



Matter for
Annual Report
for the period 1.4.2014 to 31.3.15



Krishi Vigyan Kendra
Central Institute for Cotton Research, Nagpur

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Central Institute for Cotton Research, Nagpur

Brief History

Indian Council of Agriculture Research has sanctioned Krishi Vigyan Kendra (KVK) at the premises of CICR, Nagpur on dated October 4, 1994. This KVK comes under Zonal Project Directorate, Zone-V, Hyderabad. KVK, Nagpur is a grass root level organization meant for application of technology through assessment, refinement and demonstration of proven technologies and training of same under different 'micro farming' situations in Nagpur district.



Mandate

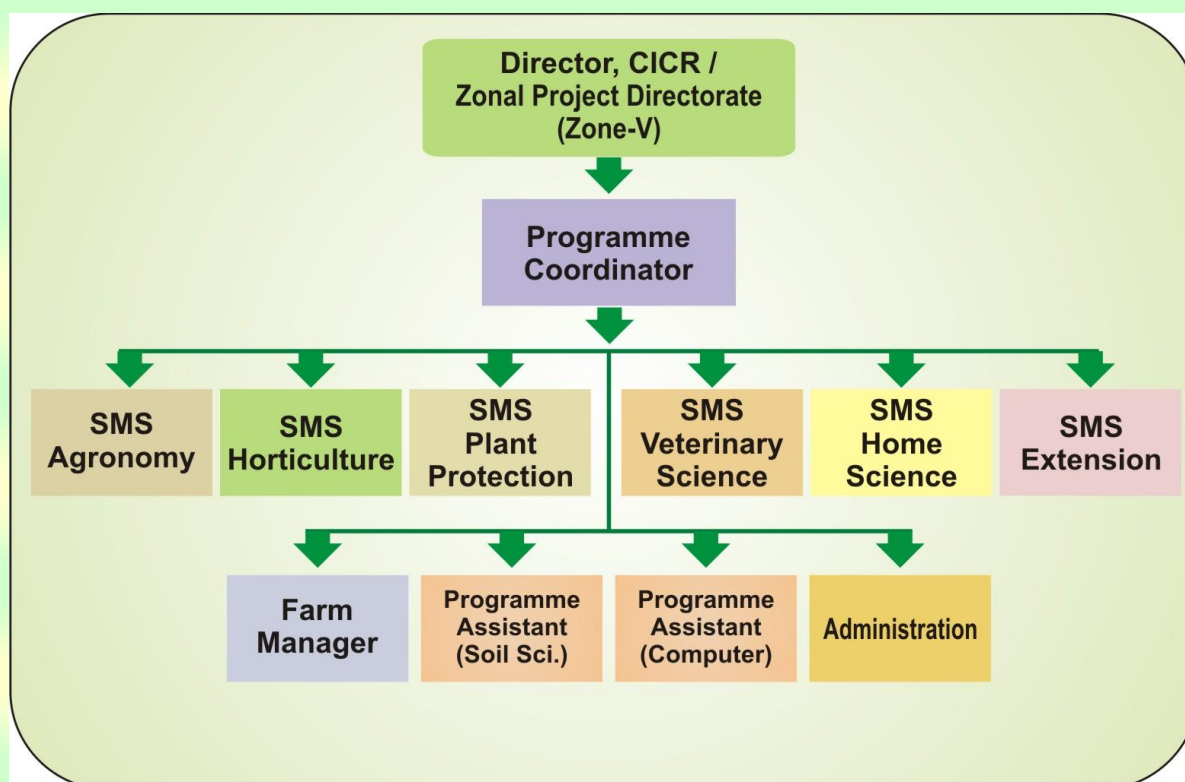
- Technology Assessment, Refinement and Demonstration of technology / products.
- On farm testing (OFT) to identify the location specificity of agricultural and allied technologies under various farming system.
- Front line demonstrations (FLD) to establish its production potentials on the farmer's fields.
- Training of farmers to update their knowledge & skills in modern agricultural & allied technologies.
- Training of extension personnel to orient them in the frontier areas of technology development.
- To work as resource and knowledge centre of agricultural technologies for supporting initiatives of public, private and voluntary sector for improving their agricultural economy of the district.

Functional Objectives

- For fulfilling the prescribed mandate, the KVKs, at present, has to perform the following functions:
- To plan and conduct survey of the operational area through Participatory Rural Appraisal (PRA) methods and characterize physical and human resources with special reference to identify the technological and training needs of the farming community.
- To compile all relevant recommendations/package of practices for the district to be meaningfully utilized in the training programmes and the follow-up extension activities.
- To plan and conduct production-oriented and need-based short and long duration training courses both on the campus as well as in the villages for various target groups with priority on the resource poor sections.
- To organize Farm Science Clubs in order to inculcate in the younger generations a scientific temper and an interest on agriculture and allied sciences and for scientific farming through supervised individual and group projects.
- To develop and maintain the campus farms and demonstration units on scientific lines as the facilities for providing work experience to the trainees, dissemination of the latest technical know-how and also as a means to achieve financial sustainability in due course of time.
- To provide practical training facilities of the Kendra to the teachers and the students of vocational agriculture of the higher secondary schools.

- To provide added training facilities in the area for home making and nutrition education for rural communities and gradually enlarging the training facilities to encompass other important areas such as home/rural crafts and cottage industries with the requirements of the integrated rural development in collaboration with the concerned organizations.
- To implement all such schemes of the ICAR and other related organizations which intend to strengthen the training and technology dissemination programmes as well as follow-up extension activities of the Kendra.
- To undertake on-farm testing of the technologies developed by the National Agricultural Research System (NARS) in agriculture and allied fields for their suitability and identifying the constraints.
- To demonstrate the potentialities of various technologies and recommend for their adoption in maximizing yield/income per unit of time and area under different resource conditions.

Organogram of KVK



Staff Position (As on 31.03.2015)

Name of Post	Sanctioned Cadre Strength	Post filled up	Vacant Post
Program Coordinator	1	1	-
Subject Matter Specialists	6	4	2
Technical	3	3	-
Administration	2	2	-
Driver	2	2	-
Skilled Supporting Staff	2	-	2

Major Achievements of KVK

Implementation of Technology Demonstration on pulses (Pigeonpea) : Krishi Vigyan Kendra, CICR, Nagpur has implemented Technology demonstration on pigeonpea during Kharif season 2014-15 in Nagpur district comprising 30 acre area on 30 farmers field in Junewani and Kinhi villages of Hingna taluka for improving the pigeonpea productivity in rainfed areas of Nagpur district.

