

# 10. Krishi Vigyan Kendra



## Training

Seventy nine short duration (1 to 3 days) on-campus and off-campus training courses were conducted in different disciplines for practicing farmers, rural youths and extension functionaries. In all 1482 participants including 401 SC/ST participants benefited from the training programmes conducted by SMS and Programme Assistants of KVK, as details below:

S. No.	Discipline	No. of courses	No. of participants	SC/ST participants
1	Crop Production	15	265	30
2	Horticulture	14	231	35
3	Plant Protection	12	354	66
4	Veterinary Sci.	15	376	124
5	Soil Science	10	130	53
6	Home Science	13	256	93
	<b>Total</b>	<b>79</b>	<b>1482</b>	<b>401</b>



## Front Line Demonstrations (FID)

### Crops:

Fourteen technologies in agriculture, plant protection,

horticulture, livestock production and home science were demonstrated under Front Line Demonstrations on farmer's field of villages - Manori, Pipra, Saisar, Ranmangli and Dongargaon. Extension activities like field days, field visits of farmers to FLD demonstrations, group discussions, scientists-farmers meet, etc. conducted for effective implementation of FLDs. The data on production parameters as well as feedback from farmers and visitors was recorded.

## Details of Assessment of technologies under FLDs on Farmers Practice (FP) (2011-12)

Sr.No	Crop	Technology demonstrated	No. of farmers	Area (Ha)	Yield (q/ha)		Increase over FP (%)
					FID	FP	
1	Cotton	Drip irrigation	5	2.5	41.00	27.50	49.09
		INM	10	4.0	17.50	14.00	25.00
2	Wheat	Raj 4037	07	3.0	33.75	26.00	29.80
3	Linseed	NL 260	06	2.4	9.75	7.5	26.66
4	Pigeonpea	PKV Tara	04	1.6	15.30	12.00	27.50
5	Tomato	PKM -1	10	4.0	85.50	74.00	15.84
6	Chilies (Dry)	Tejas	15	6.0	15.00	12.70	18.11
7	8t Cotton	IPM	25	10.0	19.37	17.75	09.13
8	Nagpur Mandarin	Gummosis Management	10	4.0	53.4	39.1	36.57
9	Pigeonpea	Production Technology	30	12.0	17.20	13.44	27.98
10	Chickpea	Production Technology	30	12.0	15.85	11.88	33.42
11	Rice	Drudgery Reduction	18	1.0	138	128	10.4
12	Soybean	Drudgery Reduction	18	1.0	47	35	37

## Livestock:

Two FLDs on 20 cows and 40 local goats were conducted on the farm of 20 farms families in villages - Dongargoan and Navegaon-sadhu of Nagpur district.. The details of FLDs are as follows:

Enterprise	Breed	No. of farmers	No. of animals	Performance parameters / indicators	Average yield		% change in the parameter	Cost benefit ratio of demo
					FLD	Local check		
Dairy farming (Urea treatment of wheat straw)	CB Jersey Cows	10	20	a) Av. Milk yield (l/cow/day)	8.7	7.8	12%	1:2.65
				b) Milk fat	3.9	3.8	-	
Use of Chelated mineral in cows diet	CB Jersey Cows	10	20	a) Av. Milk yield (l/cow/day)	12.7	11	15.5%	1:2.80
				b) Milk fat	4	3.85	-	

## On Farm Trail (Refinement)

### KVK, CICR designed cotton picking/ harvesting aid

To overcome the problem of manual picking of cotton pickers, improved cotton picking bags were recommended by MAU, Parbhani and HAU, Hissar was initiated in 2008 consequently for three years. For assessing the benefit of the bag it was modified and tested during the year 2010-11 and 2011-12. Results of 2011 season indicated that the farm women

endured back pain and shoulder pain while using conventional, MAU and HAU bags respectively. Therefore, KVK, CICR, Nagpur has designed a manual cotton picking aid suitable for central zone especially for Vidarbha farm women. This designed aid holds more cotton seed. The bag load is evenly distributed to the body which facilitates ease and comfort in loading and unloading of cotton which improves the working efficiency of cotton pickers.

