

PROCEEDINGS OF THE 19TH SCIENTIFIC ADVISORY COMMITTEE MEETING
KRISHI VIGYAN KENDRA, BOUDH

The 19th Scientific Advisory Committee (SAC) both online and offline meeting of KVK, Boudh was held on Dt. 15.11.2022 at 10.30 AM in KVK training hall under the Chairmanship of Dr. S. P. Sangram Singh & Conducted by Dr. P. J. Mishra, Dean Extension Education, OUAT, Bhubaneswar & Dr. K .S. Das, Principal Scientist, ATARI, Kolkata, Dr. P. Srinivas, Principal Scientist, CHES (ICAR-IIHR), Bhubaneswar, participated in the SAC meeting. Members present in the meeting are annexed herewith. Sj. Tapan Kumar Das, Senior Scientist & Head, KVK, Boudh made a brief welcome to the SAC members and requested the dignitaries to inaugurate the meeting by lightening the lamp 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 Action taken on the proceedings of last SAC meeting

The Sr. Scientist & Head presented the following action taken report on the recommendations of last SAC meeting held on Dt. 11.01.2022.

Recommendations	Action Taken
Spawn production to be increased.	➤ 1250 nos. of spawn production have been done during kharif season-2022 at KVK mushroom Spawn production unit.
Mushroom production to be promoted in convergence mode.	➤ 5 no. of Training on Mushroom production in scientific method has been conducted in convergence mode with Dept. of horticulture to 5 no. of SHG at Village: Gaundisara, Khuntiapada and Kultakhali including 50 Farm women.
Early season cabbage, cauliflower to be introduced.	➤ Early season cabbage (var. Blue diamond), cauliflower (var. white marble, Barkha) (4000 nos. of Seedlings) have been distributed to the farmers under SCSP programme during late kharif 2022 and also demonstrated in KVK crop cafeteria.
Training to be organized related to watershed activities.	➤ 2 nos. of awareness cum training programme with 150 nos. of participants have been conducted in Kulutakhali, Lundaberuni and

	Lundrujhor village under the theme “Jal Shakti Abhiyaan.
Newly HY onion varieties to be included.	➤ 1 no. of OFT programme on Assessment of Onion Varieties in Rabi Season proposed to be taken during Rabi season.
FLD on use of proper insecticide on cotton to be promoted	➤ 1 no. of FLD programme on Management of sucking pest in cotton has been conducted during kharif 2022-23 at village: Nendan ➤ 2 nos. of F/FW training conducted on Awareness of proper use of insecticides in cotton at village: Baghiapada & Nendan including 50 no. of farmers.
Awareness on use of fertilizer to be included.	➤ 1 no. of Awareness campaign on Balanced Use of Fertilizer has been conducted at KVK, campus with 50 nos. of farmers and farm-women. ➤ 2 nos. of training programme have been conducted on INM in Paddy at Kulutakhali and Lundrujhor village including 50 no. of farmers.
Training on different field crops and vegetables at Harbhanga and Kantamal blocks	➤ 7 nos. of F/FW training programme have been conducted on different field crops and vegetable crops at Harbhanga and Kantamal blocks including 175 nos. of Farm and Farm women at Village: Yuvrajpur, Radhanagar, Tileswar, Dhalpur, Manamunda, and Khatkatia.
New HY Paddy varieties to be taken in OFT or FLD to replace Pooja variety.	➤ 1 no. of OFT programme on HY medium duration paddy varieties CR-317 and CR-319 have been taken in during kharif 2022 at Village: Kultakhali (No. of Farmer: 07, Area: 1 ha).
Training to SHGs in collaboration with KVK (All agriculture and allied)	➤ 2 nos. of Vocational training programme on Production of Vermicompost, Nursery Management, and Mushroom Production and on Bee Keeping Farming have been conducted including 70 nos. of WSHGs members for their capacity building at KVK campus.

