

Foreword

Kansas State University is pleased to present the 2017 Dairy Research Report of Progress. We continue to watch the Kansas dairy industry grow, and in 2016 our state ranked 10th for largest growth in total milk produced. During the past 5 years (2011 to 2016), total milk production in Kansas has increased by 29%; the number of cows by 18%; and annual pounds of milk per cow by 1,785. Therefore, the Kansas dairy herd is not only growing, but is becoming more productive and efficient. At the end of 2016, Kansas ranked 13th nationally in milk yield per cow at 22,801 lb, 16th in the number of dairy cows (146,000), and 16th in total milk production (3.33 billion lb). Kansas now has 290 dairy operations and averages 503 cows per herd (*Hoard's Dairyman*, March 25, 2017, pp 204–205).

Selected production traits of our Kansas State University Dairy Teaching and Research Center (DTRC) herd are shown below. The excellent functioning of our herd is largely a tribute to the dedication of our staff: Michael Scheffel (manager), Daniel Umsheid, Robert Feist, Alan Hubbard, Kris Frey, Eulises Jiron Corrales, Morgan Taylor, Cory Sunderman, and Rhonda Chartier. Special thanks are given to Cheryl Armendariz, Wenjing Fausnett, Haixia Liu, and a host of graduate and undergraduate students for their technical assistance in our laboratories and at the DTRC. We also acknowledge the support and cooperation of the Heart of America Dairy Herd Improvement Association (DHIA) for its assistance in handling research milk samples.

Kansas State University Dairy Teaching and Research Center Herd¹

Cows, total no.	282
Rolling herd milk, lb	32,831
Rolling herd fat, lb	1,160
Rolling herd protein, lb	959
Somatic cell count × 1,000	119
Calving interval, mo	12.7

¹October 24, 2017 test day (milking 2 to 3 times daily).

The sustained increases in productivity and efficiency on dairy farms in Kansas and across the United States are largely driven by improved technology and management decisions by dairy producers. It is our hope that the type of research presented in this report contributes to those improvements.

Thorough, quality research is not only time-intensive and meticulous, but also expensive. Nevertheless, studies have demonstrated that each dollar spent for research yields a 30 to 50% return in practical application. Those interested in supporting dairy research are encouraged to consider participation in the Livestock and Meat Industry Council

(LMIC), a philanthropic organization dedicated to furthering academic and research pursuits by the Department of Animal Sciences and Industry. Additional details about the LMIC are found at the end of this report.

B.J. Bradford, Editor
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