

Proceedings of 11th Scientific Advisory Committee (SAC) Meeting of KVK, Sundargarh-II, Rourkela

The 11th Scientific Advisory Committee (SAC) Meeting of KVK, Sundargarh-II, Rourkela was held on 03.02.2023 at 11.00 AM in the Conference Hall of ADO, Panposh, Rourkela under the Chairmanship of Prof. Dr.S.K. Mohanty, Research Engineer & OIC, AICRP on Ergonomics, CAET, representing Hon'ble Vice Chancellor, OUAT, Bhubaneswar at 11.00 AM.. Dr. S.P. Sangramsingh, Joint Director, Extension representing Dean, Extension Education, OUAT, Bhubaneswar was also present in the meeting. Dr. S.K.Mondal, Principal Scientist, ICAR-ATARI, Kolkata also graced the occasion. The Senior Scientist & Head, KVK, Sundargarh-II, Dr. Manasi Bhol welcomed the dignitaries present on the occasion followed by lighting of lamp. This meeting was conducted in hybrid mode.

AGENDA-1- Approval of the proceedings of the 10th SAC meeting

The Senior Scientist & Head briefly presented the recommendations and suggestions of the 10th SAC meeting. The Chairman took the consent of the members and approved the proceedings.

AGENDA-2- Action taken on the proceedings of the last SAC meeting

The Senior Scientist & Head presented the following actions taken by KVK as per the recommendation of the last meeting.

Salient Recommendations	Action taken
Crop diversification in uplands with non-paddy crops.	<ul style="list-style-type: none"> ➤ CFLD on Black gram was taken up in 10 hectare uplands involving 50 numbers of farmers in Mahuldihi village of Gurundia Block. ➤ TSP Demonstration of Maize variety- Kalinga Raj conducted in 5 hectare upland area involving 25 numbers of farmers in Jadakudar village of Lathikata Block.
Weed management in major crops of the district.	<ul style="list-style-type: none"> ➤ OFT on herbicide application in Rice conducted in Village Sorda of Block Nuagaon involving 7 nos of farmers . Weed density was controlled by 50% and yield was increased by 12.5%. ➤ Application of herbicide in Kharif groundnut demonstrated in Village Buchahunda, Jadakudar of Lathikata Block involving 10 nos. of farmers. Weed density was controlled by 70% and yield was increased by 29%. ➤ OFT conducted on application of Herbicide in Rabi Onion in Village Gundipali of Block Lathikata & Village Gudgudejore of Bisra block involving 7 nos of farmers. ➤ In all CFLD (Pulses & Oilseeds), application of herbicides has been demonstrated to 134 nos. of farmers in 30 ha area
Management of frequent occurring minor pests and diseases in the district.	<ul style="list-style-type: none"> ➤ OFT on Control of Panicle Mite in Rice conducted in Barilepta village of Nuagaon Block & Ranto village of Lathikata Block involving 7 nos. of farmers. ➤ Demonstration of Fall Army Worm conducted in Jadakudar village of Lathikata Block & Jharbeda village of Bisra Block involving 10 nos of farmers.

