PROCEEDINGS OF THE 31st SCIENTIFIC ADVISORY COMMITTEE MEETING

KRISHI VIGYAN KENDRA, GANJAM-I

The 31st Scientific Advisory Committee (SAC) Meeting of KVK, Ganjam-I for the period 2022-23 was held on dt. 03.02.2023 in the KVK campus on hybrid mode under the Chairmanship of Dr. Sumanta Kumar Mishra, Prof., Dept. of Animal Nutrition, C.V.Sc & AH, OUAT, Bhubaneswar. Dr. P.P.Pal, Principal Scientist, ICAR-ATARI also attended the meeting virtually. Dr. Hemanta Kumar Sahoo, DDE, Directorate of Extension Education, OUAT Co-Chaired the meeting. All the SAC members including line dept. officials, representatives from NGOs, farmer's representative participated in the meeting on hybrid mode (List is attached in Annexure-1). The meeting was started with welcome address by Dr. Sutanu Kumar Satapathy, Sr. Scientist & Head. The Chairman, after brief introductory remarks invited Sr. Scientist & Head to start the proceedings as per the agenda.

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

The proceeding of the last SAC meeting was presented by Senior Scientist and Head, KVK, Ganjam-I. As there were no modifications & objections reported by any members, the Chairman took the consent of all members and approved the proceedings.

Agenda-2: Action taken on the recommendation of last SAC

The Sr. Scientist & Head presented the following action taken report on the recommendations of last SAC meeting held on dt. 08.03.2022

Sl.No.	Salient Recommendation	Action Taken
1.	Popularization of Maize hybrid Kalinga Raj in farmer's field	Seed production in KVK farm in 0.4 ha. area has been done. FLD has been conducted in 12 ha. area involving 38 farmers. The Avg. Yield is 48.6 q/ha.
2.	Screening of Chilli varieties tolerant to leaf curl virus.	OFT on Chilli varieties (Arka Sanvi & Arka Tanvi) in 01 ha. area involving 07 farmers in 03 villages. The incidence of Leaf curl virus in Arka Sanvi was 5.14% & in Arka Tanvi 7.2% where as in farmers field it was 20.85%.
3.	Awareness on natural farming	Two training programmes with 50 farmers & One kissan mela involving 80 farmer & farmwomen were conducted. Farmers awared on green manuring, vermi-composting, organic inputs, ITKs.
4.	Popularization of Sweet potato var. Bhu Krishna	Two F/FW training programmes with 50 farmers, one In-service training & on the occasion of Poshan abhiyan campaign 100 farmers & farmwomen were awared about the Bio-fortified varieties of Sweet

5.	Popularization of recent Pulse var. & incorporation of new generation insecticide for pod borer management	✓ Pegionpea variety i.e. LRG 52 is being taken as Seed production programme in 1.0 ha area under KVK instructional farm. ✓ Similarly another variety BRG 5 is being popularized through CFLD programme in 10 ha area involving 25 farmers in Surada block. For management of Pod borer complex, new generation pesticide i.e. Flubendiamide & Emamectin Benzoate are included in OFT programme
6.	Steps to increase yield of Ragi & promote value addition of Ragi.	New HYV of Ragi - Arjun is demonstrated in FLD programme under KVK and RESILIENCE project about 14 ha. involving 52 farmers of 8 villages. The Avg. yield of Arjuna var. is 11.4 q/ha. OFT on Value addition of Ragi products (Sev & Muruku).
7.	Fodder cultivation both Seasonal & perennial with emphasis to hydroponics	✓ Two training programmes on fodder cultivation were conducted involving 50 farmers & farm women from 5 villages. ✓ One FLD on hydroponic was conducted involving 5 farmers apart from that one hydroponic demonstration unit was established in ✓ KVK campus for the purpose of training & awareness among dairy farmers.
8.	Promotion of backyard poultry with Kadaknath & other breed for livelihood	✓ One FLD was conducted on Low Input Poultry Breed Kadaknath in Backyard involving 20 farmers (Body wt. 1.4 kg in 180 days). ✓ Two trainings were conducted on backyard poultry and brooding management involving 25 farmers ✓ Rearing of Kadaknath in demo unit of KVK and the brooded chicks are being supplied to ATMA, KVKs, NGOs, OFDS.
9.	Focus on horticulture based IFS with mushroom & Honey bee components	✓ 12 Integrated Farming System units were developed in16 ha. area with cereals, fruit orchards, vegetables, vermicompost, mushroom, honey bee. ✓ Two training programme has been conducted involving 50 farmer & farm women.
10.	Value addition of tomato, Mushroom	✓ One FLD on Value addition of Mushroom is undertaken involving 10 Farmwomen of 2 villages ✓ Two training programmes have been conducted involving 50 farm women. ✓ The value added products were exhibited in 02 exhibitions involving 04 SHGs.

