PROCEEDINGS OF THE 18th SCIENTIFIC ADVISORY COMMITTEE MEETING OF KVK SUNDARGARH-I

The 18th Scientific Advisory Committee meeting of KVK, Sundargarh-I was held on 29.12.2021 at 10.00 am in the training hall of KVK, Sundargarh-I under the Chairmanship of Dr. Prasanjeet Mishra, Dean, Extension Education, OUAT, Bhubaneswar. Dr. Mahamaya Prasad Nayak, Joint Director (Information), Directorate of Extension Education, OUAT and Mr. Maheswar Naik, Additional District Magistrate, Sundargarh were the special guests on this occasion. All the SAC members were present in the meeting. (Annexure-II)

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

After the introductory remark, respected Chairman asked the Senior Scientist and Head to starts the proceedings as per the agenda.

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

The Senior Scientist and Head, KVK, Sundargarh-I, appraised the house by circulation of the proceedings to the members and presented the action taken report of the last 17th SAC meeting held on 13.1.2021. The Chairman was pleased to approve the proceedings after taking consent of the members.

Agenda 2 - Action taken on the proceeding of last SAC (17th) meeting

The Senior Scientist and Head presented various action taken by the KVK as per recommendations of the last SAC meeting held on 13th January 2021

Salient recommendations of 17th SAC and action taken

SI No	Recommendations	Action taken
01	Bee keeping to be promoted in organic farming areas	 One Special skill development training programme on Scientific bee keeping involving 25 participants for 7days conducted under NBB One residential Skill development training on Scientific Honey bee rearing involving 30 participants under ATMA, Sundargarh One Skill development training programme on rearing honey bee covering 15 nos of participants under ICAR(KVK) 30 nos of honeybee unit developed at Damkuda village on Convergence with PD watershed, Sundargarh.
02	Protein rich rice variety CR Dhan 311 to be popularised	* Promotion of new varieties CR-Dhan-311 have been

Sl No	Recommendations	Action taken
		departments i.e. Watersheds, Forest etc. 5has already demonstrated by KVK
03	Stress tolerant crop like Ragi and others to be promoted	Ragi variety Arjun has been popularized by KVK through OFT, FLD & Dept. promoted under millet mission in more than 2000ha area (3713.3ha)
04	Guava variety Bihi can be promoted Under NREGS	 250 nos. of tissue culture Guava supplied to IIWM, (Birjaberna and Mahuljore village) 350 numbers of saplings have been supplied to farmers of Sundargarh, 100 nos to KVK, Sonepur & KVK, Sambalpur 30 ha of guava plantation has been taken up by Hort. Dept. during 2021-22
05	Suitable rice varieties with straw having high cellulose and hemicellulose may be assessed	❖ The rice varieties having high cellulose recommended by NRRI is not available in this district
06	Under OMBADC, KVK technologies to be replicated to more areas	* KVK technologies like Banana cultivation under drip irrigation has been taken-up in large scale in OMBADC blocks (Kutra, Rajgangpur) of Sundargarh district. One Mushroom production unit developed at Kutra block
07	Bio-floc, Ornamental fish hatchery and similar income generating activities for rural youths to be promoted	 13 farmers have developed 30 number of bio-floc units through fishery department (Lephripara-4, Hemgir-4, Sadar-8, Balisankara-6, Subdega-8, Rajgangpur-2). 2 young entrepreneurs have developed 2 bio-floc unit on own. Around 30-35 number of new tanks developed for pisciculture through Department of Fisheries. Mushroom production, Vermicomposting, Nursery raising as well as backyard poultry activities promoted for income generation
08	All the unutilised rocky lands of KVK to be planned and planted accordingly	apple-ber have been planted with drip irrigation facility in 1ha
09	Backyard poultry OUAT breed pallishree to be promoted with Kadaknath	
10	Promote preparation and consumption of Ragi biscuits	
11	One nutritional calendar of nutri- garden may be developed mentioning types of vegetables suitable and time of sowing.	A Nutri-garden model has already been developed with types of vegetable & sowing time.