	<ul style="list-style-type: none"> ➤ OFT on Control of Leaf Miner in Tomato conducted in Gundipali village of Lathikata Block & Bareiguda village of Nuagaon Block involving 7 nos of farmers. ➤ Control of Spider Mite conducted in Marigold in Lankoi village of Nuagaon Block involving 10 nos of farmers
To promote Natural farming and Organic farming.	<ul style="list-style-type: none"> ➤ 6 nos of awareness training conducted with participation of 150 farmers in Bisra, Lathikata & Nuagaon Block. ➤ One Awareness Campaign with 100 Nos of participants conducted in Village Jaydega of Kuarmunda Block. ➤ 4 farmers of Nuagaon & Lathikata block have been given critical inputs for demonstration on natural farming techniques. ➤ Extension literature printed for farmers in local language ➤ Collaborative trainings organized with NIT Rourkela on organic farming involving 100 participants.
More number activities in Watershed areas.	<ul style="list-style-type: none"> ➤ Three numbers of training conducted under Jal Shakti Abhiyan in Bisra Block involving 150 nos of Participants. ➤ One Kisan Mela conducted in Erla Village of Bisra Block involving 120 nos of participants ➤ Intercropping in Fruit Orchards in watershed areas have been designed and executed in watershed areas of Village-Karmabahal, Block – Kuarmunda & Village- Bhaliadihi, Bandol Block-Koida.
Technical support to FPOs.	<ul style="list-style-type: none"> ➤ 4 nos. of training conducted for FPO management involving 100 nos. of Participants (CEO, BOD and members) in Nuagaon and Bisra Block. ➤ Technical knowledge given on production and package & practices of different crops like Fieldpea, Groundnut etc. ➤ Seed production of Groundnut taken up involving 50 farmers of FPO in 10 ha Area in Nuagaon Block. ➤ Celebration of Poshanabhiyan & tree plantation and Kissan Samman Sammelan have been conducted involving 200 nos. of FPOs Farmers & Members. ➤ KVK Participated in all the General body meeting of FPOs.
Asset creation for TSP beneficiaries.	<ul style="list-style-type: none"> ➤ 10 nos of Vermibeds have been provided for asset creation under organic input production in Bagbudi Village of Lathikata Block and Jaydega Village of Kuarmunda Block. ➤ 28 nos of rose canes & 28 nos. of hand sprayers have been provided to Tribal Women under TSP program at Gundipali Village of Lathikata Block for backyard kitchen garden asset creation under TSP.
Scaling up of nutritional garden in tribal households with installation of supporting structures such as shade net and poly tunnel.	<ul style="list-style-type: none"> ➤ 250 nos. of tribal households provided with 250 kitchen garden seed kits for scaling up nutritional Garden in Lathikata, Nuagaon, Kuarmunda, Bisra & Gurundia Block. ➤ At Lathikata, tribal women of WSHGs were provided with polythene sheet and trellis structure at Ranto Village of Lathikata Block. ➤ 3 poly tunnels provided for nursery raising.
To promote bio fortified crops.	<ul style="list-style-type: none"> ➤ OFT conducted on Bio-fortified sweet potato varieties BhuSona, Bhu Krishna in Gurundia Block involving 7 nos of farmers having yield advantage of more than 40% over Local Cultivar.

To focus on value addition of fruits, vegetables and Millets	<ul style="list-style-type: none"> ➤ 2 nos of training conducted for WSHG on preparation of ladoo from Ragi and preparation of pickle from jackfruit in Lathikata and Bisra Block involving 50 nos. of Participants.
Promotion of Fruit crops like Guava, Apple Ber, Custard Apple.	<ul style="list-style-type: none"> ➤ In order to promote fruit crops, KVK conducted 01 training on Guava in Ghodabandh village of Nuagaon block for 25 farmers. ➤ 5 nos of farmers in Nuagaon block have started growing Guava on a commercial basis. ➤ KVK has prepared an estimate to set up a mother orchard of Guava by line Horticulture Dept. ➤ 200 nos of Custard Apple variety Golden Sitaphal have been planted in KVK Farm. ➤ 100 nos of Apple Ber plant have been provided to 4 nos of farmers in Nuagaon Block.
Expand the mushroom enterprise with round the year production.	<ul style="list-style-type: none"> ➤ Critical inputs like mushroom spawns and polythene provided to 100 no of farmwomen and 4 no of trainings conducted to ensure round the year mushroom cultivation in Nuagaon, Lathikata & Kuarnmunda block ➤ 4 no. of local entrepreneurs developed in mushroom enterprise.
Conduct trials/ demonstrations using varieties released by public extension system.	<ul style="list-style-type: none"> ➤ Trials and demonstration conducted for following crops using varieties released by public extension system. ➤ Sweet potato, variety- Bhu-Krishna, Bhu-Sona released by ICAR-CTCRI ➤ Groundnut, Variety- GJG-32 by Gujrat Agriculture University ➤ Maize variety Kalinga Raj by OUAT, Bhubaneswar. ➤ Black gram variety- PU -10-23, by GB Pant University of Ag & Tech. ➤ Field pea variety- Pant B-243 by GB Pant University of Ag & Tech. ➤ Wheat variety – DBW-187, Bisra Gehun-4 by Birsa Agriculture University, Ranchi. ➤ Seed kit procured from NHRDF Boudh for nutritional Garden program were having the seeds of Public Institute.
Promote backyard poultry and honey bee.	<ul style="list-style-type: none"> ➤ 100 no of chicks (Breed-Sonali) and brooding equipments provided to set up brooder house for steady supply of healthy chicks to promote backyard poultry in tribal pockets of village- Kansar, Block- Lathikata ➤ 1 training conducted on Scientific rearing of Honey Bee at Ankurpali village of Nuagaon Block.
Convergence with line departments and other stake holders.	<ul style="list-style-type: none"> ➤ Convergence with watershed department for planning & execution of intercropping in orchard. ➤ Convergence with horticulture Department- for capacity building programme to enhance the productivity of Banana. ➤ Convergence with Agriculture Department- For awareness programme on Soil Health management, Safe use of pesticide, value addition & Crop diversification. ➤ NABARD & NGOs for handholding support to FPOs. ➤ Regular meeting in Research Extension Linkage form. ➤ Joint field visits & participation as resource persons in all Government programmes.
Production of Low Volume High Value crop	<ul style="list-style-type: none"> ➤ Demonstration of exotic vegetables like Broccoli, Coloured Cauliflower, Red Cabbage, Cherry Tomato, Lettuce, Celery, Parsley,

