



## Introduction of Sweet Corn Cv. Sugar 75 Through Front Line Demonstration in Tribal Area of Navsari District in Gujarat

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The agriculture is the back bone of the country and more than 65 per cent population of country directly or indirectly depends on agriculture for their livelihood. In most of the tribal areas of the country, traditional agricultural practices with old crops or cropping system are being practiced in order to fulfill the needs of the family. The farmers of the eastern tribal region of South Gujarat particularly Chikhali and Vansda taluka of Navsari district grow low value crops like wheat, gram, kidney bean, sorghum etc. after paddy in Rabi season. Therefore, to enhance the production and income per unit area, it is very essential to grow high value short duration crops like sweet corn, which will not only increase awareness about this crop in tribal people but also meet requirement of good quality fodder for their milch animal which will result in an increased milk production and thus, enhance the income of farmer. Hence, the present study was conducted to demonstrate the cultivation of sweet corn cv. Sugar 75 through front line demonstration in the tribal area of Navsari district in Gujarat.

### MATERIALS AND METHODS

Krishi Vigyan Kendra, Navsari conducted front line demonstration (FLD) on sweet corn ( Sugar 75) at the farmers' field of Vansda and Chikhali taluka of Navsari district during Rabi season of 2010-11 and 2011-12 under the tribal sub plan scheme, Vansda. A total of 126 and 295 FLDs on cultivation of sweet corn were conducted on an area of 30.0 and 68.75 ha. during the years 2010-11 and 2011-12, respectively under irrigated conditions. The soil of demonstration plots ranged

from medium black to latterite. The various aspects included in the FLD were introduction of high value new crops (sweet corn), variety (Sugar 75), integrated nutrient management, weed management, proper irrigation schedule, integrated pest management and harvesting. The detail guidance regarding scientific cultivation practices of sweet corn were given to the farmers to increase the awareness of improved technology and to increase productivity of sweet corn through conducting training programmes both at KVK as well as off campus. The crop was sown during second fortnight of November in both the years. In demonstrations plots, seeds were treated with the bio- fertilizers like azotobacter and phosphate solublizing bacteria before sowing and application of chemical fertilizer @ 120:60:60 kg N:P:K/ha was done. The yield data was recorded from demonstrated as well as control (Farmers' practice) fields. Under contract farming system, memorandum of understanding was signed with M/s Vadilal industries to solve the marketing problem of the crop later on .

### RESULTS AND DISCUSSION

The sweet corn variety Sugar-75 performed better in demonstration plots owing to best management practices like integrated nutrient management, weed management, irrigation and pest management practices. The data regarding performance of sweet corn in front line demonstrations presented in Table 1. The average cob yield and straw yield of demonstration plots in Vasada taluka were 90.9q/ha and 83.3q/ha, respectively, whereas, the average cob yield and

Table 1 : Performance of front line demonstration of Sweet corn Cv. Sugar 75 .

Observations	Name of Taluka						
	Vasada		Average	Chikhali		Average	Average of two Talukas
	2010-11	2011-12		2010-11	2011-12		
Number of demonstration	106	172	139	20	123	72	105
Average cob yield under demonstration (q/ha)	92.4	89.4	90.9	92.4	96.0	94.2	92.5
Average cob yield under control (q/ha)	74.0	73.9	74.0	79.8	75.5	76.7	75.8
Percent increase in cob yield over control	24.6	21.1	22.8	16.3	27.2	21.8	22.3
Average straw yield under demonstration (q/ha)	84.0	82.6	83.3	85.6	88.2	86.7	85.1
Average straw yield under control (q/ha)	69.1	67.9	68.5	72.0	68.4	70.2	69.4
Percent increase in straw yield over control	21.6	21.5	21.6	19.1	29.0	24.1	22.8

straw yield of control plots were 74.0 q/ha and 68.5 q/ha, respectively. The average cob yield and straw yield of demonstration plots in Chikhali taluka were 94.2 q/ha and 86.7q/ha, respectively, whereas, the average cob yield and straw yield of control plots were 76.7q/ha and 70.2q/ha, respectively. The average per cent increase in cob yield and straw yield of demonstration plot over the control plot in Vasada taluka were 22.8per cent and 21.6 per cent, respectively. The average per cent increase in cob yield and straw yield of demonstration plot over the control plot in Chikhali taluka were 21.8per cent and 24.1per cent, respectively. There was overall 22.3 per cent and 22.8 per cent increase in cob yield and straw yield, respectively, in demonstration plots where all the best management practices were adopted over the

control plots. The increase in yield in demonstration over control plots due to integrated nutrient management were also reported by Dhemre and Desale (2010) in radish crop.

### CONCLUSION

Results of the frontline demonstration had shown that the use of improved variety, scientific cultivation practices and plant protection measures resulted in higher productivity of sweet corn. Best management practices approximately increased 22 per cent cob and straw yield in sweet corn.

### REFERENCES

- Dhemre J K and Desale S B (2010). Impact of front line demonstration on production technology of radish cv. DHAWAL KRANTI in Dhule district of Maharashtra. *Asian J Hort* **5(2)**: 350-52.

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