Gomal Univ. J. Res.
Vol. 9 No. 1&2 pp 101-109 (1989)
Printed in Pakistan

REGRESSION AND CORRELATION ANALYSIS IN COTTON (GOSSYPIUM HIRSUTUM L.)

Muhammad Yaqoob
Agricultural Research Station, Serai Naurang, Bannu.

Gul Hassan and Muhammad Riaz
Agricultural Research Station, Dera Ismail Khan.

Received 14-04-88
Accepted 07-01-89

ABSTRACT

Sixteen different genotypes of cotton G. hirsutum L., including crosses, reciprocals and selfs of 4 cultivars/ strains were studied to determine the inter-relationship between yield of seed cotton and various other important parameters. The results indicated that number of bolls, boll weight and plant height were positively associated with yield of seed cotton. The correlation coefficients of these characters with yield were respectively highly significant, significant and non significant phenotypically and genotypically. It was further indicated that ginning percentage and staple length had negative and non-significant correlation genotyupically with yield, whereas, such values were positive and non-significant phenotypically. The higher proportion of variability (80 %) in yield of seed cotton was associated with number of bolls per plant as shown by higher r^2 value.

INTRODUCTION

Pakistan is the third major cotton exporting county in the world. A huge foreign exchange is earned annually through the export of cotton. As compared to the other cotton growing contries of the world per acre yield of seed cotton in our country is lower. Amonmg the facters contributing toward the lower production is the poor genetic potential of existing cultivare and still there remains an immense scope for further genetic improvement.