11.	Demonstration on wilt tolerant var. of Tomato	One FLD with 10 farmers & one training programme was conducted involving 25 farmers & farm women of 7 villages. Wilting decreased by 28%.
12.	Promotion of FPOs for aggregation of various commodities in order to get better price realization.	✓ KVK formed 1 FPO under RKVY involving 1000 vegetable growers from 15 villages of 9 GPs of Surada. The farmer members are aggregating vegetables at FIG level and transporting those to other markets. Apart from technical backstopping by KVK, the FIGs are supported with different technical demonstrations not only from KVK but from line department also through convergence. ✓ KVK is also supporting technically, 4 FPOs formed by different CBBOs with financial assistance from NABARD.
13.	Popularization of mechanical harvesting of Ragi.	OUAT Ragi thresher cum pearler has been demonstrated in 04 villages involving 44 farmers . The threshing capacity was 70-74kg/ha. which was 85 % more than the conventional method.
14.	Demonstration on power weeder in vegetable	Demonstration in 02 ha. area involving 10 farmers in vegetable crops. The labour saving is 36MD/ha. and the hoeing capacity is 0.08ha./hr. Labour requirement decreased by 68% as compared to manual weeding.

Agenda-3: Achievements made by KVK

The Senior Scientist & Head presented OFTs, FLDs, Trainings & other extension activities during the period Rabi, 2021-22, Kharif, 2022 & Rabi , 2022-23.

a) OFT- KVK has conducted 10 nos. of OFT involving 70 numbers of participating farmers.

Sl. No.	Title of the OFTs	Significant Achievements
1	Assessment of water soluble fertilizers in greengram	Application of 75% STBFR+ Foliar application of WSF 18-18-18 @2% at pre flowering and pod filling recorded 27.6% more yield than farmers practice (Application of blanket dose of ferilizer as basal (20-40-20), no foliar application)
2	Assessment of cowpea varieties for tolerance to mosaic virus	By cultivating Arka Mangala, the yield increased by 29% compared to Cultivation of local variety (Sautuni) with lowest infection % (5.1)
3	Assessment of different planting time for better market price of tomato	Planting of seedling 30 days before onset of normal planting period resulted the highest B: C ratio (3.95) than farmers practice.

4	Assessment of value addition of finger millet for enhancing income of SHGs	Value addition of Finger millet Muruku recorded the highest sensory evaluation (8.2) and the highest B:C ratio (1.94) than finger millet powder
5	Assessment of different Maize hybrids for rainfed medium land	Cultivation of Maize hybrid "Kalinga Raj" resulted in the highest grain yield (68.3 q/ha) and B: C ratio (3.91) than Cultivation of Maize hybrid MAHYCO-377 and VNR-4226.
6.	Assessment of IPM practice against pod borer complex in pigeonpea	Pheromone traps @ 10/ha, Azadiractin 0.15% @ 1.5 l/ha at 50% followed by flubendiamide 48SC @ 200ml/ha. & Bt@ 1kg/ha. at 15 days interval recorded 36.8 % increase in yield and highest B:C ratio (1.83) than spraying of Profenofos@1l/ha.
7	Assessment of IDM practices against false smut disease in rice	Seed treatment Carbandazim@2g/kg seed and application of Trifloxystrobin + Tebuconazole @200gram/ha. at Boot stage& after 10 days interval recorded 10.1 % increase in yield and highest B:C ratio (2.11) than Spraying of Carbandazim@1kg/ha.
8	Assessment of Chilli hybrids for resistance to leaf curl virus	Cultivation of Arka Sanvi resulted 19.77% increase in yield as compared to the farmers variety. The number of fruits/ plant was 141.42 which was quite high as compared to other varieties and the B:C ratio was 2.98
9	Assessment of different fat sources (Oil cake and Bypass Fat Feeding) to increase milk yield and milk fat % in case of dairy cows	Grazing and Bypass fat feeding as fat source along with mineral mix resulted in 63% % Fat increase and highest B:C ratio (2.08) compared to Grazing and Inadequate commercial grain feeding .
10	Assessment of humidity management in paddy straw mushroom production unit in summer season	Bundle paddy straw substrate (3 layers) + covering the floor with 2inch sand in moist condition + installation of fogger system recorded the highest biological efficiency (11.5) and B:C ratio (2.4) than conventional method.

b) **FLD**-KVK has conducted 26 FLDs (Rabi,2021-22 & Kharif 2022) involving 260 participating farmers under different crops & enterprises.