SI No	Recommendations	Action taken
12	Tomato hybrid varieties released by IIHR (Arka series) suitable for sundargarh district to be promoted by Hort. dept	 One OFT & FLD has been conducted in 7 villages (4 Blocks) with 17 nos. of beneficiaries Seedlings provided (Variety Arka-Rakshak and Samrat) to 30 numbers of farmers. Supplied 18,650 seedlings to 300 farmers of the district
13	Instead of tissue culture, micro-propagation of banana to be encouraged	❖ Programme will be conducted in January.
14	Promote large scale production of Mushroom and value addition of mushroom	 2 nos of RY and F&FW trainings conducted involving 95 trainees under ATMA & ICAR 1 no of training on Button mushroom cultivation in Odisha involving 65 nos of participants (KVKs of Odisha, AHOs, Enterpreneurs though hybrid mode Around 700 farmers are involved in round the year production of mushroom (through Agriculture, Horticulture, NGOs, OLM & ITDA) 2 demonstration on paddy straw mushroom and Oyster mushroom using threshed straw have been conducted. One training manual has been developed and provided totrainees during programme
15	Emphasis should be given on convergence activities with line department	 ❖ CFLD programme on Groundnut has been conducted in collaboration with PD Watershed and Forest dept. at Lephripada & Subdega block with involvement of 6 nos. of farmers ❖ Demonstration programme on Arhar variety PRG 176 and CFLD Oilseed has been conducted in collaboration with FPO Lepripada & SEWAK NGO ❖ FLD On Maize(VarKalinga Raj) conducted in VSS area (100 tribal farmers) of Forest dept. ❖ 3-Days training programme on" Button Mushroom Cultivation in Odisha" has been conducted involving 30 Farmers and farm women, 35 Scientists/SMSs from different KVKs, AHOs of different blocks and Entrepreneurs from different district through hybrid mode which was sponsored by ATMA, Sundargarh. ❖ Conducted Audio conference with 44 farmers of Sundargarh district, in collaboration with Reliance Foundation ❖ Joint Verification of Banana Plantlets, WADI scheme under OMBADC & Cold Room under NHB, Sundargarh has been made involving KVK Scientists ❖ Course framework on community nursery management has been supplied to PD, DRDA ❖ Exposure visit of farmers under Community Nursery Management sponsored by OMBADC, Sundargarh ❖ Funds have been sanctioned for establishment of Hi-tech Nursery and IFS unit at KVK by District Magistrate and Collector, Sundargarh under DMF

Agenda-3: Achievement made by the KVK

The Senior Scientist and Head presented the overall achievements made by the KVK for the period Rabi,2020-21 and Kharif,2021-22.

Summary of Achievements for Rabi, 2020-21 and Kharif,2021

Rabi-2020-	-21			Kharif 2021		Total	
Activities	Category	No.of activity	Beneficiaries	No.of activity	Beneficiaries	No.of activity	Beneficiaries
Training	F&FW	13	390	18	540	31	930
	RuralYouth	3	45	3	45	6	90
	Extension functionaries	3	50	2	30	5	80
	Sponsored	4	120	4	120	8	240
	Spenseres					Total	1340
OFT		3	21	3	21	6	42
FLD		6	80	10	190	16	270
CFLD (Oilseeds)	Groundnut (TG-37)	10ha	20	Sesamum (cv. GT- 10)-10ha	25	20ha	45

[•] Details of OFT, FLD and CFLD in Annexure- I

Extension Activities conducted

SI No	Total no of Activity	Total No of participants
1.	Akshaya Trutiya	11
2.	Van Mahotsav	33
3.	ICAR Foundation Day	21
4.	OUAT Foundation Day	42
5.	Nutritional Week	. 54
6.	Awarness-cum-Training on Nutrition	35
7.	Poshan Maah	69
8.	Mahila Kisan Diwas	35
9.	World Food Day	45
10.	Vigilance Awareness Week	9
11.	Constitution Day	10
12.	PMs Telecast on Natural Farming	92
13.	Agriculture Education Day	200
14.	World Soil Day	80

