

Technique of evaluation in economics of rainfed blackgram and greengram production

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ABSTRACT

Blackgram (*Phaseolus mungo* L.) and greengram (*Vigna radiata* L.) are the important pulse crops in India. Survey was conducted in Latur district of Maharashtra for the year 2004-05 to study economics of blackgram and greengram production on rainfed farms. Data were collected from 48 blackgram and 48 greengram growers. The results revealed that main product of blackgram was 9.54 q/ha while that of greengram was 9.08 q/ha. In production process, cost-'C' was found to be Rs. 10801.42/ha and Rs. 11232.88/ha in case of blackgram and greengram production, respectively. Net profit was Rs. 2766.78/ha from blackgram while that was Rs. 3701.12/ha from greengram. Output-input ratio was 1.25 and 1.33 in case of blackgram and greengram production, respectively. Cost of production of blackgram was Rs. 1089.98/q while that of greengram was Rs. 1192.38/q.

Key words : Blackgram, Greengram, Costs, Returns, Profit.

INTRODUCTION

Blackgram (*Phaseolus mungo* L.) and greengram (*Vigna radiata* L.) have been cultivated since ancient times in India. In human diet, blackgram plays an important role by providing 24 per cent protein, 0.70 per cent calcium and 57.30 per cent carbohydrate. It is used in making *papad*, *dosa*, *idli*, *halwa* and *imrati*. It is used as nutritive fodder specially for milch cattle. It is used as green manuring crop. It is the richest among the various pulses in phosphatic acid. Similarly, greengram plays an important role by providing the highest digestible protein than any other pulses. It provides ascorbic acid when it is allowed to sprout. It is used in making *Khara*, dal and curry. It is also used as green manuring crop. It has the capacity to fix the atmospheric nitrogen. It also helps for preventing the soil erosion.

Blackgram and greengram are economically important crops and are cultivated in *kharif* season on rainfed farms. In India, the area under blackgram is 32.90 lakh hectares with the production of 15.90 lakh tonnes, while the area under greengram is 33.10 lakh hectares with the production of 13.70 lakh tonnes. In Maharashtra, areas under blackgram and greengram are 5.40 and 6.59 lakh hectares with the production of 2.48 and 2.80 lakh tonnes, respectively for the year 2001-02. Latur district ranks first in area as well as production of both blackgram and greengram in the state. Thus, these pulse crops are being cultivated on a commercial scale in the district. Since, no serious attempt has been made to know careful and accurate cost of cultivation, profitability and per quintal cost of production in case of blackgram and greengram crops on rainfed farms. Keeping in view above, the investigation with respect to cautious evaluation in economics of rainfed blackgram and greengram production has been undertaken.

MATERIALS AND METHODS

In relation to selection of farms, blackgram and greengram farms were selected through multistage

sampling design as follows. In the first stage, Latur district of Maharashtra was purposely selected, because of its predominance in area of the pulse crops. In the second stage, Latur tehsil was also purposely selected, because of its superiority in area of both blackgram as well as greengram crops. In the third stage, eight villages were selected on the basis of the highest area under both pulse crops. In the fourth stage, from each of the selected villages, the separate lists of blackgram and greengram growers with areas of both the pulse crops in the rainfed condition were obtained. Six blackgram and six greengram farms were randomly selected from each of the villages. Thus, 48 blackgram and 48 greengram farms were selected for present investigation. In regard to collection of data, cross sectional data were collected from 48 blackgram and 48 greengram growers by personal interview method with the help of pretested schedule. Per farm data were related to different items of expenditure and return in case of both the pulse crops for the year 2004-05.

For evaluation, data were converted into per hectare basis. Statistical tools like arithmetic mean, percentage and ratio were used for estimating the results. Cost concepts like cost-'A', cost-'B' and cost-'C' were used (Dhondyal and Singh, 1999). Cost-'A' includes the items of expenditure namely hired human labour, bullock labour, machine labour, seed, fertilizers, manure, pesticides, land revenue, incidental expenditure, interest on working capital and depreciation on fixed capital. Cost-'B' includes cost-'A' plus rental value of land and interest on fixed capital. Cost-'C' includes cost-'B' plus imputed value of family labour. Man day refers to a measurement of human labour whereas female labour is equal to 0.50 man day in case of both hired and family labour because the prevailing wage rates for female and male labour were Rs. 25 and 50 per day, respectively. Bullock labour cost was evaluated by considering the hiring rate of a bullock pair for Rs. 150 per day. Threshing machine rate was Rs. 400 per hour. The rates prevailing for nitrogen, phosphorus and potash were

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