	<p>Kale etc. in the farmer's field at Gundipali village of Lathikata Block.</p> <p>➤ Exotic Vegetables also intercropped in the Guava Orchard of ADH, Panposh.</p>
Introduction of new crop	<p>➤ Introduction of two wheat varieties Birsa Gehu-4 , DBW-187 and Rajma variety Selection-4 at Jhartarang village of Lathikata Block and at Nuagaon Block</p>
More numbers of activities to be taken on Floriculture	<p>➤ One training on improved method of cultivation of marigold was conducted in Putrikhaman village of Kuarmunda block.</p> <p>➤ FLD on management of Mites in marigold was conducted in village Lankoi of Nuagaon block & in Village Gundipali of Lathikata Block involving 10 nos. of participants</p> <p>➤ Women SHGs of Putrikhaman village were supplied with 200 numbers of marigold cuttings from which they multiplied it 1100 nos.</p>
Documentation on Success story	<p>➤ Success story on <i>Kharif</i> onion has been documented and sent to ATARI Kolkata which has been published on e-publication released by ICAR-ATARI Kolkata entitled "Achievements@75 by the KVKs of Odisha, West Bengal and A & N Islands"</p>
Use of ICT in KVK monitoring activities.	<p>➤ Extensive use of whatsapp being done to monitor, guide and give advisory services to farmers.</p> <p>➤ Commodity specific whatsapp groups have been made to disseminate information and collect feedback.</p> <p>➤ Use of audio, video, live streaming of various extension activities being done.</p>

AGENDA-3 – Achievement made by the KVK.

The Sr. Scientist & Head, KVK, Sundargarh-II appraised the house through a PowerPoint presentation on achievement of KVK on mandatory activities.

Sl. No.	Activity	Target	Achievement
1.	OFT	9	8
2.	FLD	15	12
3.	CFLD (Pulses)	2	2
4.	CFLD (Oilseeds)	1	1
5.	TSP	5	5
6.	Training	61	56
7.	F/FW	48	47
8.	RY	8	7
9.	In-service	5	2
10.	Sponsored training	4	4

**Brief report at Annexure-I*

AGENDA-4 – Presentation of Action plan for 2022-23

The Senior Scientist & Head presented the activity to be conducted by KVK during 2022-23 in the disciplines of Horticulture, Plant Protection, Women in Agriculture and Seed Science based on the PRA survey, secondary data, and discussion with line department staffs, suggestions from SAC meeting and analysing the recent research findings.