Agenda 4: Action plan for 2022-23

Class	Training Programmes t Type of Training	No proposed	No of participants
Sl no	Farmers and Farmwomen	66	1980
		13	215
2	Rural Youth Extension Personnel	7	105
3		3	130
1	Sponsored Total	86	2430
	OFTs to be con		2430
			No of Participants
	Title of OFT	No Proposed	7
1	Assessment of herbicides for weed management in transplanted rice	1	,
2	Assessment of Decomposer for in-situ residue management in Rice	1	7
3	Assessment of nano urea liquid fertilizer in transplanted rice	1	7
4	Assessment of PSB andVAM in Groundnut	1	7
5	Assessment of 13D and VANV in Grounding Assessment of the improved techniques for cultivation of Paddy straw mushroom (Volvariellavolvacea) using crumpled straw for yield enhancement	1	1
6	Assessment of the performance of FPOs with varied levels of task and commodity to enhance income	1	1
7	Impact assessment of Cluster Frontline Demonstration programme	1	30
	Total	7	60
	FLDs to be con	nducted	
1	Title of FLD	No Proposed	No of Participants
2	Demonstration on weed management in Blackgram	1	10
3	Demonstration on Maize variety Kalinga Raj (TSP)	1	10
4	Demonstration of Weed Management in Groundnut	1	10
5	Demonstration of Integrated Nutrient Management In Tomato	1	10
6	Demonstration of INM in Brinjal	1	10
7	Demonstration of Bunch feeding in banana for yield enhancement	1	10
8	Demonstration on potassium and zinc application for management of iron toxicity in rice	1	10
9	Demonstration of Floating fish feed in composite fish culture for growth enhancement	1	5
10	Demonstration on IMC yearling production in seasonal ponds	1	5.
11	Nutritional Garden for nutritional security of	1	20

- 6. Performance of chickpea should be studied in low land and heavy soils under residual moisture during rabi season.
- Detailed information has to be recorded for OFT on market price of Tomato.
- 8. Front Line Demonstration should be conducted on spine gourd and purple coloured sweet potato varieties.
- 9. Skill development training on nursery management should be imparted to the beneficiaries of watershed/WADI project.
- 10. Awareness on FPO formation and specific training need of FPO should be addressed by
- 11. Indigenous / local varieties of vegetables, millet should be demonstrated in KVK campus.
- 12. A small Spiriluna culture unit may be established at KVK with financial support of DMF and demonstration, training by CFTRI.
- 13. KVK should suggest suitable IFS models to different categories of beneficiaries of farm pond scheme and provide training on IFS.
- 14. KVK may promote Button mushroom in the district through training and exposure visit with the financial support of ATMA
- 15. Beneficiaries of Agricultural production clusters (APCs) /VSS may be trained on vermicompost production.
- 16. Emphasis should be given to provide soil health cards to farmers.
- 17. KVK should work on various activities related to draught prone areas.
- 18. OFT should be conducted on application of ICT on Agriculture and allied fields.
- 19. Farmer's participatory research should be conducted taking one vegetable crop at a time per year through financial support of ATMA.
- 20. Awareness to be developed on natural farming
- 21. Develop entrepreneurs on Mushroom spawn production unit in the district.

22. Trellis system of vegetables cultivation should be promoted in the district.

Senior Scientist & Head KVK, Sundargarh-I

Joint Director Extension (information)

	farm families (TSP)		20
12	Demonstration on Production of paddy straw mushroom in threshed straw for income generation(TSP)	1	20
13	Demonstration on management of competitive fungus (Coprinus/Inkcaps) in paddy straw mushroom bed in Kharif	1	10
14	Demonstration on oyster mushroom (Hyspizygusulmarius) for income generation(TSP)	1	30
15	Demonstration on low-cost portable poly tunnel for seedling raising under TSP	e 1	10
16	Demonstration on rearing of honey bee under TSP	1	10
17	Demonstration on Production of vermicompost for income generation under TSP	1	30
18	Demonstration on effectiveness of short technology videos on technology adoption for Integrated weed management and Nutrient management in Rice	1	30
	Total	17	240

Agenda - 5: 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

- Seed production of local varieties of vegetables such as Black brinjal, chilli and bottle gourd etc. should be carried out in Nutri-gardens by SHGs with awareness and training programme.
- 2. More no. of training programmes for farmers and farm women should be conducted.
- 3. Impact of nutri-garden on various human health parameters should also be assessed in addition to yield and consumption pattern.
- 4. Emphasis should be given to indentify farmers based on bee colony and honey production separately.
- 5. Short duration Arhar varieties (within 120 days) should be assessed under Sundargarh condition during Kharif.

