

Impact of front line demonstrations on soybean yield in Haveri district of Karnataka

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ABSTRACT

Frontline demonstrations on soybean were conducted by KVK with an aim of enhancing the production potential of soybean crop in Haveri district of north Karnataka. The data showed that on an average, frontline demonstration yield was 9.66 q/ha and the average yield increase over local check was to the tune of 28.06. An additional cost of Rs. 1050 was required to produce an additional yield of 2.15 q/ha. The average additional returns and the average IBCR over the years were Rs. 2147.5/ha and 2.02, respectively.

INTRODUCTION

Frontline demonstrations on soybean were conducted by KVK with an aim of enhancing the production potential of soybean crop in Haveri district of north Karnataka. This KVK is functioning under University of Agricultural Sciences, Dharwad in ICAR, Zonal Coordinating Unit Zone-VIII. A survey was conducted to find out the gaps in production technology of soybean in the district and component demonstration concentrating on those critical inputs were conducted emphasizing mainly on introduction of new variety.

METHODOLOGY

The frontline demonstrations (47) were conducted by KVK, Hanumanamatti in an area of 45 acre in different adopted villages during the last three years. These demonstrations were conducted at farmer's field with local check plot for comparative study. The recommended agronomic practices were followed as per latest package of practices, for soybean crop in this region. Improved varieties, time of sowing, seed treatment with fungicides, balanced nutrient application, timely weeding and need based plant protection were demonstrated. The data were collected and analysed by using simple

statistical tools.

RESULTS AND DISCUSSION

The data presented in Table 1 reveal the yield and related data of frontline demonstrations conducted during different years. The data show that on an average, soybean frontline demonstration yield under demonstration plot was 9.66 q/ha. Where as the yield in farmers field was 7.51 q/ha. The higher average grain yield in demonstration plots over the years compared to local check might be due to adoption of full package of practice by the demonstration farmers. Similar results were reported by Singh *et al.* (2002a).

Per cent increase in yield:

Table 1 also reveals that the soybean increase in average yield over local check was to the tune of 28.06 and the average yield increase over the years varied between 25 to 31.88 per cent. Similar findings were reported by Singh *et al.* (2002b).

Incremental benefit cost ratio (IBCR):

It is clear from Table 1 that an additional cost of Rs.1050 was required to produce an additional yield of 2.15 q/ha. The average additional returns over the years was Rs. 2147.5/ha. and the average IBCR over the

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Table 1: Economics of soybean frontline demonstrations

Year	No. of Demonstrations	Area	Av. yield (Q/ha.)		Increase in yield (%)	Over the check plot		Additional return	IBCR
			Demo.	Local check		Add. cost of input (s/ha)	Add. yield (Q/ha.)		
I Year	11	10	11.54	8.75	31.88	1000	2.79	2790	2.79
III Year	12	12.50	12.10	9.50	27.36	1200	2.60	2600	2.17
III Year	13	12.50	10.00	7.80	28	1100	2.20	2200	2.00
IV Year	11	10	5.00	4.00	25	900	1.00	1000	1.11
Total/Average	47	45	9.66	7.51	28.06	1050	2.15	2147.5	2.02

Table 2: Details of extension activities

Sr. No.	Activities organised	I Year	II Year	III Year	IV Year	Total
1.	Trainings	2	3	3	3	11
	Participants	45	65	68	58	236
2.	Field days	1	1	1	1	4
	Participants	75	65	90	75	305
3.	Field visits	6	5	7	6	24
	Participants	35	32	48	30	145
4.	Group meetings	3	4	2	2	11
	Participants	45	38	25	30	138
5.	Radio talk	1	1	1	1	4

years was 2.02 which were due to adoption of full package of practices by the farmers.

Extension activities:

During the crop season, various extension activities like Trainings, Field days, Group meetings, Field visits and Radio talks were carried out to popularise the technology among the farming community. The details of activities are presented in Table 2.

The following feed back was received by the farmers regarding the soybean FLDs

- Application of balanced nutrients to the crop is essential in obtaining potential yield.
- Seed treatment with fungicide and bio-fertilizer are needed to protect soybean crop at seedling stage and for effective nodulation.
- Proper crop rotation has to be practiced.
- Timely sowing, weeding and need based plant protection measures are important practices.

Conclusion:

It can be concluded from the study that adoption of full package of practices like high yielding varieties, seed treatment with fungicide, balanced application of fertilizers, soil testing, timely sowing and adoption of suitable and timely plant protection measures result in enhanced crop yield. This reveals that there is greater scope for popularising soybean cultivation in this part of north Karnataka. The extension community can effectively communicate the improved technologies to the farming community for better production.

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