



### PROMOTION OF PULSES AND OILSEEDS

Pulses and Oilseeds are the major crops cultivated by the farmers in Gadag district, mainly under rainfed situation. Among Pulses, Greengram and Bengalgram account for major area i.e. 60,000 hectares and 80,000 hectares respectively. Area under Redgram is picking up (6000 hectares). Among Oilseeds Groundnut (40000 hectares), Sunflower (15000 hectares) and Safflower (12000 hectares) are the major crops. KVK has been actively involved in dissemination of Pulses and Oilseeds production technology. Suitable location specific technologies have been assessed and demonstrated on the farmer's fields.

#### I) Abstract of OFT and FLD programmes organised by KVK

Year	Greengram		Redgram		No. of OFTs	Bengalgram		
	FLD		FLD			No. of OFTs	FLD	
	Area (Ha.)	No. of farmers	Area (Ha.)	No. of farmers			Area (Ha.)	No. of farmers
2015-16	20	8	-	-	5	20	50	
2016-17	20	50	14	35	3	20	50	
2017-18	30	75	20	50	3	40	100	
2018-19	32	80	20	50	5	70	130	
2019-20	58	40	20	50	11	24	60	
<b>Total</b>	<b>160</b>	<b>253</b>	<b>74</b>	<b>185</b>	<b>27</b>	<b>174</b>	<b>390</b>	

KVK laid out 27 on-farm trials in Bengalgram for assessment of improved varieties.

KVK organised FLD programmes in pulses in 408 ha involving 828 participants

#### II) Details of Technologies demonstrated in Pulses and Oilseeds

Sl. No	Crop	Year	Technologies demonstrated	Area (Ha.)	No. of farmers	Remarks (% increase in yield)
1	Greengram	2015-16	Demonstration of DGGV-2 variety of Greengram crop	20	50	20.21
		2016-17		20	50	20.18
		2017-18		30	75	31.60
		2018-19		32	80	38.68
		2019-20		58	130	21.62
2	Redgram	2015-16	Demonstration of TS-3R variety of Redgram crop	-	-	-
		2016-17		14	35	17.98
		2017-18		20	50	41.56
		2018-19		20	50	29.86
		2019-20		20	50	43.52
3	Bengalgram	2015-16	Demonstration of JAKI-	20	50	17.71

Sl. No	Crop	Year	Technologies demonstrated	Area (Ha.)	No. of farmers	Remarks (% increase in yield)
		2016-17	9218 variety of Bengalgram crop	20	50	14.69
		2017-18		40	100	26.27
		2018-19		70	130	26.74
		2019-20		24	60	25.96
4	Groundnut	2015-16	Introduction of G2-52 and DH-256 varieties along with ICM practices	28	70	11.65
		2016-17		29.2	73	17.07
		2017-18		30	75	21.94
		2018-19		20	50	20.16
		2019-20		10	25	40.71
5	Sunflower	2015-16	ICM practices	10	25	2.99
		2016-17		26	65	Crop vitiated
		2017-18		50	125	36.30
		2018-19		30	75	37.00
		2019-20		20	50	33.75
6	Safflower	2015-16	Introduction of PBNS-12 and ISF-764 varieties along with ICM practices	4	10	22.95
		2016-17		50	125	12.36
		2017-18		42.2	105	28.00
		2018-19		100	250	24.64
		2019-20		15	37	22.00



**i) Front Line Demonstrations : Output details of the FLD organised in Pulse crops.**

Technology	Area under FLD (Ha.)	No. of farmers	Yield (Qtls./ha.)		Increase in yield (%)	Net Returns (Rs./ha.)	
			Demo	Local		Demo	Local
ICM technology in DGGV-2 variety of Greengram crop <b>(Dryland condition)</b>	168	273	8.37	6.71	24.74	18894	10878
ICM technology in JAKI-9218 variety of Bengalgram <b>(Dryland condition)</b>	170	324	14.03	10.98	27.77	26567	16660
ICM technology in TS-3R variety of Redgram crop <b>(Dryland condition)</b>	100	145	7.97	5.63	41.56	25903	21923

KVK's interventions in Greengram, Bengalgram and Redgram resulted in increase in yield of 24.74%, 27.77% and 41.56% respectively.