- Ten numbers of On Farm Trials to be conducted involving 56 number of participants
 - ❖ Assessment of herbicidal weed management in transplanted rice, Nutrient Management in Groundnut, different sweet potato varieties in Sundargarh Agro Ecological Situation (*Kharif*), different varieties of potato, different herbicides in *Rabi* Onion, leaf curl management in papaya, different planting time for better market price of cauliflower, humidity management in summer in paddy straw mushroom production, different feed regime for milk production in dairy cow and different improved poultry breed for backyard production system
- Eighteen numbers of Front Line Demonstrations are to be conducted involving 160 number of participants
 - ❖ Demonstration of SRI method of transplanting in finger millet along with INM practices, micro nutrient (B & Zn) application in Maize, INM in mustard, herbicidal weed management in groundnut, INM practices in *Kharif* Bittergourd, management of alternate bearing in mango, cowpea variety Kashi Nidhi, staking in Tomato, management of BLB in rice, Integrated management of mango hopper, Integrated management of head borer in cabbage, Integrated management of pod borer in Arhar, ragi thresher for drudgery reduction of farm women, demonstration on Nutritional gardening, rearing of backyard poultry of Kadaknath breed, preparation of value added products from oyster mushroom, preparation of vermicompost from spent mushroom substrate, management of inkcap in paddy straw mushroom
- Three number of Cluster Front Line Demonstrations on Pulses & two number of Cluster Frontline Demonstration on Oilseed to be conducted involving 100 numbers of beneficiaries.
 - ❖ CFLD on Black gram
 - ❖ CFLD on Field pea
 - ❖ CFLD on Groundnut
- Three number of Tribal Sub-plan programmes are to be conducted involving 150 number of beneficiaries
 - ❖ Demonstration on Hybrid Maze var. Kaling raj
 - ❖ Demonstration on Poultry breed Kadaknath
 - ❖ Demonstration of Garden pea var. KSP - 110
- Ninety two numbers of trainings including farmers and farm women, rural youth, extension personnel and vocational trainings are to be conducted involving 2040 numbers of participants.

AGENDA-5: All the members actively participated in the discussion and gave valuable suggestion.

The Chairman invited suggestion from esteemed member and following recommendation were recorded.

- Dr.S.K.Mandal, Principal Scientist from ICAR-ATARI, Kolkata gave his kind remarks and views as follows.
 - Data should be taken under OFT for recommendation of promoting backyard poultry
 - Two more table to be added in the achievement slide. One is categorically training conducted in a year & another is revolving fund (Seed & planting material production).

- One or two more parameter are to be included in plant protection action plan. Yield & B:C ratio to be included.
 - Inclusion of Animal Science component in TSP & Natural farming activities, also suggested to take the help of veterinary department for performing such activities. One activity at least to be taken as fishery component.
- Joint Director (Extension) Dr.S.P.Sangramsingh opined on following aspects
- Before introducing a new crop in a particular AES, KVK must conduct a field trial of the crop. After getting a positive result, then the variety can be demonstrated.
 - Technology needs to be standardized for use of crumbled straw in mushroom production.
 - All positive as well as negative feedback of a farmer should be presented about a certain technology.
 - An OFT or FLD particularly under plant protection discipline may be changed or modified with prior permission of the competent authority if a certain pest attack or disease breakout does not occur anywhere in the operational area.
 - 3-4 observation of OFT or FLD to be taken only which are the main deciding factor of efficacy of the technology
 - Promotion of pro-organic farming.
 - Focus on export-import & preservation of mushroom in a mission mode
 - He suggested both the KVK to motivate the SHG member to apply for loan under mission Shakti scheme for starting entrepreneurship on mushroom
 - KVK needs to take care of the comfort zone of the clients by demonstration, follow up action etc.
- Dr.Arun Kumar Mishra, Regional Chief Conservator of Forest, Rourkela spoke on
- Collaborative approach for performing activities like Natural farming in Kuliposh
 - More numbers of visits, demonstration and capacity building programme by taking the help of vanasurkhyasamiti members.
 - More activities on custard apple & apple ber.
 - Activities on natural farming may be documented and sent to natural farming journal.
 - Soil health card needs to be distributed after soil testing in the newly planted forest area.
- CDAO, Sundergarh in his views expressed the following points
- More focus on crop diversification in upland should be taken
 - Management of rice fallow with available moisture is the need of the hour
 - Training to be imparted on moisture conservation / the retention practices
 - Demonstration or field trial of cold resistant varieties of oilseed & pulses particularly greengram & blackgram.
- Dr. G.C. Acharya, Director, ICAR-CHES, Bhubaneswar gave his valuable words on the following
- Field trial to be conducted on other bio fortified crop like pomegranate, millet other than sweet potato.
 - Field trial on bacterial wilt resistant grafted brinjal to be taken in action plan.

