

# **PROCEEDINGS OF THE 21<sup>st</sup>SCIENTIFIC**

## **ADVISORY COMMITTEE MEETING**

### **KRISHI VIGYAN KENDRA, BOUDH**

The 21<sup>st</sup>Scientific Advisory Committee (SAC) in virtual hybrid mode of KVK, Boudh was held on Dt. 02.11.2024 at 10.30 AM in KVK training hall under the Chairmanship of Dr. P. J. Mishra, Dean Extension Education, OUAT, Bhubaneswar in presence of Dr. P. P. Pal. Principal Scientist, ATARI, Kolkata, Dr. Sarbani Das, JDE ( Information), OUAT. Dr. Gobinda Acharya, Director, CHES (ICAR-IIHR), Bhubaneswar, Dr. Sanjukta Mohapatra, ADR, RRTTS Chiplima, Dr. Pramod Kumar Panda, Principal Scientist, IWM, Bhubaneswar, Sj Biswaranjan Pattnaik, Sr. Scientist & Head, KVK, Subarnapur, and all other SAC members participated in the SAC meeting. The list of members present in the meeting is annexed herewith. Sj. Tapan Kumar Das, Senior Scientist & Head, KVK, Boudh made a brief welcome address to the SAC members and requested the Chairman to conduct the meeting.

After a brief introductory remark, the Chairman asked the Sr. Scientist & Head to start the proceedings as per the agenda.

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

The Sr. Scientist & Head briefly presented the proceedings of the last SAC meeting. The Chairman taking the consent of the members approved the proceedings.

#### **Agenda-2: Presentation of Action taken report on last SAC recommendation of the 20<sup>th</sup> SAC meeting.**

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

<b>Sl No.</b>	<b>Recommendations during the year 2023-24</b>	<b>Action Taken during the year 2024-25</b>
<b>1.</b>	OFT programme on Pigeon Pea.	One no. of FLD programme has been conducted on “Eco-friendly management of pod borer complex in pigeonpea” at Saleising village of Boudh block.
<b>2.</b>	Awareness cum training programme on Animal Health in convergence mode to be included in KVK activities.	Two nos. of awarenesscum training programme &Animal Health Camp have been conducted in convergence mode with the Dept. of Animal husbandry during Kharif 2024 under SCSP programme involving 150

		nos. of farmers and farm women at village Atalsara & Bhejiguda of Harabhanga Block. Time to time KMAS are sent on animal health related issues to the registered farmers under Kishan Sarathi portal.
3.	Suggestion to carry out an OFT programme on varietal evaluation of Chilli for tolerance to leaf curl virus.	One no. of OFT programme on varietal evaluation of Chilli for tolerance to leaf curl virus proposed to be conducted during Rabi 2024-25 at Rampur village of Boudh block.
4.	Emphasis on popularization of floriculture activities.	One no. of FLD programme has been conducted on “Demonstration of tuberose cultivation for income generation of farm women” at Mursundi village of Boudh block during Kharif-2024 and one no. of FLD programme on ”Demonstration on chrysanthemum var. <i>Bidhan Jayanti</i> during Rabi season” proposed to be conducted.
5.	OFT programme on Production of Paddy Straw Mushroom from Crumpled Straw to increase the biological efficiency.	One no. of OFT programme has been conducted on “ Assessment on Production of Paddy Straw Mushroom from Crumpled Straw” during Kharif-2024 in Chorda village of Boudh block.
6.	Capacity building training to SHGs on Scientific mushroom Production.	One no. of vocational training programme on “Scientific mushroom Production” has been conducted involving 30 nos. of participants from Baghiapada, Nuapali, Laxmipadar villages of Boudh block under 100 days action plan.
7.	Suggestion to carry out awareness programme on proper management of sucking pest in Cotton crop.	Two nos. of training programmw have been conducted in convergence mode with dept. of Agriculture at village Jharamunda, Badagochha villages of Kantamal Block of Boudh district involving 100 nos. of participants.
8.	Vocational training programme on Bee keeping need to be included in KVK activities.	One no. of vocational training programme on “Scientific Bee Keeping” has been conducted during Kharif 2024 at KVK Campus involving 30 nos. of participants from Samapaju, Chhataniakata, Kultakhali, Jharmunda village of Boudh dist under 100 days action plan.