## ii) Front Line Demonstrations : Output details of the FLD organised in Oilseed crops.

Technology	Area under FLD (Ha.)	No. of farmers	Yield (Qtl./ha.)		Increase in yield (%)	Net Returns (Rs./ha.)	
			Demo	Local		Demo	Local
<b>CROP : GROUNDNUT</b>							
Introduction of DH-256 along with ICM technologies ( <b>Irrigated condition</b> )	68	160	27.96	19.87	40.71	76081	49715
Introduction of G2-52 along with ICM technologies ( <b>Dry land condition</b> )	44	120	20.38	16.96	20.16	40052	27861
<b>CROP : SUNFLOWER</b>							
Integrated Crop Management technology in Sunflower crop ( <b>Dry land condition</b> )	136	340	12.69	10.32	22.96	18637	10713
<b>CROP : SAFFLOWER</b>							
Integrated Crop Management technology in PBNS-12 and ISF-764 varieties of Safflower crop ( <b>Dry land condition</b> )	211	527	11.39	9.34	22.00	18772	12854

KVK's interventions in pulses increased the yield to the extent of 40.71% in Groundnut, 22.96% in Sunflower and 24% in Safflower.

## iii) Seed production activities of Pulses and Oilseeds

Sl. No	Name of the Crop	Name of the improved variety	Quantity of seed production by KVK (Qtls.)	Quantity of seed production by farmers (Qtls.)
1	Bengalgram	JAKI-9218	103.60	850
		GBM-2	16.30	75
		BGD-111-01	16.60	175
		JG-11	1.00	250
		DBGV-204	0.60	0
		NBEG-3	1.60	0
2	Greengram	DGGV-2	45.81	200
3	Redgram	TS-3R	31.89	75
4	Groundnut	G2-52	25	50
		GPBD-4	15	100
		KDG-123	1.80	25
		DH-256	15	100

Sl. No	Name of the Crop	Name of the improved variety	Quantity of seed production by KVK (Qtls.)	Quantity of seed production by farmers (Qtls.)
5	Safflower	A-1	0.50	0
		PBNS-12	13.72	25
		ISF-764	11.02	150
<b>Total</b>			<b>299.44</b>	<b>2075</b>

A total of 299.44 quintals of seeds of improved varieties of pulses were produced and sold to 2075 farmers.

#### iv) Details of capacity development and extension programmes organised

Sl. No	Name of the Crop	No. of training programmes organised	No. of participants	No. of field days organised	Media coverage in numbers
1	Bengalgram	57	1810	7	6
2	Greengram	84	2915	5	6
3	Redgram	32	610	6	4
4	Groundnut	36	1283	5	4
5	Sunflower	30	919	4	5
6	Safflower	24	986	4	3
<b>Total</b>		<b>263</b>	<b>8523</b>	<b>31</b>	<b>28</b>

A total of 263 training courses in pulse crops were organised for 8523 farmers and farm women. Thirty one field days organised and covered in 28 number of medias.

**IV) Impact analysis of Interventions in Pulse crops:** KVK has made detailed Impact analysis of its interventions in promotion of pulse crops in Gadag district and the same is given below.

### IMPACT ANALYSIS OF KVK INTERVENTIONS IN PULSE CROPS

#### Introduction:

Historically India is the largest producer and consumer of pulses. Although India has produced 19.78 MT pulses from 25.21 million hectares during 2013-14, still 20 per cent of local demand is met through import of pulses. Pulse cultivation is known to have several advantages. Their ability to fix atmospheric nitrogen improves soil fertility. These can be grown in limited moisture condition and low input requirement.

India accounts for 33 per cent of world area and 22 per cent of world pulse production. About 90 per cent of global pigeon pea, 65 per cent of chickpea and 37 per cent of lentil area falls in India, corresponding to 93 per cent, 68 per cent and 32 per cent of the global production respectively. Even though pulse production increased significantly during

the last decade, but the production of pulses in India (694 kgs/ha) is lower than most of the pulse producing countries.

Karnataka is one of the major producer of pulses. Chickpea, Greengram and Pigeon Pea have the major share interms of area and production. Greengram is cultivated in an area of 5.28 lakh hectares in Karnataka with a productivity of 246 kgs per hectare. Bengalgram is cultivated in an area of 6.05 lakh hectares having average productivity of 750 kgs per hectare.