- More number of varieties of marigold can be evaluated in OFT programme.
- Demonstration of Arka Mango special
- Field trial on CHES, Bhubaneswar released varieties like Dolichos bean, Amaranthus & Brinjal
- P.D. Watershed, Sundargarh
 - Awareness on soil & moisture conservation by bunding should be done is mass scale.
 - Suggested for a field visit to Apple Ber intercropping in Guava Orchard at Kenapali of Lahunipada block.
 - More number of capacity building programme on livelihood sustainability in watershed areas should be planned.
- Sri Dusmanta Behera, ADH, Panposh gave his suggestions for
 - More numbers of capacity building programme on intercropping of fruit crops on mango orchard.
 - Joint field visit to newly planted Tissue culture Banana
 - More number of skill training to be conducted with collaboration of Horticulture Department by utilising OMBADC fund.
 - KVK to provide the technical guidance for Agriculture Production Cluster (APC).
- CDVO, addressed
 - Emphasized on perennial production of legume fodder
 - Encouraging rural youths for production of low cost mineral mixture as cattle feed as a viable source of income generation.
- CDPO, suggested for
 - Awareness/ capacity building programme on millet production & value addition
 - Exposure visit of SHG women for confidence gaining on millet production & value addition.
- DDM NABARD gave his suggestions on
 - Millet intensification through FPO, SHGs, NGOs
 - Training to the members on production, value addition. He also emphasized on hygiene, branding & packaging of Ragi products.
 - IFS model for small farmers & marginal farmers to be designed with considering the schemes & subsidiaries of State Government.
 - Crop diversification with millets, pulses & oilseeds to be done. Training on oilseed & pulses also to be conducted.
- Dr. S. K. Biswasi, OIC, RRTTS Kirei, opined that
 - More activities on Millet to be carried out as Sundargarh RRTTS is considered as the centre of excellence for Millets.
 - KVK to support for preparing a crop calendar for different millets grown in the district.
- Lead Bank SBI,
 - More support to millet mission programme
 - KVK to make a model village in Ragi
 - Promotion of Farm Mechanization

- Dr, Laxmipriya Pradhan, Sr. Scientist & Head, KVK, Sundargarh-I, suggested for
 - Preparation of Action plan on millets for the calendar year 2023-24
 - Supporting FPO/NGO/SHGs on commercial mushroom production, its value addition & marketing.
 - She urged the FPO & SHG members to open a mushroom outlet in a city area.
- Dr. S.K. Mohanty, Sr. Research Engineer, representing Hon'ble Vice Chancellor of OUAT, Bhubaneswar, in his address focused following points
 - Promotion of millet through SHG, FPO & NGOs.
 - Commercialization of millet based products through packaging, conservation & consumption.
 - Drudgery reduction activities to be included
 - Trial on OUAT released colour synthetic bird to be conducted
 - More demonstration of Kalinga Raj Maize variety.

AGENDA-6: Salient recommendations of SAC meeting

- Promoting millets through SHGs, FPO and NGO's
- Inclusion of Animal Science in TSP and Natural Farming activities.
- Demonstration of Honeybee to be included in KVK Action plan.
- Integrated and biological management of insect, pest, diseases in crops and vegetables should be given priority.
- Technical support of FPOs to strengthen their activities.
- Crop diversification programmes with oilseeds/pulses should be focused upon.
- Asset creation for TSP beneficiaries.
- Scaling up of Nutri-Garden concept with supporting structure like poly tunnel & shadenet houses.
- Expansion of mushroom enterprise to make it a round the year activity, along with spawn production techniques and value addition.
- Value addition of fruits & vegetables should be promoted through WSHGs.
- Tribal household should be encouraged to promote back yard poultry enterprise.
- Floriculture should be popularised among peri urban farmers.
- NTFP activities should be popularised.
- Use of ICT in KVK mandatory activities with focus on videos, whatsapp groups etc. for dissemination of information
- Conduct trials/demonstration using seeds (varieties) released by OUAT/ICAR institute and public extension system.
- Promote locally adapted fruits like apple Ber, Custard Apple, Mango & Guava.
- Promotion of bio-fortified crop.