9.	Training programme on value addition of Mango and vegetables.	Two nos. of training programme have been conducted in convergence mode with LKBK NGO with 60 nos. of farmers, farm women and rural youth at Bandhapathar village and Birnursingpur village of Harbhanga block.
10.	Ssuggestion to carry out for crop diversification from paddy to non paddy crop through popularization of millet crops in convergence mode.	Women campaign programme has been conducted by leading NGO LKBK with KVK involving 50 nos. of participants at Ramgarh village of Harbhanga block.
11.	Training programme to CEOs& BODs on different type of income generation activities of FPO like Seed production, Value addition, marketing in convergence mode to be included in KVK activities.	Three Nos. of training programme at Amthapada, Tutusingha, Baunsuni villages, one no. of dist. level FPO project launching workshop at Talagaon village involving 100 nos. of participants, and 3 nos. of income generation activities programme on seed production, value addition of vegetables and marketing have been conducted during kharif - 2024.
12.	Emphasis on cultivation of bio-fortified Sweet Potato var. <i>Bhu-sona</i> for nutritional security need to be included in FLD programme.	One no. of FLD programme has been conducted on “Demonstration on bio-fortified Sweet Potato var. <i>Bhu-sona</i> for nutrition security of farm family” during Kharif-2024 at village Baikunthapur of Boudh block.
13.	Ssuggestion to carry out for collaboration of ASCI trainees list with Mushroom subsidy scheme.	After completion of skill training programme on “Small Mushroom grower” under ASCI a beneficiary list has been made and submit to the ADH, Boudh to avail the facilities of Scheme.
14.	Suggestion to increase the nos. of activities under Organic farming and Natural farming.	Two nos. of training programme and method demonstration programme on Natural farming and Organic farming have been conducted with 60 nos. of participants at KVK campus under 100 days action plan in convergence with the OMM dept.

### **Agenda-3: Achievements made during: Rabi 2023-24& Kharif -2024**

The Senior Scientist and Head presented the overall achievements made by the KVK during the period Rabi 2023-24& Kharif -2024.

#### **On-Farm Testing:**

Four numbers of OFTs have been conducted during Rabi- 2023-24 involving 110 nos. of farmers based on problem of farmers field. Some of salient achievements of the OFTs were as follows:

- OFT on “Assessment of Onion Varieties of Rabi Season” : TO<sub>1</sub> was taken with ccultivation of Onion variety NHRDF Red-3recorded231q/ha yield and ccultivation of Onion variety NHRDF Red-4 was taken as TO<sub>2</sub> recorded 222q/ha yield, respectively, as compared to 195q/ha yield with cultivation of farmer own variety N-53in farmers practice.In case of TO<sub>1</sub> increase in yield was found to be 18% & it was 13.8% in case of TO<sub>2</sub> as compared to FP. In TO<sub>1</sub> B:C ratio was 2.23 and 2.1in case of TO<sub>2</sub> as compared to 2.01in case of FP.
- OFT on “Assessment of Chilli variety of Rabi Season for tolerance to leaf curl virus”:TO<sub>1</sub> was taken with var. *Arka tanvi* which is rresistance to Powdery mildew, Root Knot nematodes and ChLCV. Yield Potential is 75-90 qt/ha for dry chilli and 250 qt/ha green chilli recorded120q/ha yield and var. *Arka Sanvi* which is resistance to leaf curl virus. Yield potential is : 75-90 qt/ha for dry chilli and 250qt/ha green chilli was taken as TO<sub>2</sub>recorded130 q/ha yield, respectively, as compared to108 q/ha yield with ccultivation of Chilli variety *Kalasa*. In case of TO<sub>1</sub> increase in yield was found to be 11.11% & it was 20.37 % in case of TO<sub>2</sub> as compared to FP. In TO<sub>1</sub> B:C ratio was 2.25 and 2.43 in case of TO<sub>2</sub> as compared to 2.09 in case of FP.
- OFT on “Assessment of packaging of processed tender jackfruit”:TO<sub>1</sub> was taken with Peeling of Jackfruit by knife/paniki, cut into pieces & packed in polythene recorded ssensory evaluation at 0-9 point hedonic scale 5.6 and ssurface cleaning/dirt removal by washing, peeling & cutting into pieces. Dipping in 0.5% (w/v) citric acid & 0.1% ascorbic acid for seven mins, surface drying and packaging in punnet pack or PP pouch with 0.0675% perforation & refrigerated, storage at 100 C. was taken as TO<sub>2</sub>recordedsensory

