

# Impact of front line demonstration on production technology of cabbage

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## ABSTRACT

The front line demonstration on production technology of cabbage var. Wonderball was conducted for four years (2005-06 to 2008-09) on farmer's field in four different villages in all the four talukas of Dhule district in *Rabi* season. It was observed that the average yield performance of 50 demonstrated cabbage crop in an area of 10 hectares ranged from 210 to 220 q / ha. The average yield of 50 demonstrations of cabbage crop for four years was found to be 214.15 q / ha whereas for local crop, it was found to be 177.50 q / ha. There was 25.73 per cent increase in demonstration yield over local during all the four years. The farmers have incurred average higher returns of Rs. 104950/ha through these demonstrations. The comparative results of the demonstration highlight the cost benefit ratio of 5.07 as against the local crop which recorded 4.36, respectively. Results of the demonstration had shown that the use of improved variety, improved cultivation practices, proper post-harvest management and plant protection measures resulted in higher productivity of cabbage.

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## INTRODUCTION

Cabbage (*Brassica oleracea* L.) is grown in the vicinity of all large cities due to its wider adaptability. Cabbage contains vitamin A and is a good source of vitamins B and C. It is cooling in effect and helps to prevent constipation, increase appetite, speed up digestion and is very useful for patients of diabetes. Cabbage is successfully grown on all type of soils ranging from sandy to heavy soil rich in plant nutrients and retentive of moisture.

India is the second largest producer of vegetables that accounts about 16% world's production. Major importing countries of Indian vegetables are UAE, Pakistan, Sri Lanka, Nepal and Bangladesh.

The efforts are underway to increase the productivity of cabbage by imparting training and conducting demonstrations. The present study therefore, was undertaken to ascertain the role of demonstrations in exhibiting the production technology of cabbage and thus increasing the yield.

## METHODOLOGY

Krishi Vigyan Kendra, Dhule conducted front line demonstrations on cabbage var. Wonderball during the year 2005-06, 2006-07, 2007-08 and 2008-09 in *Rabi* season. Totally 50 demonstrations in an area of 10 hectares were conducted on cabbage crop on farmers

field in all the four talukas viz., Sakri, Dhule, Shindkheda, Shirpur talukas of Dhule district. The demonstrations were conducted in irrigated conditions and the soils of demonstrations plot ranged from medium to black cotton soils. The demonstrations included important technologies like improved variety, planting, use of manures and fertilizers, irrigations, chemical sprays and post harvest management. The yield data were recorded from demonstrations as well as from local plots.

## RESULTS AND DISCUSSION

The data of front line demonstrations presented in Table 1 showed that the yield performance of 50 demonstrated cabbage crop in an area of 10 hectares ranged from 210 to 220 q / ha. The average yield of four years for cabbage crop was found to be 214.15 q / ha whereas for local crop it was found to be 177.50 q / ha (Table 1). There was 25.73 per cent average increase in demonstration yield over local crop during all the four years. The increase in yield in demonstrations over local check was the impact of improved production technology of cabbage crop adopted in front line demonstrations.

Results of the demonstrations had shown that the use of improved variety, improved cultivation practices, proper post-harvest management and plant protection measures resulted in higher productivity of cabbage. The farmers have incurred average higher returns

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**Table 1: Yield performance of FLD on Cabbage crop.**

Sr. No.	Year	Name of the Taluka (Village)	Name of the variety/component	No. of Demonstrations	Area (ha)	Avg. yield (q/ha)			Per cent increase in yield
						Demonstration		Control /check	
						Max	Avg.	Avg	
1.	2005-06	Dhule (kawathi) Sakri (Kaldhar) Shindkheda (Chaugaon) Shirpur (Tajpuri)	<i>Wonderball</i> +INM + PHT	10	2	240	220	185	18.92
2.	2006-07	Dhule (kawathi) Sakri (Kaldhar) Shindkheda (Chaugaon) Shirpur (Tajpuri)	<i>Wonderball</i> +INM + PHT	10	2	260	210	190	10.53
3.	2007-08	Dhule (kawathi) Sakri (Kaldhar) Shindkheda (Chaugaon) Shirpur (Tajpuri)	<i>Wonderball</i> +INM + PHT	15	3	220	215	170	26.47
4.	2008-09	Dhule (kawathi) Sakri (Kaldhar) Shindkheda (Chaugaon) Shirpur (Tajpuri)	<i>Wonderball</i> +INM + PHT	15	3	215	212	165	47.00
Total / Average				50	10	233.75	214.15	177.5	25.73

Variety: *Wonderball*. Season: Rabi. Irrigation: Irrigated.  
Component: Variety (*Wonder ball*) + INM (integrated nutrient management) + PHT (Post harvest technology).

**Table 2: Economics of front line demonstration of Cabbage var. *Wonder ball* in Rabi season**

Sr. No.	Year	Demo		Control		B:C ratio	
		Total cost of cultivation (Rs./ha)	Gross return (Rs./ha)	Total cost of cultivation (Rs./ha)	Gross return (Rs./ha)	Demo	Check
1.	2005-06	20000	105000	16800	68000	5.25	4.04
2.	2006-07	21200	112000	16500	73000	5.28	4.42
3.	2007-08	21000	103000	17000	78000	4.90	4.58
4.	2008-09	20600	99800	16800	74000	4.84	4.40
Average		20700	104950	16775	73250	5.07	4.36

Variety: *Wonder ball* Season: Rabi. Irrigation: Irrigated

of Rs. 104950/ha (Table 2) through these demonstrations. The comparative results of the demonstration highlight the cost benefit ratio of 5.07 as against the local crop which recorded 4.36, respectively (Table 2). Similar results were also reported by Gangwar *et al.* (2003) and Kalalbandi *et al.* (2006) in chilli crop. Hence, there is a wide scope to increase the areas and production of cabbage crop by providing need based training and demonstrations on improved production technology to the farmers.

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