Implementation of High Density Planting System demonstration on Cotton : Krishi Vigyan Kendra, CICR, Nagpur was coordinated HDPS programme during Kharif season 2014-15 in Nagpur district comprising 60 acre area on 60 farmers field in Pusagondi village in Katol taluka for improving the cotton productivity of rainfed farmers of Nagpur district. This programme is implemented through Krishi Vigyan Kendra Nagpur. The HDPS trials were monitored by KVK and CICR, Nagpur by providing treated seed, technical support and package of practices.



OFTs and FLDs Conducted by Agronomy

KVK has conducted OFT on High Density Planting System (HDPS) of Suraj variety in Khapri and Sogegaon village of Kalmeshwar block in collaboration with State department's personnel. Three FLDs on Tur (BSMR-736), Wheat (AKAW-4627) and Linseed (PKV NL-260) were also conducted in the village of Umred and Bhiwapur blocks of Nagpur districts. In OFT it is found that variety Suraj recorded 12.34% yield increase over the Bt check. In FLDs Linseed variety (PKV NL-260), Tur (BSMR-736), Wheat (AKAW-4627) were found superior over local checks by 30.81%, 21.85% and 31.26 respectively. The farmers appreciated the performance of the above varieties and produced sufficient seed for distribution among the farmers in ensuing season.



Soil Testing

Five hundred forty three soil samples were collected from Umrer, Bhivapur, Katol, Kalmeshwar, Saoner, Ramtek, Narkhed and Kuhi 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 540 soil health cards depicting soil test based fertilizer recommendation for different crops were distributed to the beneficiaries. Presently this Mobile Soil Testing Van is being used effectively for the said purpose as per the man-date of the Human Development Program of Nagpur district.



Horticulture Fruit Crops

KVK has established fruits crop at its farm. The object of these crop plantation is to demonstrate the potential variety of fruits suitable for Vidarbha region. It has been observed that Guava (L-49) is most suitable fruit crop for this area rather than the Citrus fruits. Water melon (Nelson) has also sown for the first time for demonstration and observations. The Guava (L-49), Pomogranate (Bhagwa), Orange (Nagpur mandarin), and Sweet Orange (Katol Gold) growing in KVK have also shown to large number of farmers, extension functionaries, rural youths and other visitors. The horticulture produces were sold to the CICR staff and an amount of Rs. 32290/- has been earned.



Front Line Demonstrations on Dairy and Livestock enterprises

- **Dairy Farming :** KVK has conducted front line demonstration on 20 Cross breed Jersey cows in Wai (Khurd), Kondhasawali, Wai (Buzurg), Metpanjra, Hatla, Taluka-Katol by feeding bypass fat @ 200 g/day/cow in the diet of just calved cows. It was observed that average milk yield increased by 22% and fat content by 15%. No case of metabolic disease was observed and B:C ratio was also good i.e 2.40. Farmers found this technology beneficial as sudden drop in milk yield in just calved cows is avoided and farmers could be able to maintain the milk production even in summer.



- Goat rearing :** KVK has conducted front line demonstration on 20 local goats in Metpanjra, Wai (Bujurg) villages of Katol taluka. In this trial concentrate feed was fed to the goats @ 150g/doe/ day for 3 months. It was observed that there was a increase of 27.08% in average milk yield, whereas, average preweaned body wt. in kids of 5 months age was increased by 19.20% increase. The average body weight of does was also increased by 5.93% and B:C ratio found significant i.e. 2.10. Farmers got 27.08% increase in milk yield which ultimately leads to increase in pre-weaned body weights of kids of either sex.



- Poultry :** KVK has conducted front line demonstration on 100 Poultry Chicks of Swarnadhara and Giriraj breeds in Navegaon Sadhu, Tirkhura and Karhandla villages of Umred taluka. The birds were reared under back yard farming system on farmers field. Average body weight of matured hen in Swarnadhara increase by 37.21% and Giriraja 30.95% and also observed that average body weight of matured cock in Swarnadhara increased by 39.62% and Giriraja 35.21%. The survivability was at par with local chicken.



Body weight gain in Swarnadhara breed was quite high. These birds remain in separate cluster from native chicken. This breed is active and capable of protecting themselves from predators. There was also high weight gain in Giriraja breed. The trial on both the breeds showed well adoptability and an increased production performances under free range scavenging system at micro situational level of Umred taluka of Nagpur district.

- Azolla production unit at KVK :** Azolla production unit has established at KVK technology park during the year 2014-15. Azolla is a blue green algae having high nutritional values as a cattle feed. It contain 25-30% protein, 10-15% minerals, amino acids, bio-polymers and some enzymes which helps to enhance the process of digestion in cattle.

KVK is cultivating about 15 kg. Azolla culture from a pond of size 12'x9' after every 15 days. KVK has established more than 20 azolla production unit in Nagpur district on farmers' fields by supplying the culture. In addition, a simple technology of azolla production was explained to the several farmers who visited to the KVK during this year.

Front line demonstrations on feeding of azolla @ 1-2 kg to their cattle in replacement of concentrate feed was conducted on 10 farmers field. An



increase of 19.85% in average milk yield of cows, 10% increase in milk fat and 14.28% increase in conception rate was observed. BC ratio observed was 2.10.

Advisory Service/ K-MAS

- **Advisory Service provided:** KVK has provided advisory services to the farmer, rural youth and extension workers on agricultural production and protection technology and allied fields through Daily Agrowon, Dr. PDKV, State Agriculture Department, KVK website (weekly weather forecasting) and also advisory services provided by personnel guidance, telephonic calls and mobile services. 21047 clients in Nagpur district were benefited.
- **Kisan Mobile Advisory Services (K-MAS):** K-MAS is best on the liner model of communication. The extension functionaries are the ultimate user of the information while farmers are implementer at field grass root level. Through these K-MAS **636** clients/farmers are registered during 2014-15 and **29 messages** were sent to the farmers/Rural youth/extension functionaries. The total registered clients/farmers under K-MAS are 1624.