The meeting ended with vote of thanks by Scientist (Ag. Extn) KVK, Sundargarh-II

Manasi Bhol
18/05/2023
Sr. Scientist & Head
KVK, Sundargarh-II

[Signature]
21/06/2023
JOINT DIRECTOR EXTENSION
(DISTANCE EDUCATION)
O.U.A.T., BHUBANESWAR

Approved.
[Signature]
21/6/23

Dean
Extension Education
O.U.A.T., Bhubaneswar

List of members Present:

1. Dr S.K. Mohanty, RE& OIC, AICRP on Ergonomics, CAET -	-Chairman
2. Dr S.P. Sangram Singh, JD.DEE, OUAT	- Member
3. DR Arun Kumar Mishra, RCCF, Sundargarh	- Member
4. Haribandhu PD, Watershed Sundargarh	- Member
1. Sanjeeb Kumar Biswas, I/C RRTTSS, Kirei, Sundargarh	- Member
2. Madhusudan Sahoo, SDVO, Panposh	- Member
3. Birendra Kumar Behera, CDAO, Sundargarh	- Member
4. Dhruvcharan Mahato, President, Kamalkrushaka Utpadeya, FPO	-Invitee
5. Manoj Barik, Scientist (Ag. Extension), KVK, Jharsuguda	-Invitee
6. Mamata Dei, CDPO Rourkela	-Invitee
7. Subodhpanigrahi, DM, OAIC, SNG	-Invitee
8. Mrs. Dukhni Bishi, AAO, Panposh	-Invitee
9. Dushmant Kumar Behera, ADH, Panposh	-Invitee
10. Satyabrata Sahoo, BAO, Nuagaon	-Invitee
11. Dr. Laxmi Priya Pradhan, SSH, KVK, Sundargarh	-Invitee
12. Doir Bisco, LDM, SNG	-Invitee
13. Tapas Behera, DDM, NABARD, SNG	-Invitee
14. Bilasi Mundari	-Invitee
15. Rukmini Mundari	-Invitee
16. Sunia Mundari	-Invitee
17. Sini Bhumij	-Invitee
18. Tapas Behera	-Invitee
19. Prema Dar, Divyajyoti SHG, Jhirpani	-Invitee
20. Bimalakullu	-Invitee
21. Laxmi Mishra, Divyajyoti SHG, Jhirpani	-Invitee
22. Dr Sameer Ranjan Dash, SSH, KVK, Jharsuguda	-Invitee
23. Arvind Mohanty	-Invitee
24. Arun KUMAR Mishra, Project Assistant, SNG-I	-Invitee
25. Dr Divyendy Mondol, SMS, SNG-I	- Invitee
26. Victor bodra	-Invitee
27. Sanjay Dungdung	-Invitee
28. Dhirbar Sethi, BAO,	-Invitee
29. Santosh Kandulna	- Invitee
30. Samra Khalkho	- Invitee
31. Binay Kullu	- Invitee
32. Sri S.K. Pradhan, Scientist (Horticulture), KVK, Sundargarh-II	-Member
33. Sri Samarendra Baral, Scientist (Plant Protection), KVK, Sundargarh-II	-Member
34. Smt. Anubha B. Kujur, Prog. Asst. (Seed Sc.), KVK, Sundargarh-II	-Member
35. Sri Somadutta Mohanty, Prog. Asst. (Computer), KVK, Sundargarh-II	-Member
36. Dr Jayant Kumar Pati, Scientist (Extension), KVK, Sundargarh-II	-Member
37. Dr Manasi Bhol, Sr, Scientist & Head, KVK, SNG-II	-Member Secretary

Annexure I

Achievement under On Farm Trials (OFT) 2022-23:

Sl. No.	Title	Farmer Practice	Technology assessed	Yield FP (q/ha)	Yield OFT (q/ha)	% Increase in yield
1.	Assessment of herbicides for weed management in transplanted rice	Manual weeding	TO1- Application of cyhalofop butyl + penoxulam @135g/ha at 20DAT	38.3	41.7	8.9
			TO2- Pre-emergence application of pendimethalin @0.75kg/ha, fb application of chlorimuronethyl + metasulfuron methyl @ 4 g/ha at 20DAT		43.1	12.5
2.	Assessment on Integrated management of Panicle Mite in Rice	Spraying of Carbendazim 50 WP @1kg/Ha	TO1- Seed treatment with imidacloprid 70% WS @7 gm/kg seeds, Installation of YST @20/ha and need based spraying of Acetamiprid 20 SP @250gm/ha at seven days interval	35	39.5	12.8
			TO2-Foliar spraying of Diafenthiuron 50 WP @ 2gm/lt at PI stage		42	20
3.	Assessment of Integrated management of serpentine leaf miner in Tomato	Spraying of Profenophos 50EC@1lt/Ha	TO1- Collect and destroy mined leaves ,Spray Cyantranilprole 10.26 OD @900ml/ha at 10days interval after appearance of diseases	255	295	16
			TO2- Collect and destroy mined leaves ,seedling root dipping in Imidacloprid @1ml/lt for 30 minutes and spraying of NSKE 5% two times before flowering .		284	11
4.	Assessment of Bio fortified Sweet potato varieties	Cultivation of local variety Kanda	TO1- Variety Bhukrishna(Anthocyanin 90.0 mg / 100 gm), tuber yield 18 t / ha, dry matter 24.0 – 25.5, starch 19.5 % total sugar 1.9 – 2.2 %	116	173	49.1
			TO2- Variety Bhusona (pro vitamin – A 14.0 mg / 100 gm), tuber yield 19.8 t / ha, dry matter 27.0 – 29.0, starch 20 % total sugar 2.0 – 2.4 %		187	71
5.	Assesment of the improved techniques for cultivation of paddy straw mushroom (<i>Volvariella volvacea</i>) using crumpled straw	Rectangular compact method (size 45x60x30) Mushroom production by using crumpled paddy straw – 5kg with normal practice(soaking duration of straw-5 hrs with 2% calcium	TO1- Square compact bed size (30 x 30 cm) Mushroom production by using 5 kg of crumpled paddy straw (soaking duration of straw-5 hrs with 2% calcium carbonate) 14-20 days age of spawn,(2% of dry substrate weight). Coarsely ground horse gram powder (2% dry substrate weight)	0.650 (Kg/Bed)	0.445 (Kg/Bed)	-32.4

		carbonate CaCo ₃) unknown age of spawn,(3% of dry substrate weight). Pulse powder (3% dry substrate weight)	TO2- Circular compact bed size (diameter- 45 cm, height – 30 Cm) Mushroom production by using 5 kg of crumpled paddy straw (soaking duration of straw-5 hrs with 2% calcium carbonate) 14-20 days age of spawn,(2% of dry substrate weight). Coarsely ground horse gram powder (2% dry substrate weight)		0.748 (Kg/Bed)	15
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Achievement under Front Line Demonstration (FLD) 2022-23:

Sl. No.	Title	Farmer Practice	Technology Demonstrated	Yield FP (q/ha)	Yield OFT (q/ha)	% Increase in yield
1.	Demonstration of herbicidal weed management in <i>kharif</i> groundnut	Manual weeding	Pre-emergence application of pendimethalin 30%+imazethyper 2% @ 1.0 kg/ha ready mix followed by post emergence application of quizalofop-p-ethyl @50g/ha at 20 DAS Application of ready mix of both pendimethalin and imazethapyr gives broad spectrum weed control due to both contact and systemic action. The post emergence application of quizalofop ethyl gives control of later flush of weeds.	10.4	13.5	29
2.	Demonstration on Integrated management of FAW in Maize .	Spraying of profenophos 50 EC @1lt/ha	Seed treatment with (Cyantranilpole 19.8% +Thiomethoxam 19.8%) @ 4ml/kg seeds giving protection for 2-3 weeks after germination followed by two spraying of Azadirachtin 1500ppm @5ml/lt and Spinetoram 11.7SC @0.5ml/lt at 10 days interval	36	45.5	26
3.	Demonstration on Integrated management of BLB in Rice	Spraying of Carbendazim 50 WP @1kg/Ha	Spray with Plantomycin @ 1g/liter or Streptocycline (150 mg) + Copper oxychloride 2g/litre of water twice at an interval of 8 days.	36.5	41	12
4.	Demonstration on Integrated	Repeated spraying of	Foliar spraying of Propargite 57% @2ml/lt followed by	84	96	14

