



# STUDY THE EFFECT OF ORGANIC AND INORGANIC FERTILIZERS ON YIELD AND ECONOMICS IN BRINJAL AT DIFFERENT FARMS

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## Abstract

The main objective of the present study, was how affecting the Organic and Inorganic fertilizers between selected with local Cheques in Brinjal crop in Lahurapur Village of Berno Block in Ghazipur district of Uttar Pradesh during the year 2011-12. It was found that increasing trends in yield has been observed by using combinely organic and inorganic manures in small, medium and large size of the farmers. Net income Rs/ha. resulted with a great satisfaction. But in future for this crop farmers has to go with a good farm plans along with proper inter cultural operations and plant protection management to achieve a better yield and income with low cost combinations.

**Key Words :** Farmers, yield, cost, increasing trends, form plans.

## INTRODUCTION

This vegetable crop are warm season crops. Their plants cannot with stand frost. Two sowings are done in June-July for the autumn crop and in November for the spring-summer crop. A third sowing of brinjal can be done in March for rainy season crop. For a good production 25 tones of FYM per hectare is incorporated into the soil of its preparation. This is to be supplemented with 100 Kg. of Nitrogen, 50 Kg. Phosphorus & 25 to 30 Kg. of Potassium. Half the dose of Nitrogen and the full dose of phosphorus and potassium should be added to the soil at transplanting, and the rest top dressed after about four weeks. It is necessary to maintain an even moisture supply in the soil; over watering is as harmful as insufficient irrigation. This crop constitutes an important ingredient in Ayurvedic medicine which beneficial for liver problems. It is a major source of profitable income for small, medium and larger size group of the farmers. Maintenance of soil fertility is a prerequisite for long term sustainable agriculture where organic manuring can play a vital role in the sustenance of soil fertility and crop production. The potentialities of organic source is very limited to afford higher crop production due to slow

release of plant nutrients from organic matter. The application of organic manures is fruitful for soil health as a result help to increase the productivity of brinjal crop. Application of organic manure and inorganic fertilizer in combination contributing increase in the yield said by Subbiah, K. *et al.* (1985). Different types of organic and inorganic supply of fertilizer to the crop resulted maximum fruit yield. Use of nitrogenous fertilizer along with poultry manure and bio fertilize resulted increase in the yield Devi, H.J. *et al.* (2002). Use of urea and poultry also letter higher nutrient uptake resulted increase in the yield Jose, D. (2002). Controlling of weeds in brinjal manually could be effective and cheaper.

## Materials and Methods

The present study was conducted in randomly selected village Lahurapur of Berno block in Ghazipur district of Uttar Pradesh during the year 2011-12 with, farmers-scientist collaborations among them three farmers has been randomly selected each from small, medium and large size groups. The crop for the present study on different track of the farmers was Brinjal. Variety suggested Narendra Baigan-1. Seed rate 500 gram per

hectare along with NPK @ 100:50:25 kg/ha. suggested. The crop has been taken on the farmers field during first fortnight of November to the week of November. 25 tones/ha. F.Y.M. at the time of field preparation allowed to incorporate in the soil. The duration of crop was 65-70 days. All other recommended package of practices has been provided at the time of their requirements for better yield. All information's has been collected through survey method and tabular analysis was used. Family schedule has been used to collect the data from the selected farmers according to their size of holdings, family size, area of the production and income of the crops. The economics of the crop was workout at current price rate.

### Results and Discussion

Table-1 shows that per hectare yield was 300qt, 305qt and 350qt in small, medium and large size groups of the

was ₹1,15,090 (small), ₹1,43,280 (medium) and ₹1,47,105 (large) reveals increasing trends from smaller to large size of farmers. The Gross cost and net income ₹/ha was ₹40,180 & ₹90,875, ₹45,500 & ₹64,860 and ₹51,150 & ₹70,075 followed by in small, medium and large size of the farmers shows increasing trends. Benefit cost ratio was on demonstrated track with local ones 3.55 & 2.26, 3.78 & 2.43 and 3.50 & 2.37 from smaller to medium and large shows no specific trends. It was very much clear from the result that cost may be reduce if farm plans are used properly. Finally, the study concludes that in future cost may be reduces when cultivation of brinjal crops will be taken on the track with a good suitable farm plans along with major precautions regarding inter culture operational management and plant protection management etc.

**Table 1:** Brinjal Yield (Qt/ha.) at different farm levels during 2011–12.

Size of Holdings	No. of Farms	Seed Rate Gram./ha.	FYM Ton /ha.	Fertilizer (Kg./ha.)			Duration of Crop Days	Yield (Qt./ha.)		% increase in yield
				N	P	K		Demo	Local	
Small	1	500	25	100	50	25	65-70	300	235	27.66
Medium	1	500	25	100	50	25	65-70	305	240	27.08
Large	1	500	25	100	50	25	65-70	350	290	20.69

**Table 2 :** Expenditure and Net Income of Brinjal at different farm levels during 2011 – 12.

Size of Holding	No. of Farms	Expenditure and Returns of Demo (₹/ha.)			Expenditure and Income of Local Check (₹/ha.)			Benefit Cost Ratio	
		Gross Cost	Gross Income	Net Income	Gross Cost	Gross Income	Net Income	Demo	Local
Small	1	45,150	1,60,240	1,15,090	40,180	90,875	50,695	3.55	2.26
Medium	1	52,690	1,95,970	1,43,280	45,500	1,10,360	64,860	3.78	2.43
Large	1	58,740	2,05,845	1,47,105	51,150	1,21,225	70,075	3.50	2.37

farmers ranging increasing trends. It was only due to proper use of FYM and chemical fertilizers combinely. Yield from local cheque per hectare in small, medium and large size of the farmers was 235qt, 240qt and 290qt exhibits increasing trends. The percentage increase in the yield on demonstrated tracks was 27.66%, 27.08% and 20.69% in small, medium and large size groups exhibits no specific trends. It was found in table-2 that gross cost ₹ per hectare ₹45,150 (small), ₹52,690 (medium) and ₹58,740 (large). Net income per hectare

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