Sl. No	Title of the Front Line Demonstrations	Significant achievements
1	Demonstration on post emergence herbicides in maize	Post emergence application of Tembotrione (100 g/ha) at 20 DAS + 1 HW at 35 -40 DAS recorded the highest WCE (87.1%) and grain yield (66.1 q/ha) compared to Manual weeding at 25 DAS.
2	Demonstration on management of capsule borer in sesame	Alternate spraying of Neem (1500PPM) @ 1.5 lt./ha.& Spinosad @ 165 ml/ha at 15 days interval from pod

		initiation stage recorded 17.3% increase in yield compared to FP(Spraying of Chlorpyriphos @ 1lt./ha)
3	Demonstration on Management of Wilt complex in Brinjal	Seed treatment with Metalaxyl+Mancozeb 72% WP @ 2gm/kg +soil application of Carbofuran @ 33kg /ha+ soil drenching of Carbendazim 0.15%+ Streptocycline 0.015% at 30 and 45 days after transplanting recorded 13.2% increase in yield compared to FP (Spraying of Carbandazim @ 1kg/ha)
4	Demonstration on management of capsule borer in Sesame	Alternate spraying of Neem (1500PPM) @ 1.5 lt./ha.& Spinosad @ 165 ml/ha at 15 days interval from pod initiation stage resulted 8.8 q/ha yield which was 17.3% more than the FP
5	Demonstration on honey bee rearing(*Apis cerana indica*)	Colony installation, management of Hive, feed management in adverse climatic condition resulted in Rs. 1900 profit/ box and the farmers are satisfied with the additional income.
6	Demonstration on INM practices in bittergourd	STBF +vermicompost (2.5 ton/ha)+Azotobator:Azospirillum:PSB@1:1:1 @ 4 kg/ha recorded 18.7% increase in yield compared to Improper nutrient management (50:30:30 kg NPK/ha)
7	Demonstration on tomato hybrid arka rakshak	Cultivation of Arka Rakshak recorded 19.8% increase in yield and the wilt % was only 6.3 as compared to Red ruby
8	Demonstration on low input poultry breed kadaknath in backyard	Brooded kadaknath chicks, semi-intensive rearing with scavenging resultd in 52% increase in body weight compared to Indigenous / local birds
9	Demonstration on rotation of bucks combined with periodic deworming vaccination and supplementation for herd improvement	Rotation of breeding buck after 2 generations (1.5yr), vaccination, deworming and supplement feeding resulted in 13.3% increase in body weight compared to Improper buck management
10	Demonstratio on nutritional garden for improving nutritional security of farm family	Trellis structure, vermi-compost unit, protray for seedling raising, vegetable cultivation round the year resulted in highest avg. per capita consumption per member (274 g/day) with additional income of Rs. 1095/unit than Kitchen garden with seasonal vegetables without proper planning and management.
11	Demonstration of blue oyster mushroom	Cultivation of Blue Oyster mushroom Var. *Hipsizygus ulmarius* resulted in highest biological efficiency (110.2%) and B:C ratio (4.1) than FP (Cultivation of Oyster Mushroom *Var, P sajarcaju*
12	Demonstration on value addition of oyster mushroom	Mushroom Pickle by value addition of oyster mushroom resulted in highest keeping quality (120 days) with B :C ratio (2.5) compared to no value addition
13	Demonstration on dry land power weeder in rabi vegetables	Use of dryland Power weeder with Capacity: 0.08-0.1 ha/h (12.5 h/ha, Cost of operation: Rs 2000-2500/- per ha) recorded 72% less labour requirement with lowest cost incurred (Rs. 6000/ha) compared to manual

