

Proceedings of 24th Scientific Advisory Committee Meeting, KVK, Kalahandi

The 24th Scientific advisory committee meeting of KVK, Kalahandi was held on 13.02.2024 in the office of KVK, Kalahandi under the chairmanship of Dr. P.K. Mohanty, JDE, OUAT, Bhubaneswar. The list of members attended the meeting is attached (Annexure-I).

The meeting started with a warm welcome address by Tulasi Majhi, Scientist (Horticulture) KVK, Kalahandi followed by a formal inauguration and lightening of the holy lamp by the dignitaries present in the meeting. Later the Chairman of this august house delivered the introductory remarks and briefed the purpose and objective of SAC meeting.

Agenda-1: Approval of the proceedings of the last SAC meeting.

The Senior Scientist & Head presented the proceedings of the last SAC meeting in the house which was held on 20.01.2023 and also highlighted on the activities undertaken based on the recommendations. The chairman taking the consent of the members approved the proceedings

Agenda-2: Action taken on proceedings of the last SAC meeting

The Senior Scientist & Head presented the following actions taken on the recommendation of the 23rd SAC meeting

Sl. No.	Recommendation	Action taken
1.	Popularization of low water requiring crops and fodder	▪ Four no of F &FW training were conducted covering 100 no. of beneficiaries on cultivation and management of fodder crops (village: Tentulipada, Badchirang, Rengali, Burat). ▪ Low cost silage was demonstrated at village Sikerguda covering 20 nos. farmers. With collaboration with NABARD and an FPO Bamunikhal, one silage processing unit with capacity of 2500 quintal was established which benefited fifty nos. of farmers around the village. ▪ In collaboration with ICARDA low water requiring fodder crops like spine less cactus was demonstrated was conducted at Th. Rampur block covering 40 nos. of farmers ▪ Demonstration on dragon fruit was conducted covering 30 nos. of farmers (Vill: Khairabadi, Indramal, Rengali) ▪ Four no of farmer& farm women training is conducted covering 100 no. of beneficiaries on dragon fruit cultivation on dt.17.08.2022,05.09.2022 & 10.11.2022 & 21.02.2023
2.	Promotion of Natural farming	▪ Eight nos. of demonstrations on natural farming conducted at villages; Kanakpur, Kendugupka, Dumerguda, M.Rampur (No. of beneficiaries-30), Area- 2ha ▪ Four nos. of awareness camp was conducted covering 200 nos. of farmers at village kenduguka, Kamthana, khaing and M.Rampur ▪ Training cum method demonstration programme was conducted to aware and educate the farmers about natural farming followed by

		field visit (No. of farmers 110). ▪ Technical bulletin on natural farming was published for distribution among farmers ▪ District 2000 ha covered under BPKP. Farmers -2500
3.	Emphasis should be on Kharif onion cultivation in suitable agro-ecological pockets of the district	▪ On farm testing on varietal assessment of high yielding variety of Kharif onion (Var. Bhima Super & L-883) was conducted (Village : Gandamer, Chahaka & Golamunda. No. of beneficiaries: 7) in Kharif, 2022. Area-0.8ha ▪ Training cum method demonstration programme was conducted to aware and educate the farmers about the relative advantage of kharif onion cultivation followed by field visit to the onion grower. village Chahaka. ▪ Visualizing the potential of kharif onion in the district horticulture department also have distributed onion seeds (var. Agri Found dark Red) in a subsidized rate Village-Kendugupka, Matia, Golamunda. ▪ In the year 2022-23, Approximately of 160 ha of land is covered under kharif onion in the district. ▪ Technical bulletin on scientific cultivation of kharif onion was published for distribution among onion growers.
4.	Breed evaluation of semi intensive poultry chicks suitable for backyard conditions in tribal pockets.	▪ On farm testing low input dual type chicken breeds (Chhabro and Kaveri) in semi-intensive rearing system was conducted at village Kendugupka and Majhiguda covering 10 no of farmers. ▪ Front line demonstration on poultry bird Aseel was conducted at village Tentulipada, Rengali and Burat covering 13 nos. of farmers. ▪ Kalinga brown breed of poultry birds (1500 nos. were supplied to beneficiaries (SHG and individual) under Dept. of Animal Husbandry of Kalahandi. ▪ Under revolving fund, 4050 no. of poultry chicks (i.e Kalinga brown, Aseel, Sonali etc.) was supplied to the farm families in the year 2022-23. ▪ Four no of F&FW training was conducted covering 100 no. of beneficiaries on rearing and brooding management in poultry.
5.	Special focus on management of major pest and disease of important crops	▪ A total of 08 no of training cum method demonstration programme was conducted including 200 no of beneficiaries. ▪ Diagnostic field visit was conducted in collaboration with agriculture department to examine the BPH infestation of in Kharif rice in Karlamunda, Jaipatna, Kesinga, Junagarh block. ▪ Demonstration on Integrated management of fall army worm in kharif maize was conducted in DFI village Rengali of Kesinga block (Area 2ha) ▪ FLD on management on pod borer complex in arhar and pink boll