	management of Mites in Marigold	carbendazim 50% WP @ 1Kg/ha	Spiromecifen 22.9% @1ml/ltr at 10 days interval.			
5.	Demonstration of Cowpea variety Kashi Nidhi	Planting of locally available varieties	Cowpea variety Kashi Nidhi Kashi Nidhi- Plants are dwarf and bushy. Fruits are green, 25-30 cm long Pod yield 140 -150 q/Ha, Better keeping quality Seed rate 12 kg/ha, sowing time- last fortnight of July Seed inoculation with Rhizobium @20 g/kg of seed. spacing 45x20 cm NPK 40:75:50 kg/Ha	81	94	16
6.	Demonstration on nutrient management in Bitter gourd	Use of Imbalanced fertilizers (poor adoption of K, & no adoption of Biofertilizers)	Nutrient management in Bitter gourd Application of 20 ton of FYM per ha, NPK @120:60:90 kg/ha. N to be applied in 2 split doses. Apply Azospirillum, Phosphobacter @ 2 kg/ha, pseudomonas 2.5 kg/ha along with FYM 50 kg and neem cake@ 100 kg/ha at the time of final land preparation.	151	172	14
7.	Demonstration on staking in Tomato	No adoption of staking	Staking in Tomato Wooden pole of 5-6 ft high inserted in the ground near the base of seedling then tied with a string when first flower appears. Pole of 5-6 ft high to be placed at the distance of 8 ft. A pole of 8 ft to be placed across two poles at meeting point they tied with string	263	318	21
8.	Demonstration of nutritional garden for Improving Nutritional Security of farm families	Irregular and unsystematic Nutritional Gardening with seasonal vegetables	Nutritional garden with Protein, Vitamin & iron rich vegetables and fruits with family preference 1. Trellis structure with PP rope for raising cucurbits: 2. Protray / low cost polytunnel for raising seedlings in small quantity + Cement tank for composting Growing vegetables round the year covering leafy vegetables, sola , Solanaceous vegetables, Roots and Tubers, cucurbits suiting to consumption	68(irregular) (Kg/Unit)	103.6(monthly) (Kg/Unit)	

			pattern + Two Papaya Plants ,One Lemon, one drumstick and two Banana and floriculture in bunds			
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Achievement under Cluster Front Line Demonstration (CFLD) 2022-23:

Sl. No.	Crop	Technology Demonstrated	Yield FP (q/ha)	Yield OFT (q/ha)	% Increase in yield
1.	Blackgram (10 ha)	Variety- PU-10-23 Seed rate-20kg/Ha, Seed treatment with Carbendazim @2g/kg of seed followed by Seed inoculation with Rhizobium @20g/kg of seed, Line sowing spaced at 30X10 cm. Weed management by the application of Pendimethylene @3 litre/ha. Application of PSB @ 5 Kg/ Ha . Micronutrient application with 12.5 kg/ha. Pest management by Imidacloprid @ 125ml/Ha &Profeonophos+Chloro @ 1litre/Ha.	5.1	6.8	33.3
2.	Field Pea (10 ha)	Variety- Pant-B-243 Seed rate-50 kg/ha ., Seed treatment-with Bavistin @2g/kg of seed. Seed inoculation withRhizobium @20g/kg of seed before sowing. Line sowing 30X10 cm .Application of weedicide Pendimethylene @ 6ml/litre within 48 hours of sowing. Application of Micronutrient @12.5 kg/ha . Application of Chloro+Cyper @2ml/litre for control of Pea weevil. Application of metalaxyl+ mancozeb @2g/litre for control of diseases.			

Achievement under Tribal Sub Plan (TSP) 2022-23:

Sl. No.	Title	Technology Demonstrated	Yield FP (q/ha)	Yield RP (q/ha)	% Increase in yield
38.	Demonstration of nutritional garden for Improving Nutritional Security of farm families	1. Trellis structure with PP rope for raising cucurbits: 2. Protray / low cost poly tunnel for raising seedlings in small quantity + Cement tank for composting Growing vegetables round the year covering leafy vegetables, Solanaceous vegetables, Roots and Tubers, cucurbits suiting to consumption pattern + Two Papaya Plants ,One Lemon, one drumstick and two Banana and floriculture in bunds	720	980	36
39.	Demonstration on Cultivation of Paddy Straw Mushroom	Bed method, use of spawn, polythene and maintaining hygienic condition	72	135	50

40.	Demonstration of Maize Variety Kalinga Raj	Demonstration of Maize variety Kalinga Raj, Seed rate @ 20 kg/ha, Seed treated with Bavistin, Sown in spacing (PxR) 60x20, soil test based fertilizer application	39.4	46.5	18
41.	Demonstration of Garden Pea cultivation under TSP	Demonstration of Garden Pea variety KSP-110, Seed treated with Bavistin, Sown in spacing 50 x 20 cm, NPK applied @ 50:75:50 kg/ha	Continue		