## Details of assessment of livestock production technologies under OFT on farmer's field

S. No	Animal	Technology Demonstrated	No. of farmers	No. of animals	Yield		% Increase over Farmers Practice
					Demonstration	Farmers Practice	
1	First calf heifer	Supplementation of Vitamin-mineral + Deworming	10	20	10.5 lit/cow/day	9.0 lit/cow/day	16.67
2	Lactating does	Supplementary concentrate feeding @ 50 g/day	10	20	0.947 lit/goat/day	0.800 lit/goat/day	18.33

**Technology Park at KVK :** Technology Park has been established in KVK's instructional farm for depicting cropping pattern of Nagpur district.. The area of technology park is protected by erecting chain linked fencing around it to safeguard the crops from predators.

**Cotton Technology Week :** Cotton Technology Week was organized during 21-26 Nov, 2011 and information on improved cotton production and protection technologies was provided to the cotton farmers. More than 250 numbers of farmers have participated in this week from Chandrapur, Akola, Wardha, Yeotmal and Nagpur districts of Vidarbha region. Demonstrations on cotton implements, Bt kits, Solar sprayers, identification of harmful and beneficial insects, field visits of the farmers were organized during the week. Created awareness among farmers about the importance of soil testing and methods of soil sampling and importance of INM in cotton crop etc.

## Other extension activities

**On Campus Crop Demonstrations:** Twenty crop demonstrations on cotton, pigeonpea, soybean, sunflower, linseed, fodder jawar, fodder maize, berseem, vegetables viz. onion, brinjal, radish etc., fruits and flowers were undertaken during *kharif* and *rabi* season in its instructional farm and technology park. The production and protection technologies of these crops were demonstrated on area ranging from 0.2 ha to 0.4 ha for each crop. Several farmers, farmwomen and extension functionaries from Nagpur district and other states visited these demonstrations.

**Kisan Mobile Advisory Services (KMAS) :** KVK, Nagpur has launched Kisan Mobile Advisory Services (KMAS) for the benefit of the farmers of Nagpur district.. Advisory messages on agriculture and allied technologies on the mobiles of the farmers who are registered with KVK, are regularly being sent. Thirty five advisory messages have been sent to 200



registered farmers during 2011-12.

Re-designing of KVK's website : Website with domain name: [www.kvknagpur.org.in](http://www.kvknagpur.org.in) has been re-designed after incorporating web pages of weather forecasting, location map, soil map of Nagpur district, downloads, achievements of KVK Nagpur etc. Linking the website with ICAR institutes, CICR, AGMARK, IMD and agricultural universities.

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Kisan Mela : Organized a Kisan Mela at village Manori Tq. Umred, Dist. Nagpur on February 21, January 2012. Dr. G. Malvi, Retd. Professor (Agronomy), Dr. Singandhupe and Dr. R.R. Gupta SMS, (Plant Protection) and Sh. Harish Kumbhalkar (Program Assistant) addressed the farmers and advised for the pest problems and their management. More than 150 farmers who have grown cotton and pulses participated and benefited through information provided by the experts.

Kirtankar Mela : Kirtankar Mela was organized at village Thana, Tq. Umred, Dist. Nagpur on 21.09.2011. Dr. Peshkar Retd. Professor (Entomology) convinced the farmers on cotton cultivation through his innovative style of kirtan. More than 350 farmers were present.

Exhibitions : KVK participated in the following State and National level Agricultural Exhibitions "Dharmachakra pravartan Din" from 5<sup>th</sup> to 7<sup>th</sup> October 2011 at Dikshabhoomi, Nagpur, organized by Joint Director of Agriculture, Nagpur Division Nagpur. More than 1800 farmers visited to exhibition stall of KVK during exhibition.

State level Agricultural Exhibition at Gadchiroli on the occasion of "Dr. Panjabrao Deshmukh birth anniversary" from 27/12/2011 to 29/12/2011 organized was by Dr. PDKV, Akola. More than 2500 farmers visited to stall during exhibition.

Agro vision - 2012 : A State level exhibition organized at Reshimbagh Ground, Nagpur from 27<sup>th</sup> to 30<sup>th</sup> January 2012. In this connection cotton workshop for the benefit of cotton growers was also organized in which DrAR.Raju, DrVishlesh Nagrare and DrAS.Tayade advised the cotton farmers.

