

## Training Achievements

Ninety eight short duration (1 to 3 days) on-campus and off-campus training courses were conducted in different disciplines (Crop Production, Horticulture, Plant Protection, Veterinary Science, Soil Science, Home Science and Extension) for training farmers, rural youth and extension functionaries. About 3331 participants including 924 SC/ST were benefited from the training programmes.

Fourteen 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, and NGO. Around 853 participants attended these courses.

## Front Line Demonstrations

Eleven front line demonstrations on crops and seven FLDs on non-crops were demonstrated in the villages of Nagpur district viz., Manori, Pipra, Thana, Navegaon (Sadhu), Ranmangli, Datala, Sukli, Boruzwada, Angewada, Patkakhedi, Tirkhura, Karhandla and Patansawangi. Several extension activities like field day, field visit of farmers to FLD, group discussions, and scientists-farmers meet etc. were conducted for effective implementation of FLDs.

Details of assessment of technologies under Front Line Demonstrations and On Farm Trials (2013-14)

S.No	Crop	Technology Demonstrated	No. of farmers	Area (ha)	Yield (q/ha)		Increase over FP (%)
					FLD	FP	
1	Cotton	HDPS	30	12.0	14.97	12.95	13.49
2	Pigeon pea	BSMR-736	30	6.0	14.87	10.50	29.38
3	Linseed	PKV NL- 260	12	2.4	8.25	6.25	24.24
4	Wheat	AKAW-4627	12	4.8	31.50	23.75	24.60
5	Nagpur Mandarin	Management of pre-harvest fruit drop	10	4.0	60.00	49.00	22.44
6	Nagpur Mandarin	Weeds Management	10	4.0	54.00	45.00	20.00
7	Okra	Variety Akola bahar	10	04	46.78	40.00	16.95
8	Bt-cotton (FLD)	Sucking pests management	25	10.0	23.60	19.40	17.80
9	Red gram (FLD)	Production technology	30	12.0	19.62	14.50	26.09
10	Chickpea (FLD)	Production technology	30	12.0	17.50	13.65	22.00
11	Nagpur Mandarin (OFT-Assessment)	Thrips & mites management	06	2.4	63.62	54.67	14.06



OFT on Cotton (High Density Planting System)



FLD of Wheat & Linseed at Adopted Villages



- i) Dairy (Vitamin-mineral @ 30 g/day feed supplementation and De-worming repeated after 2 weeks) in Jersey Crossbred cows
- ii) Dairy (Detection of mastitis) in Jersey cross bred cows
- iii) Chelated mineral feeding for CB Jersey Cow

## FLDs on Home Science

The FLDs on Maize Sheller, Improved cotton picking bag, Bhendi & Brinjal plucker and Gujarat sickle were demonstrated.

## OFT

Under OFT on farmer's field, feeding bypass fat @ 200 g/day x 90 days for crossbred jersey cows, supplementary concentrate feeding @ 50 g/day for lactating dose (Goat) and breed assessment of Swarnadhara poultry were assessed.

Soy-laddu was assessed as a technology for reducing protein calorie malnutrition under OFT on farmer's field

## Assessment of Bio-Briquettes - an alternative cooking fuel under OFT on farmers' field

Description(N=10)	Cooking with Bio-briquettes	% increase over farmers' practice
Rice & Dal (g)	250	
Quantity of coal required (g)	300	25
cost of coal (Rs)	07	31
Time required for cooking (minute)	34	18
Ash recovered (%)	04	39

