

RESEARCH NOTE :

Impact of front line demonstration on turmeric in Mahasamund district of Chhattisgarh

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SUMMARY : A front line demonstration was conducted at five farmers field in Mahasamund district of Chhattisgarh during *Kharif* 2016-17 to demonstrate the improved package of practice of Turmeric (*Curcuma longa*). There were two treatments in which one was local check and was cultivation of turmeric with full package of practice. The result revealed that local check gives a yield of 182 q/ha. while turmeric cultivation with full package of practices gives a yield of 241 q/ha. which shows that by adopting package of practices there were 32% increase in yield. The rhizome weight per plant recorded to be 184 g in local check against a 224 g in demonstration field. Similarly net return was also calculated which shows that local check gives a net income of Rs. 179400/ ha with a B:C ratio of 2.38 against a net income of Rs. 259700 with B:C ratio of 2.73 in demonstration field. The extension gap recorded was 59 per cent during the period of study.

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KEY WORDS :

Extension gap, FLD, Turmeric, Technology gap, Technology index

Turmeric (*Curcuma longa* L.) a well known horticultural crop not only used as a spices but also a condiment, dye, drug and cosmetic as well as having its importance in religious ceremonies. The Total Area under Turmeric in our country is 233000 ha. along with a production of 1190000 (Anonymous, 2014). India is a leading producer and exporter of turmeric in the world. Andhra Pradesh, Tamil Nadu, Orissa, Karnataka, West Bengal, Gujarat, Meghalaya, Maharashtra, Assam are some of the important states cultivating turmeric, of which, Andhra Pradesh alone occupies 38.0% of area and 58.5% of production. The total area of turmeric in Mahasamund district of Chhattisgarh is only

1115 ha as against 4733 ha of Chhattisgarh whereas in case of production the total production of turmeric in Mahasamund district is only 7188 MT as against of 30418 MT of state average production (Anonymous, 2015). To increase the area and production of turmeric in the district a front line demonstration was conducted in the farmers field by involving all package of practice of turmeric.

The study was carried out by Krishi Vigyan Kendra Mahasamund in form of a Front Line Demonstration in farmer's field. Five farmers were selected and demonstration were taken in their field along with full package of practice covering an area

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Table 1 : Front line demonstration with package of practice

Average yield FLD (q/ha)	Average yield-local check (q/ha)	% increase over local check	Extension gap (q/ha)	Technology gap (q/ha)	Technology index (%)
241	182	33	59	9	3.6

Table 2 : Economic impact of FLD with traditional package

Cost of cultivation (Rs./ha)		Gross return (Rs./ha)		Net return (Rs./ha)		B: C ratio	
Local	Demo	Local	Demo	Local	Demo	Local	Demo
130000	150000	309400	409700	179400	259700	2.38	2.73

of 0.4 each. The KVK has guided their farmer's right from sowing of seeds after seed treatment to Harvesting and Marketing of the Produce. Planting was done during 1st fortnight of June. The data on output of improved and local plots were recorded and studies were conducted on studying the potential yield, demonstration yield extension gap and Technology Index. These were studied by using the formula as suggested by Samui *et al.* (2000)

$$\text{Per cent increase yield} = \frac{\text{Demonstration yield} - \text{Farmers yield}}{\text{Farmers yield}}$$

$$\text{Technology Gap} = \text{Potential Yield} - \text{Demonstration Yield}$$

$$\text{Extension Gap} = \text{Demonstration Yield} - \text{Yield under existing Practice}$$

$$\text{Technology index (\%)} = \frac{\text{Potential yield} - \text{Demonstration yield}}{\text{Potential yield}} \times 100$$

The results obtained from the present study as well as discussions have been summarized under following heads:

Yield performance :

The result of front line demonstration revealed that average yield of 241 q/ha was obtained which was found to be 33 per cent higher than that of local check which has a yield of about 182q/ha. This clearly shows the positive impact of Front Line Demonstration which is conducted with package of practice (Table 1).

Economic Impact of FLD with Traditional Package of Practice (Table 2).

Extension gap :

The extension gaps of 59q/ha was observed during the period of study, emphasized the need to improve the extension for educating the farmers for adopting improved agricultural technologies with use of high yielding varieties as these would definitely be helpful in bridging these gaps for the welfare of the farming community.

The observed technology gap of 9 q/ha may be attributed to variability in the soil fertility and climatic conditions.

Technology index :

The technology index showed the feasibility of the evolved technology at the farmer's field. The lowest values of technology index indicate the more feasibility of the technology. The technology index in this demonstration was found to be 3.6.

Benefit: Cost ratio :

The Benefit Cost ratio in the demonstration was higher as compare to local check plot. The average net return/ha from the demonstration was Rs. 259700/- while in local check it was Rs.179400/- during the period of study. The benefit cost ratio of demonstration and local check were observed to be 2.73 and 2.38, respectively.

Conclusion :

This it can be concluded that there is a urgent need of adopting the improved production technology and making the extension system for strong so that the extension gap should easily be bridged out. The technology and extension gap has to be reduced so as to exploit the maximum possible output which would sustainability helps in increase the income as well as the livelihood of the farmers of this district.

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