Awareness on onion and watermelon production.	<ul style="list-style-type: none"> ➤ Awareness camp on watermelon production will be conducted in Rabi season-2022-23. ➤ 6 nos. of F/FW training on Kharif Onion cultivation in convergence mode with Dept. of Horticulture and NHRDF have been conducted at Village: Kulutakhali, Lundrujhor, Tileswar, Dhalpur, and Manamunda including 150 no. of farmers.
High value vegetable such as capsicum, Red cabbage, Broccoli to be promoted.	<ul style="list-style-type: none"> ➤ High value vegetable such as capsicum (var. Fiza), Red cabbage (var. Red jewel), Broccoli (Green Magic) have been promoted in crop cafeteria of KVK, Boudh and 2000 nos. of seedlings have been demonstrated under SCSP programme.
OFT on use of micro-nutrient in vegetable such as cauliflower on Tomato.	<ul style="list-style-type: none"> ➤ One no. of FLD programme on Micronutrients on growth and yield of cauliflower proposed to be conducted in Rabi 2022-23.
LAC to be promoted	<ul style="list-style-type: none"> ➤ One no. of FLD on Demonstration of Lac Culture proposed to be conducted in Rabi season.
Awareness on organic farming to be included.	<ul style="list-style-type: none"> ➤ 5 nos. of Awareness Camp on Organic Farming, Natural farming at Village Kultakhali, Rampur, Gaundisara, Baghiapada, and Dhalpur (including 150 nos. of farmers) and 1 no. of Vocational training programme on Vermicompost Production to the WSHGs members and rural youths have been conducted in KVK, Boudh during Kharif -2022.
Suitable varieties (Pulse or Oilseed Crops) after immediate paddy to be promoted.	<ul style="list-style-type: none"> ➤ Pigeon pea variety LRG- 52 (Area- 30 ha, No. Of Farmer-75) and Sesame variety <i>Smarak</i> (Area-10 ha, No. of Farmer-25) have been demonstrated under CFLD programme during kharif 2022 and Oilseed crop Mustard (<i>Sushree</i>) will be taken during Rabi after immediate harvest of paddy.

Agenda-3 Achievements made during: Rabi 2021-22

The Senior Scientist and Head presented the overall achievements made by the KVK during Rabi 2021-22.

On-Farm Testing

Three numbers of OFTs have been conducted during Rabi- 2021-22 involving 21 nos. of farmers based on problem of farmers field. Some of salient achievements of the OFTs were as follows:

In OFT on “Assessment of Application of growth regulator in chilli”: treatment 1 was taken with spray of NAA @10 PPM at 60 and 90 days after planting and spray Triocontanol @ 1.25 ml/lit at 20, 40, 60 and 80 days of planting was taken as treatment 2 recorded 105.42 q/ha & 113.85 q/ha yield respectively as compared to 89.4 q/ha yield with no application of growth regulator in farmers practice.

In OFT on “Assessment of Efficacy of novel fungicides against purple blotch in Onion in upland irrigated during Rabi season”: Treatment 1 was taken by Seed treatment with (Carboxyn+Thiram) @ 2.5 gram per kg of seed along with foliar application of Tebuconazol 25 EC @ 1 ml /lit of water recorded 170.85 q/ha bulb yield as compared to 90.42 in farmers practice with foliar application of Copper Oxychloride @ 3gm/lit of water while seed treatment with (Carboxyn+Thiram) @ 2.5 gram per kg of seed along with foliar application of Azoxystrobin 23 SC @ 1 ml/Lit of water gives 184.314 q/ha yield.

In OFT on “Assessment of different planting time for better market price of Tomato” Planting of seedling 30 days before onset of normal planting period (2nd week of October to 2nd week of November) recorded 232.57 q/ha yields as compared to 210 q/ha yield in farmers practice and planting of seedling 30 days after onset of normal planting period gives 223.85 q/ha yield.

Front Line Demonstration

K.V.K conducted 03 nos. of frontline demonstrations during Rabi-2021-22. Salient achievements of some FLDs were given below.

Demonstration on Pre and Post Emergence Herbicides in Rabi Groundnut: where Pre-emergence with application of Oxyflurofen @ 0.04kg/ha, followed by early post emergence of Imazathapyr @0.12kg/ha gave yield of 18.58 q/ha as compared to 13.46 q/ha in farmers practice which is 37.89 % change in yield.

Demonstration on Weed management in Okra: where Pre-emergence application of Pendimethalin @ 5-6 ml/L + one hand weeding at 45 DAS recorded yield of 89.2 q/ha as compared to 75.9 q/ha in farmers practice which is 18.66% changes in yield.

Demonstration on Weed Management in Rabi Onion: where Pre-emergence application of Pendimethalin @ 0.2 % or Oxyfluorfen (1.5ml/l) + one hand weeding at 40 to 60 DAT recorded yield of 237.2 q/ha as compared to 181.3 q/ha in farmers practice which is 30.93 % changes in yield.

Demonstration on pesticide management on viral disease of watermelon: where rotational application of Spinetoran @ 1ml/lit, Acetamaprid @ 0.5ml/lit, Fipronil @ 1.5ml/lit and alpha-Cyhalothrin @ 1ml/lit at weekly intervals protected the crop from viral diseases and recorded yield of 223.28 q/ha as compared to 170.65 q/ha in farmers practice which is 24.4 % changes in yield.