Annexure-I

SI	Title of the	Technology assessed	Result			
no	OFT/FLD		Yield (q/ha)	Increase in yield (%)	Net return	B.C ratio
RA	BI : 202-21 AN	D KHARIF : 2021		÷		
1	Assessment of different pulse crop (Field pea /Gram) in	seeds 100kg/ha before harvesting of rice and	42.2 54.8	29.8	28,007 51,794	1.52 1.95
	paira cropping system	stage of Rice TO2 -Broadcast of fieldpea seeds 100kg/ha before harvesting of rice and application of 40kg P2O5 at PI stage of Rice	55.6	31.7	54,466	2.02
2		FP- Cultivation of Tomato var. Laxmi TO1- Var: F1 hybrid Ark Rakshyak -	230.35	30.45	1,65,500 2,19,000	Keeping period (days) 2.5 13.1
	long term keeping	TO2-Var: F1 hybrid Arka Shrestha	272.37	18.24	1,87,000	8.4
3	Assessment of different planting time for better	FP: Planting of tomato in 1 st week of October To1: 30 Days earlier than	235 310	31.91	158000	2.75
	market price of Tomato	1	280	19.15	76000	2.1
4	Assessment of herbicides	FP: Hand weeding at 30-40	37.8		30320	1.63
	for weed management in	To1: Post emergence application of Cyhalofop butyl + Penoxulam @ 135g/ha at 20	43.1		32380	1.74
	transplanted rice	DAT To2: Application of PE Pendimethalin @ 0.75 kg/ha at (1-3) DAT fb PoE Chlorimuron ethyl + Metasulfuron methyl (i.e. Almix) @ 4.0 g/ha) at 20 DAT			35160	1.79
5	Assessment on different method of	FP : No pasteurization of substrate		Intensity of inkcaps Copernicu		

SI no		Technology assessed	Result			
	OFT/FLD		Yield (q/ha)	Increase in yield (%)	Net return	B.C ratio
	pasteurizatio n of straw for controlling of Inkcaps in	To2: Pre Soaking of substrate	FP-465g /bed	s (%) 33.01	FP: 8.0	FP: 1.09
	paddy straw mushroom bed in Kharif		TO1- 681g/ bed	11.30	TO1:41.2	TO1:1.43
			TO2- 856g/ bed	4.00	TO2: 76.2	TO2 :1.80

Details Results of FLDs conducted

SI	Title of the	Technology assessed	Result			
no	FLD		Yield (q/ha)	Increase in yield(%)	Net return (Rs)	B.C ratio
RAI	BI 2020-21					
1	Demonstrati on vermicomp	FP : Production of FYM	3.5q/1.75m ³ /year Normal compost		200/tank	1.15
	osting	RP: Using Eisenia foetida sp of earthworm in mixture of organic waste and cow dung in vermitank using 4'dia cement ring. Release of earthworm @1kg /1m³ of organic waste	8q/1.75m ³ /year	128	6500/tan k	2.18
2	Mgt of fruit Borer in Okra	FP: Indiscriminate spraying of Chloropyriphos & Cypermethrin after damage	79.6		78,700	1.98
		RP: Mgt. of fruit borer in okra by spraying of Spinosad 45%SC @ 0.4 ml/lit at the time of pest emergence		23.6	1,11,300	2.31
3	Brooding managemen	FP : Traditional method of Rearing	Mortality (%)	-		
	t of	2 2	FP: 15	66%		
	Backyard Poultry	21 days with floor space of 0.3 ft ² with help of chick guards, artificial heat @1-3	RP:5	decrease in mortality		