		worm in cotton was demonstrated in Boria, Rengali, Kamthana village (Beneficiaries:50). ▪ Technical guidance on diseases pest management through social network app (Whatsapp group, text message, audio and video message, Youtube channel NRRI-Barta). Technical advisory (voice call) in collaboration with Reliance foundation.
6.	Promotion of location specific Integrated Farming system (IFS) model in adopted villages in convergence mode	▪ Two no. of Integrated Farming system (IFS) model was developed in DFI village by KVK, Kalahandi (Village-Kendugupka, Dhaner) ▪ Pond based farming system (Fishery+ horticulture) at village Dhaner, Dharmagarh. Sj. Aditya Kumar Sahu ▪ Fruit based farming system (Horticulture+ Agriculture) at village Boria, Kesinga. Sj. Indubhuwas swain ▪ With collaboration of horticulture department Horti-silvi based farming system (Horticulture+ Forestry) model is developed at village Ghantabahali, Junagarh . ▪ In the year 2022-23 watershed, Kalahandi has developed a total of 22 IFS units/farm pond in 4 blocks namely Bhawanipatna, Kesinga, Lanjigarh & Th.rampur in technical collaboration with KVK, Kalahandi. ▪ Off campus and on campus Training programmes were conducted on “Rice based IFS.” involving 40 nos. trainees.
7.	Promotion of popular varieties of seeds, quality planting material and breeds of poultry.	▪ Demonstration on grafted tomato, brinjal was conducted at Tentulipada village of Bhawanipatna block. (No. of beneficiaries:13) Area-2ha ▪ 2000 nos. of Sonali, kalinga brown, Kuroiler, kadaknath poultry birds were distributed to farmers under SC-SP activities ▪ 4000 nos. of oyster mushroom spawn were also distributed among farmers under SC-SP programme. ▪ 200 nos. of apple ber, 500 nos. of moringa plants and 300 nos. of dragon fruit (var. red) were distributed among tribal farmers at Rengali, Burat, Bindaniguda and Badchirang village.
8.	KVK and department participation for strengthening the technical knowledge on processing and marketing for FPOs.	▪ Three days orientation programme on FPO management and game plan to Boards of directors and CEO of 6 FPOs (No. of participants: 30) ▪ Interaction with BODs and CEO for gap analysis of FPOs was conducted covering 40 nos. of participants. ▪ Three nos. of training on Oyester mushroom cultivation and marketing through FPO was conducted covering 75 nos. of farmers. ▪ In collaboration with NABARD and Mahashkati Foundation, training cum awareness programme on importance of FPO on Agri-marketing was conducted covering 200 nos. of farmers.
9.	Institutional linkage of KVK	▪ District level Research-Extension interface meeting was conducted

	with the line department should be strengthened	in liason with all department on dt.17.05.2022, 26.07.2022, 20.9.2022, 18.10.2022 & 15.11.2022 ▪ Agriculture Dept.- Diagnostic field visit, E-pest surveillance, crop cutting and field day celebration and Resource sharing etc. ▪ Horticulture Dept.- inspection of private nursery, capacity building programme and joint field visit on dt. 08.02.2023 ▪ Veterinary Dept.- Training programme, pranisampark mela and jointly organising animal health camp and supply of elite poultry birds. ▪ NABARD- monitoring the WADI programme and technical guidance to the farmer group. ▪ Watershed: Joint field visit and monitoring agricultural programme and sharing of technical knowhow (Village-Kaniguma on dt. 08.12.2022) ▪ Leading NGOs- Attending sponsored training programmes, virtual meetings and video calls, farmers scientist interaction, meetings, workshops and assessing field activities etc
10.	Processing and value addition of horticultural produce.	▪ Three residential training programme was conducted on processing and value addition of Mushroom, Tomato and Drumstick involving 50 no of participants(at KVK, Kalahandi on dt. 14-15.02.2023) ▪ To mitigate nutritional security and to promote millet cultivation in tribal areas, Odisha millet mission programme is operated in Kalahandi district approximately an area of 5812 ha. A convergence training was conducted on value addition and processing of millets involving WSGH . ▪ In collaboration with ORMAS a district level meeting was organized for procurement of dehydrated mushroom to avoid distress sale of oyster mushroom. ▪ Visualizing the distress sale of Chironji seed in the district, attempt was taken for processing of chironji through seed decortications.

