

ASPECTS OF STEVENS COUNTY FARMERS' KNOWLEDGE
AND PRACTICES AS RELATED TO SORGHUM PEST MANAGEMENT

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by

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Chapter I

INTRODUCTION

BACKGROUND

During the summer of 1968 an aphid called the greenbug, Schizaphis graminum (Rondani), became a major problem on grain sorghum in the High Plains. From that time greenbugs have continued to be a factor in grain sorghum production in Stevens County, Kansas. Since the beginning of the greenbug problem there have been, in many instances, incorrect identification of greenbugs and unscientifically based control measures applied to grain sorghum.

As a result of the infestation of greenbugs some Stevens County farmers participated in a pest management pilot program which began in the summer of 1973.

This study examined greenbug control measures applied by farmers and assesses their ability to recognize key pests and predators of grain sorghum. As a result of this study an informal educational program to increase farmers knowledge of grain sorghum pest management was developed.

PROBLEM AND IMPORTANCE OF STUDY

Stevens County is located in the southwest portion of Kansas, and is adjoined by Texas County, Oklahoma on the south, Seward County on the east, Grant County on the north, and Morton County on the west.

The county seat of Stevens County is Hugoton. In 1970, the population of Hugoton was 2,769, and the county population was 4,198.¹

This study is important because of the economic impact of the large acreage of grain sorghum in Stevens County and the Great Plains states.

In 1970, Stevens County had the highest grain sorghum acreage of any county in Kansas. There were 139,000 acres of sorghum that produced a yield of 6,262,200 bushels.²

The Great Plains states of Texas, Kansas, Nebraska, Oklahoma, Colorado, South Dakota, and New Mexico, harvest approximately 90 percent of the total sorghum produced annually in the United States. In 1970, the acreages planted and harvested, and total yields were: United States, 16,807,000 acres; Great Plains states 15,041,000 acres; United States, 697,050,000 bushels; and Great Plains states, 613,688,000 bushels.³

As a result of the abundant supply of grain sorghum produced in the Great Plains states, many industries have developed. One of these is the cattle feeding industry. Sorghum was the key ingredient in the finishing ration of 13,038,000 cattle marketed from Great Plains' feedlots in 1971.⁴

¹General Population Characteristics, Kansas 1970, Census of Population, U. S. Dept. of Commerce, Bureau of the Census. PC(1) B 18.

²Farm Facts, Kansas State Board of Agriculture, State Printing Office, Topeka, Kansas. 1970-1971.

³Agricultural Statistic, United States Department of Agriculture. 1971.

⁴R. C. McIntyre, and G. L. Teetes, "High Plains-Panhandle Sorghum Pest Management Program Proposal." Great Plains Sorghum Pest Management Proposal. 1972. pp. 1-26.