Cotton harvesting bag is getting momentum

KVK-CICR cotton picking bag is gaining popularity due to its peculiar advantage of collecting more and clean cotton with less drudgery. This result in increasing in efficiency of rural women and enhanced their income. KVK, CICR has received an order of 710 cotton harvesting bags from AFPRO, BAIF-MITTRA, Yeotmal district and DSAO, Nagpur and distributed these bags as technical input to the 149 villages and covering nine talukas of Yeotmal. Whereas DSAO, Nagpur has given these bags as input to the 200 growers and pickers of Desi cotton under National Food Security Mission, commercial crop-cotton to the farm women of Saoner, Kalmeshwar, Katol and Umred. For preparation of these bags, a group of six unemployed women were empowered with skill of stitching by Smt. Sunita Chauhan, SMS, KVK-CICR, Nagpur and generated employment to them. KVK has received revenue of Rs. 1,17,315/- during August 2014 to January 2015 through sale of cotton harvesting bags. Afgan delegates visited to KVK on dated 17.11.2014 has also appreciated KVK-CICR picking bag and opined to multiply the same for their use in Afganistan.



Details of Assessment of technologies under Front Line Demonstrations and On Farm Trials (2014-15)

Sr. No	Crop	Technology Demonstrated	No. of farmers	Area (ha)	Yield (q/ha)		Increase over FP (%)
					FLD/OFT	FP	
1	Cotton (OFT)	HDPS	30	12.0	14.75	13.13	12.34
2	Pigeon pea (FLD)	BSMR-736	30	6.0	11.88	9.75	21.85
3	Linseed (FLD)	PKV NL- 260	24	4.8	9.00	6.88	30.81
4	Wheat (FLD)	AKAW-4627	12	4.8	32.00	24.38	31.26
5	Nagpur Mandarin (FLD)	Weeds Management in Nagpur Mandarin	10	4.0	70.00	60.00	16.66
6	Okra (FLD)	Varietal demonstration of Akola bahar	10	4.0	51.00	45.00	15.90
7	Red gram (FLD)	Integrated production technology	30	12.0	16.66	13.38	24.51
8	Chickpea (FLD)	Integrated production technology	30	12.0	17.80	13.35	33.26
9	Tomato (OFT)	High yielding variety (<i>Kashi veshesh</i>)	10	4	-	-	-
10	Garlic (FLD)	High yielding variety (<i>Yamuna Safed -4</i>)	10	4	-	-	-
11	Onion (FLD)	High yielding variety (<i>Kashi veshesh</i>)	10	4	-	-	-

On Farm Trial (Home Science)

- 1. Assessment of charcoal briquettes-An alternative :** Assessment of charcoal briquettes cooking fuel was conducted on 20 farm womens field. The traditional coal and bio-briquettes made from cotton stalk was compared in terms of quantity, cost, ash recovered and time required by each farm women while cooking 250 grams of rice and dal. It found that food cooked through bio-briquettes is cost effective by 29% as compared with traditional coal and 60% eco-friendly.
- 2. Assessment of protein rich food provided under SABLA for reducing protein calorie mal nutrition of adolescent girls (15 years) :** This trial was conducted at Butibori circle, Nagpur. 10 adolescent girls were selected for each trial, it was found that, girls consuming protein rich diet alongwith local practice helps in increasing weight by 33% and Hb% by 35%.

Training Programme organized

Training cum Awareness Programme on PPV & FRA-2001

KVK organized a training cum awareness programme on “Protection of Plant Varieties and Farmers’ Right Act - 2001” for **100 farmers and stakeholders** of Umred and Kuhu tahsil of Nagpur district in two batches of 50 farmers each at KVK training hall, Nagpur on 26.03.2015 and 27.03.2015. This programme was sponsored by PPV



& FRA, Ministry of Agriculture, Govt. of India, New Delhi.

Dr. Shanti Patil, Asstt. Professor, College of Agriculture (Dr. PDKV), Nagpur, Dr. V. Santhy, Sr. Scientist, CICR, Nagpur and Shri H. B. Kumbhalkar, KVK, Nagpur were resource person. Dr. U. V. Galkate, SMS, KVK, CICR, Nagpur coordinated this programme.

Training on Goat Rearing

Dr. U. V. Galkate, SMS (Vet. Sci.) imparted a day long training on goat rearing to 100 practicing farmers of Katol taluka at Panchayat Samiti Katol on 27.01.2015. this programme was organized in collaboration with Livestock Development Officer (Extension), Animal Husbandry Dept. Panchayat Samiti Katol



Skill Oriented Trainings

Three days training programme comprising integrated courses on 'Bio-diversity of Crops' and 'Rural Goat Production Technology' was organized by KVK, Nagpur in collaboration



Dr. U.V. Galkate and Shri Gulbir Singh imparting training to the farmers

with Nagpur based NGO World Vision. Two batches comprising 50 practicing farmers and farmwomen each of Umred taluka were benefitted through these trainings from 27-29 November 2014 and 2-4 December 2014. For each batch two days training courses were organized at KVK campus, whereas, one day practical training course was organized at village itself. Dr. U. V. Galkate, SMS (Veterinary Science), Gulbir Singh, SMS (Horticulture), Dr. S. S. Patil, SMS (Ext.), Harish Kumbhalkar, I/c SMS (Agronomy) all from KVK and Dr. V. K. Basunathe, AP, Ext. Dept. NVC were the faculties for these training courses. Field visits of these participants were conducted to KVK's instructional farm where demonstrations of various rabi crops representing crop pattern of Nagpur district was laid. KVK, Nagpur will act as a knowledge bank and advisory agency through World Vision to establish crop bio-diversity and goat units of all these participants. This programme was organized under the able guidance of Dr. R. B. Singandhupe, Programme Coordinator, KVK, CICR, Nagpur

Training for Mahila Bachat Gut on goat farming

A one day training on 'Rural goat farming' was organized in collaboration with HDFC Bank Ltd., Nagpur in Seldoh village of Wardha district on 22nd May 2014. Thirty farmwomen who have received loans for establishment of goat unit participated in this training course. Dr. U. V. Galkate, SMS (Veterinary Science), KVK, Nagpur imparted training to these farmwomen who belonged to various Bachat guts formed in the village. He covered the topics on selection of goats, management of kids and does, feeding, prevention and control of diseases in goats.



Sh. Sandip Deshmukh, Proprietor of Surabhi – Kala Prasikshan Sanstha was also present on the occasion. Sh. Chade, Manager, Srushti Women Self-employment Education Centre, Nagpur proposed vote of thanks.

