Vol. VIII No. 1

April 2021-March 2022

Krishi Vigyan Kendra - Senapati

Newsletter

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FROM THE DESK OF SENIOR SCIENTIST AND HEAD

Dear Readers,

It gives me a great pleasure to bring out this current issue of 'NEWSLETTER' of Krishi Vigyan Kendra (KVK)-Senapati for the period from April'2021 to March' 2022. Krishi Vigyan Kendra, popularly known as Farm Science Centre, plays a vital role in serving the nation by disseminating different technologies on agriculture and allied sectors to the grass root level. The role of KVK, as a centre of Knowledge and information for agricultural development, has gone beyond the transfer of technologies and capacity building programmes of our farmers. The scope has been widened and different programmes for agricultural sustainability with respect to Climate Change, Doubling Farmers Income and Retaining Youths in Agriculture viz., NICRA, DFI and ARYA programmes etc. have been carried out. Different achievements with respect to various activities conducted during the reporting period are being highlighted in the current issue.

I extend my appreciation to all the staffs of KVK for their immense effort to accomplish the mandates as well as other activities of KVK successfully. I also compliment all our farming communities and stakeholders of the district for their help and co-operation in achieving the targets set for the year 2021-22. My sincere thank goes to ICAR-ATARI, Zone – VII, Barapani for the financial supports to carry out all the activities.

I also thank the editorial team for rendering their immense efforts in bringing out the current issue of newsletter. I would thankfully welcome readers' suggestions and comments for further improvement of our activities.

Contents

(Dr. N. Jyotsna)
Senior Scientist and Head

A. MANDATORY ACTIVITIES CONDUCTED DURING 2021-2022

1. Training Program Conducted

Farmers and Farm women		Rural Youth		Extension functionaries		Sponsored		Total	
No. of training	No. of participant	No. of training	No. of participant	No. of training	No. of participant	No. of training	No. of participant	No. of training	No. of participant
39	898	16	335	8	125	7	248	80	1806

2. On Farm Testing (OFT) conducted

Crop/ Enterprise	Title of OFT	Problem Diagnosed	Details of Technology Assessed	No. of Trials	Remark
Broccoli	**Performance evaluation of Broccoli Varieties**	Low yield of existing variety	**TO1:** Var. KTS1 Duration- 60-70 days, Yield potential- 16.5t/ha **TO2:** Var.TSX 0788 Duration- 60-65 days Yield potential- 15-17t/ha **T03:** Var. Green magic Duration- 60-70 days, Yield potential- 11.5t/ha	6	Best result was seen in TO2, Yield = 112.5 q/ha
Broadbean	**Performance of broadbean var. Pusa Udit**	Low yield of existing/local Variety	**TO1:** Var. **Pusa Udit** Duration- 150 days Yield – 175 q/ha **TO2:** Local Var., Big seeded , Duration- 158-160 days, Yield – 120-130 q/ha **TO3:** Local Var., Small seeded, Duration= 155-160 days , Yield =105 q/ha	6	Best result was observed in TO1,Yield (green pod) = 127.4q/ha
Fieldpea	**Varietal performance of Field pea Var. VL Matar 47**	Poor varietal diversification and low yield of existing varieties of fieldpea	**TO1**: Var. : VL Matar 47 (Duration- 150-155 days, Potential yield = 14.17q/ha) **TO2**: Var.: Aman, (Duration- 120-125days, Potential yield = 20-22q/ha) **TO3:** Rachana, (Duration- 100-120 days, Potential yield = 16-18q/ha)	6	Best result was observed in TO1, Yield = 12.1q/ha
Rapeseed	**Performance of late sown rapeseed variety TS- 67 in rice based cropping system**	Delayed sowing of rapeseed after rice results in poor yield in rice based cropping sequence	**TO1: Var. TS 67** (Duration – 90-95 days, Potential yield= 10-12q/ha, late sowing up to 1st week, Dec) **TO2: var. M 27** (Duration – 90-95 days, Potential yield= 10-12 q/ha) **TO3**: (Farmers Practice) **Local Yella**	6	Best result was observed in TO1, Yield = 8.2q/ha
Chilli	**IPM in chilli**	High incidence of thrips, and mites	**TO1**: i) Yellow or blue sticky trap(20 traps/acre), Beauvaria bassiana @ 2g/l on first appearance of pest, two times at 10 days interval, ii) Imidachlorprid @ 0.3ml/L **TO2**: Application of wood ashes & cypermethrin @ 2ml/L water **TO3**: Application of Fipronil @ 0.1 %	5	Best result was observed in TO1, Yield = 34.3q/h

