

## PROCEEDINGS OF THE 17<sup>th</sup> SCIENTIFIC ADVISORY COMMITTEE MEETING OF KVK SUNDARGARH-I

The 17<sup>th</sup> Scientific Advisory Committee meeting of KVK, Sundargarh-I was held on 13.01.2021 at 10.00 am in the training hall of KVK, Sundargarh-I under the Chairmanship of Dr. Pawan Kumar Agarwal, Hon'ble Vice Chancellor, OUAT, Bhubaneswar, through hybrid mode. Respected District Collector & DM, S. Nikhil Pavan Kalyan, IAS was the special guest on this occasion. The members present in the meeting are annexed herewith.

At the outset, Dr. Laxmipriya Pradhan, Senior Scientist and Head, KVK, Sundargarh-I welcomed to the members to the meeting.

After a introductory remark and brief interaction with Collector & DM, Hon'ble Chairman asked the Senior Scientist and Head to start the proceedings as per the agenda.

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

The Senior Scientist and Head, KVK, Sundargarh-I, Dr. L. Pradhan, appraised the house by circulation of the proceedings to the members and presented the action taken report of the last 16<sup>th</sup> SAC meeting held on 31.12.2019 indicated below.

### **Action Taken on the proceeding of last SAC (16<sup>th</sup>) meeting**

The Senior Scientist and Head presented various actions taken by the KVK as per recommendations of the last SAC meeting.

### **Salient recommendations of 16<sup>th</sup> SAC and action taken**

Sl No	Recommendations	Action taken
01	Assessment of new technologies for diversification of upland rice with oilseeds/ pulses/ maize/milletts.  Focus to be given on promotion of pulses in rice-fallow areas	<ul style="list-style-type: none"> <li>❖ One OFT on Assessment of different pulse crops (Field pea/Gram) in paira cropping system has been taken to address the problem of rice fallow.</li> <li>❖ Schematic support of Agriculture Department has been ensured in promoting remunerative crops like groundnut, arhar and maize in KVK operational villages.</li> </ul>
02	Apiary to be promoted in watershed areas in convergence mode.	<ul style="list-style-type: none"> <li>❖ Under TSP one residential skill development training programmes was conducted involving 15 nos of rural youths including watershed villages</li> <li>❖ Under ATMA one residential skill development training programmes was conducted involving 30 nos of farmers and farmwomen</li> <li>❖ 20 nos of beneficiaries have been identified for demonstration on Rearing of honeybee for income augmentation in our adopted villages</li> </ul>

Sl No	Recommendations	Action taken
		<ul style="list-style-type: none"> <li>❖ Beneficiaries selected from watershed areas for honey bee training programme and 30 nos. of Bee boxes with colony has been set up in Damkuda village in convergence mode .</li> <li>❖ District Administration under DMF support has developed mega Apiary project (2650 Nos. bee box), where 2650 WSHGs for Apiary production and promotion. KVK developed the course module and shared with entrepreneurs for technical support in the programme.</li> </ul>
03	New varieties of pulses and oilseeds to be demonstrated under CFLD/FLD which have been tested under the National Evaluation System of GOI.	<ul style="list-style-type: none"> <li>❖ Under CFLD (Oilseeds) new mustard varieties Uttara have been demonstrated in 50ha. area in Subdega and Rajgangpur blocks and also more than 500 ha has been demonstrated by Dept of Ag. under NFSM programme.</li> <li>❖ Under CFLD pulses new blackgram variety PU-02-43 has been demonstrated in 20ha area of Subdega block. Another 100ha been demonstrated by Dept of Ag. under NFSM programme</li> <li>❖ New moong variety IPM-02-14 has been demonstrated in 40ha. area in Sadar, Balisankara, Tangarpali block and more than 700 ha been demonstrated by Dept of Ag. under NFSM programme</li> </ul>
04	Popularization of protein rich rice varieties in large scale.	<ul style="list-style-type: none"> <li>❖ New varieties CR-311 and CR 310 have been demonstrated in TSP villages</li> <li>❖ One of our adopted village has supplied 10q of CR-311 and 2q of CR-310 seeds to farmers of Sundargarh and Jharsuguda Districts.</li> </ul>
05	Promotion of Mushroom spawn production in cluster approach.	<ul style="list-style-type: none"> <li>❖ Mushroom has been identified as ODOP in the district.</li> <li>❖ One project of Rs 20 lakhs for Forest Department has been prepared by KVK on request of DFO, Sundargarh for establishment of mushroom spawn production lab at Ujjalpur, which will support livelihood activities of VSS members.</li> <li>❖ Project proposal for establishing mushroom spawn production unit of an enterprising tribal farmer Mr. Jatindra Barwa has been developed by KVK and submitted to Dept. of Horticulture.</li> </ul>
06	Promotion of improved varieties	<ul style="list-style-type: none"> <li>❖ Around 50,000 seedlings of new improved IIHR</li> </ul>