evaluation at 0-9 point hedonic scale 7.9 respectively, as compared to farmers practice with Sale of whole tender jackfruit where sensory evaluation at 0-9 point hedonic scale 3.1. In TO<sub>1</sub> B:C ratio was 2.27 and 2.5 in case of TO<sub>2</sub> as compared to 2.0 in case of FP.

- Assessment of performance of FPOs with varied level of task and commodity to enhance net return of the farmers where sample size is 30 in each category. Here, both of the FPOs have responded about low involvement in FPO decision making process and have maximum gap in participate in mela/exhibition for promotion of the value added product followed by promotion of value addition and minimal processing where as it is interesting to record FPO are actively involved in capacity building programme and providing technical information to the shareholders. Difference of opinion has observed in the FPOs. TO<sub>1</sub> states maximum gap in FPO fails to facilitate govt. subsidy whereas in TO<sub>2</sub> respondents have stated easy to sale the produce through FPO and FPO in contrary provide input support to the shareholders and to some extent able to link them to avail govt. subsidy. It is important to take note that as FPO is a business entity should focus on processing and value addition of the identifies products and sale promotion of the same.

### **Front Line Demonstration:**

KVK conducted 06 nos. of frontline demonstration programmes during Rabi-2023-24. Salient achievements of FLDs were given below.

Demonstration on Micronutrients on growth and yield of cauliflower: where application of combined spray of B 50 ppm+ Mo 25 PPM thrice at 10 days interval gave yield of 176 q/ha as compared to 148q/ha in farmers practice which is 18% change in yield. In RP B:C ratio was 2.3 as compared to 2.2 in case of FP.

Demonstration on Nutrient management in Onion: where application of 110:40:60:40 kg NPKS per ha along with soil and foliar application of Znso<sub>4</sub> gave yield of 238.8 q/ha as compared to 207.9 q/ha in farmers practice which is 14.97% change in yield result in higher yield in onion. In RP B:C ratio was 2.1 as compared to 2.07 in case of FP.

Demonstration on application of growth regulator in Bittergourd : where foliar application of ethrel @ 200 ppm at 2 to 4 leaf stage & amino acid during flowering stage gave yield of 109.5 q/ha as compared to 93.8 q/ha in farmers practice which is 17% change in yield result of increase no. of fruits / plant and yield. In RP B:C ratio was 2.27 as compared to 2.11 in case of FP.

Demonstration on YMV management in Greengram: where Seed treatment with Thiamethoxam 25 WG @ 5g/kg seed followed by installation of yellow sticky trap (YST) 50/ha and spraying of Acetamiprid @ 0.03% twice at 30 days after sowing at 15 days interval for management of YMV in mungbean gave yield of 6.8 q/ha as compared to 4.2 q/ha in farmers practice which is 38% change in yield result increase no. of fruits / plant and yield. In RP B:C ratio was 1.94 as compared to 1.4 in case of FP.

Demonstration on Evaluation of novel insecticides against major sucking pests of chilli: where seed treatment with Imidachloprid 600FS @ 5ml /kg seed and foliar spraying of spiromesifen 22.9%SC @ 1 ml/ lit of water twice at 30 and 45 DAT gave yield of 133 q/ha as compared to 109 q/ha in farmers practice which is 18.6% change in yield result of significantly reduction the incidence of sucking pest complex (thrips and mite) in chilli. In RP B:C ratio was 2.7 as compared to 2.2 in case of FP.