Training on soil and water management, soil sampling techniques and it's analysis

Two one day training programmes on 'soil and water management, soil sampling techniques and it's analysis' was conducted in KVK, CICR, Nagpur on 19.08.2014 and 21.08.2014. In this training programme Shri H.B.Kumbhalkar and Dr.R.B.Singandhupe created awareness among farmers about soil and water management, importance of soil testing. Technique to collect soil samples for analysis as well as soil test based fertilizers recommendations were also delivered in this training programme. Near about 72 farmers were participated.



Training programme on Sheti Din

KVK, CICR, Nagpur conducted one day training programme (Sheti Din) at Khapri village of Kalmeshwar tahsils, Dist- Nagpur on 02.09.2014 in collaboration with State Govt. Agril. Deptt. Personnel. Dr. R. B. Singandhupe and Mr. Harish. B. Kumbhalkar explained the farmers regarding the cultivation practices of HDPS cotton technology and benefits of Suraj cotton cultivation in shallow soils, rainfed, condition. In this training programmes 20 farmers were participated.

Diagnostic surveys/Sheti Din conducted

1. KVK, CICR, Nagpur conducted diagnostic survey at Champa village of Saoner tahsils, Dist- Nagpur on 12.09.2014 in collaboration with State Govt. Agril. Deptt. Personnel. The experts of KVK diagnosed the problems of parawilt on cotton growing farmers of the villages by visiting their cotton fields. The control measures/ remedial measures/spraying

schedule for the same was advised to the farmers to reduce the incidence of the diseases. 30 farmers were benefited during this programme.



Dr. R. B. Singandhupe and Shri Harish Kumbhalkar discussing with farmers on parawilt problems

2. Diagnostic field visit were conducted in villages of Chandur Railway tahsil of district Amravati on 25.11.2014 alongwith State Agricultural Department personnel. Dr. V. S. Nagrare, Shri Harish Kumbhalkar, Shri S. S. Patil were participated in this diagnostic visit. The committee inspected the HDPS cotton plots (Suraj variety) of 10 different farmers in the villages and also explained about their queries/complaints.
3. Diagnostic field survey were conducted in villages of Ranmangali, Navegaonsadhu and Thana of Bhiwapur and Umred taluka with Dr. T.R.Loknathan, Principal Scientist, CICR, Nagpur and Dr. A.R.Reddy, Sr.Scientisit, ZPD, Hyderabad. Shri Harish Kumbhalkar, Shri S. S. Patil and Dr. U. V. Galkate were participated. In this diagnostic survey damage due to heavy rainfall and general crop conditions of the beneficiaries were discussed on 18.07.2014.

Group discussion/Kisan Goshti organized

Conducted Kisan Goshti through “Man Ki Bat” in collaboration with Doordarshan, Nagpur

A one day Kisan Goshti programme was conducted in collaboration with Doordarshan Nagpur at Navegaon (Sadhu) village of Umred taluka on 22.03.2015. During this programme the speech of **Hon’ble Prime Minister (Man Ki Bat)** were broadcasted among the farmers through radio and based on the issues of different topics of Hon’ble Prime Minister speech the feedback and



suggestions from farmers were recorded on Doordarshan by Shri Atual Bhusari, TO, Doordarshan, Nagpur. Shri H.B.Kumbhalkar and Dr.S.S.Patil alongwith doordarshan team were actively participated to conduct this programme. 60 farmers were participated in this programame.

Group discussion on Horticulture and Livestock production: A group discussion on high density cultivation of fruits and establishment of poultry and goat units was organized in Tarna and Dhandla villages of Umred and Kuhi talukas on 26 June, 2014. Shri Gulbir Singh SMS, Horticulture, explained the advantages of high density cultivation of fruits for higher

yield. Guava and pomegranate were suggested. Planting of custard apple was also suggested for planting on bunds. Dr. U.V Galkate SMS (Vet.Sci) explained the utility and profitability of poultry and goat units. He suggested the farmers to start these units on small scale under scientific guidance. In all 35 farmers attended the programme.

Kisan Goshti on Kharif vegetable cultivation: A Kisan Goshti on Kharif vegetable cultivation was organized in Kinhi village of Hingna taluka on 29 May, 2014. Shri Gulbir Singh SMS, Horticulture, explained the high yielding varieties of vegetables and their cultivation techniques. In all 30 farmers attended the programme.



Discussion with women farmer regarding soil testing & HDPS

Shetkarai Charcha

The experts of KVK, Sh. S. S. Patil, SMS (Extension) and Harish Kumbhalkar I/c SMS, (Agronomy) conducted group discussion (Shetkari Charcha) with 45 farmers of Kinhadmakadi village of Nagpur district on 24.09.2014. During this charchasatra, Soil sampling techniques, cotton crop production technology and IPM on soybean were thoroughly discussed with farmers. 35 farmers and rural youths were benefited during this charchasatra.



Shri Harish Kumbhalkar I/c SMS, (Agronomy) addressing the farmers' during Charcha Santra

Scientists-farmers meet

KVK organized a Scientists-Farmers Meet at village Sawangi, Tal. Hingna, Dist. Nagpur on 03.03.2015. Shri Purushottam Gotmare, Sarpanch of Village Swangi presided over the function. Dr. R. B. Singandhupe, PC, KVK, Nagpur, Dr. V. Shanthi, CICR, Nagpur and six trainee scientist from NAARM, Hyderabad were present on the occasion. Dr. SS Patil, Dr. U. V. Galkate and Shri HB Kumbhalkar of KVK, Nagpur were resource person for this meet. A discussion was held on "Location specific problems in Agriculture and Allied fields". This programme was organized in collaboration with NAARM, Hyderabad.



Training Programmes conducted

One hundred and Thirty 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 4924 participants including 1435 SC/ST participants benefited from the training programs conducted by KVK. The details of training programme are summarized below.