Sl No	Recommendations	Action taken
	of tomato suitable for year round cultivation. Summer varieties of tomato which are performing well in adjoining states of Chhatisgarh and Jharkhand having similar climatic and weather conditions to this district, to be assessed with varieties available in RCER, Ranchi.	developed varieties namely Arka Rakshak, Arka Samrat, Arka Abhed along with RCER, Ranchi variety Swarna Sampada have been supplied to farmers by KVK. ❖ Two OFTs on assessing suitable varieties of tomato for keeping longer period and to assess suitable varieties of tomato for management of leaf curl virus has been conducted by KVK. ❖ There is a horizontal spread of more than 500 farmers in 124 villages through the Horticulture Dept and ATMA, Sundargarh.
07	One on farm research trial on tomato to be conducted at RRTTSS, Kirei along-with OUAT varieties of Utkal Raja and Utkal Pragyan.	❖ One research trial has been conducted at Kirei campus by RRTTSS as intercrop with ragi and the varieties Swarna sampada gave higher yield.
08	Improved Papaya varieties like Pusa Delicious, Pusa Giant, Pusa Nanha to be tried in IFS unit of KVK.	❖ 3000 saplings of variety Pusa Nanha, Ranchi Dwarf and Red Lady have been supplied to farmers and also demonstrated in nutri-garden under TSP. ❖ One crop cafeteria on different varieties of Papaya has been demonstrated in KVK, IF.
09	Drought tolerance Rice variety Swarna Shreya to be popularised alongwith other similar varieties.	❖ Drought tolerant rice variety Swarna Shreya has been popularized in 20ha area of Sundargarh and Tangarpali blocks by KVK. ❖ Certified Seeds of Swarna Shreya produced by farmers from our adopted village have been supplied to KVK, Jharsuguda for NICRA project. ❖ 12 nos of seed growers had cultivated in more than 40ha area and sold to OSSC. ❖ Swarna Shreya variety has been included in list of varieties for seed production by OSSC in Sundargarh district for the year 2021-22
10	One OFT can be taken up on Sisal as Sisal has huge potential in Sundargarh district where 54% lands are upland.	❖ Programme could not be taken up due to COVID situation and poor contact of farmers.
11	Focus on Farm mechanisation in different crops. Trainings on maintenance and operations of small farm equipments to be	❖ A Training-cum-Awareness programme for Pump Technician and farmers was organized involving 70 farmers of 9 blocks of the district at KVK campus.



Sl No	Recommendations	Action taken
	conducted at KVK with support from private agencies and line departments.	<ul style="list-style-type: none"> <li>❖ Different types of energy efficient pumps, Power tiller, Weeder were exhibited during Rabi Kisan Mela, world soil day &amp; pump technician programme organized at KVK involving 7 manufacturing companies.</li> <li>❖ One method demonstration on Ragi seed Thresher-cum-pearler was organized by College of Ag. Engineering, OUAT and KVK at FIAC, Rajgangpur.</li> <li>❖ 27 Nos of OUAT Ragi-thresher-cum-pearler have been distributed to Groups under Odisha Millets Mission in Sundargarh district.</li> </ul>
12	Low cost banana ripening chamber to be installed at KVK and a project proposal to be sent to DDH for approval and sanction.	<ul style="list-style-type: none"> <li>❖ One low cost banana ripening chamber has been developed at KVK operational village Amasaranga of Sadar block.</li> </ul>
13	Two layer cage type poultry rearing technologies for forest areas can be tried at KVK with technology support from KVK, Jalpaiguri (W.B) and promoted in convergence with ARD Dept.	<ul style="list-style-type: none"> <li>❖ For information on technology, KVK, Jalpaiguri, West Bengal had been contacted.</li> </ul>
14	Submission of the project proposal on IFS unit and protected structure for nursery to the PD, ATMA for approval and sanction.	<ul style="list-style-type: none"> <li>❖ Project proposal of Rs 92.8 lakhs ( IFS and Hitech-nursery) have been approved by hon'ble Vice Chancellor, OUAT and District Collector for sanction under (DMF), Sundargarh with necessary guidance from watersheds and Horticulture Department.</li> </ul>
15	Technologies like SMI, SWI, SRI to be discouraged at KVK as they are labour intensive and expensive, rather alternate technologies for production to be incorporated from National Research System.	<ul style="list-style-type: none"> <li>❖ No technologies which are labour intensive are being taken-up or promoted.</li> </ul>

## **Agenda-2 : Achievement made by the KVK**

The Senior Scientist and Head presented the overall achievements made by the KVK for the period Rabi,2019-20 and Kharif,2020.

