

AGRO-ECONOMIC STUDY OF INTER-CROPPING MUNG AND GUARA IN SORGHUM

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ABSTRACT

To study the economic feasibility of growing mung and guara in inter row spaces of sorghum, an experiment was conducted at research Farm of Faculty of Agriculture, Gomal University Dera Ismail Khan during the year 1989. Mung and guara were planted in 60 cm, 90 cm and 120 cm inter row space sorghum single row, two row and three row strip planting, respectively. Inter cropping treatment were also compared with sole crops of mung, guara and sorghum. Inter cropping guara and mung in 120 cm, and 90 cm inter strip space were better than all other cropping systems tried for grain yield, land equivalent ratio, net return and monetary advantage.

INTRODUCTION

Sorghum (*Sorghum bicolor* L.) is one of the most important kharif crops cultivated for both grain and fodder purposes. It is also used for starch, alcohol, sugar, wax, edible oil, silage and making shelter, mats and baskets.

Punjab and Sind are the major sorghum producing provinces of Pakistan and contribute 54 and 26 percent, respectively to the national acreage. The area under sorghum crop in N.W.F.P. during 1989-90 was 28800 hectares with a production of 21500 tones with an average production of 747 kg the (Agri. Stat. Pakistan, 1990).

In Pakistan sorghum is generally sown mixed with guara, mung, moth etc in summer rainy (kharif) season. These traditional mixtures were primarily developed as an insurance against the total crop failure due to adverse weather conditions. Steiner (1982) worked on importance of mixed cropping and reported that sorghum intercropped with cow peas reduced insect pest population and diseases. Moreover weeds were also controlled by increasing crop cover.

In these traditional mixtures, either the seed of the component crops are mixed and then sown or some definite proportions of the rows of component crops are adopted. Umrani *et al.*, (1984) reported that sorghum/pigeon peas combination increased net returns