

## Success Story

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### SUCCESS STORY ON CLUSTER FLD ON SOYBEAN 2016-17

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#### Situation Analysis:

Soybean is major crop in Kolhapur district next to Paddy and Sugarcane. Soybean crop is cultivated on 42,900 ha. area with average productivity is 19.05 Qtl/ha. Considering yield potential (25.0 Qtl/ha) of Soybean, average productivity of Soybean is less in Kolhapur district. So, KVK, Kolhapur has decided to take Front Line Demonstration to demonstrate new rust resistant high yielding variety of Soybean KDS-344.

KVK has conducted PRA survey in KVK adopted villages and it was observed that yield of Soybean is low due to use of old variety, attack of Spodoptera pest incidence and imbalance or no use of fertilizers so KVK has decided to conduct FLD demonstration on farmers field with new rust resistant and high yielding variety KDS-344 (Phule Agrani) released by MPKV, Rahuri. For that KVK has provided seed of KDS-344 variety to farmers.

In year 2016 and year 2017 Krishi Vigyan Kendra, Talsande had organised FLD Oilseed Cluster demonstrations in Soybean on 20.0 ha area with 57 demonstrations and on 30.0 ha area with 81 demonstrations, respectively at village Nagaon, Nigave kha. and Maley. Soybean's new rust resistant and high yielding variety KDS-344 (Phule Agrani) is demonstrated in comparison with existing soybean variety JS-9305 and JS-335 variety.

Group meeting of farmers were organized and had discussion about problem faced by farmers in cultivating Soybean and reasons of low yield in Soybean. After that separate training was conducted for FLD demonstration farmers and given full detailed knowledge of Soybean production Technology and also given practical demonstration of seed treatment. Soybean seed inputs provided to farmers well in advance and told farmers to use whole package of practices of Soybean production. Farmers were provided with Soybean **variety Phule Agrani (KDS-344)**.

1. It is rust resistant variety recommended for all over India and for rust occurring area.
2. Yield of this variety is 25.24 qtl/ha
3. Duration required to mature is 100 to 105 days.

#### Yield data:

Soybean variety KDS -344 is showing very good yield performance as compare with the existing varieties. This new KDS-344 variety has more number of branches and height of plant is also more as

compare to existing JS-335 variety. Major difference found in number pods per plant. No rust incidence is observed on soybean. Days required for maturity is 105 days. Results of demonstration is as below

**Table: Details of yield and economical returns**

Year	Treatment	Yield Qtl/ha.	% Yield increased	Cost of production Rs./ha.	Total Gross return Rs./ha	Net Return Rs./ha.	B:C Ratio
2016-17	Control	21.68		36041	60714	24672	1.66
	Demonstration	26.61	22.49 %	37896	74521	36625	1.94
2017-18	Control	19.82		35370	55723	20354	1.57
	Demonstration	24.29	22.12	37005	68012	31007	1.83
Average	Control	20.75		35705	58218	22513	1.61
	Demonstration	<b>25.45</b>	<b>22.30</b>	<b>37450</b>	<b>71266</b>	<b>33816</b>	<b>1.88</b>

It is observed from data of two years FLD conducted on Soybean that, Soybean has yield of 25.45 qtl/ha in demonstration plot as compare to 20.75qtl/ha in control plot, which shows increase of 22.30% more yield than control plot. Gross and net income was observed more in demonstration plot as compare to control plot. Yield obtained in demonstration plot is more than state and district average.

Details of Yield Parameters			
Demo Plot		Control plot	
Grain yield / plant (gm)	24.23 gm	Grain yield / plant (gm)	19.41 gm
No of Pods/ plant	70.0	No of Pods/ plant	50.0
100 grain weight(gm)	12.76 gm	100 grain weight(gm)	13.70 gm

In above table it is observed that yield contributing characters like grain yield per plant, Number of pods 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. This variety is popular in farmers for getting highest yield and one of our FLD farmer has recorded highest yield.

Mr. Sandip Magdum from village Nagaon has recorded highest Soybean grain yield of 52.50 qtl/ha in crop cut organized by ZP and State Agriculture Department Kolhapur for Karveer Taluka level crop yield competition. On an average 375 to 500 pods observed at one hill. Planting was done by dibbling two rows on sides of ridges and furrow of 3 ft apart and 25 cm spacing was maintained. On visit to KVK Kolhapur honorable DDG Agriculture Extension Dr. A. K. Singh sir congratulated Mr. Sandip and offered flower bouquet for getting highest soybean yield. Dr. A. K. Singh congratulated the work done by KVK Talsande.