Demonstration on marigold for Income Generation : where cultivation of high yielding variety *Bidhan Marigold-2* Spacing (60x45) cm gave yield of 320 q/ha as compared to 200 q/ha in farmers practice. In RP B:C ratio was 3.2 as compared to 2.0 in case of FP.

Demonstration of blue oyster mushroom var. *Hypsizygous ulmarius*: where cultivation of blue oyster mushroom var. *Hypsizygous ulmarius*- cutting of paddy straw 2-3" size, soaking in lime (1%) for 6-7hrs, draining of straw (moisture content 65%), 40 x 80 cm<sup>2</sup> polythene bed ( temp:180-300°C) gave yield of 1.8 Kg/bag as compared to 1.4 Kg/bag in farmers practice. In RP B:C ratio was 3.6 as compared to 2.8 in case of FP.

Demonstration on effectiveness of short technology videos on technology adoption: where preparation of small videos (1.5-2.0 minutes) on different activities of production process of selected commodities and the same will be sent through

whatsapp to the identified farmers in RP has seen is more effective as per observations from different parameters (Informative, understandable, timeliness, applicability, sustainability) and performance from different parameters (change in knowledge, change in skill, rate of adoption) than FP where farmers are getting text messages and advisories from various sources. In farmers practice max. gap was found in applicability of the advisory in their field situation moreover huge gap was observed in change in skill and adoption of the information/advisory. While in demonstrated practice the advisory is informative and understandable by targeted client and timeliness is the major drawback factor.

#### **Agenda:- 4 Achievements made during: Kharif- 2024**

The Senior Scientist and Head presented the overall achievements made by the KVK during Kharif-2024.

#### **On-Farm Testing:**

Three numbers of OFTs have been conducted during Kharif- 2024 involving 44 farmers based on problem of farmers. Some of salient achievements of the OFTs were as follows:

Assessment of Eco-friendly management of pod borer complex in pigeonpea: Where TO<sub>1</sub> was taken with application of Azadirachtin 0.15% @ 1.5 Lit./ ha + Spinosad 45 SC @ 200 ml / ha at 50% flowering and second 15-20 days after first spraying compared to application of Azadirachtin 0.15% @ 1.5 Lit./ ha + Enamectin Benzoate 5 SG @ 200 gm / ha at 50% flowering and second 15-20 days after 1ST spraying was taken as TO<sub>2</sub>. Result of OFT is yet to come because crop is not harvested.

Assessment of production of Paddy Straw Mushroom from Crumpled Straw: where TO<sub>1</sub> was taken with production of paddy straw mushroom from crumpled paddy straw from bullock treading / tractor treading recorded 0.88 kg/bed yield. Production of paddy straw mushroom from crumpled straw (axial flow thresher) was taken as TO<sub>2</sub> recorded 0.8 q/ha yield, respectively, as compared to 1.0 kg/bed yield in farmers practice. In TO<sub>1</sub> B:C ratio was 2.5 and 2.8 in case of TO<sub>2</sub> as compared to 2.3 in case of FP.

Assessment of effectiveness of various media for dissemination of agriculture information among youths: where TO<sub>1</sub> was taken with information access from Mass Media (Television/Radio), TO<sub>2</sub> was taken with information access from Mass media+

Social media (YouTube/Facebook/Instagram), and TO<sub>3</sub> was taken with information access from Mass media + Social media+ Print media. Observation data have been collected from different parameters like understand ability, timeliness, easy to access & applicability. Result of OFT is yet to come.

### **Front Line Demonstration:**

K.V.K conducted four nos. of frontline demonstration during Kharif-2024. Salient achievements of FLDs were given below-

Demonstration on IPM strategy for management of sucking pests in cotton: where timely sowing of crop pplanting of maize as border crop around the field, intercropping of cowpea @ 8:2 ratio; application of Azadirachtin 0.15% @ 1.5 Lit./ ha twice @ 30 & 45 DAS; installation of yellow sticky traps @ 40/acre & need based application of Flonicamid 50% WG @ 175 gm/ha twice at 10 days interval and in farmers practice where farmers are not following proper preventive & curative practices for management of sucking pests population in proper time and applying of cypermethrin, chloropyriphus and triazophos + deltamethrin @ 1 l/ ha which encourage the pest for rapid multiplication. Result of FLD is yet to come because crop is not harvested.