Crop/ Enterprise	Title of OFT	Details of Technology Assessed	No. of Trials	Remarks
Rice	**Management of rice gall midge in terrace cultivation**	**TO1**: i)Application of Selective pyrazole insecticide Fipronil 75g a.i./ha., ii) Balanced nutrient application NPK @ 60:40:30 kg/ha **TO2**: Application of Super killer (Cypermethrin) @ 1ml/L water once. **TO3:** No application	5	Best result was observed in TO1, Yield = 42.2q/ha
Tilapia	**Performance assessment of monosex Tilapia under monoculture system**	**TO1:Monoculture of Tilapia** Stocking density:20,000/ ha; Feeding rate: 3-5% body weight ; Feed : Pellet feed ; Culture period : 6 months **TO2: TO1:Monoculture of C. Carp** Stocking density:20,000/ ha; Feeding rate: 3-5% body weight; Feed : Pellet feed; Culture period : 6 months	5	Best result was observed in TO1, Yield= 1609 kg/ha.
Pengba	**Performance evaluation of Pengba fish in composite culture system**	**TO1**:Stocking of IMC, Exotic carp & pengba @ 8000 nos./ha, catla 10%, silver carp 10%, Rohu 30%, Pengba 10%, Mrigal 15%, C. carp 15% **TO2**: Stocking of IMC, Exotic carp @ 8000 nos./ha, catla 10%, silver carp 10%, Rohu 30%,Grass- 10%, Mrigal 10%, C. carp 20%	5	In 10 months fish yield was observed to be 1680 kg/ha
Poultry	**Introduction of Kamrupa poultry**	**TO1**: Kamrupa birds (dual purpose, multicolored) **TO2**: Local (Non descript)	6	The introduced breed was observed to weight an 1357 gm at 6 months.
Poultry	**Performance of Srinidhi poultry for egg production**	**TO1**:Srinidhi poultry (multicolored bird and good egg production) **TO2**: Gramapriya, **TO3**: Local (Non descript)	6	Srinidhi poultry was found to produced 129 Nos. of eggs per year, while local breed (non descript) produced 67 eggs per year only
Pulses	**Study of Yield gap in pulse production**	Yield gap in field pea due to KVK demonstration and farmer practice	50 resp.	Extension gap(demo yield – farmer yield) was observed to be 4.26q/ha

3. Frontline Demonstrations (FLDs) Conducted

Crop/ Entreprise	Title of FLD	Technology Demonstrated	Area (ha)	No. of demo./Beneficiaries
Rice	Popularization of short duration paddy var. RC Maniphou 12-	Var. RC Maniphou 12, Seed rate- 60kg/ha, NPK @ 60:40:30 kg/ha , Duration : 90-105 day Potential yield: 45-50q/ha	3	12
Rice	Popularization of seed production technology of Paddy var. RC Maniphou 13	Var. RC Maniphou 13, Duration = 125-135 days, Potential yield=65-70q/ha , Seed rate @60 kg/ha, NPK @ 60:40:30 kg/ha, Isolation distance- 3m, Rouguing as per requirement (Tillering, flowering & before harvesting)	3	12
Maize	Popularisation of maize var. HQPM 5	Var. HQPM-5, Duration-88-90 days, potential yield-60q/ha, Seed rate 20 kg/ha, Seed treatment with Azotobacter @ 250 g/10kg seed, Spacing 60x 30 cm, NPK @ 100:60:40 kg/ha	3	12
Pea	Early production of garden Pea Var. Arkel for higher income	Var. Arkel Early sowing at last week August Seed rate: 80 kg/ ha. Spacing: 30x 10 cm NPK-20:50:20 kg/ha	1	6