		weeding.
14	Demonstration on pre & post-emergence herbicides in DSR.	Application of bispyribac Na (25 g ai/ha) @ 7 DAS + ethoxysulfuron (15 g ai/ha) @ 21 DAS recorded 86.5 % WCE resulting yield of 30.5 q/ha and yield increased by 20.0 % over manual weeding (21 DAS).
15	Demonstration on high yielding ragi variety	Cultivation of HYV Ragi var. Arjuna recorded yield of 17.3q/ha which was 55.9% more than local variety
16	Demonstration on low dose herbicide molecules in transplanted rice	Application of Fenoxaprop-p-ethyl + ethoxysulfuron at 15 DAT controlled most of weeds in rice and recorded an yield of 40.5 q/ha which is 11.5% more than Manual weeding (25 DAT).
17	Demonstration on management of vine rot (anthrac nose) disease in yam	Tuber treatment with Carbandazim @ 2gram/lt, band placement of Trichoderma 2.5 kg + 30 kg vermicompost/ha and on appearance of disease soil drenching with Carbandazim @ 1kg/ha for management of anthracnose recorded yield of 254.6 q/ha which is 14.4% more than farmer's practice
18	Demonstration on management of fall army worm in maize	Application of Neem pesticide(1500ppm) @ 1.5 lt./ha. at 20 DAS, Trichogamma @ 50000 eggs/ha., Chlorpyriphos + cypermethrin @ 1lt./ha., Beauvaria bassiana @ 2kg/ha at tassel stage resulted yield of 42.4 q/ha which was 18.4 % more than farmer's practice (spraying of Profenofos @ 1lt./ha)
18	Demonstration on management of pink stem borer in ragi	Spraying of NSKE @ 5%. at 35 DAT& Bt @ 1kg/ha. at ETL level recorded 24.4% increase in yield and the white year head was 0.8 % as compared to no spraying.
19	Demonstration on foliar application of growth regulator in chilli	Spray of Triacontanol @ 1.25ml/liter at 40 , 60 and 80th DAP recorded 18.8 % increase in yield compared to Spraying of Samarash @ 1lt. / ha.
20	Demonstration on brinjal variety swarna shyamali	Cultivation of brinjal variety swarna shyamali recorded the highest yield (282.6) which was 17.84 % higher and B:C ratio (2.40) compared to farmers' practice (cultivation of Bhairabi)
21	Demonstration on hybrid napier (CO-4) fodder production in dairy farming	Fodder (CO4, guinea, para) cultivation and feeding@ 10% of B.wt. recorded the highest milk yield in 90 days (6.54 l) and B:C ratio (3.25) compared to straw / concentrate feeding
22	Demonstration on OUAT ragi thresher-cum-pearler	OUAT ragi thresher-cum-pearler operated by 1.0hp electric motor ,output : 80-85 kg/h and threshing efficiency : 93 - 95 % recorded the highest threshing capacity (72 kg/hr) and net return (Rs, 12900/ha) compared to Manual threshing
23	Demonstration on nutritional garden for improving nutritional security of	Ttrellis structure, vermicompost unit, protray for seedling raising, vegetable cultivation round the year

	farm family	resulted in highest avg. per capita consumption per member (278 g/day) with additional income of Rs. 1095/unit than Kitchen garden with seasonal vegetables without proper planning and management.
24	Demonstration on vermicompost production by using spent mushroom	Cow dung+ spent mushroom straw 1:2 ratio recorded the highest yield (4 qtl/pit) and B: C ratio (2.86) than No compost preparation. Farmers are adopting this to improve the soil health
25	Demonstration of blue oyster mushroom	Cultivationn of Blue Oyster mushroom Var. Hipsizygus ulmarius resulted in highest biological efficiency (110.2%) and B:C ratio (4.1) than FP (Cultivation of Oyster Mushroom *Var, P sajarcaju*)
26	Demonstration on dry land power weeder in rabi vegetables	Use of dryland Power weeder with Capacity: 0.08-0.1 ha/h (12.5 h/ha, Cost of operation: Rs 2000-2500/- per ha) recorded 72% less in labour requirement with lowest cost incurred (Rs. 6000/ha) compared to manual weeding.

c) Training- KVK has conducted 67 training programmes for practicing farmers & farm women, 12 trainings for rural youth and 7 nos. for in-service personnel.

d) Other extension activities- KVK organized 14 field days, 18 film shows, 10 method demonstrations, 74 diagnostic field visits, provided 60 farm advisory services, 2 exposure visits, 2 animal health camp, 1 soil health camp, 1 soil test campaign, celebrated 15 special days. Apart from these KVK prepared 4 technology videos, 4 extension literatures, 9 of the different activities cover by news papers and a total of 12556 no. of farmers got benefited.

Agenda-4: Tentative Action plan for 2023-24

DETAILS OF ACTIVITY	TARGET
OFT	13
FLD other than Oilseed Pulse	23
FLD Oilseed Pulse	02 nos (Greengram, Groundnut)
Training	101
Ext. Activities	1040
Newsletter	4
Soil Sample	350
KMAS	75

Agenda-5: Recommendation

The action points those are suggested and proposed by all the members of the SAC during the course of presentation is summarized and presented below.