Gadag in Karnataka State is the major pulse producing district. Greengram and Bengalgram account for 90 per cent of total pulse area. During the normal monsoon onset years, area under Greengram crosses 1 lakh hectares. It is being cultivated entirely in rainfed situation. The crop is followed by Rabi Sorghum/Sunflower in Rabi Season. Area under Bengalgram varies from 75000 hectares to 1.0 lakh hectares depending on the rainfall pattern of North-East monsoon. In Malaprabha Command Area of Naragund taluk, it is cultivated under protective irrigation after harvesting of Maize. In rest of the taluks viz., Gadag, Ron, Mundaragi, Gajendragada, Shirahatti and Laxmeshwar it is grown in rainfed situation. The average district productivity of Greengram and Bengalgram is 385 kgs/ha and 422 kgs/ha respectively.

#### **Productivity Constraints and Problem Analysis:**

Even though both the pulse crops are contributing significantly to the district economy, there are number of bottlenecks affecting the productivity of crops. Focus group discussion by KVK Scientists with pulse cultivators, reveals that there has been technological gaps with respect to use of improved varieties, abiotic stress management, management of pest and disease and the post harvest handling of the produce. The details of technological gaps identified by KVK are presented in chart-1:

**Chart-1: Productivity Constraints in Greengram and Bengalgram**

<b>Greengram</b>	<b>Bengalgram</b>
➤ Cultivation of local variety (Shining Moong)	➤ Cultivation of local variety (A-1)
➤ Moisture stress	➤ Incidence of pod borer
➤ Incidence of Apion Beetle	➤ Incidence of wilt
➤ Incidence of powdery mildew	➤ Incidence of rust
➤ Incidence of spodopteria	➤ Lack of technology on production technologies
➤ Incidence of yellow vein mosaic virus	➤ Non-availability of quality seeds
➤ Lack of knowledge on production technologies	➤ Unfavorable weather during growth period

#### **KVKs INTERVENTIONS:**

Based on the problem analysis and the subsequent identification of technology gaps, KVK made interventions mainly through Front Line Demonstrations, training programmes, extension activities and seed production activities. The details of technological interventions made by KVK during 2012-13 to 2016-17 is presented below:

1. **Organisation of Training Programmes:** Imparting knowledge and skill in production technologies in Greengram and Bengalgram was one of the major focus to address the technological gaps. Based on the identified thrust area, training module was developed for pulse growers and accordingly training programmes were conducted. Details of yearwise training programmes organised by KVK is presented in Table-1:

**Table-1: Training programmes organised in Pulse Production Technology (2012-13 to 2016-17)**

Sl. No	Title Training Module	No.of Programmes	No.of Participants
<b>Greengram</b>			
1	Resource Conservation Technologies	12	302
2	In-Situ Soil Moisture Conservation	18	501
3	Agronomic practices for higher productivity	15	411
4	Management of pod borer and powdery mildew	27	991
5	Post harvest management	9	283
<b>Sub-Total (a)</b>		<b>81</b>	<b>2488</b>
<b>Bengalgram</b>			
1	Resource Conservation Technologies	10	310
2	Agronomic practices for higher productivity	24	752
3	Foliar nutrition	21	537
4	Management of pod borer-IPM practices	34	1084
5	Management of wilt disease	20	610
6	Post harvest management	11	322
<b>Sub-Total (a)</b>		<b>120</b>	<b>3615</b>
<b>TOTAL (a+b)</b>		<b>201</b>	<b>6103</b>

A total of 201 training courses were organised in Greengram and Bengalgram crops and 6103 farmers, farm women and Extension Personnel participated in the training programme.

2. **Organisation of Front Line Demonstrations:** Organisation of Front Line Demonstration is the major intervention of KVK wherein, viable and proven ICM technologies were demonstrated on farmers' fields along with farmers practices as local check. Various technologies demonstrated in Greengram and Bengalgram crops is given in Chart-2

**Chart-2: Technologies Demonstrated in Greengram and Bengalgram**

Greengram	Bengalgram
➤ Introduction of BGS-9 and DGGV-2 varieties	➤ Introduction of JAKI-9218 variety
➤ Seed priming with CaCl <sub>2</sub>	➤ Seed treatment with Trichoderma
➤ Use of Cycle Weeder	➤ Application of bio-fertilizers
➤ Compartment Bunding for insitu moisture conservation	➤ Foliar spray of 2% urea
➤ Foliar spray of micro-nutrient mixture (1%) (Pulse Magic)	➤ Nipping
➤ Management of pod borer and powdery mildew	➤ Foliar spray of micro-nutrient mixture
➤ Use of Spiral Separator for grading	➤ Management of pod borer and wilt
	➤ Use of Spiral Separator for grading