Cotton Advisory services to Maharashtra Cotton Growers: As per guidelines of Director CICR and Scientific Advisory Committee (SAC) directive, cotton advisory services was started with active involvement of Head Division of Crop Protection and Production and others scientists. In all 13 advisories covering management of Para wilt in Bt cotton, leaf reddening, boll rot, white fly, sucking pest management, mealy bug management disease management, nutrient management, soil sampling techniques etc. were given through daily news such as Agro-won, Loksahi Warta, Deshonnati and Krishokannati. Overwhelming response to cotton advisory services from the cotton growers of Maharashtra was received and nearly 366 farmers have interacted through the mobile phones and their queries were solved.

Diagnostic surveys conducted: Thirty five diagnostic surveys were undertaken in adopted villages and other non adopted villages of Nagpur district and suggested the remedies to overcome specific problems in crops, citrus orchard and animals. Around 103 ha cropped area and 82 animals in six villages of Nagpur district were covered.

Group discussion on horticultural crops: Three group discussions on cultivation of pomegranate in village Makardhokda tahsil Umred, pre-harvest fruit drop in Nagpur mandarin in village Ubali and storage of onion bulbs in village Manori were organized on 21.12.2011, 02.03.2012 and 14.02.2012, respectively. In all 51 farmers, rural youth and extension personnel participated in the programmes.

Soil Testing Activities: One hundred fifty seven soil samples were collected from adopted villages of Umred, Bhivapur and Saoner tahsils of the Nagpur district. These samples were analyzed for different soil testing parameters and 149 soil health cards recommending soil test based fertilizer application for different crops were distributed to the farmers.

Oral Paper Presentation Award : Smt. Sunita Chauhan presented paper on "Drudgery reduction of farm women through cotton picking bags" in 6<sup>th</sup> National Extension Education Congress -2011 conducted by Society of Extension Education from 17-19 Dec 2011 at ICAR Research Complex for Goa, Goa and received Best Oral Paper Presentation Award.

Scientific Advisory Committee Meeting : The 16<sup>th</sup> SAC

meeting was conducted on 12 July, 2011 under the chairmanship of Director, CICR, Nagpur. More than 18 members of agriculture and allied departments participated in the SAC meeting.

**Visitors:** More than 1100 visitors including practicing farmers, farm women, rural youths and extension functionaries and school children visited the instructional farm, technology park, goat unit, NADEP compost and vermi compost unit of KVK, CICR, Nagpur

**Foundation stone of Farmer's Hostel:** Dr. S. Ayyappan, Director General, ICAR laid the foundation stone of Farmer's Hostel of Krishi Vigyan Kendra (KVK), CICR, Nagpur on 11.12.2011 in the presence of Dr. C. D. Mayee former Chairman, ASRB and Dr. M. M. Pandey, DOG (Engineering). The hostel will facilitate the stay for the farmers who come to KVK for trainings.

## Success Stories

### 1. Farmer's endeavor in Dairy farming

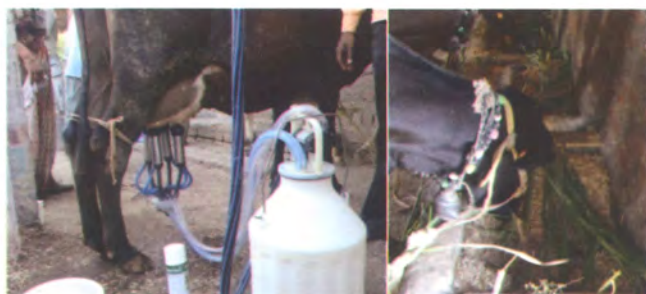
Shri. Rajendra Gulabrao Mahant, age 41 years is a resident of village Gondigiras, Post- Yenwa, Tah - Katol, Dist- Nagpur, having 3 acres of land and the income generated from land was insufficient to meet expenses of his family. Hence, he decided to start dairy entrepreneurship. He purchased one crossbred Jersey cow in 2007. During next year, he received one crossbred Jersey cow under Vidarbha Development Package.

