

Success Story : 2016-17

1. Thematic Area: Seed Production

High income by producing chickpea crop seed

Village : Karmad
Taluka : Chuda
District : Surendranagar (Gujarat)

Total Area under chickpea cultivation (2015-16) : 65 ha

Total Area under chickpea cultivation (2016-17) : 175 ha

Description of Intervention :

In Karmad village, major crops grown in Kharif are cotton, sesamum and bajara and in rabi season, wheat, cumin and chickpea crops. Farmer generally sows chickpea crop by using loose seed (indigenous). In the year 2015-16, KVK, JAU, Surendranagar has been provided chickpea, s improved crop variety GJG - 3 under NFSM cluster FLD for 20 ha area and covered 50 farmers. Performance of this variety was likened by the farmers. Farmer other than FLD beneficiaries also visited FLD site during the standing crop period and field day, farmer meeting at FLD field site and were impressed with the performance of this improved variety. After seeing the performance of this variety many farmers of this village and from neighboring villages sought the seed demand from FLD beneficiaries' farmers for next coming season as seed (for the rabi 2016 - 17). Looking to this, farmers stored properly this seed variety for selling as seed for next season and provided it to the needy farmers as seed input. This action not only fetched good price for them but it also ensure the availability of good quality seed at their locality with less price as compare to market. They sold their chickpea seed @Rs. 11000/- to 13000/- per quintal. While In this process both the seller and buyer farmers got benefited. Approximately 6000 kg seed material was sold by the 143 of farmers. Details are given below:

Sr. No.	Name of Village & Address	Name of Crop	Crop Variety	Quantity sold as seed (in qtl.)	Price fetched (In Rs./qtl)	Market price of local chickpea at that time	Total difference in term of profit fetched by intervention	Net profit realized by farmers
1	Village : Karmad Taluka : Chuda, Surendranagar(Guj.)	Chickpea	GJG-3	60qtl	11000	8000	3000	180000

2. **Thematic Area: Dairy Farming**

Value addition and product processing fetched attractive income

Sr. No.	Particulars	Details
1.	Name	Khodabhai J. Sabhani
2.	Father's name	Jivabhai Sabhani
3.	Date of birth	28-09-1954 (62 years)
4.	Full address	Village & Post: Vakhatpar, Taluka: Sayala District: Surendranagar (Gujarat) -363430 Mobile No. : 9725455112
5.	Educational qualification	B. Tech (Mechanical Engineering)
6.	Experience in brief	7 Years
7.	Present position	Progressive Farmers and opinion leader of district, Promoter of pure Gir cow breed,
8	Land possession	24 Acre (In 3 Acre, he established Gaushala, fruit and other plantation, bio gas plant, godown)
9	Animals	46
10.	Outstanding contribution in the field of agriculture and award received, if any	He is progressive dairy farmer who is doing dairy farming in scientific way. He possesses 48 Gir cow and doing business of butter milk, milk and Ghee. He branded his product name of Ghee as Khyatee Ghee and selling cow ghee at Rs. 1200/kg. He is prepared fenile by using cow urine. He now initiated Cow urine extraction plants and earned approximately Rs. 18500/- per month from alone cow urine extract selling. He also undertook plantation of fruits crop like lemon, teak, bamboo, eucalyptus, pomegranate custard apple and guava plantation on his farm. In nut shell he is promoting integrated farming system and earns approximately Rs. 8.00 Lakh net profit from these sources.

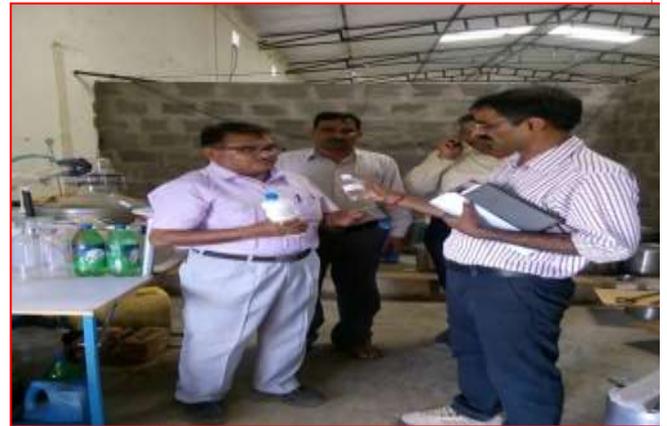
Sr. No.	Source	Gross cost (Rs.)	Gross Income (Rs.)	Net Profit (Rs.)
1.	Dairy product, Cow urine and other dairy product	18,50,000.00 Includes labour, interest, feed & fodder, ads, transport, electricity cost etc	26,02,000.00	7,52,000.00
2.	Agriculture	40,000	70,000.00	30,000.00
Total				7.82,000.00

11.	Other Details	He is earning approximately Rs. 18500.00 from cow urine extract exclusively. He also promoting pure Gir cow breed.
12.	Utilization of Govt Subsidy	1. Gramin Godown 2. Bio gas plant 3. Drip Irrigation

13. Adoption

Under his guidance 4 new Gaushala has been implemented:

Sr. No.	Name	Implementer
1	Axar Gir Gaushala, Kharva	Dr. Ghanshyambhai
2	Vishalbhai's Gaushala, Kanpar	Shri Vishalbhai
3	Sadguru Gaushala, Chuli, Halvad	Shri Jaisukh Patel
	Vipul Gaushala, Kherva, Patadi	Shri Vipul Patel



3. KRISHI VIGYAN KENDRA, JAU, SURENDRANAGAR

Case Study: Use of *Beauveria bassiana* provides economical and effective control of pest of cotton crop to the farmers of Kothariya village.