Harish Kumbhalkar & Dr. R. B. Singandhupe addressing the farmers on HDPS cotton technology in Joga Village at Saoner

Training Programmes conducted by KVK, CICR, Nagpur

SN	Date	Topic	Venue (ON/OFF Campus)	Client*	No. of Participants	Name of Resource person
1.	1.4.14	Scientific cultivation of fruits & Vegetables.	OFF	PF	29	Gulbir Singh
2.	4.4.2014	Scientific techniques of grain storage	OFF	RY	42	Sunita Chauhan
3.	8.4.14 16.5.14 31.5.14 2.8.14 12.8.14 12.10.14 2.12.14 15.1.15 17.1.15 26.2.15 12.3.15	Importance of soil testing, INM in cotton, Soil and water management, Soil sampling techniques and its analysis.	ON	PF/RY	390	H. B. Kumbhalkar
4.	15.4.14 26.5.14 19.8.14 17.9.14 20.9.14 26.11.14 3.3.15	Soil health campaign, importance of soil testing, INM in cotton, soil sampling techniques and soil test based fertilizer recommendation.	OFF	PF/ RY	282	H. B. Kumbhalkar
5.	21.4.2014	Management of store grain pest	OFF	PF	33	S.S.Patil
6.	24.4.2014	Management of store grain pest	OFF	PF	36	S.S.Patil
7.	28.4.2014	Entrepreneurship development	OFF	PF/RY	47	S.S.Patil
8.	5.5.14	Advance techniques of INM and IPM in Bt cotton	OFF	PF	400	H. B. Kumbhalkar
9.	11.5.2014	Promotion of public-private partnership	OFF	PF/RY	35	S.S.Patil
10.	12.5.2014	Pest management in summer crops	ON	RY	22	S.S.Patil

11.	22.5.14	Rural women self employment through Goat Farming	OFF	PFF	30	U. V. Galkate
12.	23.5.14	Bt cotton production technology	OFF	PF	250	H. B. Kumbhalkar
13.	24.5.14	Weed management in cotton crop	OFF	PF	25	H. B. Kumbhalkar
14.	29.5.14	Rhizobium treatment in Tur	OFF	RY	30	H. B. Kumbhalkar
15.	10.06.2014	Layout and management of nutrition garden for improving nutritional status	OFF	RY	27	Sunita Chauhan
16.	12.6.2014	Seed treatment technique	OFF	PF/RV	52	S.S.Patil
17.	12.06.2014	Formation of farmers interest groups	OFF	PF/RV	49	S.S.Patil
18.	12.6.14	Fodder cultivation for sustainable livestock farming	ON	PF	15	Dr. U. V. Galkate
19.	15.6.14	Bt cotton production technology	ON	PF	45	H. B. Kumbhalkar
20.	16.06.2014	Use of household energy saving devices	ON	RY	39	Sunita Chauhan
21.	20.6.2014	Seed treatment technique	OFF	PF	38	S.S.Patil
22.	22.6.14	INM in cotton	OFF	PF	35	H. B. Kumbhalkar
23.	22.6.14	INM in cotton	ON	PF	35	H. B. Kumbhalkar
24.	26.06.14	Clean milk production	OFF	PF	17	Dr. U. V. Galkate
25.	26.06.14	Planting of fruits crops	OFF	RY	18	Gulbir Singh
26.	29.6.14	Seed production in Pegionpea	OFF	RY	45	H. B. Kumbhalkar
27.	9.7.14	Moisture conservation techniques in cotton	OFF	PF	25	H. B. Kumbhalkar & RB Singandhupe
28.	9.7.2014	Development of managerial skills of farmers	OFF	PF	43	S.S.Patil
29.	18.7.14	Agronomic conservation practices in water shed area	OFF	PF	30	H. B. Kumbhalkar & RB Singandhupe
30.	25.7.14	Weed management in soybean	OFF	PF/ RW	28	H. B. Kumbhalkar
31.	3.8.2014	Formation of SHG's	ON	RY	26	S.S.Patil
32.	6.8.2014	Recycling of farm wastes	ON	PF/RV	27	S.S.Patil
33.	6.8.2014	Scientific cultivation of tomato for higher and quality production	ON	PF	20	Gulbir Singh
34.	8.8.2014	Weed management in Nagpur mandarin	OFF	PF	19	Gulbir Singh
35.	12.8.2014	Vegetable nursery management	ON	PF	20	Gulbir Singh
36.	14.8.14	Improved production practices in cotton	ON	EF	19	H. B. Kumbhalkar
37.	21.8.14	Soil and water management/ INM in cotton	ON	PF	52	H. B. Kumbhalkar
38.	21.8.2014	Sucking pest management in cotton	OFF	PF/RV	39	S.S.Patil
39.	28.8.2014	IPM in HDPS cotton	ON	PF/RV	24	S.S.Patil
40.	30.8.2014	IPM in HDPS cotton	ON	PF	32	S.S.Patil
41.	30.8.2014	Development of communication skills in rural youth	OFF	RY	35	S.S.Patil
42.	2.9.2014	Irrigation management in wheat	OFF	PF	20	H. B. Kumbhalkar
43.	2.9.2014	Recycling of agricultural wastes	OFF	PF/RV	26	S.S.Patil
44.	3.09.2014	Drudgery Reduction of farm women through cotton pickign bags	OFF	RCF	37	Sunita Chauhan
45.	12.9.14	Management of parawilt and sucking pesting in Bt cotton	OFF	PF/ RY	30	H. B. Kumbhalkar
46.	16.9.14	Application in micronutrient in	OFF	PF/ RW	60	H. B. Kumbhalkar

