

Kansas Agricultural Experiment Station Research Reports

Volume 1
Issue 2 *Kansas Field Research*


Article 2

January 2015

East Central Kansas Experiment Field Introduction

E. A. Adee
Kansas State University, eadee@ksu.edu

Follow this and additional works at: <https://newprairiepress.org/kaesrr>

 Part of the [Agriculture Commons](#), and the [Agronomy and Crop Sciences Commons](#)

Recommended Citation

Adee, E. A. (2015) "East Central Kansas Experiment Field Introduction," *Kansas Agricultural Experiment Station Research Reports*: Vol. 1: Iss. 2. <https://doi.org/10.4148/2378-5977.1003>

This report is brought to you for free and open access by New Prairie Press. It has been accepted for inclusion in Kansas Agricultural Experiment Station Research Reports by an authorized administrator of New Prairie Press. Copyright January 2015 Kansas State University Agricultural Experiment Station and Cooperative Extension Service. Contents of this publication may be freely reproduced for educational purposes. All other rights reserved. Brand names appearing in this publication are for product identification purposes only. No endorsement is intended, nor is criticism implied of similar products not mentioned. K-State Research and Extension is an equal opportunity provider and employer.



East Central Kansas Experiment Field Introduction

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

Creative Commons License



This work is licensed under a [Creative Commons Attribution 4.0 License](https://creativecommons.org/licenses/by/4.0/).

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.

2014 Weather Information

Precipitation during 2014 totaled (27.04 in.), which was 9.7 in. below the 35-year average (Table 1). Overall, the 2014 growing season was cooler than 2013. Average rainfall for the months of June and October were the only months receiving above the average. The summer of 2014 had 30 days exceeding 90.0°F, and three of those days exceeded 100.0°F. The coldest temperatures occurred in January, February and November, with 28 days with low temperatures in single digits. The last freezing temperature in the spring was April 18 (average: April 18), and the first killing frost in the fall was October 31 (average: October 21). There were 196 frost-free days, which is more than the long-term average of 185.

The early season growing conditions were very good until July after corn pollination. This is reflected in the short-season and full-season corn hybrid trials that averaged 172 and 195 bu/a, respectively. The drier July and August had a greater effect on soybean yields, with the soybean variety trial averaging 41 bu/a.

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

Month	2014	35-year avg.	Month	2014	35-year avg.
	----- in. -----			----- in. -----	
January	0.18	1.03	July	0.85	3.37
February	0.59	1.32	August	2.88	3.59
March	0.57	2.49	September	3.39	3.83
April	3.49	3.50	October	4.35	3.43
May	1.18	5.23	November	0.38	2.32
June	7.10	5.21	December	2.08	1.45
			Annual total	27.04	36.78