Gomal Univ.J.Res.(A) 14(1): 111-119, 1994 [Printed in Dec. 1996] ISSN 1019-8180

COMPARATIVE PRODUCTIVITY AND ECONOMIC ANALYSIS OF MAIZE-LEGUMES INTERCROPPING SYSTEMS IN DIFFERENT GEOMETRICAL PATTERNS

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ABS[illegible]

xperiment was conducted to study the comparative productivity and omic of maize legumes intercropping systems during the spring of 1988 and 89. The experiment consisted of two planting patterns (60 cm spaced single ows and 90 cm spaced double-row strips) and three intercropping systems (Maize alone, maize-mashbean and maize-mungbean. The results showed that in terms of total maize yield equivalent, intercropped maize gave substantially higher yield than monocropped maize. The highest yield equivalent of 69.64 and 70.12 q/ha was recorded for maize planted in the pattern of double-row strips and intercropped with mashbean as compared to 51.88 and 48.85 q/ha for sole maize during 1988 and 1989, respectively. Maize-mashbean association gave the highest net income of Rs. 18071.93/ha in 1988 and Rs. 17923.28/ha in 1989 under the double-row strips planting system. The benefit cost ratio was also found to be the highest in case of maize-mashbean association under the planting pattern of 90 cm spaced double row strips. In conclusion, maize legume association under the planting system of 90 cm spaced double-row strips not only showed substantial yield advantages but also gave considerably high net income per hectare than monocropped maize.

INTRODUCTION

Intercropping is used by small farmers primarily to increase the diversity of their products and the stability of their annual output through effective use of land and other resources, (Faris *et al.*, 1976 and Finlay, 1974). In Pakistan, it is practically impossible to explore the production potential and economic benefits of maize-based intercropping systems by using the conventional method of planting because mutual shading by the corn-legume intercrop usually produces much less than its monocrop potential. However, research has sown that the selection of suitable intercrops with appropriate planting geometry increased productivity and income under intercropping system (Pendleton *et al.*, 1963). Recently a new technology of planting maize in 90 cm spaced double-row strips