#### Innovative approach of the farmer

Under the guidance of Krishi Vigyan Kendra, CICR, Nagpur, he started maintaining his dairy farm adopting scientific practices :-

- Strict vaccination schedule
- Regular deworming and dipping
- Scientific feeding and watering
- Storing medicines for emergency use
- Artificial Insemination technique
- Producing clean milk by using milking machine
- Cultivation of fodder crops - Hybrid fodder jowar (SSG) + fodder maize (African tall) + Perennial grass Napier (Jaywant phule) during *kharif* and Berseem / lucerne during *rabi*

He is maintaining continuous contact with KVK, Dept., of Animal Husbandry, NABARD officials & Bank Officials, for seeking advisory services and benefit of schemes.



#### Fruits of his efforts

He purchased two more cows out of resources generated by selling milk. In addition, he purchased 3 high yielding cows out of loan received Rs. 3.751akh under NABARD scheme.

#### Income generated from dairy farm

Addition of new high yielding cows increased his milk production from 50-55 lit/day to 90-95 lit 1day. He is currently supplying milk to Nagpur based Oinshaw Company @ Rs. 20.251 lit (for 5% fat containing milk) and @ Rs. 17.00 lit (for 4% fat containing milk). His monthly gross income is Rs. 54,000/-.

#### Interest in extension activities

A week long training programme was organized for 45 intensive milk producing farmers of Katol tahsil on his farm in collaboration with KVK and LOa (Extn.), Panchayat Samiti, Katol. A live demonstration of urea treatment of wheat straw was conducted on his farm.

#### Initiative to motivate other farmers of adjoining area

Three rural youth of his village established dairy farming due to his motivation and 18 milk producing farmers from surrounding villages joined him to supply milk to Oinshaw Company.

#### His expectations

Now he is extending his efforts to register this group as a co-operative society. KVK is providing its all possible support to make this endeavour successful. To fetch remunerative prices for their produce, this group is looking forward to open their own outlet in Katol.

#### Benefit of consistent income from dairy farming

Unfortunately, his house caught fire on 19<sup>th</sup> March, 2012. But he didn't lose his courage and repaired his house by spending Rs. 1.00 lakh.

He is very proud to say, 'I don't find any need to borrow money to overcome such calamity as I am getting consistent income from my dairy farming'.

## 2. Establishment of Horticulture Nursery

Sh. Mahender Vasudeoji Karbhari, age 31 years is a resident of village Post- Ubali, Tah- Kalmeshwar, Dist- Nagpur, is a middle class farmer. He has 21 acre of land out of which 7.5 acre land is irrigated. Earlier he was doing traditional farming with less irrigation facilities. His agriculture annual net income was about Rs. 22-25 thousand and he was taking loans from Banks and other Societies for agriculture needs and other social welfare. Often, he was unable to repay the installments of loans and was again taking loan from his relatives for paying the bank loans.

He started horticulture nursery in 2005 with a small rose nursery and some ornamental plants. Then, he came in contact with Krishi Vigyan Kendra, CICR, Nagpur. KVK provided him all the technical guidance and arranged training programmes and exposure visits.



#### Present status of nursery

After adopting the scientific methodologies, he has developed horticulture nursery on about 5 acre of land including lawns of grasses, medicinal and ornamental plants, rose nursery and fruit plants. He has developed sprinklers, drip and micro-irrigation system and about 1000 sq. mts area under covered shed net.

#### Present social status

- Net profit about Rs. 1,00,000 /year by selling the nursery produce
- He has purchased one motor cycle, several agricultural implements, bullock pairs and other animals
- He has installed sprinklers, drip and micro irrigation system
- He has covered an area of about 1000 sq. mts with shed net
- He is repaying the loan installments with the income generated from nursery
- He is sending his nursery produces to Nagpur city for sale
- He has mobile and telephone connection

#### Self Help Group Installed Soy-Cow Plant

Self help group of backward class named as TULSI MAHILA BACHAT GAT was established in 2010. All the members of this group were previously doing labour work and were in search of some income generative activity.



Home Science SMS motivated them to learn the skill of preparing soymilk, tofu, soyflour, soynuts and okara based soygulab jamun and soysev in Feb, 2011.

They had applied for loan in Nagar Parishad, Kamtee. They had received loan of Rs. Seven lakh from "Swarna Jayanti Shahari Swa-RojgarYojna". They started this unit in Jan, 2012 and are preparing 5000 to 7000 bottles (200 ml capacity each) per month and gaining profit of Rs. 18000 to 22000 per month.