

EFFECT OF SOME INPUT FACTORS ON THE YIELD OF WHEAT, RICE AND COTTON IN DERA ISMAIL KHAN DISTRICT

IMAD BAKHSH*, AKBAR HUSSAIN GURMANI*,
I. QASIM KHAM**, AND HAYATULLAH KHAN*

* Agricultural Research Institute, D.I.Khan.

** Faculty of Agriculture, Gomal University, D.I.Khan.

Effect of some input factors such as fertilizer, plant population, plant protection for rice and cotton and fertilizer, method of sowing and variety for wheat were studied on farmer's field of D.I.Khan District in 1983, 1984 and 1985. The investigations measured the gap between potential and actual farm yields and contribution of test factors, economic evaluation in terms of net return and benefit cost ratio (B:C) for adoption of new technology has also been observed.

The results of these experiments on different locations revealed that the contribution due to fertilizer was 46.5, 51.3 and 37.0 percent in wheat, cotton and rice respectively. Contribution due to plant population was 45.0 & 25.3 percent and due to plant protection was 17.0 & 21.1 percent in rice and cotton respectively. Method of sowing and variety contribution were 27.6 and 19.3 percent respectively in wheat. The net return and (B:C) ratio of Rs.1177 and (4:1), Rs.633 and 3:1 was found in plant population in rice and cotton respectively. The fertilizer gave the net return and (B:C) ratio of Rs.980 and (4:1), Rs.1737 and 5:1, and Rs.706 and 2:1 from rice, cotton and wheat crop respectively. The plant protection gave net return and (B:C) ratio of Rs.267 and 2:1, Rs.741 and 3:1 from rice and cotton crop respectively. In wheat crop the method of sowing and variety gave the net return and (B:C) ratio of Rs.708 and 1:1, Rs.490 and 1:1 respectively.

INTRODUCTION

Wheat, rice and cotton are the main crops grown in Dera Ismail Khan District. Efforts are afoot to increase its per acre yield. Several fertilizer experiments were conducted on the farmer's field under soil fertility project to find out the most economical dose, method of Fertilizer application, plant protection measures with the ultimate aim of increasing yield. Despite this, farmer's yield is considerably lower than the potential yield. To overcome this yield gap, farm yield constraint research was started in North West Frontier Province in 1980 and from 1982-83 to 1984-85, and the present work was confined to Dera Ismail Khan District.