Agenda- 4 Achievements made during: Kharif- 2022

The Senior Scientist and Head presented the overall achievements made by the KVK during Kharif-2022.

On-Farm Testing

Four numbers of OFTs have been conducted during Kharif-2022 involving 51 farmers based on problem of farmers. Some of salient achievements of the OFTs were as follows:

In OFT on “Assessment of Medium duration High Yielding Rice varieties”: where Rice variety CR-317 was taken as treatment 1, compared to Pooja variety in farmers practice and Variety-Rice variety CR-319 was taken in treatment 2. Result of OFT is yet to come.

In OFT on “Assessment of combine insecticides for management of major insect pest of rice”: where application of Flube diamide 240 SC + Thiacloprid 240 SC (Belt Expert) @ 300 ml/ha twice i.e. at tillering & P.I. stage for management of rice stem borer, gall midge, leaf-folder and BPH was taken as treatment 1, compared to applying single pesticide for management of individual pest in farmers practice and treatment 2 was taken as application of Ethiprole 40% + Imidaclopride 40% (Glamore) @ 125 g/ha twice i.e. at tillering & P.I. stage. Result of OFT is yet to come.

In OFT on “Assessment of IDM in Bacterial Leaf Blight in rice”: where Seed treatment with bleaching powder @ 10g/l/kg seed + Zinc sulphate @ 2%, spraying of Streptocycline @ 300 ppm + COC @ 0.3% during disease appearance was taken as treatment 1 compared to indiscriminate application of spurious chemicals with improper dose in farmers practice and treatment 2 was taken by seed treatment with *Pseudomonas fluorescens* @ 10g/kg of seed, spraying of Streptocycline @ 300 ppm + COC @ 0.3% during disease appearance. Result of OFT is yet to come.

In OFT on “Assessment of effectiveness of different extension methodologies on Paddy Production” where treatment 1 was taken as Farmer practice + short video lecture+ Focus group discussion, compared to Farmer practice where Farmers getting message through peer groups, input dealers, extension functionaries, and KMAS and treatment 2 was taken as FP+ Using of “Rice Expert” App. Result of OFT is yet to come.

Front Line Demonstration

K.V.K conducted 06 nos. of frontline demonstrations during Kharif-2022. Salient achievements of some FLDs were given below-

“Demonstration on Bio-fortified rice variety CR-310 for nutritional security”: where CR-310 variety was taken as demo and rice variety Naveen was taken in farmer practice. Result of FLD programme is yet to come.

“Demonstration on Pre and Post Emergence Herbicides in transplanted Rice “: where demonstration was taken with Pre-emergence application of Pretilachlor 6% + Bensulfuron methyl 0.6 % GR(Ready mix) 600g/ha at 3 DAT post emergence application of Bispyribac Sodium 10 EC 200g/ha at 20 DAT compared to farmers practice with no use of chemical herbicides. Result is awaited.

“Demonstration on medium duration maize hybrid-Kalinga Raj (OMH-14-27)”: Cultivation of medium duration maize hybrid-Kalinga Raj (OMH-14-27) gave yields of 42.72 q/ha as compared to 31.52 q/ha in farmers’ practice which is 35% change in yield.

“Demonstration on Management of Fall Army Worm in maize”: Application of 5% NSKE/ Azadirachtin 1500 PPM @ 5ml/l of water during egg laying stage, application of *Metarhizium anisopliae* @ 5gm/l of water at 15-25 days after sowing and application of Emamectin benzoate @ 0.4 gm/l of water to manage the 2nd & 3rd instars larvae effectively recorded yield of 35.4 q/ha as compared to 25.5q/ha in farmers practice which is 27.8 % changes in yield.

“Demonstration on Management of Stem Borer in Rice”: where release of *Trichogramma chilonis* @ 20,000/acre thrice at 7 days interval was taken as demonstration. First release has been done at 30 DAT. One spray of Rynaxypyr 150 ml/ha and one spray of spinetoram 6%+methoxyfenozide 30% SC @ 400 ml/ha alternately at 15 days and 45 DAT compared to application of phorate @ 10kh/ha, and Chloropyrifus in farmers practice. Result is yet to come.

“Demonstration on Management of sucking pest in cotton” with planting 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 application of Flonicamid 50% WG @ 175 gm/ha twice at 10 days interval compare to application of non targeted pesticides like Profenophus and Cypermethrin in farmers practice.

