

# Introduction

Leo Espinoza and Jeremy Ross

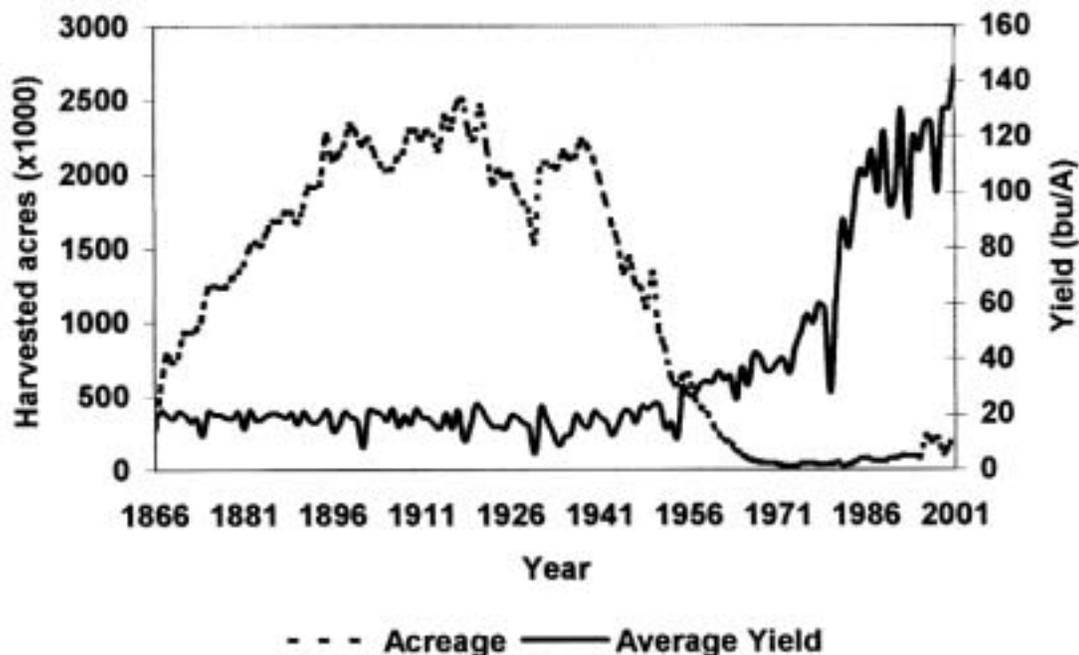
North American Indians practically saved the early settlers from starvation during their first winter by sharing their corn. In fact, Indians of North and Central America had grown corn for several thousand years prior to the arrival of the first settlers.

Early Arkansas settlers made corn a very important part of their agricultural operations. Before 1950 (from records going back to 1866) more than 1 million acres of corn were harvested each year. Increasing demand and attractive crop prices for cotton, rice and soybeans resulted in the decline of corn production in the state to less than 100,000 acres (Figure Intro-1). The increasing nematode pressure in soils planted to cotton and soybeans, in addition to high yield potentials and new market opportunities, have resulted in a 100 percent increase in corn acreage in the last couple of years.

Corn yields remained relatively flat prior to 1950, with state average yields being 18 bushels per acre. Today, thanks to more and improved hybrids developed by public and private breeding programs, as well as more efficient fertilizer, irrigation, pest management and marketing practices, average corn yields in Arkansas are in the 140 to 145 bushels per acre range. These yield levels represent a 2.5 bushels per acre increase per year since 1950, and it is very close to average yields observed in traditional corn producing states (Table Intro-1).

The Corn and Grain Sorghum Research Verification Program (CGSRVP) is contributing significantly toward increasing state corn yields. This program began in 2000, and is funded solely by Arkansas growers through Check-off contributions. The CGSRVP uses Extension management

Figure Intro-1. Historical corn acreage and average yields in Arkansas between 1886 and 2001 (Arkansas Agricultural Statistics Service).



recommendations to produce a high yielding, economical corn crop. Information from CGSRVP fields is used to improve and refine production recommendations to meet the needs of Arkansas corn farmers, in addition to identifying areas in need of more research. Through the 2002 growing season, 27 corn fields had been enrolled in the CGSRVP, with economic information collected on each CGSRVP field to estimate crop expenditures and returns.

Extension specialists and researchers with the University of Arkansas Division of Agriculture developed this handbook. Arkansas corn growers, through the Arkansas Corn and Grain Sorghum Promotion Board, provided the financial resources to create the handbook.

The handbook should be used as a reference guide. It contains information on topics such as hybrid selection, soil and water management, plant nutrition, integrated pest management, harvesting, and safety considerations in the production of corn

under Arkansas conditions. Due to constant changes in laws that regulate pesticide use, the reader is encouraged to contact the appropriate Extension office for the most current information.

**Table Intro-1. Average Yields for Selected Corn Producing States During 2001.**

<b>State</b>	<b>Yield (bu/A)</b>
Indiana	156
Illinois	152
Nebraska	147
Iowa	146
Arkansas	145
Ohio	138
Missouri	133
Tennessee	132
Texas	118

Source: National Agricultural Statistics Service.