

## **Cost of Wheat Cultivation under Irrigated and Non-Irrigated Conditions**

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### **a) Researcher's Identity**

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### **b) Objectives**

The objectives of the study were:

- i. To make an assessment on relative costs of production of wheat under irrigated and non-irrigated conditions;
- ii. To indicate returns from wheat cultivation; and
- iii. To indicate cultivation and management practices of wheat.

### **c) Executive summary**

A study on cost of production of wheat cultivation under irrigated and non-irrigated conditions in 1979-80 was made in Shabgram Union under Sadar Thana of Bogra district.

From the study it was observed that the area under wheat had been increasing year after year. In most cases, HYV wheats were grown and 96% were grown under irrigated condition and the rest under rainfed condition on land in lower areas having natural soil moisture. Maximum area was covered under deep tube well, shallow tube-well and hand tube well and negligible area was under power pump and other indigenous methods of irrigation.

As per the costs of production on full cost basis it was observed that Tk. 1,101.00 per acre was spent in irrigated condition whereas only Tk. 854.00 was spent in non-irrigated condition. The cash-costs per acre under irrigated and non-irrigated conditions were however Tk. 517.00 and Tk. 373.00 respectively. The yields obtained under irrigated and non-irrigated plots were 20 maunds and 12 maunds respectively.

Net incomes per acre from wheat cultivation were Tk. 717.00 and Tk. 226.00 respectively for irrigated and non-irrigated conditions on full-cost basis and were Tk. 1,301.00 and Tk. 707.00 for irrigated and non-irrigated conditions on cash-cost basis. Returns to man days of a labour invested in wheat cultivation was calculated to Tk. 30.75 and Tk. 20.43 respectively for irrigated and non-irrigated conditions.

No difference on cropping pattern was observed in irrigated and non-irrigated wheat plots, in which same type of crops like aus, jute and aman are grown. The total labour used in irrigated wheat cultivation was 56 whereas in non-irrigated wheat cultivation was 45. The fertilizer use in irrigated wheat was also higher than non-irrigated wheat plots.

The farmers who cultivated wheat under irrigated condition were more interested to receive loan than those under non-irrigated condition. The percentage of debtors was 35% and 11% respectively under irrigated and non-irrigated wheat cultivations. IRDP and Sonali Bank under 100 Crore Taka Credit Programme of the government were the major sources of credit.

#### **d) Recommendations**

While carrying out study, some problems were observed. In order to solve them, the following recommendations are made:

1. The government should take steps to increase wheat cultivation by taking up the wheat programme sufficient ahead of sowing time for training staff (T.S.) and farmers duly supported by technical aid through a mobile training team and supplying of inputs.
2. Seeds should be treated properly with insecticides and fungicides and should be distributed among the farmers. In case of seeds preserved by the farmers, the facilities should be provided to treat them properly before sowing to the field in the office of the T.S. or Union Agricultural Assistants (U.A.As.).
3. Facilities for irrigation should be given through tubewells and pumps.
4. Sufficient number of procurement centres should be opened to help the farmers to sell their produce at their door-step immediately after harvest.

5. For helping the farmers in threshing wheat in harvesting season, they should be provided with wheat threshing machines. This will help them to save labour, time and probable damage by vagaries of whether and pests.
6. Wheat crushing mills are provided to the farmers in the wheat growing areas.
7. A training on the techniques of preservation of wheat seeds to be imparted to the wheat growers at thana centre.
8. The rate of seeds per acre should be fixed at 1 1/2 maunds.
9. Local wheat varieties should be replaced by HYV wheat in the areas.