Training

KVK imparted training to 1150 farmers & farmwomen through 38nos. training programmes, 90nos. Of rural youths trained on quality planting material production in vegetable, Bee keeping, Paddy straw & oyster mushroom cultivation, Production of quality planting material under protected condition, entrepreneurship development, value addition of vegetables through 06 Nos. of trainings were conducted during the period and 2 nos. of In-service training programme have been conducted. 60 nos. of farmers and farm women trained on Vermicompost Production and Bee Keeping Farming through 2 nos. of Vocational training were conducted during this period.

Other Extension Activities

KVK conducted other extension activities viz. Scientist visit to farmers' fields 65 nos, Farmers visits to KVK 56 nos, 3 Field days, 2 nos. of special Swachhata Campaign, 15 days of Swachhata Pakhwada celebration, 10 nos. of farmers Scientist Interaction Programme, 1 no. of Awareness campaign on Balanced Use of Fertilizer, 10 nos. of Special. Day celebration, 4 nos. of Exhibition and 14 Film shows. Scientists of KVK published 1 no of Newsletters, 3 nos. of popular Articles, 4 nos. of web-telecast programme have been conducted. 36 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, Webinar, etc. during the period.

KVK cultivated Pigeonpea variety (**BRG-5**) at its own farm. KVK produced seedling of Brinjal (**JK-8031, Shruti-Gold**) 10,500 nos, Onion (**AFDR, NHRDF Red -3, NHRDF Red-4**) 4,00,000 nos., Chilli (**Krishna**) 7,300 nos., Tomato (**Kabya**) 9,000 nos., Cauliflower (**Barack**) 6,800 nos., Cabbage (**Blue Diamond**) 5,800 nos. during the year. In case of other material production Mushroom(Paddy straw & Oyster) is 80kg, Vermicompost 10 q., Poultry chicks is 1700 in nos. and Honey is 10 kg during the year of 2022-23.

Agenda 5: Action Plan for Rabi 2021-22

There is a plan of conducting 03 nos. of OFTs and 06 FLDs during Rabi -2022-23.

Recommendation from 19th SAC Meeting:

The following action points were suggested by the SAC members.

- Area to be increase from 1 ha to more in case of FLD programme in KVK, Boudh suggested by ICAR ATARI-Kolkata.
- Nos. of work on veterinary, Fishery, allied sector (suggestions from DLREI meeting) to be increased in the district suggested by ICAR ATARI-Kolkata.
- More no. of training programme on Organic farming & Natural farming should be included suggested by Associate Director of Research, Chiplima.
- Organic farming group should be prepared and marketing facilities to be made for organic production suggested by DDM, NABARD, Boudh.
- After paddy cultivation pulses crop should be included suggested by Associate Director of Research, Chiplima.
- Acid soil management practices to be included as suggested by ADR, Chiplima.
- Capacity building programme on cotton crop to be included at Kantamal Block as suggested by Bhim Barul FPO.
- Banani FPO suggested to carry out different activities such as backyard poultry rearing, demonstration on vegetable seedling production and Vermicompost production for doubling of farmer income in the district.
- Varietal trial on Black gram to be taken in the OFT Programme as suggested by BAO, Boudh.
- OFT or FLD programme on Green gram (like IDM, INM etc.) to be taken as suggested by BAO, Boudh.
- Awareness cum training programme on Animal Health in convergence mode to be done suggested by ADVO, Boudh.
- DDM, NABARD suggested to give more importance on production of Oilseed and Pulses crop.
- Trials/Training/Awareness programme on Millet crops to be taken as suggested by DDM, NABARD.
- Trials/Training programme on floriculture (such as Tuberose & Marigold) or some improved variety to be taken as suggested by Principal Scientist CHESS, Bhubaneswar.
- Trials on new vegetables like Sponge gourd, Ivy gourd, and leafy vegetables at KVK, Crop cafeteria as suggested by Principal Scientist CHESS, Bhubaneswar.

- Awareness programme on production of kharif onion to be increased as suggested by NHRDF, Boudh.
- AFO, Boudh suggested to conduct training programme on fresh water prawn production in convergence mode at district level.
- Training programme on watershed management to be conducted as suggested by APD, Watershed, Boudh.
- Training programme on value addition to be included.
- JDE, DEE, OUAT suggested to introduce Kalinga, Pallishree chicks in the district through SCSP and FLD Programme.

The meeting was ended at 2.00 pm with vote of thanks by Smt. S. Priyadarshini, SMS (Agronomy).

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15/02/23

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