## Shetkari Melawa

Krishi Vigyan Kendra, CICR, Nagpur organized "Shetkari Melawa" on 13.12.2013 at Boruzwada, Taluka – Saoner, Dist, Nagpur. About 450 farmers from Ajni, Angewada, Bhivapur, Boruzwada, Kodegaon Malegaon, Manegaon, Patkakhedi, Patansawangi, Hingna, Kalmeshwar, Narkhed, Parseoni, Umred of Nagpur district participated in the event. Dr. A. R. Raju and Dr. Vishlesh Nagrare, Scientists from CICR, provided technical solutions to the problems faced by the cotton farmers. Dr. B.S. Chimurkar and Shri. G. C. Malwi, retired faculty members of Dr. P.D.K.V., Akola answered the queries of farmers on various crops. Dr. Raju discussed better cotton crop production practices and advocated cultivation of straight varieties of cotton like PKV-081, NH-615 and Suraj under High Density Planting System promoted by CICR. Dr. R. R. Gupta, SMS, KVK, convenor of Shetkari Melawa and demonstration trials on IRM technologies made introductory speech on the organizing of Shetakri melawa at farmers' location. Progressive farmer Shri. Anandrao Raut, shared his experience on cultivation of cotton in new areas like Bhiwapur. Former ZP office bearer Shri. Ashok Dhote, Shri. Sonba Musale, Shri. Nanaji Raut attended the function. Programme was conducted by Shri. Roshan Dambare, Agriculture Asst.,

Saoner. Vote of thanks was proposed by Dr. U. V. Galkate, SMS, KVK, CICR, Nagpur.

## Training Sponsored by ATMA, Nagpur

Three day training programme was organized by Krishi Vigyan Kendra for 36 members of Self Help Group of Hingna block on "Fruit and Vegetable Processing" at Community Food and Nutrition Extension Unit from 25<sup>th</sup> to 27<sup>th</sup> March, 2014. Smt. Sunita Chauhan, SMS, Home Science coordinated and trained the farmers.



## Horticultural crops at KVK farm

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



Pomogranate (Bhagva)



Sapota (Kali Patti)

### Ex-trainees Sammelan Organized

Ex-trainees Sammelan was organized at Wakeshwar village on 22.02.2014, with the objective to get the feedback information on the training programmes and field demonstrations conducted on horticulture crops. This village was adopted by KVK in 2002-2004 and several horticultural activities were undertaken. During the discussion, it was observed that the local ber plants which were budded by improved variety of "Umran" are yielding well. Three farmers are cultivating rose as commercial crop and some farmers are raising healthy seedlings of vegetables.

### HDPS in Nagpur district

High Density Plating System (HDPS) in Cotton was implemented in 3 Talukas of Nagpur District viz., Hingna, Kameshwar and Saoner in collaboration with State Department of Agriculture and KVK. Cotton varieties such as Suraj, PKV 081, AKA 7, NH 615 were demonstrated in 169 farmers' fields. The farmers were guided on production and protection aspects. Dr. K. R. Kranthi, Director, CICR and Heads of various Divisions of CICR visited and guided the farmers for better utilization of medium to light soils, where Bt cotton crop does not sustain in later growth period once the monsoon is recedes.

A Scientist- farmers' group discussion on HDPS was conducted in Ramgiri village of Kalmeshwar Taluka on September 7, 2013. Dr. K. R. Kranthi, Director, CICR, Programme Coordinator, KVK, Head Crop protection and Dr. M.V. Venugopalan attended the programme and replied the queries raised by the farmers on HDPS. TAO, Kalmeshwar and other staff were also present. Shri. Harish Kumbhalkar and Sh. Gulbir Singh were the coordinators of the programme.



### Soil Testing Activities

Four hundred and one soil samples were collected from

Umrer, Bhivapur, Katol, Kalmeshwar, Saoner, Ramtek, Narkhed, Kuhi and Parshivani blocks 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 390 soil health cards depicting soil test based fertilizer recommendation for different crops were distributed to the beneficiaries.

### Monitoring of Crop SAP programme of Nagpur district by KVK

Monitoring of Crop SAP programme in Nagpur district was done in twenty villages of 9 tahsils of Nagpur district on cotton, soybean and paddy. Incidence and damage of semiloopers, girdle beetle and stem borer was found under ETL in soybean crop due to heavy and continuous rains during the cropping period. The sucking pest in Bt cotton were observed in most of the cotton area. Cotton farmers sprayed the crop 2 to 4 times for sucking pest management. Low incidence of major insect pest and disease in paddy was also noticed.