Introduction of village:

Kothariya village is located in Wadhwan Tehsil of Surendranagar district in Gujarat, India. It is situated 7km away from sub-district headquarter Wadhwan and 14km away from district headquarter Surendranagar. As per 2009 stats, Kothariya village is itself a gram panchayat.

According to Census 2011, The total geographical area of village is 1158.5 hectares. Kothariya has a total population of 3,568 peoples. There are about 719 houses in Kothariya village. Wadhwan is nearest town to Kothariya which is approximately 7km away. Total cultivable land of village is 1010 ha is cultivable land. Kothariya village has 268 farmers out of which 199 male farmers and 69 farmers are female. On an average, farmers of this village possess 2 to 3 ha.

In Kothariya village, major crop in kharif season, cotton crop is sown in almost 80 % area of total cultivable area. Bt. cotton varieties are being sown by farmers. In rest of the area, Sorghum, pigeon pea, green gram, bajara and other crop are grown.

In the kharif season 2016, more than 80 % cultivable area, Bt cotton cultivated. This year, apart from infestation of sucking pest, infestation of pinkboll worm has been observed early and awareness campaign was initiated by KVK, JAU, Nana Kandhasar on control of pink bollworm in cotton crop. During this awareness campaign, thorough discussion made on pink bollworm life cycle, its identification, nature of damage, IPM, use of bio pesticide for effective control with low cost of inputs eg. use of beauveria bassiana, pheromone traps etc.

Initially Shri Shamjibhai, Shri Haribhai and Shri Ajmalbhai of Kothariya village who are the progressive farmers and always take initiative almost ahead of any others, they were among the first who used *Beauveria bassiana* in their cotton crop field to control sucking pest and pink bollworm. They purchased it from Krishi Vigyan Kendra, JAU, Nana Kandhasar and found good result with less input cost/ ha. Thereafter, other farmers visited their field and influenced due to good result, lesser input cost and its cost effectiveness. Horizontal spread of this created the massive demands of beauveria bassiana for control of pink bollworm as well sucking pest in cotton crop. In nutshell, 2215 kg *Beauveria bassiana* was purchased by more than 81 farmers. In initial stage of crop, farmers used 1.5 kg quantity of *Beauveria bassiana*/ha and it cost them only Rs. 225.00 (cost of *Beauveria bassiana* is Rs. 150.00 per kg). As a result, hundreds of the farmers were attracted and got interested to utilize this product. Till date, more than 80 farmers used the same and found good result.

Observation of Pest Incidence:

Sr. No.	Name Insect	In the field where <i>Beauveria bassiana</i> used	In the field where chemical pesticides
1.	Pink Bollworm larvae /20 plant	1	1
2.	White fly/3 Leaf	6	4
3.	Jassid/3 Leaf	8	5
4.	Thrips/3 Leaf	19	16

Details of Utilization of *Beauveria bassiana* by cotton growers of Kothariya village of Wadhawan taluka of Surendranagar district:

Sr. No.	Number of farmers used <i>Beauveria bassiana</i>	Quantity of <i>Beauveria bassiana</i> purchased by farmers of Kothariya
1.	81+	2215 kg

Economy of cost of inputs use for pest in cotton crop:

Sr. No.	Spray	Average cost of input incurred farmers/ha/spray (In Rs.)		Approximately cost saving due to use of <i>B. bassiana</i> over chemical pesticide/ha/spray	Per cent saving cost <i>B. bassiana</i> over chemical pesticide/ha/spray
		<i>Beauveria bassiana</i>	Chemical pesticides		
1.	I-Spray	225*	540* (Monocrotophos + Acephate)	315	58
2.	II-Spray	300*	660* (Profenophos + Imidachlopid)	360	55
3.	III-Spray	300*	720* (Fipronil+ Diamethoate)	420	58
Total		825	1920	1095	

Note: *This includes only cost of particular input used for spray. This not included labour cost and other cost are static in both the cases.

In Kothariya village, approximately 2215 kg *Beauveria bassiana* was purchased from KVK during this season. If above three spray was assumed to be done with *Beauveria bassiana* in comparison with chemical spray, Rs. 440986.00 net saving was observed.

Farmers of Kothariya village are satisfied with the result they got from use of *Beauveria bassiana*. Most of the farmers said if they are able to get same result by using *Beauveria bassiana* is lesser cost then why should they go for costly chemical pesticides. Most of the farmers opined that this not only provided them good result but also saved their valuable money. And further more they insisted on continue use of this environment friendly bio agent. Villagers popularly known this Sawaj *Beauveria bassiana* as "Nana Kandhasar no powder"



Bharatiben of Kothariya village showing bolls in cotton plant in her Cotton crop field in which only *Beauveria bassiana* used for crop protection from pest.



Good crop condition of Cotton of Dharmji bhai of Kothariya village who used *Beauveria bassiana*.



Shri Kalpanbhai (Sarpanch of Kothariya village) and other farmers giving feedback on use of *Beauveria bassiana* during the visit of Sh. Shamji bhai's cotton crop field



Cotton plant good no. of boll formation and healthy cotton plant in which *Beauveria bassiana* used by farmer.