		cotton				
47.	19.09.2014	Scientific Goat farming for Rural area	KVK	PF	35	U. V. Galkate
48.	20.9.2014	Integrated cotton production technology	OFF	PF/RY	52	S.S.Patil
49.	23.09.2014	Production of Azolla as cattle feed	KVK	PF	19	U. V. Galkate
50.	23.09.2014	Enrichment of NADEP compost with rock phosphate	ON	PF	34	Sunita Chauhan
51.	24.9.14	Package of practices of wheat and gram cultivation	ON	PF	30	H. B. Kumbhalkar
52.	8.10.14	Seed treatment in Chickpea	ON	RY	45	H. B. Kumbhalkar
53.	8.10.2014	IPM in Pigeonpea	Junewani	PF	45	S.S.Patil
54.	8.10.2014	IPM in redgram	ON	PF	35	S.S.Patil
55.	8.10.2014	Role of bypass fat in Dairy Production	Mendhepat har	PF	18	Dr. U. V. Galkate
56.	8.10.2014	Management of fruit drop in Nagpur mandarin	OFF	PF	18	Gulbir Singh
57.	9.10.2014	IPM in redgram	ON	PF/RY	34	S.S.Patil
58.	12.10.2014	Development skills in farmers	KVK	PF/RY	30	S.S.Patil
59.	13.10.2015	Establishment of Azolla unit	OFF Mendhepat har	EF	12	Dr. UV Galkate
60.	18.10.2014	Cultivation practices for hybrid Napier	Wai	PF/RY	21	U. V. Galkate
61.	20.10.2014	Seed production in Chickpea	OFF	RY	26	H. B. Kumbhalkar
62.	27.10.2015	Scientific goat farming for rural area	Off Katol	PF, RY	60	UV Galkate
63.	30.10.2014	Seed treatment and Root-rot/wilting management in Chickpea	Boruzwada	PF	20	S.S.Patil
64.	31.10.2014	Improved wheat production technology	ON	PF	40	H. B. Kumbhalkar
65.	31.10.2014	Integrated Dairy Farming	KVK	PF/RY	35	Dr. U. V. Galkate
66.	5.11.2014	Demonstration of clean cotton picking	OFF	PF	114	Sunita Chauhan
67.	5.11.2014	Demonstration of clean cotton picking	KVK	RY & PF	71	Sunita Chauhan
68.	08.11.2014	Cotton harvestign aid for improving efficiency	OFF	RCF	25	Sunita Chauhan
69.	11.11.2014	Drought based agriculture	ON	EF	14	S.S.Patil
70.	12.11.2014	Pest and disease management of greenhouse crop	KVK	PF	32	S.S. Patil
71.	12.11.2014	Pest and disease management in green house crop	ON	PF	32	S.S.Patil
72.	12.11.2014	Green house technology	ON	EF	31	Gulbir Singh
73.	13.11.2014	Management of leaf reddening in cotton	OFF	PF	40	H. B. Kumbhalkar
74.	17.11.2014	Awareness of hygiene and sanitation to adolescent girls and boys	KVK	RY	50	Sunita Chauhan
75.	17.11.2014	Awareness of hygienes & sanitation to adolescent girls	OFF	RY	98	Sunita Chauhan
76.	19.11.2014	Use of improved sickle for reducign frudgery	OFF	PF	36	Sunita Chauhan
77.	19.11.2014	Use of improved sickle for	KVK	RY	23	Sunita Chauhan

		reducing drudgery				
78.	20.11.2012	Management of podborer in chickpea	Borujwada	PF	50	S.S.Patil
79.	22.11.2014	Techniques of soybean processing for making soyflour and soynuts	OFF	RY	35	Sunita Chauhan
80.	25.11.2014	Drought based agriculture	ON	PF	32	S.S.Patil
81.	26.11.2014	Diversification of crops	ON	PF	30	Gulbir Singh
82.	27.11.2014	Promotion of public private partnership	OFF	PF& RY	40	S.S.Patil
83.	28.11.2014	HDPS cotton production technology	ON	PF	60	H. B. Kumbhalkar
84.	2.12.2014	IPM in chickpea	ON	EF	13	S.S.Patil
85.	3.12.2014	IPM in chickpea	ON	PF	31	S.S.Patil
86.	02.12.2014	Scientific cultivation of Pomegranate	ON	PF	35	Gulbir Singh
87.	09.12.2014	<i>Helicoverpa</i> management in chickpea	OFF	PF	25	S.S.Patil
88.	11.12.2014	women friendly improved farm tools & equipment	OFF	EF	20	Sunita Chauhan
89.	20.12.2014	Value added products from papaya & rose	OFF	RCF	32	Sunita Chauhan
90.	26.12.2014	Techniques of papaya candy & gulkand preparation for SHG's	OFF	RY	44	Sunita Chauhan
91.	29.12.2014	Improved cotton production technology	OFF	PF	30	H. B. Kumbhalkar
92.	2.1.2015	IPM in chickpea	ON	PF	33	S.S.Patil
93.	13.01.2015	Preparation of techniques of soyladoo for anaemic person	OFF	EF	32	Sunita Chauhan
94.	15.1.2015	Promotion of contract farming	ON	PF/RY	35	S.S.Patil
95.	15.01.2015	Goat production and backyard poultry production	ON	RY	31	UV Galkate
96.	22.01.2015	Goat farming as a subsidiary enterprise	ON	PF	20	UV Galkate
97.	2.2.2015	Establishment of nursery for self employment	OFF	RY	19	Gulbir Singh
98.	4.2.2015	Development of leadership skills	ON	PF/RY	8	S.S.Patil
99.	5.2.2015	Scientific cultivation of Onion and garlic	OFF	PF	20	Gulbir Singh
100.	18.2.2015	Management of fruit drop in Nagpur mandarin	OFF	PF	28	Gulbir Singh
101.	26.2.2015	Integrated Bt cotton production technology (under ATMA)	ON	PF/RY	35	H. B. Kumbhalkar
102.	26.2.2015	Pest management in summer vegetables	ON	EF	9	S.S.Patil
103.	2.3.2015	Production technology for Bt cotton	OFF	RY	35	H. B. Kumbhalkar
104.	3.3.2015	Sucking pest management in Citrus	ON	PF/RY	23	Pl. Protection
105.	03.03.2015	Integrated Dairy farming	ON	PF	12	UV Galkate
106.	4.3.2015	Seed inoculation techniques in soybean	ON	PF	25	H. B. Kumbhalkar
107.	10.03.2015	Control of ecto & endo parasitic infestation in livestock	Off Mendhepat har	PF	16	Dr. UV Galkate

108.	13.3.2015	Formation of farmers interest groups	ON	PF/RV	24	S.S.Patil
109.	23.3.2015	Planting and management of pomegranate	ON	EF	25	Gulbir Singh
110.	26&27 /03/2015	Protection of plant varieties and farmers' right act-2001(sponsored by PPV & FRA Authority, New Delhi)	ON	PF	100	UV Galkate H. B. Kumbhalkar
111.	28.3.2015	Cotton production and management of leaf reddening	ON	EF	20	H. B. Kumbhalkar
112.	28.03.2015	Livestock production and application of ICT in animal husbandry	ON	EF	16	UV Galkate
113.	28.3.2015	Advances in Citriculture	ON	EF	20	Gulbir Singh
114.	31.3.2015	Establishment of Nursery	ON	RY	8	Gulbir Singh

*Client (PF – practicing farmer, RY – rural youth, RW-Rural Women, EF- extension functionaries)

Distinguish Visitors

Dr. K. P. Wasnik, Addl. Commissioner (Extension), Ministry of Agril, Govt. of India visited KVK

Dr. Wasnik, Addl. Commissioner, Ministry of Agril, Govt. of India visited KVK, CICR, Nagpur along with Dr. Nalini Bhoyar, Project Director, ATMA, Nagpur and other officials of Agriculture Department, Nagpur on 31st December 2014. Dr. Dr. K. R. Kranthi, Director CICR, Nagpur was also present during this visit. Dr. R. B. Singandhupe, Programme Coordinator welcomed the guests and presented KVK's ongoing activities as well as achievements of previous year i.e 2013-14 in detail.