Monitoring of Crop SAP in Paddy in Ramtek Taluka.

### Participation in Exhibitions

- i) Maharashtra Kapus Parishad cum Agriculture Exhibition at Jalgaon on 20.04.2013 and three days agricultural exhibition at Wardha during 31 May to 2 June 2013.
- ii) "Dharmmachakra Pravartan Din" at Deekshabhoomi, Nagpur during 12-14 October 2013.
- iii) MGNREGA WORKSHOP cum Agricultural Exhibition' organized by State Department of Agriculture on 14 December 2013.
- iv) Agro-Vision Exhibition held at Reshimbagh, Nagpur from 26 to 29 December 2013.



Participation in MGNREGA WORKSHOP cum Agriculture exhibition at Krida Sankul, Nagpur



Participation in Kapus Parishad cum Exhibition at Jalgaon

### List of publications

1. Behra, M.S., P.K. Mahapatra., Singandhupe R.B., Kundu D.K., Satpathy S. and Singh Amarpreet (2014). Drip fertigation effect on yield, quality, water use and economics of ashwagandha in rice based cropping system, in International Symposium on Integrated Water Resources Management (IWRM-2014) February 19-21, 2014 at CWRDM Kozhikode, Kerala, and Page. No. 1-11.
2. Sethi R.R., Kumar A., Sharma S.P., Singandhupe R.B., Das M., Jena S.K. (2012). Development and calibration of a soil water balance model for paddy field in humid climatic condition. *Indian Journal of Coastal Agricultural Research*, Vol. 30 (2): 55-59.
3. Chauhan, S. and Raju A.R. (2013). Innovative cotton harvesting bags. *International Journal of Agriculture Innovations and Research*, Vol.2 (1), ISSN (online) 2319-1473: 108-111.
4. Chauhan Sunita, Raju A.R. (2014). Participatory evaluation of ergonomically designed cotton picking bags. *Journal of Cotton Research Development*. 28(1): 140-144.
5. Gulbir Singh (2013). Integrated pest management in vegetables, *Swet Swarnima* 2013, 11.
6. Gulbir Singh (2013). Improved cultivation techniques from guava, *Swet Swarnima* 2013, 13.
7. M.V. Venugopalan, Keshav Raj Kranthi, Mahendra Singh Yadav and Vandana S (2014). *Saghan Ropan Padhhati se Kapas ki Bharpoor Pedavaar* (Bumper cotton yield through high density planting system).

*Kheti Monthly Magazine (Spl. Issue Krishi Vasant)*, No. 11 (Feb. 2014), 12-15.

8. Mahendra Singh Yadav and Vandana S (2014). *Kapas uttpaadan mein aatm nirbharta* (Self sufficiency in cotton production). *Kheti Monthly Magazine (Spl. Issue Krishi Vasant)*, No. 11 (Feb. 2014), 5-10.
9. Vandana S (2013). *Soochna Sanchaar Prodyogiki-Kisaano ke liye vardaana*. *Shwet Swarnima* 2013, 20-21.

### Leaflet Published

1. Fruit Processing – Preparation of Squash (2014) : Smt. Sunita Chauhan
2. Vegetable Processing – Cherry and Sauce preparation (2014) : Smt. Sunita Chauhan
3. Kapas Ke Nashikeeton Ka Prabhavi Prabandhan (2014) (in Hindi): Dr. Keshav Raj Kranthi, Dr. Chinnababu Naik, Dr. (Smt.) Sandhya Kranthi, Dr. Vishlesh Nagrare and Dr. RamRatan Gupta.

### Radio Talks

Delivered a radio talk on “*Are Sansar-Sansar Nivad Udhogachi*” (Selection of Enterprise for Supplementary Income) in Marathi programme in Otivar broadcasted by AIR, Nagpur on 18.06.2013 at 6.20 pm.

### T.V. Talk

Delivered T.V. Talk on “*Drudgery Reduction of Farm Women with Cotton Picking Bags*” in Marathi programme in Sheti Darshan telecasted by Nagpur Doordashan on 20.01.2014 at 6.00 pm.