Agenda- 3: Achievement made during Rabi 2022-23 and Kharif 2023.

The Senior Scientist & Head presented the overall achievements made by the KVK during the period from January 2023-December 2023 which was properly discussed by the house.

On farm testing: During the period, 08 OFTs were taken in different discipline and the result has been found satisfactory.

1. Assessment of herbicides for weed management in transplanted medium land rice (FP- Application of Butachlor @1kg a.i/ha, TO-1-PoE application of pre-mix herbicide (Cyhalofop butyl +Penoxulam TO2-PE application of herbicide Pendimethalin and PoE application of pre-

mix herbicide (Chlorimuron ethyl + metsulfuron methyl) The result showed that WCE(%) for To2 is 85.5% and get higher yield 41.8 q/ha

2. Assessment of Decomposer for residue management in Rice (FP- Residue burning/ Flooding followed by incorporation, TO1: Prepare PUSA decomposer (750g jaggery + 25 lit water + 250g pulse powder + 20 capsules). After 10days mix with 500l of water and sprinkle for 1 ha, TO2: Make solution of NRRI decomposer 1 kg, Urea 5kg, Cow dung 10kg in 100 litre of water each for 1MT residue. Sprinkle above NRRI decomposer -20 L, Urea-10 L, Cow dung-10 L in 5 layers (15-20cm) of residue. Sprinkle 100-150l water on pile once in 5days) the process of application of pusa decomposer is handy.

3. Assessment of Effect on foliar application of micronutrient on growth and yield of Bittergourd (FP: Use of NPK (120:60:60) as basal application without any micronutrient, TO1: Foliar application of mixture of micronutrients involving Zn, Mo, Cu, Fe and Mn @100ppm each, TO2: Combined application of micronutrients B and Zn @ 100 ppm each) Farmer get 16.8% higher yield in combine application of micronutrients B & Zn@100ppm each.

4. Assessment of Bio fortified sweet potato varieties for nutritional security (FP : Local variety Talmula Kanda, To1 : Cultivation of Bhu sona, Bhu sona High Beta carotene (14.0 mg/100g) content as compared to 2-3 mg/100g beta carotene in popular varieties , tuber yield 19.8 t/ha, dry matter- 27-29%, starch-20% Total sugar- 2-2.4, To2 : Cultivation of Bhu Krishna, Bhu Krishna High anthocyanin (90mg/100 g) tuber yield- 18t/ha, dry matter- 24.5- 25.5%, starch- 19.5%, total sugar- 1.9-2.2% and salinity stress tolerant) Farmers prefers Sweet potato var. Bhu Krishna more taste than Bhu sona.

5. Assessment of management practices for control of foliar disease in ground nut (Farmers practice: Spraying of Metalaxyl 8%+Mancozeb 64% @ 2-3 gm/litre water after disease appearance. TO1: Seed treatment with Tebuconazole @ 1.5 g/kg followed by furrow application of T. viride @ 4kg enriched in 50kg FYM/ha as basal application, then broadcasting of T. viride @ 4kg enriched in 250kg FYM/ha at 40 DAS & 2 sprays of Tebuconazole @ 1ml/lit. Starting from initiation of oliar diseases and 2nd spray at 15 days interval. TO2: Seed treatment with Tebuconazole 2DS @1.5g/ kg seeds + spraying Tebuconazole 50% + Trifloxystobin 25% WG @ 1.32g/L at 40 and 65 DAS)

6. Assessment of integrated management of leaf curl diseases in chilli (Farmers practice: Tank mixing of pesticides like Imidacloprid 17.8 SL @ 10ml/15 litre, Chloropyriphos 20 EC @ 2ml/litre, Cypermethrin 25 EC etc, TO1: Foliar spray of Spiromesifen 22.9% SC @500 ml/ha, TO2: Seed treatment with Imidachloprid 600FS @ 5ml /kg seed and Foliar spraying of spiromesifen 22.9%SC @ 1 ml/ l of water twice at 30and 45 DAT

Frontline Demonstrations and Cluster Frontline demonstration: All total 16 frontline demonstrations have been conducted and cluster frontline demonstration Pulses covering 40ha area & Oilseed 30ha of area.

