/a, compared to 41 in 2014.

**Table 1. Precipitation at the East Central Kansas Experiment Field, Ottawa**

Month	2015	35-year avg.	Month	2015	35-year avg.
	----- in. -----			----- in. -----	
January	1.02	1.03	July	3.27	3.37
February	0.59	1.32	August	2.33	3.59
March	0.58	2.49	September	2.83	3.83
April	3.45	3.50	October	0.84	3.43
May	10.65	5.23	November	4.49	2.32
June	4.37	5.21	December	3.45	1.45
			Annual total	37.87	36.78