

## 9. KRISHI VIGYAN KENDRA

### Training Achievements

Ninety four short duration (1 to 3 days) on-campus and off-campus training courses were conducted in different disciplines for practicing farmers, rural youth and extension functionaries. In all 3885

participants including 1137 SC/ST participants benefited from the training programs conducted by SMS and Program Assistants of KVK are summarized below.

Sr.No.	Disciplines	No. of courses	No. of Total Participants	SC/ST Participants
1	Crop Production	12	468	122
2	Horticulture	07	228	68
3	Plant Protection	20	957	253
4	Veterinary Science	21	1102	347
5	Home Science	16	395	134
6	Extension	18	735	213
	<b>Total</b>	<b>94</b>	<b>3885</b>	<b>1137</b>

In addition to the above trainings eight sponsored training courses were organized in Crop Production, Horticulture, Plant Protection, Veterinary Science and Home Science for farmers and extension functionaries, deputed by State

Agriculture Department of Maharashtra, ATMA, CIPMC, Nagpur, RCF, MAFSU Nagpur, MCED & ICDS Nagpur, NGOs. In all 459 participants attended these courses.



### Cluster Front Line Demonstrations on Oilseed and Pulses

Three CFLD on oilseed & Pulses crops were demonstrated on farmers field of adopted villages of Nagpur district viz. Salaimendha, Ghatpendhri and Boruzwada. Several extension activities like field day, field visit of farmers and extension functionaries, group discussion and scientist farmers meet etc. were conducted for effective implementation of technologies under Cluster Front Line Demonstration. Data on important



production parameters as well as feedback from farmers and visitors were recorded.



**Details of Assessment of technologies under Cluster Front Line Demonstrations (2016-17)**

Sr. No	Crop	Technology Demonstrated	No. of farmers	Area (ha)	Yield (q/ha)		Increase over FP (%)
					FLD	FP	
1	Soybean (Oilseed)	INM/IPM	43	16.8	21.4	16.23	31.85
2	Pigeonpea (Pulses)	IPM/INM	50	20	13.37	10.9	22.66
3	Chickpea (Pulses)	IPM/INM	50	20	20.69	15.6	32.62

**FLD's on Livestock Enterprises**

Enterprise	Breed	No. of farmers	No. of animals	Performance parameters / indicators	Data on parameter in relation to technology demonstrated		% change in the parameter
					Demo	Local check	
Feeding of bag Silage to milking cows	Jersey Cross breed cows	10	20	a) Avg. Milk yield (lit/cow/day)	7.88	7.00	8
				b) fat %	4.27	3.96	7.83
				c) BC Ratio	1.53	1.43	
Feeding by - pass fat @ 200 gm/cow/day	Jersey Cross breed cows	10	20	a) Avg. Milk yield (lit/cow/day)	9.9	8.4	17.85
				d) fat %	4.5	3.95	13.92
				c) BC Ratio	1:1.85	1:1.65	--
Goat (Oral administration of single dose of liquid closantel 15% @ 10 kg b. wt for Ecto-endo parasite control)	Local goat	10	40	Body weight gain in kg/2 months	4.2	3.12	34.62
				C:B ratio	1:1.86	1:1.40	--

### Performance of FLD during (2016-17) Home Science

Sr. no	Name of Technology	No of farmers	Crop	Performance Evaluation of different parameter								
				$\Delta$ HR beats $\text{min}^{-1}$			Area covered $\text{m}^2/\text{h}$			Yield $\text{kg m}^2/\text{h}$		
				Demo	Local check	Percent Reduction in drudgery over local	Demo	Local check	% increase in area	Demo	Local check	Increase in yield (%)
1	Bhindi plucker	20	Bhindi	15	18	20	33	26	27	5.06	4.2	21
2	Improved Cotton Picking bag	20	Cotton	12	16	25	42.9	35.2	22	5.4	4.2	25
3	Maize Sheller	20	Maize	11	14	21	--	---	--	400 g/m	310 g/m	29

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

S. No	Animal	Technology Demonstrated	No. of farmers	No. of animals	Parameters studied	Yield		% Increase over Farmers Practice
						Demo.	Farmers Practice	
1	Cows	Feeding of area specific mineral mixture @ 50 gm/cow/day	15	30	a) Milk yield (l/cow/day)	9.25	8.75	5.71
					b) Fat content	4.5	4.0	12.5
					c) No of cows conceived	29	23	26.09
					d) BC Ratio	1.69	1.54	-