1. Demonstration of high yielding rice variety Sarunima (CR Dhan 210) : Cultivation of Rice variety Khandagiri followed by Cultivation of rice variety Sarumina (CR Dhan 210). Duration -110-115 days, Average Yield- 7.8 t/ha , long slender grains, The seed rate 50 kg/ha, spacing 20x10cm and use of RDF (80:40:40) N:P2O5:K2O (kg/ha). The research practices get higher yield- 31.3 q/ha over farmer practices- 20.7 q/ha

2. Demonstration on IWM in Cotton in rainfed upland condition: 2 hand weeding is done at 21 DAS and 45 DAS followed by Application of pendimethalin @ 1.0 Kg a.i./ ha as pre-emergence with Quinalofop-p-ethyle @ 50g a.i./ ha and one hand weeding at 45 DAS. Weed Control Efficiency (%) of RP-53.34%
 3. Demonstration on IWM in Ragi in rainfed upland: 1 hand weeding is done at 30 DAT followed by Pre emergence application of oxyflurofen @ 37.5 g a.i./ha + one hand weeding at 45 DAT get higher yield 41.1%.
 4. Demonstration on toria variety Sushree in Rainfed medium land: Local variety (Kala sorisa) followed by Toria variety Sushree (Toria variety ORTM(m)-7-2 released in the name of Sushree with the average yield of 1380 kg/ha, Oil content 42% , duration 85days. Suitable for late sown.) RP yield-6.34 q/ha
 5. Performance of Marigold variety Bidhan Marigold-2: Marigold local variety (Mada) followed by Bidhan Marigold 2 (orange) is compact flower, heat tolerant and suitable for round-the-year production. It produces maximum no of flower per plant (128flower)
 6. Demonstration on Arka Banana special in Banana plants: Use of NPK @ 120:100:80 No use of micronutrients followed by foliar spray of arka banana special from 4-5 months of planting at monthly interval @5 g/litre of water, get higher bunch weight 23.2 g
 7. Demonstration on vegetable seedling raising under poly tunnel: Growing vegetable nursery in open condition followed by Preparation of low cost poly tunnel by using 200 micron polythene (vegetable seeds like tomato, brinjal, chilly)to be grown.
 8. Demonstration on management of purple blotch disease in onion: Spraying of fungicides Copper oxychloride @ 2gm/litre water followed by Seed treatment with Carboxin37.5% +Thiram 37.5% (0.2%) +three foliar spraying with Tebuconazole 25 EC (0.1%) at 15days interval starting from initiation of the infection. Percentage disease incidence in RP is 3.45%
 9. Demonstration on management of nematode in tomato: Spraying of fungicides for wilting (Copper oxychloride 2gm/litre or Carbendazim+Mancozeb @ 2gm/litre water followed by Application of carbofuran @ 0.3 g a.i/ m² in nursery followed by application of neem cake @ 1.0 ton/ha in main field get higher yield-152q/ha.
 10. Demonstration of Rotary maize sheller to reduce drudgery of WSHGs: Manual removal of maize seeds by hand followed by Manual operated rotary maize sheller Capacity (Kg/Hr) Rp-14.5 kg/hr
- Under revolving fund 10ha of paddy seed production was conducted. A total of 121800 no vegetable seedlings, 25 q vermicompost and 2 Kg of Bio-agent (Earthworm-*Eisenia Foetida*), 5000 no of mushroom spawn bottles and 1.6 q of mushroom and 6000 no of Poultry chicks were produced

Agenda – 4: Action Plan for 2024-25

The Senior Scientist & Head presented the detailed Action Plan developed by the KVK for the year 2024-25 which includes 82 nos. of trainings for Farmers & farm women, 12 nos. of trainings for rural youth, 14 nos. of In-service personnel trainings, 16 nos. of FLDs, 06 nos. of OFTs for the above mentioned period.

