Cover: Soybean is planted annually on more than 3 million acres in Arkansas, which typically ranks 10th in production among soybean-producing states in the USA. The cover photograph shows soybean leaves near the top of the plant exhibiting the onset of potassium deficiency symptoms during mid-reproductive growth. Potassium deficiency symptoms begin as a yellowing at the soybean leaf tip and progresses along the leaf margin and deeper into the leaf blade as the severity of deficiency increases. The picture was taken from plots located at the Pine Tree Research Station from research validating the accuracy of soil-test-based phosphorus and potassium fertilizer recommendations for irrigated soybean. (photograph by Matthew Fryer, Graduate Research Assistant, University of Arkansas System Division of Agriculture, Department of Crop, Soil, and Environmental Sciences).

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SUMMARY

Rapid technological changes in crop management and production require that the research efforts be presented in an expeditious manner. The contributions of soil fertility and fertilizers are major production factors in all Arkansas crops. The studies described within will allow producers to compare their practices with the university’s research efforts. Additionally, soil-test data and fertilizer sales are presented to allow comparisons among years, crops, and other areas within Arkansas.

INTRODUCTION

The 2014 Soil Fertility Studies include research reports on numerous Arkansas commodities and several disciplines. For more information on any topic, please contact the author(s). Also included is a summary of soil-test data from samples submitted during 2013. This set of data includes information for counties, soil associations, physiographic areas, and selected cropping systems.

Funding for the associated soil fertility research programs came from commodity check-off funds, state and federal sources, various fertilizer industry institutes, and lime vendors. The fertilizer tonnage fee provided funds not only for soil testing but also for research and publication of this research series.

Mention of a trade name is for facilitating communication only. It does not imply any endorsement of a particular product by the authors or the University of Arkansas System Division of Agriculture, or exclusion of any other product that may perform similarly.

Extended thanks are given to the staff at state and county extension offices, as well as at research centers and stations; farmers and cooperators; and fertilizer industry personnel who assisted with the planning and execution of the programs.

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