SI	Title of the	Technology assessed	Result			
no	FLD		Yield (q/ha)	Increase in yield(%)	Net return (Rs)	B.C ratio
		watt/chick, feeder and drinkers @ 1 each for 50 birds. Vaccination against RD on 7 th , 28 th day IBD on 14 th day. Use of electrolytes, preventive antibiotics during brooding	÷.			
4	Demonstrati on of Oyster mushroom var. (H. ulmarius) for Income generation	FP: 2kg of cutting straw (2-3 inch size), Soaking 10-12hrs and drying and not maintaining 65% moisture with variety <i>P. sajorcaju</i>	150kg/100bag		8,000	2.0
	under TSP	RP: 2kg of cutting straw (2-3 inch size) soaked for 5-6hrs with 1% CaCO ₃ followed by drying, Sterilization and maintaining 65% moisture, Var: <i>H.ulmarius</i>	185kg/100 bag		10,800	3.0
5	Demonstrati on on Nutritional Garden for Nutritional security	of vegetables in backyard	Vegetable yield in kg/200m ² /Season			Consumption n pattern of vegetables as compared to RDA(%)
	Security	1. Protray / low cost polytunnel for raising seedlings in small quantity + Cement tank	FP: 270			23.3
		for composting 2. Growing vegetables round the year covering leafy vegetables, Solanaceous vegetables, Roots and Tubers, cucurbits suiting to consumption pattern + Two Papaya Plants, One Lemon, one drumstick and two	RP: 605	124		50.0

SI	Title of the FLD	Technology assessed	Result			
no			Yield (q/ha)	Increase in yield(%)	Net return (Rs)	B.C ratio
		bunds in 200sqm				
6	Demonstrati on of Scientific Rearing of Honeybee under TSP	RP: Regular and periodic bottom board cleaning, maintaining healthy and populous colony ,regular and periodic dearth feeding, removal of old combs and allowing new comb construction, needbased brood comb alteration and need based colony union or division are recommended for scientific beekeeping with <i>Apis-cerana indica</i>	Yield of honey in Kg/Box FP: Nil RP: 3kg/Box		RP : 2200/bo x/ year	2.59
FLD	-Kharif 2021				•	
1	Demonstrati on on on potassium and zinc application for managemen t of iron toxicity in rice	practices followed for iron toxicity RP: Potassium and Zinc application for management of iron toxicity in rice. Application of 25 kg ZnSO4/ha and top dressing of MOP@30kg/ha after drainage of water)	RP: 46.4	18.36	FP : 31048 RP : 42766	
2	Demonstrati on of short duration Arhar Variety PRG 176	FP: Cultivation of local variety UPAS-120 RP: Demonstration of short duration Arhar Line sowing 60X30cm of PRG-176 @ 20kg/ha with seed treatment and RDF (20:40;40)	FP: 12.5 RP: 14.8	18.4	FP : 35200 RP : 48840	RP: 2.1
3	Demonstrati on on HYV ragi Arjuna	FP : Cultivation of local	FP: 6.7 RP: 8.2	22.39	FP : 9940 RP : 13740	FP: 1.86 RP: 2.10

SI no		Technology assessed	Result			
			Yield (q/ha)	Increase in yield(%)	return	B.C ratio
		Line transplanting with RDF(60:30:30)				
4	Demonstrati on of Paddy Straw mushroom for Income generation, using threshed straw for Income		bed		FP : 15750	FP: 3.86
	generation	RP: Production of paddy straw mushroom in threshed straw with 5kg straw, soking 5hrs, Pulse powder-3% and Spawn-3% maintaining moisture 65% in beds, with Lime1% and prepared by vegetable crates	bed bed		RP :	RP: 3.61
5	Demonstrati on on Maize variety Kalinga Raj (TSP)	FP :Cultivation of composite variety RP : Hybrid Maize variety Kalinga Raj with Line sowing and RDF (120:60:60)		18.26	FP : 53887 RP : 70593	FP: 1.97 RP: 2.20
6	IMC yearling production in seasonal pond		Length & Wt. of fingerlings FP: 9cm, 25gm RP: 12cm, 43gm	33cm,	FP : 1,33,695	
CFL	D – SUMMER	2020-21		72gm	1,78,425	
1		FP: RP: Line sowing of	FP: 10.6	- RP :	FP : 18570	FP: 2.3
		variety TG-37 recommended dose of fertilizer, seed treatment, Use of micronutrient and neem oil and need	. 10.0	RP : 44.33	RP : 27800	RP: 2.59