Agenda – 5: Interaction among the members of SAC (Open house discussion)

Interactions were made among the members and following action points were indicated

- Focus on Millet programme
- Problem based new OFT proposed.
- Statistical data included in OFT programme
- Impact assessment of different technology based on commodity.
- Uploading Data, Reports, Inputs and upcoming event in KVK Portal.
- Popularization of moisture conservation technology.
- Work on intercropping in mango orchard.
- Special focus on Jholakhundi.
- Emphasis on millet processing and value addition.
- Focus on Crop diversification
- Farmers Problem based trail should be conducted
- High density Planting in cotton with application of PGR trail should be conducted
- Trail should be Publication in research journal.
- Popularization of mechanized DSR in the district
- Trial on HDP cotton and Pink boll worm in FLD/ OFT programme.
- One research trial on cold tolerant Green gram variety in the district.
- Promotion of spices crops in the district
- Need for area expansion of Kharif onion.
- More emphasis on Mango pulp harvesting process.
- Promotion on Red rice in the district.
- Awareness/ Training for fruit processing and marketing.
- Need technical guidance by KVK, scientist for Coffee plantation.
- Focused on working in water management practices in coffee.
- Water use efficiency and resource conservation techniques should be disseminated to the farmers.
- Need based training programme on value addition in Mango (Ama soda) to different SHG groups.
- Promotion of Azolla cultivation in farmers field
- Importance of Hydroponic and Pig Farming in the district.
- Popularization of Millet product.
- Promotion of off season vegetable cultivation
- Kharif tomato cultivation
- Promotion of value added product of millets
- Management practices of Important Pest and Diseases

The Chairman appreciated the suggestions of the members and requested for their cooperation for better functioning of KVK. The following action points were suggested

- Popularization of mechanized DSR in the district.
- Focused on intercropping in mango orchard.
- Technology intervention on millets
- Processing and value added product of millets.
- Popularization of moisture conservation technology.
- Need for area expansion of Kharif onion.
- Promotion of spices crops in the district
- Management practices of Important Pest and Diseases.
- Promotion of Azolla cultivation in farmer's field.
- Work on HDP cotton & Pink boll worm.
- Need based training programme on value addition in Mango (Amba soda) to different SHG groups.
- Water use efficiency and resource conservation techniques should be disseminated to the farmers.

The meeting ended at 3.00 pm with a vote of thanks by Scientist (Horticulture), KVK, Kalahandi.

Participants List of 24th Scientific Advisory Committee Meeting
Krishi Vigyan Kendra, Kalahandi

SL. No.	Name of the Participants	Designation
1	Dr. P.K. Mohanty	DDE, OUAT
2	Dr. B. S. Nayak	ADR, RRTTS, Bhawanipatna
3	Suvendu Kar	ADA soil chemist, Bhawanipatna
4	Prasanna Kumar Jena	PD W/S Kalahandi
5	M. Das	DDM, NABARD
6	Dr. Rajanikanta Rath	CDVO, Kalahandi
7	D. Senapati	ADSW Kalahandi
8	Jyoti Rekha Mallick	Asst. Entomologist, AICRP on cotton
9	Puja Mahaling	Seed production & marketing officer OSSC ltd.
10	Dr. Subhashree Das	Breeder, AICRP on cotton, RRTTS, Bhawanipatna
11	Dr. Srujani Behera	Asst. Prof.(plant pathology) College of Agriculture Bhawanipatna
12	Dr. C.K. Behera	DPM, OLM
13	Er. Santosh kumar Kisan	Asst. Executive Engineer (OLIC)
14	George Kerketta	Dy. CEO, ORMAS, Kalahandi
15	Dr. B. B. Sahoo	Jr. Scientist (Hort.)RRTTS, Bhawanipatna
16	Dr. Parag Acharya	Jr. Scientist, RRTTS, Bhawanipatna
17	Tapas Panigrahi	Jr. Agrometrologist GKMS- AMFU, RRTTS, Bhawanipatna
18	Smuti Ranjan Das	J.E. (OLIC)
19	Dr. Amitabh Panda	Sr. Scientist & Head, KVK, kalahandi
20	Tribijayi Badjena	Scientist (Agriculture extension)
21	Tulasi Majhi	Scientist (Horticulture)
22	Subhashri Sahu	Programme Assistant (Home Science)
23	Dibya Ranjan Mund	CEO, Manikyadevi Fish Producer Company ltd. Jaipatna
24	Dusmanta Sahu	CEO, Agrani chasi FPCL, Dharmagarh
25	Gopabandhu Sahu	Farmer
26	Premashila Sahu	Farmer
27	Bhumisuta Majhi	Farmer
28	Gouranga Sahu	Farmer
29	Puspa Shukla	Millet Shakti outlet Member
30	Swaraj Mehera	SRE, NICRA Project
31	Biswaranjan Barik	PHC, Assistant