### OFT: Assessment of Cotton Pellets: An alternative cooking fuel

Sr. No.	Description N=10	Traditional Method	Cooking with Bio-briquette	% saving over farmers practice
1	Rice & Dal (g)	250	250	
2	Quantity of coal required (g)	310	260	19
3	Cost of coal (Rs)	8.7	3.9	56
4	Time required for cooking (minute)	29	23	21
5	Ash recovered (%)	06	2.5	58

Result : Food cooked through cotton pellets is cost effective and eco-friendly by 56% & 58% respectively

**OFT: Assessment of Protein rich diet provided under sable for reducing protein calorie malnutrition adolescent girls 11-14 yr.**

Client	Technology demonstrated	No	Av. Age (yr.)	Av. Weight			Av. Hb		
				Before	After	Chang in weight %	Before	After	Chang in Hb %
Adolescent Girls	T-1: Local Diet : Cereals 553 g, pulses 30 g, GLV 14 g, Other vegetables 51 g. Fruits 35 g, Milk and Its products 70 ml, Fish and Flesh foods 10, Fats & Oils 9 ml, Sugar and Jaggary 19 g	20	15	30	32	60	11.2	11.9	5
	T-2 : Local diet + 50/day Sattu + 50 green leafy veg.			30	33	10	11.2	12.2	9.8

**Diagnostics Surveys Conducted**

Sr. No.	Discipline	Date	Crop	Title	Area Covered (ha)	No. of farmers benefited
1	Plant Protection	21.07.16	Bt-cotton	Sucking pests under ETL	22.0	58
2	Horticulture	04.08.16	Chilli	Dying of seedlings in nursery	10 nursery	32
3	Plant Protection	22.08.16	Bt-cotton	Sucking pests incidence	24.0	97
4	Agronomy	26.08.16	Cotton	INM in cotton	12.0	22
5	Vet. Science	27.08.16	Cows	Infertility in cows	45 cows	22
6	Vet. Science	17.09.16	Cows	Low milk yield in cross breed cows	48 cows	28
7	Agronomy	29.09.16	Cotton	Parawilt in cotton	15.0	28
8	Agronomy	06.10.16	Cotton	Leaf reddening in cotton	12.0	25
9	Horticulture	12.10.16	Nagpur mandarin	Pre harvest fruit drop in Nagpur mandarin orchards	11	22
10	Plant Protection	18.10.16	Redgram	Incidence of wilting	12.0	35
11	Plant Protection	21.10.16	Bt-cotton	Sucking pests incidence	16.0	45
12	Plant Protection	10.11.16	Redgram	<i>Helicoverpa</i> incidence	12.0	25
13	Plant Protection	14.12.16	Chickpea	<i>Helicoverpa</i> incidence	11.0	22
14	Plant Protection	04.01.17	Chickpea	<i>Helicoverpa</i> incidence	20.0	57
15	Plant Protection	11.01.17	Nagpur Mandarin	Sucking pests incidence, fruit drop	10.0	15
16	Home Science	17.01.17	Soybean processing	Curdling of Soymilk	-	15
17	Home Science	21.01.17	Soybean processing	Hardening of Tofu	-	20
18	Home Science	10.02.17	Fruit processing	Colour maintenance of lemon squash	-	35
19	Vet. Science	16.02.17	Goats	Low weight gain in kids	40 kids	22

### Fruits crops at KVK farm

Krishi Vigyan Kendra, CICR, Nagpur has established fruit crops such as Guava (L-49), Pomogranate (Bhagva), Orange (Nagpur mandarin) and Sweet Orange (Katol Gold), Mango and Sapota (Kali Patti) at its farm, for the benefit of farmers and other visitors.

### Scientific Advisory Committee (SAC) Meetings

Krishi Vigyan Kendra, ICAR-CICR, Nagpur organized 21<sup>st</sup> and 22<sup>nd</sup> SAC meetings on 07/09/2016 and 15/03/2017 respectively. Director, ICAR\_CICR was the Chairman and Dr. Chari Appaji, Pri. Scientist, ICAR-ATARI, Hyderabad was the chief guest of both the meetings. Members from agriculture and allied departments participated in these meetings.