Demonstration of bio-fortified Sweet Potato var. *Bhu-sona* for nutrition security of farm family: where cultivation of bio-fortified Var. *Bhu-sona*.( Orange in colour, Provitamin -A-14.0 mg/100g, Total sugar-2.0-2.4%) Vine cuttings- 80,000 nos. /ha, spacing- 60 c.mX 20c.m was taken as recommended practice and cultivation of local variety: Kanchangada was taken in farmers practice. Result of FLD is yet to come because crop is not harvested.

Demonstration of tuberose cultivation for income generation of farm women: where cultivation of variety *Prajwala* with spacing 30cm x 20 cm, NPK: 200:200:200 kg/ha was taken as recommended practice and cultivation of tuberose variety: Calcutta double was taken in farmers practice. Result of FLD is yet to come.

Demonstration on transfer of technology through harnessing human values in agriculture: where progressive farmers designated by an organization as per the domain of specialization serves as an ambassador of change in the process of technology transfer. (Farmer scientist, farmer professor, farm captain, blue farmer of the district, mushroom lady etc.) Compared to farmer practice where technology is often transferred through progressive farmers / change agents. 10 nos. of farmers, farm-women, rural you have been selected and gave a special name to them as per



the domain of their specialization. Maximum gap in technology adoption is observed in both the cases where as extent of technology dissemination is higher in case of designated farmers till now. Moreover a positive response is observed. Final result is yet to come.

### **Training:**

KVK imparted training to 1650 farmers & farmwomen through 55 nos. training programmes. 160nos. of rural youths trained on quality planting material production in vegetable, Scientific Bee keeping, Paddy straw & Oyster mushroom cultivation, production of quality planting material under protected condition, entrepreneurship development in Agri- Horti system, value addition of vegetable through eight nos. of training programme were conducted during the period and four nos. of In-service training programme have been conducted. 120 nos. of farmers and farm women, rural youth have been trained on Scientific Bee Kkeeping, Scientific Mushroom Cultivation, aadvance technology for nursery raising of vegetables seedlings and Organic and Natural farming through four nos. of vocational training were conducted during this period. 40 nos. of farmers, farm women, rural youth have been attended the RPL training programme (ASCI) during this period. Training programme on FPO management have been conducted involving 25 nos. Of BOD and CEO members of 8 nos. of FPO of the district.

### **Other Extension Activities:**

KVK conducted other extension activities viz. Sixty eight nos. of scientist visit to farmers' fields , eighty nine nos. of farmers visits to KVK campus, three Field days, ten nos. of special Swachhata Campaign, 15 days of Swachhata Pakhwada celebration, five nos. of farmers Scientist Interaction Programme, one no. of awareness campaign on Balanced Use of Fertilizer, 16 nos. of Special day celebration, three nos. of exhibition and 10 film shows. scientists of KVK published seven nos. of popular articles, eight nos. of web-telecast programme have been conducted, 38 nos. of messages has been sent to 32508 nos. of farmers regarding ICM, INM, IPM, IDM crop management, weather based crop advisory etc. KVKs celebrated Akshaya Trutiya, Women in Agriculture Day, Mahila Kishan Diwas, World Food Day, Vana Mahotsav week, Poshan Maah and Tree Plantation, Celebration of Technology Day, Parthenium Awareness week, National drive plantation programme (Ek Ped Maa Ke Naam), Swachhata Hi Seva, PM Kisan

programme, Awareness programme on balanced use of fertilizer, Soil health management programme, Special Campaign 4.0 , Webinar, etc. during the period.

KVK cultivated Dhaincha variety local (TL) at its own farm. Crop is at reproductive stage. KVK produced seedling of Brinjal (**JK-8031, Shruti-Gold**) 3000 nos. Onion (**Bhima Sweta, Bhima Safed**) 300000 Nos. Chilli (**Krishna**) 3000 nos., Tomato (Asutosh) 3250 nos., Cauliflower (**Megha**) 3500nos., Cabbage (**Blue Diamond**) 3,500 nos. during the year. In case of other material production Mushroom (Paddy straw & Oyster) are 80 kg, Vermicompost 4 q., Poultry chicks is 1,500 in nos. and Honey is 10 kg during the year of 2024-25.