Pumpkin	Popularisation of kharif pumpkin var. Arjuna	Var. Arjuna, Duration: 120-140 days, potential yield- 300-320q/ha Seed rate 2kg/ha (2-4 seeds/hill), seed depth- 2.5 cm, FYM @ 5t/ha, NPK- 60:30:30	1	6
Cabbage	Offseason cultivation of cabbage	Sowing during off season (May and June) Spacing: 45x45 cm FYM: @5 ton/ha. NPK:80:60:60 kg/ha	1	4
Potato	IDM for Late blight of potato	i). Using resistant var. K. Girdhari ii). Haulms cutting when disease Severity reaches 80% to reduce tuber infection iii). Spray chlorothalonil 0.2% before disease Appearance followed by metalaxyl+mancozeb (0.25%)	1	4
Maize	IPM of FAW on Maize	Seed treatment with Thiomethoxam @ 4ml/kg seed Use of microbial pesticide *Metarhizium anisopliae* talc formulation @ 5g/l whorl application at 15-25 DAP, twice at 10 days interval iii. Application of Neem oil/ Azadirachtin 1500 ppm @ 15ml/l at early whorl to late whorl stage	1	4
Mushroom	Year round Scientific oyster mushroom production	i. Chopped the paddy straw into 3-5 inches. ii. Soak the chopped paddy straw into hot water (85ºC) for 30-45 minutes. iii. Drain out the excess water and cool down by spreading on a sterile surface. iv.Spawning with 200 g spawn in 6kg of wet straw For spawn run bags are kept in dark room till spawn run is complete. v. Maintain Humidity 75-85% & 8-10 hrs of light during fruiting	4 unit	8
Poultry	Popularization of Backyard poultry rearing for empowering farm women	Poultry Breed: Vanaraja	10 unit	10
Duckery	Popularisation of White Pekin duck amongst hill farmers	White Pekin breed	10 unit	10
Piggery	Deworming of pigs against gastro-intestinal parasites	Albendazole @ (5 – 10 mg/ kg. b.wt. as oral)	20 unit	20
Fish	Nursery rearing of fish spawn for fish fingerling production	Species: Grass carp Stocking density: 15 lakh spawn/ ha Feeding: 5-10% body weight, twice a day	10 unit	10
Fish	Popularization of Jayanti Rohu in composite culture	Stocking density: @5000 /ha + 5000 carp/ ha. Culture period: 7 months Feeding: @3 % body wt	1	10
Liming	Lime application for water quality management in composite fish culture	Lime application: @300kg/ha. Fish stocking density: 8000/ha , 40% (Catla), 20 % (Rohu), 40%(C.carp)	1	10
-	Effectiveness of STRY programs on employability of youth	Assessment of STRY training programs conducted by KVK-Senapati on self-employability of youth.		90 respondents
-	Promotion of year round nutritional garden for household nutritional security	Nutrition garden (Rabi season- Cabbage, pea, chilli, coriander, carrot, Amaranth Kharif Season- Onion, cucumber, beans, Spinach, tomato, pumpkin, coriander)	10	10 unit
Oyster Mushroom	Promotion of dehydration technique of oyster mushroom	Blanching at 100ºC for 30 Sec and wash in cold water Dry in solar dryer for 3-4 days	10 unit	10
MPTS	Popularization of Intercropping of MPTS with pulse crop	Tree bean – 8mx8m as main crop Terminalia as Boundary planting Citrus as filler crop Pulse crop- blackgram as interspaced crop	1	4
Plum	Promotion of air layering technique for mass production of planting materials of plum	Selection of pencil size branches, making incision and removal of barks (3 mm size), application of rooting hormone (IBA) with sphagnum moss, wrapping of rooting media with polyethylene foil and tied with a thread, After rooting, transplanting in primary nursery bag	10 unit	10









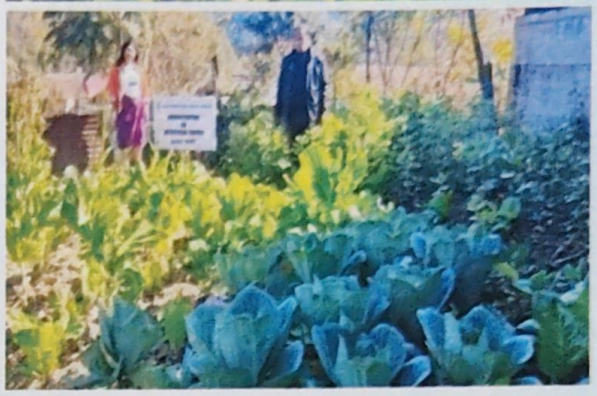




4. Other Demonstrations and Activities Conducted during 2021-2022

i. Cluster Frontline Demonstration (CFLD)