SI no	Title of the FLD	Technology assessed	Result			
			Yield (q/ha)	Increase in yield(%)	Net return (Rs)	B.C ratio
		based plant protection measures for Pod borer with variety TG-37			(243)	
CFL	D – KHARIF-	2021				
1	CFLD on Sesamum	RP: Line sowing, of black seeded sesamum GT-10, recommended dose of fertilizer, seed treatment, Use of micronutrient and neem oil and need based plant protection measures	FP: 4.5 RP: 6.2	RP : 37.77	FP : 30110 RP : 59186	

Sl. No.	Name	Designation	Status
1.	Prof.(Dr.) Prasanjeet Mishra	Dean, Extension Education, OUAT, BBSR	Chairman
2.	Dr. M P Nayak	Jt. Director(Extesnion), OUAT, BBSR	Member
3.	Mr. MaheswarNaik	ADM, Sundargarh	Special invitee
4.	Mr. Rama Chandra Nayak	CDAO, Sundargarh	Member
5.	Dr. Bikash Ch. Mishra	CDVO, Sundargah	Member
6.	Ms. SuchismitaPadhy	AEE, Estimator, Minor Irrigation	Member
7.	Dr. N S Chowdary	Scientist-D, Central Silk Board, BSMTC, Kirei	Member
8.	Dr. Sajeeb Kumar Biswasi	Sr. Scientist, RRTTSS, Kirei	Member
9.	Er. Samir Ku Naik	J.E., OAICL, Sundargarh	Member
10.	Mr. Arun Kumar Sahoo	Addl. Fishery Officer, O/o-DFO, Sundargarh	Member
11.	Ms. ChetnaSethy	Special Officer, ITDA, Sundargarh	Member
12.	Mr. Umesh Bag	Chhedlgaon, FPO	Member
13.	Mr. GorekhanandaNaik	Manager, DSC, Sundargarh	Member
14.	Mr. LaxminarayanJaypuria	Farmer	Special invitee
15.	Mrs. KetakiKalo	Farm women	Member
16.	Mr. GangadharKisan	CEO, Chhedelgaon FPO	Member
17.	Mr. Gopal Ch. Perua	CIRTD NGO, Sundargarh	Member
18.	Ms. JyotiBagh	CIRTD NGO, Sundargarh	Special Invited
19.	Mr. Nirmal Kumar Naik	Big Farmer	Member
20.	Dr. Jayanta Kumar Pati	Scientist, KVK, Sundargarh-II	Member
21.	Mr. Manoj Kumar Barik	Scientist, KVK, Jharsuguda	Member
22.	Mr. Natakishore Mishra	Secy, CIRTD, Sundargarh	Member
23.	Mr. LaxmanNaik	Farmer	Special Invited
24.	Mrs. Nandini Mundari	DIPRO, Sundargarh	Member
25.	Mr. Rabindra Ku Panda	ADSC, O/o PD, Watershed, Sundargarh	Member
26.	Mr. Don Bosco	LDM, SBI, Sundargarh	Member
27.	Mr. Tapas Kumar Behera	DDM, NABARD	Member
28.	Ms. GeetikrishnaNaik	AHO, Balisankara, O/o of DDH, Sundargarh	Member
29.	Mr. PranameshKar	DPC, OMM, Sundargarh	Member
30.	Mrs. NeeliKusuma	Nutrition Expert, DMF, Sundargarh	Member
31.	Mr. DibyenduMondal	SMS (Agronomy), KVK, Sundargarh-1	Member
32.	Dr. Manoj Kumar Jena	Scientist(Soil Science), KVK, Sundargarh-1	Member
33.	Mr. David James Bage	Scientist(Ag. Extn), KVK, Sundargarh-1	Member
34.	Dr. LaxmipriyaPradhan	Sr. Scientist & Head, KVK, Sundargarh1	Member Convenor

Senior Scientist & Head KVK, Sundargarh-I