Soybean \( \textit{Glycine max} \) is one of the major oilseed crops in India. Though, soybean is a legume crop, yet it is widely used as oilseed crop. Due to very poor cook ability, and account of inherent presence of trysin inhibitor, it can not be utilized as pulse crop. Soybean is important oilseed crop of the Latur district of Maharashtra. It was observed that, farmers in Latur district are gradually substituting soybean for Kharif sorghum, greengram, blackgram, groundnut and other traditional crops grown in the region. One of the most economic factors for shifting area from traditional crops to soybean crop is the increasing price of soybean crop. It is the successful crop having short duration with moderate inputs requirements. In production technology, important inputs are labour, chemical fertilizers, manure, seed and plant protection. It is necessary to know the cost of cultivation of the crop. It can helpful to improve the profitability of crop by extending the technical advice and supply of inputs in time to the cultivations view. The attempt has been made in the present investigation to study the input utilization, costs, returns and relative profitability of soybean in Latur district.

**ABSTRACT**

Soybean \( \textit{Glycine max} \) is known as golden bean in India. Soybean is grown successfully in various agro-climatic conditions. Soybean is one of the important oilseed crops of the Latur district in Maharashtra. For present study multistage sampling design was used in selection of district, tehsils, villages and soybean growers. On the basis of high area under soybean crop Latur and Renapur tehsils were selected. From selected two tehsils 12 villages were selected purposely on the basis of highest area under soybean crop. In this way, 180 soybean growers were selected for the present study. The information collected with respect to expenditures and returns were analysed in tabular form by using cost concepts like cost - A, cost - B and cost - C. Data pertained to the year 2007-08. The result revealed that, cost-C was Rs.25883.57 in which share of cost-B was 86.64 per cent while that of cost-A was 66.40 per cent. Gross return was found to be Rs.29748.52 and net profit was Rs.3864. The output input ratio was 1.15.

**Key words :** Soybean, Costs, Returns, Profit

**INTRODUCTION**

Soybean \( \textit{Glycine max} \) is one of the major oilseed crops in India. Though, soybean is a legume crop, yet it is widely used as oilseed crop. Due to very poor cook ability, and account of inherent presence of trysin inhibitor, it can not be utilized as pulse crop. Soybean is important oilseed crop of the Latur district of Maharashtra. It was observed that, farmers in Latur district are gradually substituting soybean for Kharif sorghum, greengram, blackgram, groundnut and other traditional crops grown in the region. One of the most economic factors for shifting area from traditional crops to soybean crop is the increasing price of soybean crop. It is the successful crop having short duration with moderate inputs requirements. In production technology, important inputs are labour, chemical fertilizers, manure, seed and plant protection. It is necessary to know the cost of cultivation of the crop. It can helpful to improve the profitability of crop by extending the technical advice and supply of inputs in time to the cultivations view. The attempt has been made in the present investigation to study the input utilization, costs, returns and relative profitability of soybean in Latur district.

**MATERIALS AND METHODS**

Multistage sampling design was adopted for selection of the district, tehsil, villages and soybean growers. In first stage, Latur district was purposively selected on the basis of highest area under soybean crop. In the second stage, Latur and Renapur tehsils were selected on the basis of highest area under soybean crop. In the third stage, 6 villages were selected from each selected tehsil. In the fourth stage, from each of the selected villages, fifteen soybean growers were randomly selected. In this way 180 soybean growers were selected for the present study. Data were collected from them with the help of pretested schedule by personal interview method for the year 2007-08. Data were converted to per hectare basis in tabular form, statistical tools like arithmetic mean, percentage and ratio were used for accounting the cost and returns in soybean production. The cost concept like cost-A, cost-B, cost-C were used for cost evaluation and to estimate profitability in soybean production. Cost-A includes the items namely, hired human labour, machine labour, seed, fertilizer, manure, plant protection, land revenue, interest on working capital and depreciation of asset. Cost-B comprises of the cost-A plus rental value.
of land and interest on fixed capital. Cost-C includes the cost-B plus family labour cost. The terms and concepts used in present study were as follows. Land revenue was considered actually paid by the cultivators for crop area. Incidental expenditure included minor repairs, refreshing charge and other expenditure for cultivation of the crop. Interest on working capital included by charging interest at the rate of 11 per cent on items of expenditure as hired human labour, bullock labour, machine labour, seed, fertilizers, manures, plant protection, land revenue an incidental charges for crop duration. Depreciation is the decrease in the value of asset and 10 per cent on the present value at the beginning of the year of farm implements and machinery was taken and only the proportionate charges were taken for the estimate as 1/6th the value of gross produce that is value of main product plus value of by product minus land revenue. Interest on fixed capital by charging interest at the rate of 10 per cent on investment on commonly used assets like wooden implements, iron implements which were distributed on cropped area.

RESULTS AND DATA ANALYSIS

The findings obtained from the present studies have been presented in the following sub heads:

**Per hectare input used and expenditure in soybean production:**

Per hectare cost of cultivation of soybean was calculated and is presented in Table 1. In regard to use of physical inputs, it was observed that use of hired human labour and family human labour was 47.06 and 34.57 man days, respectively. In general, use of bullock labour was 13.08 pair days while the use of machine labour was 13.02 hours. In case of fertilizers, use of phosphorus was 44.83 kg followed by nitrogen (22.40 kg) and potash (10.74 kg). In general, use of manure was 23.68 quintals while the use of plant protection was 2.02 litere. It was observed that, cost-C was Rs.25883.57 in which share of cost-B was 86.64 per cent followed by that of cost-A (66.40 per cent). In regard to the share of individual item, rental value of land was 19.04 per cent followed by hired human labour (18.18 per cent), machine labour (15.09 per cent), family human labour (13.36 per cent), seed (8.74 per cent), bullock labour (7.58 per cent) in soybean production. These results are in conformity with findings of Pawar et al. (2000), Asmotoddin et al. (2009) and Kakde et al. (2009) regarding rental value of land, bullock labour, seed and family labour.

**Per hectare profitability in soybean production:**

Per hectare profitability in soybean production was
calculated and is presented in Table 2. The main produce was 15.62 quintals while the by produce was 4.68 quintals. The by product could be decomposed and provide manure to farm. Similarly, good quality byproduct could be used as cattle feed. It was found that gross return was Rs. 29748.52 in which value of main produce was Rs.28344.52 and byproduce was Rs.1404. It was obvious that, net profit from soybean crop was found to be Rs.3864.95. It was also observed that, farm business income was Rs.12561.07 and family labour income was Rs.7321.95. The output-input ratio was 1.15. Per quintal cost of production was 1567.19. The present findings corroborate with the findings of Satpute (2000), Chavan (2000) and Jadhav (2008) regarding main produce and net return in soybean production.

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LITERATURE CITED