Dr. Wasnik addressing the house

In an open discussion, Dr. Wasnik appreciated the various projects up taken by KVK, Nagpur such as HDPS programme, IRM in cotton, Kisan Mobile Advisory Services, etc in addition to their mandatory OFTs and FLDs which are benefitting the farmers on large scale. The visit of the dignitaries was also conducted to KVK's instructional farm and HDPS, desi cotton demonstrations which were carried at CICR experimental fields.

Dr. A. K. Singh, Deputy Director General (AE), ICAR, New Delhi visited KVK

Dr. A. K. Singh, DDG (AE), ICAR, New Delhi visited KVK, Nagpur on 18.01.2015.

Mrs. Roja Sethumadhavan Dy. Secretary, Division of Extension, ICAR, New Delhi, Dr. N. Sudhakar, ZPD, Zone-V, Hyderabad and Dr. P.G. Ingole, Director of Research, Dr.PDKV, Akola were present on this occasion. The dignitaries visited different units, labs, demonstration units, field etc. DDG (AE) expressed his views that all these units have been properly maintained, new varieties and system showcased.



Inauguration of Mobile Soil Testing Van at Katol

Hon'ble Minister for Energy & New and Renewable Energy, Maharashtra State and Guardian Minister of Nagpur District Shri Chandrashekhar Bawankule visited and assessed mobile soil and water testing laboratory of KVK on 17 January, 2015 at Katol. He discussed with PC, KVK about suitability of this van for analyzing soil samples of farmers field for fertilizer recommendations based on nutrient status of their soil.



Visit of Afgan delegates to KVK Units

12 Afganistan delegates visited to different units of KVK, CICR, Nagpur on 17.11.2014. The team visited Citrus orchards, Technology park, Soil testing lab, Goat unit and crop demonstration fields of KVK and discussed the issues with experts of KVK, during their visit Dr.M.S.Kairon, former Director, CICR, Nagpur was also present and interacted with them about KVK activities.

Participation in Exhibitions/Meetings/Workshop/Seminar/Symposium etc,

Exhibitions:

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



- On event of “*Dharmachakra Pravartan Din*”, participated in the two days **State level Exhibition held at Dikshabhoomi Nagpur** from 2nd to 4th October, 2014.
- Krishi Vigyan Kendra, CICR, Nagpur participated in **Exhibition held at IGKVV, Raipur** on occasion of ICAR Regional Committee meeting zone VII during October 17-18, 2014
- Krishi Vigyan Kendra, CICR, Nagpur participated in **Rashtriya Kisan Mela organized by National Research Centre on Citrus, Nagpur** from 30-31, October 2014.
- Krishi Vigyan Kendra, CICR, Nagpur participated in **Agro-Vision Exhibition** held at **Reshimbagh, Nagpur** from, December 4 to 7, 2014. .
- KVK, CICR, Nagpur participated in ‘Agro-Tech-2014’ a State Level Exhibition organized by Dr. PDKV, Akola at Akola from 27-29 Dec., 2014.

- KVK-CICR, Nagpur participated **102nd Indian Science Congress Exhibition 2015** held at Mumbai during 3-7 January, 2015
- KVK, CICR, Nagpur participated in **Agricultural Science Congress (ASC) Expo** by putting a CICR stall, organized by NDRI, Karnal during 3-6 February, 2015.

Meetings

1. Shri. Gulbir Singh, SMS (Horticulture) attended Stakeholders Meeting held at BDO's Office, Panchyat Samiti Umred on 1st April, 2014, organized by World Vision India.
2. Dr R.B. Singhandhupe, Programme Coordinator and Sh. Gulbir Singh, SMS (Hort.) participated in Pre-Kharif Review Meeting for Nagpur district on 22nd May 2014 at NBSS & LUP, Nagpur. This meeting was chaired by Hon'ble Guardian Minister of Nagpur, Sh. Shivajirao Moghe. All the officers from State Agril. Department also participated in this meeting.

Conference

Mrs Sunita Chauhan SMS (Home Sec.) participated in "National Conference on Management of Bio-degradable waste & nutritional management" sponsored by UGC and organized by PG Dept., of Home Sci., RTMNU, Nagpur on 17 January, 2015.

Workshop

- Programme Coordinator, all SMSs and all Programme Assistant of Krishi Vigyan Kendra, Nagpur participated in 'Action Plan Workshop 2014-15 of all KVK's of Vidharbha' which was held at Dr. PDKV, Akola and organized by Zonal Project Directorate, Zone-V, Hyderabad on 19th May 2014.
- Mrs Sunita Chauhan SMS (Home Sec.) attended "Convergence workshop" on June 12, 2014 at Kadimbag Nagpur. This workshop was jointly organized by MAVIM and ATMA.

Guest Speaker

1. Dr. Vinita Gotmare, Pr. Scientist and Sh. Harish Kumbhallkar I/c SMS (Agronomy) participated and delivered a guest lecture on "Advance Techniques of IPM and INM in Bt Cotton" at Krishi Vigyan Kendra, Kharpudi, Jalna on 05th May, 2014.
2. Dr. R. B. Singandhupe and Sh. Harish Kumbhallkar, SMS I/c (Agronomy) participated as an expert by delivering a guest lecture on "HDPS Cotton Production Technology" at Joga village of Saoner taluka of Nagpur district in collaboration with State Agriculture Department on 23rd May, 2014. More than 250 progressive cotton growers benefited through this programme.
3. Sh. Harish Kumbhallkar SMS (Agronomy) participated and delivered a guest lecture on "HDPS cotton production technology and soil sampling techniques" at Khapri Moreshwar village in collaboration with NGO Mahila Bachat Gut on 24.05.2014
4. Dr R.B. Singhandhupe, Programme Coordinator, KVK, Nagpur delivered guest lecture on 'Management of Bt. Cotton on drip irrigation' in a programme- 'Agro-Sanvad' organized by Sakal-Agrowon group at APMC, Katol on 20/06/2014. More than 500 cotton growers participated in this programme.