### **Summary of Achievements for Rabi, 2019-20 and Kharif, 2020**

- 1. Training:**– KVK has conducted 25Nos. of training programme for practicing farmers and farm women, 09 Nos. for Rural youths involving & 02 Nos. for extension functionaries and 4 Nos of Sponsored training involving 1003 participant in total.
- 2. On Farm Trial:-** 07 nos of On Farm Testings were conducted on IPM of pod borer on Greengram, cold tolerance varieties of Oyster mushroom, suitable varieties of tomato for long term preservation, INM in Ragi, thrips management in chilli, different methods of pasteurization of straw for controlling of Ink caps in paddy straw mushroom bed, different planting time for better market price of tomato. Involving 61 nos.of farmer was conducted during rabi, 2019-20 & kharif 2020.
  - In assessment of integrated nutrient mgt in ragi TO2 (75% RD-N + 25% N through organic manure gives the yield to the tune of 10.4 q/ha, in TO1(100% RDF 40:20:20) + FYM (7.5 t/ha) with yield 9.2 q/ha as compared to 5.4 q/ha in FP (No application of chemical fertilizer and only FYM).
  - While assessing the efficacy of different pulse crops (Field pea/Gram) in paira cropping system in TO2 (Broadcast of fieldpea seeds 100kg/ha before harvesting of rice and application of 40kg P<sub>2</sub>O<sub>5</sub> at PI stage of rice) gave better production than TO1(Broadcast of chickpea seeds 100kg/ha before harvesting of rice and application of 40kg P<sub>2</sub>O<sub>5</sub> at PI stage) and resulted in better income of farmer.
  - In assessment of IPM of pod borer in greengram TO2 (seed treatment with imidacloprid @ 5ml/kg seed + followed by spraying with Indoxacarb @2ml/ltr) gives the yield to the tune of 10.0 q/ha as compared to TO1 (Seed treatment with Imidacloprid @5ml/kg seed and spraying with Thiomethoxam 2gm/ltr of wate gives 8.4 q/ha as against 6.2 q/ha in farmers practice.
  - In assessment of thrips management in chilli TO2 (seed treatment with imidacloprid @ 5ml/kg seed and foliar spraying with spiromesifen 22.9% S C @ 1ml/ltr of water twice at 30 and 45 DAT with yield of 79.4 q/ha as compared to TO1 (Seed treatment with Imidacloprid 600FS @5ml/kg of seed) gives 71.2 q/ha as against 52.9 q/ha in farmers practice.

- While assessing the efficacy of wilt resistant tomato varieties in TO2 having tomato variety Arka Rakshak gives the yield of 290 q/ha in TO1 having variety Arka Samrat gives the yield of 228q/ha and a yield of 187.7 q/ha in farmers practice having farmers variety Laxmi.

**3. Front Line Demonstration** – KVK has conducted 10 numbers of Front Line Demonstrations during rabi, 2019-20 & Kharif 2020 on Production of Oyster mushroom for Income generation-TSP, Nutritional garden for nutritional security of farm families-TSP, Ragi biscuits for Nutritional security, Grain-pro super bag for safe storage of pulses, Protein rich rice varieties CRdhan-311, BPH tolerant rice varieties Hasanta, Drought tolerant rice varieties Swarna shreya, Popularization of short duration Arhar varieties PRG-176, High yielding ragi variety Arjuna, Production of Paddy straw mushroom for Income generation-TSP with participation of 156 no. of farmers.