Details of area demonstrated in Greengram and Bengalgram is presented in Table:-2

**Table-2: Details of Front Line Demonstrations organised in Greengram and Bengalgram**

Year	Crop	Area (Ha)	No. of farmers	No. of villages covered
2012-13	Greengram	10	25	3
	Bengalgram	10	25	3
2013-14	Greengram	4	10	2
	Bengalgram	100	260	6
2014-15	Greengram	100	250	6
	Bengalgram	100	250	6
2015-16	Greengram	108	220	7
	Bengalgram	20	50	1
2016-17	Greengram	20	50	2
	Bengalgram	120	300	2
<b>TOTAL</b>		<b>592</b>	<b>1440</b>	<b>38</b>

KVK organised Front Line Demonstrations in both Greengram and Bengalgram crops in an area of 592 hectares involving 1440 farmers belonging to 38 villages in the district. These demonstrations were supported by Indian Council of Agriculture Research and National Food Security Mission. The figures are also inclusive of demonstrations organised by KVK's host institution supported under NFSM through Department of Agriculture.

- 3. Organisation of Extension Programmes:** KVK organised Extension Programmes in order to strengthen the technology dissemination process. Field days on demonstrated technologies, Farmers' Interactive Meetings, Crop Seminars, Farm Advisory Services, Mobile Messaging Services were rendered to popularise the pulse production technologies. The details of extension programmes organised by KVK is presented in Table:-3

**Table-3: Extension Programmes conducted by KVK in Greengram and Bengalgram (2012-13 to 2016-17)**

Sl. No	Name of Extension Activity	No. of Programmes	No. of Participants
1	Field days	12	691
2	Farmer's Interactive Meetings	18	554
3	Farm Advisory Services	385	385
4	Exposure visit to KVK Farm	22	612
5	Radio Programmes by KVK staff	10	10
6	Mobile Advisory Services	25	15200
<b>TOTAL</b>		<b>472</b>	<b>17452</b>

KVK organised 472 Extension Programmes for 17442 farmers, farm women and Extension Personnel during the period from 2012-13 to 2016-17.

4. **Seed Production Activities of KVK:** Introduction of improved varieties of Greengram viz., BGS-9 and DGGV-2 and JAKI-9218 variety of Bengalgram has resulted in lot of demand for seeds. KVK started seed production of these varieties of in its Farm and started supplying seeds to farmers. Yearwise seed production takenup by KVK is presented in Table:-4

**Table-4: Seed Production Activity of KVK**

Year	Greengram		Bengalgram	
	Quantity produced (Qtl)	Supplied to number of farmers	Quantity produced (Qtl)	Supplied to number of farmers
2012-13	21.30	216	10.50	21
2013-14	12.50	114	-	-
2014-15	14.80	187	12.50	27
2015-16	27.51	285	6.70	11
2016-17	12.50	139	12.50	17
<b>TOTAL</b>	<b>88.61</b>	<b>941</b>	<b>42.2</b>	<b>76</b>

During the period from 2012-13 to 2016-17, KVK produced 88.61 quintals of improved varieties of Greengram (BGS-9 and DGGV-2) and supplied to 941 farmers. During the same period, KVK produced 42.2 quintals of JAKI-9218 variety of Bengalgram and supplied to 76 farmers.

#### **Outcome and Impact**

KVK has been addressing the productivity constraints in pulses especially in Greengram and Bengalgram crops through organisation of FLDs, training programmes, extension activities and seed production programmes. KVK interventions during last five years (2012-13 to 2016-17) have been systematically recorded and the data is analysed for impact assessment. The detail of impact analysis is presented below:

#### **1) Economic Performance of FLD Programme:**

- i) **FLD in Greengram:-** KVK demonstrated improved varieties of Greengram viz., BGS-9 and DGGV-2 along with Integrated Crop Management practices under FLD programme. The analysis of 5 years data (Table:-5) reveals that KVK organised FLDs in 242 hectares of area belonging to 555 farmers of different cluster villages of the district. It is found that there is 21.48 per cent average increase in yield for 5 years. Average Net returns of Rs.9594 per hectare is achieved under demonstration fields compared to farmers' practices of Rs.5324 per hectare. Over 5 years period, there has been a consistent performance of FLDs in terms of yield and net returns.