Name of Activities	Technology demonstrated	Area (ha)	No. of beneficiaries
1. CFLD on Blackgram	INM	10	25
2. CFLD on Rajhma	INM	10	25
3. CFLD on Fieldpea	Minimum tillage cultivation	10	25
4. CFLD on Groundnut	IPM for white grub	10	25
5. CFLD on Rapeseed	Minimum tillage cultivation	10	25
Total		**50**	**125**



ii. Activities undertaken under NARI

Name of Activities	Area /unit	Location	Beneficiaries (No.)	Remark
Demonstration on nutri garden	8 units (250 sq.m / unit)	Taphou Phyamai	8	Kharif vegetable- Beans, Lady's finger, chillies, squash, bottle gourd, pumpkin, mint, coriander. Rabi vegetable- cabbage, cauliflower, broccoli, lettuce, beetroot, raddish, carrot, knolkhol, amaranthus, coriander
Training & Awareness programme	5 nos.	Taphou Phyamai	100	4 nos. of training & 1 awareness programme
Value addition of fruits & vegetables	9 units	MOIRANG	9	Value addition on pineapple ginger, olive, kiwi, carrot, raddish, king chilli etc.
Total			**117**	

iii. Activities undertaken under KSHAMTA

Name of Activities	Area/ Unit	Beneficiary (no)
Vegetable nursery	1 unit	1
Back yard poultry	5 units	5
Home stead gardening	7 units	7
Vermicomposting	5 units	5
Training & Awareness programme	4 nos.	80@20trainee/training
Total	18 units & 4 nos.	18 direct & 80 indirect beneficiaries

iv. Doubling Farmers' Income by 2022

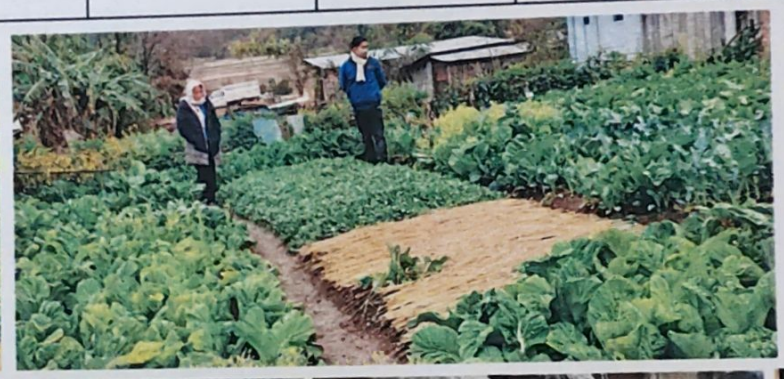
Activities	Quantity/ Area	Beneficiary (No)	Interventions
Winter vegetable Production	2ha	15	High Yielding varieties
Poultry	10unit	10	Improved breeds – Garmapriya & Vanaraja
Duckery	3 unit	3	Improved breeds – White Pekin
Fishery	6unit	6	IFS- Fish cum Duck
Cultivation of field pea in rice fallow	5ha	12	Minimum tillage cultivation
Piggery	4unit	4	Improved breed Cross bred Hampshire
Mushroom Production	3unit	3	Oyster production
Banana Cultivation	4ha	10	Integrated Pest Management
Training	4nos.	120	-
Total	**26 units & 11 ha**	**183**	

v. Activities undertaken under MGMG

Name of Activity	Nos.	No. of ben.
Trainings	4	56
Demonstrations		
Poultry	8	8
Vermicompost	5	5
Vegetable Production	15	15
Awareness programme	3	45
Field visits	8	76

B. ON GOING SPONSORED PROJECTS

i. National Innovations on Climate Resilient Agriculture (NICRA)				ii. Attracting and Retaining Youth in Agriculture (ARYA)			
Funding Agency	Date of Initiation	Activity	Beneficiaries (no.)	Funding Agency	Date of Initiation	Activity	Beneficiaries till date
CRIDA, Hyderabad	1st March 2011	Demonstration on Climate Coping Technology	82	Extension Division, ICAR-New Delhi	2011	Mushroom cultivation, Large cardamom cultivation, Poultry, Piggery, and Fishery	211




C. AGRI-INPUTS PRODUCTION DURING 2021-22

i. Seed Materials

Item	Crop	Variety	Quantity produced (t)	Qty Supplied/ Provided (No. of farmers)
Cereals	Rice	CAU-R1	2.7	2t (40)
Oilseeds	Soybean	Dsb 19	1	0.5t (7)
	Groundnut	ICGS-76	2	1t (21)
	Rapeseed	TS 38	1	0.5t (28)
Pulses	Blackgram	PU 31	0.42	0.38 (47)
	Fieldpea	Aman	0.4	0.3 (5)
Spices	Turmeric	Lakkadong	20	18t (12)
Total			**27.52 t**	

ii. Bio-products at KVK campus

Item	Product Name	Sp.	Target		Quantity produced		% achievement
			No.	Kg.	No.	Kg.	
Bio-fertilizers	Vermi compost			2500		1500	60
Total				**2500**		**1500**	
Others							
Mushroom	Spawn	Oyster	-	-	1600 pkd	800kg	-
Total						**800**	