#### **Agenda 5: Action Plan for Rabi 2024-25.**

There is a plan of conducting 06 nos. of OFTs and 10 nos. Of FLDs during Rabi 2024-25.

#### **Suggestions from SAC Members:**

The following action points were suggested by the SAC members.

- Skill development training programme on value addition and post-harvest management should be included in KVK activities.
- Awareness programme on medicinal values of Kadaknath breed for popularization in the district among the farmers.
- Awareness programme on Azolla feed for dairy animal.
- Popularization of Layer farming among farmers.
- Expansion the FPO activities for maximum market reach.
- Paddy straw mushroom production and Nutri-garden related programme should be directly taken as FLD programme.
- Sapling production should be surplus because there is highly demand for bund plantation.
- Proper maintenance of Biofloc unit and a case study should be on actual profit and loss of this unit should be included.
- Database management for latest technology for every crop of the district should be made.
- Expansion the area under kharif Onion should be carried.
- Marketing of raw jackfruit through ORMAS.

- IFS model should be promoted for solving unemployment , malnutrition and poverty issues to some extent.

**Salient Recommendation of 21<sup>st</sup> SAC Meeting:**

- It is proposed to conduct training programme on value addition and post harvest management on Mango or Guava.
- It is proposed to conduct an FLD programme on value addition of Oyster mushroom for catch the better market price.
- Skill development training programme should be increased on value addition and post-harvest management of fruits and vegetables.
- It is proposed to conduct Awareness cum training programme on Medicinal values of Kadaknath breed for popularization in convergence mode with Dept. of Veterinary and Animal Husbandry.
- Training programme should be included on enrichment of paddy straw for animal feeding.
- It is proposed to conduct Awareness cum training programme on layer farming for popularization among farmers in convergence mode with dept. of Veterinary and Animal Husbandry.
- Popularization of floriculture activities through cultivation of Chrysanthemum Marigold and tuber rose should be included in KVK activities.
- It is proposed to conduct seed production programme for Oilseed crop.
- The convergence with FPO should be done to take up activities on value addition, marketing and different type of income generation avenues and maximum market reach.
- Training programme to BOD and CEO members for better FPO management should be increased.
- FLD programme on Paddy straw mushroom production and Nutri garden.
- Awareness programme on crop diversification should be increased.
- Awareness programme of “Balanced doses of fertilizer” should be conduct in convergence mode with dept. of Agriculture.
- It is proposed to conduct Organic farming and Natural farming activities in convergence mode.
- Awareness programme on package and practices of Potato.
- Sapling production of Mango, Guava should be surplus.

- Awareness programme on proper maintenance of Biofloc unit in convergence mode with the Dept. of Fishery.
- Awareness programme on Azolla and fodder production for animal feeding and highlight this topic in Matsya O Pranisampad Mela -2024.
- It is proposed to conduct sensitization programme for the farmers on ICE activity, e-NAM marketing, crop diversification in convergence with RMC.
- Chilli var. *Arka Gagan* and *Arka Tejwashi* should be included in OFT or FLD programme.
- Different varieties of Azolla should be grown in demo unit of the KVK.
- Awareness programme and demonstration programme on Micro irrigation practices in farmers field should be conduct.
- Ragi and Non ragi crops should be demonstrated in KVK crop cafeteria.
- Training programme on Pest and disease management of millet crops should be increased.
- Training programme on marketing of organic production should be increased.  
It is proposed to conduct 18 nos. of training programme to the farmers and farm women under Plant protection discipline and 17 nos. of training programme under horticulture discipline and 17 Nos. of training programme under home science discipline and 18 Nos. of training programme under agriculture extension discipline during the year 2025-26.

The meeting was ended at 2.00 pm with vote of thanks to the Chair.

**Sr. Scientist & Head  
KVK, Boudh**

**JDE  
DEE, OUAT**

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