### World Soil Day

Krishi Vigyan Kendra, ICAR-CICR, Nagpur organized "World Soil Day" at Village Bhugaon, Taluka Kampthee as well as in Salai and Sillari villages of Ramtek tahsil on December 5, 2016. On this occasion Dr. Blaise Head, Crop Production Division, ICAR-CICR, Nagpur was the Chief Guest. Five hundred soil health cards were distributed to the farmers.



### Cluster FLD workshop of all KVK's of Maharashtra

Krishi Vigyan Kendra, ICAR-CICR, Nagpur organized a 'Review Workshop on Cluster Front Line Demonstrations on Oilseed and Pulses' at KVK, ICAR-CICR, Nagpur on 24 and 25 September 2016. Programme coordinators/SMSs of all KVK's of Maharashtra attended this workshop.

### Kisan Goshti

Krishi Vigyan Kendra, ICAR-CICR, Nagpur organized "Kisan Ghoshti" on the occasion of "Jai Kisan Jai Vigyan Diwas" at Panchgaon, Umred on December 29, 2016.

KVK also participated in 'Kisan Sangoshthi' organized at Borgaon, tah. Sousar, district. Chindwara organized by Borgaon Industries Association on 01/10/2016.

### Soil Testing Activities

Three thousand nine hundred seventy eight soil samples were collected from Ramtek taluka of the Nagpur district through Mobile Soil Testing Van provided under Human Development Programme by Govt. of Maharashtra. These samples were analyzed for different soil testing parameters and soil health cards depicting soil test based fertilizer recommendation for different crops were distributed to the beneficiaries. KVK has received Mobile Soil Testing Van under Human Development Program of Nagpur district which is being used effectively for the said purpose.

Now KVK's soil testing lab has been upgraded for analyzing 9800 soil samples per year by a committee headed by Divisional Joint Director of Agriculture by assessing the facilities and expertise available in KVK's STL.

### Participation in Exhibitions

KVK, ICAR-CICR Nagpur participated in the following events to display various research findings of ICAR-CICR for the benefit of farmers, farm women, students, entrepreneurs, bureaucrats, line department officials during the report period. During exhibition large number of visitors interacted with KVK and ICAR-CICR officials on various issues related to all research activities performed at ICAR-CICR Nagpur.



- 1) On event of "Dharmmachakra Pravartan Din" at Deekshabhoomi, Nagpur during 10-12 October, 2016, KVK, ICAR-CICR, Nagpur participated and exhibited the achievement on various activities of cotton production technologies.
- 2) Participated in "Agro-Vision" exhibition held at Reshimbagh, Nagpur from 11 to 14 November, 2016.
- 3) Participated in "Agro-Tech" Exhibition held at Dr. PDKV, Akola on the occasion of "Birth Anniversary of Dr. Panjabrao Deshmukh" from 27-29 December, 2016.
- 4) Participated in "Unnati Krishi Mela" exhibition held at IARI New Delhi from 15 to 17 March, 2017.

#### Meetings attended

1. Dr. R. B. Singandhupe attended the IMC meeting at ATARI, Hyderabad on 30.08.2016.
2. Dr. R. B. Singandhupe attended the Carrier Advancement meeting of ARS Scientist in the discipline of Soil Science, Agronomy & Soil Water Conservation, Engineering at NBSS&LUP, Nagpur on 26-27.09.2016.
3. Dr. R. B. Singandhupe attended meeting to review Dryland Farming Activities & Soil Analysis Status and Distribution of Soil Health Card with District Collector and State Agriculture Department on 07.10.2016.
4. Dr. R. B. Singandhupe attended the ARYA Project meeting at ATARI, Hyderabad on 05.11.2016.
5. Dr. R. B. Singandhupe attended meeting on "Soil Analysis Status and Soil Health Card Distribution" in District Collector Office, Nagpur on 14.12.2016.
6. Dr. R. B. Singandhupe attended meeting on "Skill Training Of Rural Youth" at Vanamati, Nagpur on 29.12.2016.
7. Dr. R. B. Singandhupe attended meeting with SAO and Taluka Agriculture Officers to review the Agriculture activities at Nagpur on 30.01.2017.
8. Dr. R. B. Singandhupe attended the ATMA Governing Body meeting on 27.02.2017.