- Demonstration on Protein rich rice variety CR Dhan 311 to address the problem of prevailing malnutrition among tribals where the yield increased from Farmer's practice (variety Naveen) : 39.2q/ha to recommended practice (Var CR Dhan 311) : 43.8q/ha
- In demonstration on Ragi (var Arjun) to address the problem of low yield from existing local variety it was found that the yield in case of farmers practice (var. Jaguli) was 5.6q/ha while in recommended practice (var. Arjun) was 8.6q/ha.
- Demonstration on drought tolerant rice (var. Swarn shreya) to address the problem of yield loss due to moisture stress during grain filling stage where the yield increased from farmer practice (var. Naveen) 42.4 q/ha where as in recommended practice (var. Swarna shreya) 48.6 q/ha.
- In demonstration on popularization of short duration Arhar variety (PRG 176), the problem of non-availability of short duration HYV arhar where it was found the in case of farmers practice (var. UPAS 120) : 10.2 q/ha, while in recommended practice (Var PRG 176) : 21.4 q/ha.
- In demonstration on BPH tolerant rice (var. Hasant) to address the problem of BPH susceptibility in existing varieties where it was observed that BPH variety Hasant performed better yielding 44.6 q/ha over farmers practice (var. Pooja) : 38.2 q/ha. The Hasant variety was tolerant to BPH and moderately tolerant to WBPH in medium land situation.



- In demonstration management of fruit & shoot borer management in Okra was carried out where there was low yield due to severe infestation of fruit & shoot borer. spraying of Spinosad 45%SC @0.4 ml/ltr at the time of pest emergence resulted in higher yield of 98.2 q/ha over FP yield of 79.6 q/ha
- In demonstration of Grain pro superbag for addressing problem of storage loss due to infestation of pulse beetle in gunny bags where use of grain pro superbag extended the germination life of seed and control storage pests with decrease of 89% infestation over storage in gunny bags as farmers practice.

4. **Extension Activities:** KVK has also conducted various extension activities such as 04 numbers of field days, 03 Exhibitions, 25 CD Film shows, 12 Nos. of Special day celebration (World Soil day, 92<sup>nd</sup> ICAR Foundation Day, OUAT Foundation day, World Food day, Mahila Kisan Diwas, Akshya tritiya, Lanching of NADCP, Fertilizer application farmers awareness programme, Agricultural education day, PM Kisan, etc), 02 Ex-trainees meet and several other activities like Diagnostic Field Visits & KMAS, publication of literature & news letter, Soil health campaigning, Input dealer interface and farmers-scientist interactions, Swachha Bharat Abhiyan, Jalashakti Abhiyan, Mega tree plantation, Vanomahostav, Research Extension interface meet etc. covering about 2294 participants.

5. **Cluster Front Line Demonstration:** Cluster Demonstration on Oilseeds and pulses were conducted in 30ha. area covering 78 Nos. of participants. Improved package of practices has been adopted in the demonstration for increasing the productivity on Mustard (cv. Uttara), during rabi 2019-20, Greengram (cv. IPM-02-14) during Kharif 2019 and Rabi 2019-20 with an average yield of 7.62q/ha, 9.8q/ha and 9.2q/ha was obtained as compared to 5.8q/ha, 7.2q/ha & 6.8 q/ha 10.4 qt/ha in farmers practice respectively.

### **Agenda 3: Action plan for Rabi, 2020-21**

1. **Training:** The Senior Scientist and Head, KVK presented the detailed Action Plan developed by the KVK for Rabi,2020-21 which included 11 Nos. of trainings for farmers and farmwomen, 3Nos. for Rural Youth and 4 Nos. for In-service personnel and 1 sponsored training covering 379 participants.
2. **On farm Trials:** Three nos. of OFTs will be conducted viz. (i) Assessment of wilt resistant tomato varieties (ii) Refinement of planting time of tomato for better market price (iii) Assessment of different pulse crops (Field pea/Gram) in paira cropping system involving 33 participating farmers/farm women conducted during rabi 2020-21.
3. **Front Line Demonstration:** KVK have plan to conduct 3 numbers of Front Line Demonstrations during rabi, 2020-21 viz. (i) Rearing of Honey bee for income augmentation (ii) Promotion of organic Inputs through vermicomposting (iii) Cage system of Poultry in forest areas covering 25 nos. of participating farmers/farm women.

### **Agenda – 4: Areas of improvements in KVK for enhancing its performance**

- ❖ Farm development of rocky and undulating land areas to cultivable form
- ❖ Construction of new administrative building
- ❖ Furnishing of the Farmers' Hostel for more effective trainings
- ❖ Training hall to accommodate more than 100 nos. of participants.
- ❖ Filling of Vacant scientific & technical staffs of KVK.

