

Success Story

Gram Front Line Demonstration Success Story

Situation Analysis:

Kolhapur district is known for cultivation of Sugarcane crop and getting good return from it. Farmers taking one sugarcane planting followed by one ratoon crop and then he needs alternate crop as crop rotation after harvest of sugarcane in November months. As an alternative rotation crop Gram is coming up well. It will helpful to improve soil physical property and fertility of soil. In Kolhapur district Gram crop is cultivated on 9500 ha. area with average productivity is 9.90 qtl/ha. Considering yield potential (25.0 qtl/ha) of Gram average productivity of Gram is less in Kolhapur district. So, KVK, Kolhapur has decided to take Front Line Demonstration to demonstrate new varieties of Gram, Integrated Pest Management practices for control of Gram Pod borer and root rotting and wilting.

KVK has conducted PRA survey in KVK adopted villages and it was observed that yield of Gram is low due to use of old variety, attack of Gram pod borer, imbalance or no use of fertilizers and improper water management so KVK has decided to conduct FLD demonstration on farmers field with high yielding variety Digvijay and IPM package demonstration. For that KVK has provided seed of Digvijay Variety, Pheromone traps, seed treatment with Trichoderma, Bird perches, and use of Neem ark to farmers. In year 2015-16 FLD demonstration trial was conducted on 20.0 ha. area with 63 nos. of farmers and in year 2016-17 FLD demonstration trial was conducted on 30.0 ha. area with 115 Nos. of farmers.



FLD Gram plot of Mr Rajendra Patil from Kini



FLD Gram plot on Ridges and Furrow method

Group meeting of farmers was organized and had discussion about problem faced by farmers in cultivating Gram and reasons of low yield in gram. Separate training programme was conducted for FLD demonstration farmers and given full detailed knowledge of Gram production Technology and also given practical demonstration of seed treatment and land preparation and dibbling. Gram seed and other inputs provided to farmers well in advance and told farmers to use whole package of practices of Gram production. KVK had provided few inputs of Gram trial and balance inputs used by farmers of his own.

Details of variety used:

Variety: Digvijay

1. It requires 90 to 95 days to mature in rain fed and 110 to 120 days in Irrigated condition.
2. It is yellowish brown bold seeded wilt resistant variety.
3. It is recommended for rain fed, Irrigated and for late sown condition for Maharashtra.

Yield Data: Details of yield data and economic returns is as below

Year	Yield Data:						
	Treatment	Yield Qtl/ha.	% Yield increased	Cost of production Rs./ha.	Total Gross return Rs./ha	Net Return Rs./ha.	B:C Ratio
2015-16	Control	14.54		37437	65446	28009	1.71
	Demonstration	17.84	22.47	36931	74940	38009	1.98
2016-17	Control	15.20		39436	83591	44154	2.03
	Demonstration	18.10	17.32	39199	99573	60375	2.41
2017-18	Control	16.69		42508	75094	32586	1.74
	Demonstration	21.16	26.82	43205	95241	52035	2.17
Average	Control	15.48		39794	74710	34916	1.83
	Demonstration	19.03	22.20	39778	89918	50140	2.19

From above table we can see the three year data of Front Liner demonstration of Bengal Gram Variety: Digvijay. It is observed that Bengal gram yield of Digvijay variety is 19.03 qtl/ha recorded in demonstration plot as compare to 15.48 qtl/ha in control plot, which shows 22.20 % more yield than control plot. Cost of production of control and demonstration plot average of three year is nearby same but the major difference can be seen in respect to total gross return Rs./ha and net return Rs./ha. In total gross return of control plot is Rs. 74710 which is less as compared to demo plot gross return of Rs. 89918. The B:C Ratio of demo plant is more has compared to control plot of Bengal gram.

Details of Yield Parameters			
Demo Plot		Control plot	
Grain yield / plant (gm)	9.45 gm	Grain yield / plant (gm)	7.70 gm
100 grain weight(gm)	24.15 gm	100 grain weight(gm)	20.61 gm

Looking with above table it is observed that yield contributing characters like grain yield per plant and test weight is found more in demonstration plot as compare to control plot and ultimately resulted in more yield in demonstration plot.

KVK has conducted field day at demonstration plot to show difference between existing and new variety and efforts are made by KVK to wide spread of this latest variety and technology. Kolhapur district having good irrigation facility and because of three irrigation to gram Digvijay variety is giving very good yield as compare to local Vijay variety. Size of Digvijay variety is bold as compare to existing Vijay variety because of that farmers are getting good market price. Farmer's feedback is that Dal quality of Digvijay variety is good as compare to Vijay variety. Nowadays Digvijay variety is largely adopted in Kolhapur district as compared to old variety Vijay