#### Workshop/Conference/Trainings Attended

1. Programme Coordinaor, all SMSs and all Programme Assistant of Krishi Vigyan Kendra, Nagpur participated in 'Action Plan Workshop 2016-17 of all KVKs of Vidharbha which was held at Dr. PDKV, Akola. The workshop was organized by Zonal Project Directorate, Zone-V, Hyderabad on 19<sup>th</sup> May 2016
2. Programme Coordinator Dr. R. B. Singandhupe attended Annual Zonal Workshop Zone-V which was held at YSR Horticulture University, Tadepalligudem, West Godavari (AP) during June 2-4, 2016
3. Dr. U. V. Galkate, SMS (Veterinary Science), KVK attended workshop on, 'Livestock insurance and marketing management' held at Nagpur Veterinary College, Nagpur on 01/07/2016
4. Programme Coordinator Dr. R. B. Singandhupe attended ZREAC Kharif Workshop which was held at Yeotmal on July 19, 2016
5. Programme Coordinator Dr. R. B. Singandhupe attended the Workshop on CFLD Oilseed & Pulses which was held at KVK, CICR, Nagpur on September 9, 2016
6. Programme Coordinator Dr. R. B. Singandhupe attended workshop on "Climate Resilient Agriculture in Maharashtra at Pune (MS) during October 3-4, 2016
7. Programme Coordinator Dr. R. B. Singandhupe attended ZREAC Rabi Workshop which was held at Yeotmal on October 14, 2016
8. Programme Coordinator Dr. R. B. Singandhupe attended "ARYA" Workshop which was held at New Delhi on January 17-18, 2017
9. Dr. S. S. Patil, SMS, Extension attended workshop on "Review and Planning of Soil Analysis and Soil Health Card Distribution" which was held at KVK, Kosbad Hills Dist. Palghar on February 10, 2017
10. Smt. Sunita Chauhan, SMS, Home Science attended workshop on "Promotion of Agro-Enterprises and Processing" which was held at MSME & ATARI, Hyderabad on February 21-23, 2017

11. Dr. S. S. Patil, SMS, Extension attended workshop on "CFLD Oilseed & Pulses" which was held at ATARI, Hyderabad on February 27-28, 2017.

#### KVK staff participated as a Guest Speaker

1. Dr. R. B. Singandhupe participated and delivered talk on "Climate Resilient Agriculture in Maharashtra at Pune (MS) during October 3-4, 2016
2. Dr. S. S. Patil delivered lecture on "Integrated pest management in pigeonpea" in a monthly workshop of State Agril. Dept. at Agriculture College, Nagpur on 09/11/2016.
3. Dr. U. V. Galkate delivered lecture on 'Role of livestock in organic farming' in a programme 'World Soil Day, celebrated at Bhugaon, Salai & Sillari in Nagpur district on 05/12/2016
4. Smt. Sunita Chauhan delivered talk on Value addition of fruits and vegetables at to the SHG's of Kalmeshwar on dated 17/12/16. about 150 SHG members were present.
5. Smt. Sunita Chauhan delivered talk on Enterprises for rural youths at Chikana village dist. Nagpur on dated 04/01/2017. Around 80

rural youths were present.

6. Smt. Sunita Chauhan delivered talk on Squash and sauce preparation- An enterprise for SHG and rural youths at KVK, CICR Nagpur on dated 05/01/2017.

#### Radio Talks:

- ❖ Smt. Sunita Chauhan delivered a radio talk on "Rural Handicraft" in Marathi and telecasted by AIR, Nagpur on 21-23 Feb. 2017

#### T.V. Talk

- ❖ Dr. U.V. Galkate delivered T.V. Talk on 'Goat farming for self employment generation' in Marathi in a programme Krishi Darshan programme broadcasted on 18/01/2017 by Doordarshan channel Sahyadri

#### Advisory Services Provided

KVK has provided advisory services to the farmers, rural youth and extension functionaries, through personnel guidance, telephonic calls and mobile services on Agricultural production and protection technology and allied fields. Through there advisory services 21942 clients in Nagpur district were benefitted.