### **Suggestions of the members**

The following action points were suggested by members of the SAC

1. Protein rich rice varieties CRDhan 311 to be popularised
2. Bee keeping to be promoted in organic farming areas
3. Stress tolerant crop like ragi and others to be promoted
4. Guava variety Bihi can be promoted Under NREGA through DMF
5. Suitable varieties rice straw having high cellulose and hemicellulose may be assessed for better production of Mushroom.
6. Under OMBADC, KVK technologies to be replicated to more areas.
7. Bio-floc, ornamental fish hatchery and similar income generating activities for rural youths to be promoted.
8. All the unutilised rocky lands of KVK to be planned and planted accordingly



9. Backyard poultry OUFAT breed pallishree than Kadaknath and otherto be promoted
10. Promote preparation and consumption of Ragi biscuits
11. One nutritional calendar of nutri- garden may be developed mentioning types of vegetables suitable with their nutritional value and time of sowing.
12. Tomato hybrid varieties released by IHR (Arka & Swarna series) suitable for sundargarh district to be promoted by Hort. dept.
13. Instead of tissue culture micro-propagation of banana to be encouraged.
14. Promote large scale production of Mushroom and value addition of mushroom.

Approved

*[Signature]*  
16/12/2021

Senior Scientist & Head  
KVK, Sundargarh-I  
**Senior Scientist & Head**  
**Krishi Vigyan Kendra**  
**Sundargarh - I**

*[Signature]*  
21/12/21

Joint Director (Information)  
Directorate of Extension Education  
OUAT, Bhubaneswar

*[Signature]*  
21/12/21

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Directorate of Extension Education  
OUAT, Bhubaneswar

**List of Members Present in the SAC Meeting**

Sl. No.	Name	Designation	Status
1	Sri Nikhil Pawan Kalyan	Collector & DM, Sundargarh	Special Invitee
2	Sri L N Das	CDAO, Sundargarh	Member
3	Sri Jagateswar Behera	DDH, Sundargarh	Member
4	Sri Kandarpa Pradhan	E.E., MI Division, Sundargarh	Member
5	Sri Atulya Kumar Pradhan	BSMS, TC, CSB, Kirei	Member
6	Sri Hitesh Agarwal	A.E.E, MI, Division, Sundargarh	Member
7	Dr. Sushanta Kumar Naik	Representative, CDVO, Sundargarh	Member
8	Sri S P Mohapatra	DDM, NABARD	Member
9	Sri Anjan Kumar Panda	Livelihood expert, DMF, Sundargarh	Member
10	Sri Arpan Das	Livelihood expert, OMBADC, SNG	Member
11	Sri Subodh Panigrahi	DM, OAIC, Sundargarh	Member
12	Sri Arun Kumar Sahoo	I/c District Fisheries Officer, SNG	Member
13	Mr. Don Bosco	LDM, Sundargarh	Member
14	Sri Manoj Kumar Barik	Scientist, KVK, Jharsuguda	Invitee`
15	Ms. Swai Sucharita Panda	SMS, ITDA, Sundargarh	Member
16	Sri Manoj Kumar Mahakul	Organic Farmer, Balisankara	Member
17	Sri Chakradhar Sahoo	AMO, RRTTSS, Kirei	Invitee
18	Sri Binaya Kullu	Compere, All India Radio, Rourkela	Member
19	Sri Rabindra Kerham	Compere, All India Radio, Rourkela	Member
20	Sri Debasis Mishra	Addl. P D Watershed, Sundargarh	Member
21	Sri Biswaranjan Hota	CIRTD, Sundargarh	Member
22	Sri Jitendra Ku Dehury	G M DIC, Sundargarh	Member
23	Mrs. Mandakini Naik	Farmer, Talimunda	Member
24	Narasingha Behera	DPD, ATMA, Sundargarh	Member
25	Sri Gangadhar Kisa	FPO, Chhedelgaon, Sewak, SNG	Member
26	Dr. Satyamaya Satapathy	Scientist, KVK, Sundargarh-1	Member
27	Dr. Sajeeb Kumar Biswasi	Sr. Scientist, RRTTSS, Kirei	Member
28	Mr. David James Bage	Scientist, KVK, Sundargarh-1	Member
29	Smt. Sanghamitra Sahu	Scientist, KVK, Sundargarh-1	Member
30	Sri Arun Kumar Mishra	PA(Comp) KVK, Sundargarh-1	Member
31	Sri Mudada Dibyanath	PA(Fishery), KVK, Sundargarh-1	Member
32	Sri Rabi Sankar Mishra	Farm Manager, KVK, Sundargarh-1	Member
33	Dr. Laxmipriya Pradhan	Sr. Scientist & Head, KVK, Sng-1	Member Convenor

