

Adoption of Maize and its Production at Sherpur Thana

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a) Researcher's Identity

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b) Objectives

The broad objective of the study was to gather and appraise information on the farmer's attitude towards maize cultivation. The specific objectives were to find out :

- i. cultural practices of maize cultivation;
- ii. varietal coverage of maize;
- iii. cropping patterns followed;
- iv. type of seeds used and their procurement process;
- v. costs and returns of maize cultivation;
- vi. marketing channel; and
- vii. attitude of the farmers towards maize cultivation;

c) Executive summary

Maize is Cultivated in 11 villages of Sherpur Thana. Among them, two villages namely, Salfa and Shubli were selected randomly for the study. Total number of maize farmers in these two villages was 40.

The socio-economic conditions of farmers showed that most of them were within the age range of 30-39 years. Half of the farmers had agriculture as their sole profession. About half of the farmers can somehow put their signature only, while 15% can not even do that. Very few farmers had large size families. Most of the farmers were medium scale (18) and small scale (15), only 5 farmers were large scale and 2 were landless.

Out of 40 farmers, 37(92.5%) were motivated by other farmers to adopt maize farming; only 2(5.0%) farmers were motivated by an NGO and 1(2.5%) was by extension workers. In the study area 29.9 % of the small farmers' total land was devoted to maize cultivation. In case of medium and large scale farmers, this was found to be 17.78% and 16.50% respectively. Most of the farmers (67.50%) cultivated maize on medium low land.

In cultural practices, it is evident that out of 40 farmers, 2 farmers ploughed the land for maize production 3 times, 14 farmers had done it for 4 times, 11 farmers for 5 times and 13 farmers for 6 times. 39 farmers out of 40 used hybrid variety-Pacific-11; while the other one used the composite variety Barnali.

The maximum quantity of seed used for sowing was 30Kg and the minimum quantity was 10.62 Kg per hectare, while the recommended seed quantity is 25.30 Kg per hectare. Seeds were sown with an average spacing of 70 cm x 22 cm which is slightly different from the correct spacing of 75 cm x 25 cm. Of the four categories of farmers, only a few from each category applied organic fertilizer to the soil, quantity of which was much below the recommended rate. Quantity of Urea, Phosphate and Potash applied by the farmers were much higher than the recommended doses. Only Zinc Sulphate applied was a bit below than the recommended doses. Weeding and irrigation to the maize crop were done as per recommended practice. No pests and diseases of maize except stem cutter worm damage were encountered by the farmers. Because of the non-availability of appropriate tools, farmers separated maize grain from the cob manually. They stored the maize grain at about 12.14% moisture content.

Regarding cropping pattern in maize cultivation, the major ones are maize-Jute-Fallow, Aman-Maize-Fallow, Maize-Fallow-Fallow and lentil-Maize-Fallow.

Regarding seed sources, out of 40 farmers, 30(75.0%) bought the seed from hybrid seed dealer, 9(22.5%) from BRAC and 1(2.5%) from Thana Livestock Officer. Regarding marketing channel of maize most of the maize grain from farmers in Sherpur area are purchased by the BRAC and the owners of the poultry farms. BRAC Purchases the grain for its own programme of poultry and animal husbandry. Only one maize trader could found who purchases the grain in the Sherpur area and supplies the same to the poultry farmers of Savar area of Dhaka.

Concerning the attitude of farmers toward maize cultivation, it was found that farmers were very much interested in maize cultivation and expect to

bring more land for the cultivation because it was proved to be more profitable than Boro rice or Wheat.

The adoption rate of maize in the study area at present is very low, being only 1.3% and 4.0% of the total farmer number, in the villages Salfa and Shubli respectively. The main constraints to the adoption of maize in the study area were found to be farmer's apathy to grow new crop, lack of fund and farmer's ignorance.

Regarding cost and returns of maize production per hectare it is found that total expenditure per hectare of maize production constituted Tk. 20,197.25 while total gross income was Tk. 49,620.80 and net profit was Tk. 29,423.55. The BCR was found to be 2.46 and rate of return per hectare of maize production was 145.68%

d) Conclusion

In conclusion, it can be mentioned that the adoption rate of maize in the study area can be increased if provided proper action from the part of the government taking into consideration of elimination of constraints; enough extension work should be directed towards raising the farmer's consciousness for maize cultivation and arranging credit facilities for the farmers. Since it is more profitable than Boro rice or Wheat and requires less irrigation, farmers can be motivated to switch on to maize cultivation from Boro rice or Wheat cultivation. Again, the cost of cultivation can be reduced by the application of recommended doses of chemical fertilizers.