- Members emphasized to take intervention on small ruminants, millets & cash crops
- New var. of Marigold may be popularized
- Evaluation of Chilli hybrids for leaf curl virus & popularization of technology for Anthracnose disease management
- New technology for management of YVM in Greengram may be tested in farmers' field
- Trials s may be conducted to improve quality & consistency of Sugarcane Jaggery
- Training may be imparted to SHGs for poultry production
- Popularization of technologies for Rice Stubble management to avoid burning
- Awareness may be created on different fodders like Berseem
- New Groundnut var. Kalinga Groundnut 101 of OUAT may be taken in FLD instead of OFT as multi location trials has been done
- Agromet FLD & OFT may be included in action plan
- More intervention may be taken on Rice as it's the staple crop of the region
- Power weeder should be popularized in large area to reduce labour cost for weeding
- Performance of Grafted vegetables may be tested at KVK, Farm
- Different poultry breeds with feed management may be tested in KVK farm
- Honey bee & arrowroot may be promoted in elephant prone area
- Training for increasing productivity of cashew nut
- Trials for management of Lumpy skin disease in cattle may be conducted
- Popularization of seedling raising using Pro -tray.

The meeting ended at 3 PM with vote of thanks by Mrs. Anita Patro, Scientist (Home Science).

Approved

21/6/23

26/03/2023

Senior Scientist & Head
KVK, Ganjam-I
SENIOR SCIENTIST & HEAD
KVK, GANJAM-I BHANJANAGAR

21/06/2023

Dy. Director (Extn.,
Directorate of Extn. Edn.
O.U.A.T., Bhubaneswar

Dean, Extension Education
OUAT, Bhubaneswar

21/6/23

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

(S.K. Mishra)
Professore
Animal Nutrition
C.V.Sc. & A.H, OUAT, Bhubaneswar.

List of participants of 31st SAC meeting ,KVK, Ganjam-I

Annexure –I

Sl. No	Dignitaries	Designation
1	Dr. Sumanata Kumar Mishra Prof., Dept. of Animal Nutrition, C.V.SC of AH, OUAT	Chairman
2	Dr. Hemanta Kumar Sahoo DDE (UEBP),DEE, OUAT, Bhubaneswar	Co-Chairman
3	Dr.P.P.Pal, Principal Scientist, ATARI, Kolkata	Member
4	Dr. Gobinda Chandra Acharya, Head, CHES, Bhubaneswar	Member
5	Sri Dillip Khuntia,CDAO, Ganjam	Member
6	Prof. S. Nanda,DEAN, Collage of Fishery, OUAT	Member
7	Dr. Gyanalok Das,ADR, RRTS, G. Udayagiri	Member
8	Dr. Radhakrushna Panigrahi,Prof. (Agronomy), CPR Berahmpur	Member
9	Dr. Sanjib Mishra,DDM, NABARD	Member
10	Sri S. Rama Rao, ADH, Bhanjanagar, Representative of DDH	Member
11	Dr. Pradipta Kumar Sahu, SDVO, Bhanjanagar Representative of CDVO	Member
12	Smt. Bishnupriya Sethi, CDPO, Bhanjanagar	Member
13	Smt.Sunita Gouda,Farm Women	Member
14	Smt.Santoshi Bisoyi,Farm Women	Member
15	Sri Banamali Sahu,Farmer	Member
16	Sri Balakrushna Swain,Farmer	Member
17	Sri Sashibhusan Senapati, ADO, Bhanjanagar	Invitee
18	Dr. Sushmita Mohanty,Senior Scientist & Head, KVK, Ganjam-II	Invitee
19	Sri Sandeep Mohanty, Scientist (Plant protection)	Invitee
20	Sri Manoj Kumar Panigrahi, ASCO, Bhanjanagar	Invitee
21	Sri Ramachandra Barik, FMU Coordinator, Forest Office, Jagannath Prasad	Invitee
22	Sri Jogendranath Swain, Team Leader, SWATI NGO, Bhanjanagar	Invitee
23	Sri Asit Chand Sahu Coordinator, B.MASS NGO Bhanjanagar	Invitee
24	Sri Nimain Charan Das, District Manager, OAIC, Bhanjanagar	Invitee
25	Sri Prasanta Kumar Panda, Scientist (Plant Protection)	Invitee
26	Mrs.Anita Patro, Scientist (Home Sc.)	Invitee
27	Sri Bishnupada Giri, Scientist (Horticulture)	Invitee
28	Dr.Santosh Kumar Samantaray, Scientist (Ag.Extn.)	Invitee
29	Dr.Siddharth Ranabijuli, Scientist (Animal Sc.)	Invitee
30	Sri Satyabrata Mangaraj, SMS(Agronomy)	Invitee
31	Dr. Sutanu Kumar Satapathy Senior Scientist & Head	Member Convener

Sd/-
Senior Scientist & Head
KVK, Ganjam-I