**Table:-5 Economic Performance of Greengram under FLD**

Year	Area (Ha)	No. of farmers	Yield (Qtl/ha)		% increase	Net Returns (Rs./ha)	
			Demo	Local		Demo	Local
2012-13	10	25	6.50	5.40	20.37	9605	5410



2013-14	4	10	6.80	5.60	21.42	9680	5219
2014-15	100	250	5.32	4.40	20.91	9514	5439
2015-16	108	220	6.10	4.90	24.48	9713	5216
2016-17	20	50	6.61	5.50	20.18	9462	5339
<b>TOTAL</b>	<b>242</b>	<b>555</b>	<b>6.26</b>	<b>5.16</b>	<b>21.48</b>	<b>9594.8</b>	<b>5324.6</b>

ii) **FLD in Bengalgram:** Under Front Line Demonstration, KVK promoted the technological components of improved varieties of JAKI-9218 along with Integrated Crop Management practices. The data presented in Table:6 reveals that KVK organised FLDs in 350 hectares of area covering 885 farmers. Further, the Table reveals that there has been an average increase in yield of 22.65 per cent over local check. Farmers got average net returns of Rs.16117/- per hectare compared to local check of Rs.10392/-. This indicates that FLD farmers were convinced about the utility of technologies they have adopted.

**Table:-6 Economic Performance of Bengalgram under FLD**

Year	Area (Ha)	No.of farmers	Yield (Qtl/ha)		% increase	Net Returns (Rs./ha)	
			Demo	Local		Demo	Local
2012-13	10	25	11.12	9.24	20.35	23662	17939
2013-14	100	260	12.18	9.50	28.21	15957	9957
2014-15	100	250	12.45	9.88	26.01	27692	18373
2015-16	20	50	9.05	7.65	18.39	10243	5461
2016-17	120	300	4.76	4.15	14.70	3069	231
<b>TOTAL</b>	<b>350</b>	<b>885</b>	<b>9.91</b>	<b>8.08</b>	<b>22.65</b>	<b>16117</b>	<b>10392</b>

2) **Additional Net Returns:** The perusal of data presented in Table:7 reveals that 555 farmers involved in FLD activities of Greengram have got 10.35 lakhs as an additional returns during the period from 2012-13 to 2016-17. This is one of the good indication for spreading the technology to other farmers.

**Table:-7 Additional Returns from FLD-Greengram**

Year	Area (Ha)	No. of farmers	Additional net returns (Rs./ha)	Total additional returns (Rs.)
2012-13	10	25	4195	41950
2013-14	4	10	4461	17844
2014-15	100	250	4075	407500
2015-16	108	220	4497	485676
2016-17	20	50	4123	82460
<b>TOTAL</b>	<b>242</b>	<b>555</b>	<b>-</b>	<b>1035430</b>

It is noticed from the analysis of Table:8 that, 885 FLD farmers of Bengalgram crop got additional returns of Rs.20.24 lakhs during five year period. These data are the success indicators for dissemination of technologies in Bengalgram.

**Table:-8 Additional Returns from FLD-Bengalgram**

Year	Area (Ha)	No. of farmers	Additional net returns (Rs./ha)	Total additional returns (Rs.)
2012-13	10	25	5683	56830
2013-14	100	260	6000	600000
2014-15	100	250	9319	931900
2015-16	20	50	4782	95640
2016-17	120	300	2838	340560
<b>TOTAL</b>	<b>350</b>	<b>885</b>	-	<b>2024930</b>

- 3) **Increased Area Under Improved Varieties:** Improved seed variety is playing a vital role in increasing the productivity of crops. KVK has been promoting improved varieties of Greengram and Bengalgram through FLDs and seed production programme. There has been spread of varieties from FLD farmers to other farmers. The details of area spread under improved varieties in Gadag district is presented in Table:-9

