



STUDY OF THE COST AND RETURN OF PIGEON PEA (*CAJANUS CAJAN* L.) UNDER DIFFERENT FARM LEVELS

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Abstract

The present study has been taken on cost and return of Arhar (*Cajanus cajan* L.) in different size of holdings during 2012-13 in Ghazipur district of Uttar Pradesh village and farmers has been selected on random basis. It was found that when the farmer was adopt old practices they have got low yield and low returns. Whenever, the same farmers applied all the scientific package of practices their yield and net return was on higher side. It is therefore to say that in future if the farmers apply all the scientific practices properly and timely their yield and net return becomes much more and higher.

Key Words: Farmers, Yield, Demo, Local Check, Specific.

Introduction

This crop is extensively used as dal; its green pods may be used as vegetable. The green leaves and top of the plants are fed to animal. Dry stalks obtained after threshing are used for basket making etc. Being deep rooted, it is also planted as a soil renovator to break up the hard subsoil and as a hedge to check erosion. The heavy shedding of leaves adds considerable organic matter to the soil. The crop can grown best on well-drained, light to medium soils, most and deep enough to permit a free development of roots. The plants cannot with stand frost. Good drainage is an essential requirement, as the crop cannot stand lodging. Though perennial, this crop is invariably grown as an annual crop. The crop may be due to their tall growing nature dense population and standing in the field for a long while yield of Arhar (*Cajanus cajan* L.) Crop in inter cropping system will be reduced due to competition occurs by inter crop for nutrients etc. by Rajput *et al.*, 1989, Significant reduction in the yield in delayed sowings along with dense plant population giving a smart loss in the grain yield, Shankar Lingappa *et al.*, 1989. For a better yield and quality timely sowing along with proper spacing is most important.

Materials and methods

The present study has been taken in the randomly selected village Naseerpur of Block Devkali in the Ghazipur district of Uttar Pradesh during 2012-13. Two farmers has been randomly selected from each small, medium and through large size of holdings. A proper farmers scientist attention was made in the visions. Narendra Arhar-1, variety was suggested for this programmes, along with allow to apply 15 Kg/ha of Seed with a dose of N:P:K:Sulphur @ 15:40:0:20 Kg/ha for better yield. The crop was taken on the field during second fort night of July, line sowing was suggested on ridges for higher yield with better quality. All advance packages of practices has been specify for timely application. For a comparative study same farmer has to advise that they were take in other field for this crops on their own traditional practices to see that what was the difference between scientific and traditional practices. Survey method has been used to collect the data and tabular analysis was being 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 crop etc sharp decrease in the grain yield of Arhar (*Cajanus cajan* L.) during the raining is more and proper drainage system when

Table 1: Yield of Arhar (*Cajanus cajan* L.) under different farm sizes of holdings during 2012–13.

Size of holdings	No. of Farms	Area of Farms (ha.)	Seed Rate (Kg./ha.)	Fertilizer (Kg./ha.)				Yield(Qt./ha.)		Percentage increase in yield
				N	P	K	S	Demo	Local	
Small	2	1	15	15	40	0	20	13.50	11.50	17.39
Medium	2	1	15	15	40	0	20	15.00	13.00	15.38
Large	2	1	15	15	40	0	20	18.50	16.50	12.12

Table 2: Net return and Benefit cost ratio of Arhar (Narendra Arhar-1) under different farm size holding during 2012-13.

Size of Holdings	No. of Farms	Cost & Returns of Demo (Rs./ha.)			Cost & Returns of Local Check (Rs./ha.)			Benefit Cost Ratio	
		Gross Cost	Gross Return	Net Return	Gross Cost	Gross Return	Net Return	Demo	Local
Small	2	23,850	70,515	46,665	21,600	55,130	33,530	2.96	2.56
Medium	2	24,300	71,150	68,750	22,975	56,200	33,225	2.92	2.45
Large	2	25,880	74,280	48,430	22,995	58,350	35,355	2.87	2.54

ever checked reported Shinde *et al.*, 1991. The cost and returns of the crop was work out at current price rate. All other needed information has been given to the farmers on the frequent field visits time to time.

Results and Discussion

The Table 1 Shows that yield from the local check Qt. per hectare was 11.50 Qt./ha., 13.00 Qt./ha. and 16.50 Qt./ha. While it was varying in demo was 13.50 At., 15.00 Qt. and 18.50 Qt. in small, medium and in the large size of holdings. From the comparison with local check the yield was increased in demo side was 17.39%, 15.38% and 12.12% resulted no specific trend but the yield was increased in a great consequent. These shows there should be a chance to increase the yield more and more if the farmers should try to make and manage all the advance proper practices. Table 2 Shows that the benefit cost ratio in Demo and local was 2.96 : 2.56, 2.92:2.45 and 2.87:2.54 clearly reveals that there was a waste difference when ever local was compared with Demo side and no proper specific trends has been made. The gross cost Rs./ha. in Demo side was Rs. 23,850, Rs.

24,300 and Rs. 25,880, while it was in local check Rs. 21,600, Rs. 22,975 and Rs. 22,995 in small medium and in large size of holdings exhibits increasing trends. Gross Cost was more in comparison to local check Rs. per hectare Net Return Rs./ha. was too much more in Demo Side was Rs. 46,665, Rs. 68,750 and Rs. 48,430 while it was in local check was Rs. 33,530, Rs. 33,225 and Rs 35,355 shows no specific trends. These are the differences that demo side has been get more returns in comparison to local check because demo side was fully adopted proper package of practices and take proper attentions.

References

- Rajput, R.L., S.S. Bhadouria and S.P.S. Tomar (1989). Inter Cropping in pigeon pea. *Indian Journal of Agronomy*, **34**: 373-375.
- Shankara Lingappa, B.C. and B.R. Hedge (1989). Effect of date of sowing and plant population on pigeon pea. *Indian Journal of Agronomy*, **34(1)**: 99-100.
- Shinde, J.B., P.S. Pal and S.H. Shinde (1991). Effect of seeding date on yield of rainy season pigeon pea. *Indian Journal of Agronomy*, **36(3)**: 430-431.