List of publications

List of Publications during 2014-15 (list of publications are of previous ICAR - institute – Directorate of Water Management Research , Bhubaneswar)

- Behera M .S., PK Mahapatra , **RB Singandhupe**, OP Verma K Kannan, G Kar and A Kumar (2013) .Effect of method of irrigation and fertility levels on performance of rice-*Ashwagandha* sequence cropping system. *Oryza - International J. , 50(4):340-342.* NAAS score 4.12(J. ID O018).
- Sethi, R.R., **R.B. Singandhupe** and A. Kumar (2014). Conjunctive use of surface and ground water resources in canal command area of Odisha.- A success story. *International Organisation of Scientific Research Journal of Agriculture and Veterinary Science (IOSR-JAVS) : vol.7(3)ver-III Sept. 2014, pp43-48.* NAAS score : not given
- Behera, M.S., P.K.Mmahapatra, **R. B. Singandhupe**, D. K. Kundu, K . Kannan and Amarpreet Singh (2014). Effect of drip fertigation on growth and root yield of *Ashwagandha*[*Withania somnifera* L.Dunal]. *Indian J Plant physiology- International Journal (Springer Publisher) Vol. 19(3):281-286.* NAAS score 4.66(J ID I063)
- Brahmanand, P. S . , Ashwani Kumar, S. Ray Chaudhary, S Ghosh, D. K. Kundu, K .G. Mandal, **R. B . Singandhupe**, P. Nanda, and G. P. Reddy. (2014). Performance evaluation of rice under intermittent irrigation and drainage in eastern India. *GCBR BioResearch . vol.1/2:24-30.* NAAS rating: not given.
- Behera, M. S. , P. K. Mahapatra, **R. B. Singandhupe**, D. K. Kundu, K. Kannan, K.G. Mondal and Amarpreet Singh (2014). Effect of Drip fertigation on yield, water use efficiency, and water productivity of Mint(*Mentha arvensis* L). *J of Agricultural Physics vol.14(1)37-43.* NAAS score 3.79 (J. ID 016)
- Behera, .M.S, P.K. Mahapatra, **R.B. Singandhupe**, O.P. Verma(2014). Effect of resource conservation technology on rice based medicinal cropping systems. *Journal of Interacademia 18 (3), 411-414 .* NAAS score: not given.
- Behera, M.S., P.K.Mmahapatra, **R. B. Singandhupe**, K. Kanan (2015). Fertigation studies in Japanese mint (*Mentha arvensis* L.) under humid climate in Odisha, India. *African J. Agricultural Research , 10(11):1020-1030 (DOI10.5897/AJAR 2013.7575).* NAAS score 6.7 (A044 as per 2012 NAAS score).
- Behera, M.S., P.K.Mmahapatra, **R. B. Singandhupe**, D. K. Kundu and K. Kanan (2015) Effect of drip irrigation on soil moisture dynamics , nutrient uptake and productivity of *Aswagandha*(*Withania somnifera* L). *J . Soil and Water Conservation . Vol. 14(no.1 January –March): 41-49.* NAAS score 3.68(J. ID J367).
- Galkate, U. V. (2014) ‘Assessment of production performance of Swarnadhara chicken in Nagpur district’ Abstract No.NCM/0 – 02, National Conference on, ‘Native chicken Production: Challenges and Opportunities’, Sept 4-5, 2014 at TANUVAS, Chennai, p. 102-103
- Singandhupe, R. B.(2015). Water Demand Scenario Of Cotton Under Various Agro- Climatic Situation In India ”Delivered lead paper on 13.2.2015 in National Seminar on “Water Management & Climate Smart Agriculture” Organized by Junagadh Agricultural University, Junagadh (Gujrat) during 13-14 February, 2015.

Popular Article:

- Rokde, S. N. and Galkate, U. V. (2014), ‘Krutrim oxytocincha vapar tala (Avoid use of oxytocin)’ ,*Aadhunik Kisan weekly magazine, Issue 23 (14 to 20 August 2014), p. 18-19 & 25*

- Galkate, U. V. and Rokde, S. N. (2015), 'Dudharu pasuon ko khilaye azolla' (Azolla as a cattle feed), Krushak Jagat Weekly, Issue - March 16-22, 2015, pp. 7
- “पपई पासून तयार करा टुटी-फुटी” – Mrs. Sunita Chauhan, Agrowon, dated 16 November, 2014 Pp.12
- “गुलाबापासुन तयार करा गुलकंद” – Mrs. Sunita Chauhan, Agrowon, dated 23 December, 2014 Pp.14
- “*Banwa Swasthawardhak soybean doodh*” – Mrs. Sunita Chauhan, Agrowon, dated 30 March, 2015 Pp.14
- “*Soybean pasun banwa tofu soybean*” – Mrs. Sunita Chauhan, Agrowon, dated 31 March, 2015 Pp.14

Radio Talks:

- ❖ Dr. U.V. Galkate, SMS (Vet. Sci.), delivered a radio talk in Live in programme on “Answer to farmers’ queries on Livestock” in Marathi by All India Radio, Nagpur on 28.10.2015 at 7.30 pm.
- ❖ Dr. S. S. Patil, SMS (Extn.) delivered a radio talk in live in programme on “Answer to farmers’ questions” in Marathi by All India Radio, Nagpur on 15.03.2015 at 1.30 pm.
- ❖ Shri H. B. Kumbhalkar, I/c SMS (Agronomy), delivered a radio talk on “*Gahu lagwadiche sudharit tantradhyan/shipharashi*” in Marathi by All India Radio, Nagpur on 27.10.2014 at 3.00 pm.
- ❖ Shri P.B.Deulkar, Farm Manager, delivered a radio talk in live in programme on “Answer to farmers’ queries on *Hello Annadata-Pashuvishayak Shanka samdhan*” in Marathi by All India Radio, Nagpur on 28.10.2014, 4.11.2014 and 11.11.2014 at 7.30 pm.

T.V. Show

- ❖ Television show on “महिलाचे कष्ट कमी करण्यासाठी कापूस वेचणी बॅग” in Marathi programme कृषि दर्शन telecasted by Nagpur Doordarshan on 12 January, 2015.

Resource Generation

- Sale of Cotton harvesting bag – A revenue of Rs. 1,17,315/-
- Sale of 7 male and 5 females Osmanabadi goats – A revenue of Rs. 62,150/-
- Income generated through the Sale horticulture produced - Rs. 32,290/-