**Table:-9 Details of Seed Produced and Area Coverage**

Year	Greengram		Bengalgram		Total		Approximate area covered (Ha)	
	Quantity sold by KVK (Qtl)	Quantity sold by KVK FLD farmers (Qtl)	Quantity sold by KVK (Qtl)	Quantity sold by KVK FLD farmers (Qtl)	Green-gram (Qtl)	Bengal-gram (Qtl)	Green-gram	Bengal-gram
2012-13	21.3	15.0	10.5	25.0	36.3	35.5	480	70
2013-14	12.5	8.0	-	250	20.5	250	270	500
2014-15	14.8	100	12.5	30	114.8	144.8	1500	290
2015-16	27.51	150	6.7	200	177.5	206.7	2300	414
2016-17	12.5	30	12.5	25	42.5	37.5	560	74
<b>Total</b>	<b>88.61</b>	<b>303</b>	<b>42.2</b>	<b>530</b>	<b>391.61</b>	<b>572.2</b>	<b>5110</b>	<b>1348</b>

The data presented in Table:9 reveals that as a result of supply of 391 and 572 quintals of Greengram and Bengalgram seeds respectively, there has been spread of improved varieties of Greengram and Bengalgram through the seed production activities of KVK as well as supply of seed from FLD farmers to other farmers. Over the period of 5 years, approximately 5100 ha of area and 1350 hectares of area have been brought under improved varieties of Greengram and Bengalgram respectively.

- 4) **Spread of Improved Varieties Through RSKs:** There has been a wide spread impact of KVK interventions especially improved varieties. There was a huge demand for improved seed varieties. Karnataka State Seed Corporation has taken large scale seed production activities and supplied to farmers through Raitha Samparka Kendras of State Department of Agriculture. Yearwise and talukwise supply of seeds of Greengram and Bengalgram is presented in Table:10. The Table reveals that a total of 6313 quintals of Greengram and 111914 quintals of Bengalgram seeds were sold during last five years. It corresponds to approximate spread of 84173 ha and 223828 ha of area respectively under improved varieties of Greengram and Bengalgram.

TALUK	2012-13		2013-14		2014-15		2015-16		2016-17		Total	
	Greengram	Bengalgram	Green gram	Bengalgram	Green gram	Bengalgram	Green gram	Bengalgram	Green gram	Bengalgram	Green gram	Bengalgram
Gadag	226	3146	502	3063	66	3479	111	9034	145	4244	1051	22966
Mundargi	295	488	108	974	13	1148	64	2310	158	2419	638	7339
Naragund	66	2545	197	766	40	1701	49	9196	281	4135	634	18341
Ron	322	5357	1044	8350	391	12390	302	19731	378	8318	2437	54146
Shirahatti	215	1326	438	1456	179	1848	181	2330	537	2159	155	9119
<b>TOTAL</b>	<b>1124</b>	<b>12862</b>	<b>2290</b>	<b>14609</b>	<b>691</b>	<b>20566</b>	<b>708</b>	<b>42602</b>	<b>1499</b>	<b>21275</b>	<b>6313</b>	<b>111914</b>

5) **Total area coverage under improved varieties:** KVK as a Front Line Extension system was able to convince the farmers about the utility of relevant technologies for increasing the yield through KVK's seed production programme and FLD programme. There has been horizontal spread of technologies especially improved seed variety among the pulse growers. The large demand was met by State Department of Agriculture through sales of seeds through Raitha Samparka Kendras. Total area coverage under improved varieties through the efforts of both KVK and Department of Agriculture is presented in Table:-11

**Table:-11 Total area covered under improved varieties**

Name of Organisation	Area covered under improved varieties (Ha)	
	Greengram	Bengalgram
Front Line Extension System (KVK)	5100	1350
Main Extension System (Department of Agriculture)	84173	223828
<b>TOTAL</b>	<b>89273</b>	<b>225178</b>

Approximately 89,000 ha area is covered in Greengram and 2.25 lakh ha area under Bengalgram during five year period

**Summary:** KVK as a Front Line Extension mechanism identified the constraints in productivity of Greengram and Bengalgram, and made viable interventions to enhance the pulse productivity. The interventions of KVK during last five year reveals that Front Line Demonstrations have really performed well and increased the productivity of Greengram and Bengalgram by 21.48 and 22.65 per cent respectively. KVK activities also led to spread of improved varieties of Greengram and Bengalgram. Based on the demand of improved seeds, State Department of Agriculture through Raitha Samparka Kendras (RSKs) sold 6300 and 111900 quintals of Greengram and Bengalgram seeds respectively.

Through the efforts of KVK and State Department of Agriculture more than 89,000 ha of Greengram and 2.25 lakh hectares of Bengalgram area have been brought under improved varieties of seeds during the period from 2012-13 to 2016-17.