iii. Livestock & Fingerlings at KVK campus

Item	Product Name	Species	Target		Quantity produced		% achievement
			No.	Kg.	No.	Kg.	
Livestock	Piggery	Cross bred Hampshire	50	-	35	-	70
Fishery	Fingerlings	Rohu, Grass carp & catla	70000	-	60000	-	85
Total			**70050**		**60035**		

iv. Planting Material

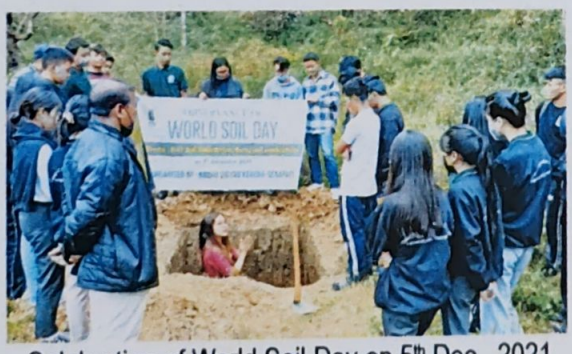
Item	Crop	Variety	Quantity produced (No)
Vegetables	Broccoli	KTS-1 & Pushpa	3000
	Cabbage	Rare ball	3000
	Tomato	Pusa ruby	3000
	King Chilli	Local improved	2000
	Cauliflower	Snowball	5000
	Brinjal	Pusa long	6000
	Chilli	Pusa Jwala	4500
Forest sp.	*Tectona grandis*	MPTS	500
	Cinamomum tamala	MPTS	2000
	Mimusops elengii	Ornamental	1000
	Terminalia myriocarpa	MPTS	1400
	Cassia javanica	Ornamental	3000
	Phoebe hainensiana	MPTS	400
	Parkia roxburghii	MPTS	4000
	Acacia glouca	MPTS	2000






D. EVENTS AND HAPPENINGS


Campaign on Nutri Garden & Tree Plantation on 16th July, 2021



Celebration of World Soil Day on 5th Dec., 2021


Celebration of Mahila Kisan Diwas on 15th Oct. 2021

Input distributions on World Environment Day 5th June, 2021


Swachhta Campaign on 31st Oct., 2021


Kissan Diwas on 23th Dec. 2021

Oath Taking Swachhta Pakhwada


SAC Meeting

E. AWARDS AND PUBLICATIONS

A. Awards

Sl. No.	Name of Award	Year	Awarded Organisation, Institution	Name of the Awardee/Author
1	Excellence in Extension Award	2022	Society for Technology, Environment, Science & People	Dr. N. Muhindro Singh, SMS (AS)
2	Consolation Prize at State Level Workshop cum exhibition of Tree Bean (Yongchak)	2022	ICAR, Lamphel	Mr. Shabun
3	Best Extension Professional Award	2022	Society for conservation of Natural Resource, Kolkata, West Bengal	Dr. Telem Ratan Singh

B. Research Papers

Sl. No.	Title of Publication	Year	Journal	Authors
1	Studies on the isolation, characterization and extra-cellular enzymatic activities of the pathogen *Helminthosporium oryzae* causing brown spot disease of Rice.	2021	*Journal of Biotechnology and Bioresearch* *Vol. 3(3), pp1-3*	Kamei, D and Singh, U. A,
2	Benefit : Cost ratio (BCR) analysis of Botanical extracts against brown spot disease of rice caused by *Helminthosporium oryzae* (Breda de Haan).	2021	*Journal of Advanced Agriculture and Horticultural Research.* Vol. 1 (2) pp 38-42	Kamei, D and Singh, U. A
3	Effect of Botanical extracts and MPG (Modified Panchagavya) on Chilli wilt incidence caused by *Fusarium oxysporum.*	2022	*Journal of Plant Physiology and Pathology.* Vol. 9 (11) pp 1-3	Kamei, D., Singh, U. A and Gangmei, G
4	Studies on the isolation, characterization and extra-cellular enzymatic activities of the pathogen *Pseudomonas fluorescens* causing brown spot disease of Rice.	2021	*World Journal of Advanced Research and Reviews.* *Vol. 12 (2) pp 458-461*	Kamei, D and Singh, U. A

C. Popular articles

Sl.No	Name of Popular articles	Year	FARM MAGAZINE	Authors
1	Importance of quality seed in crop production	2021	CAU - Farm Magazine Vol. 10, No. 3, Jul - Sept. 2022 ISSN : 2279 - 0454	R. S. Telem, Romila Akoijam and N. Jyotsna

D. Leaflets/folders

Sl.No	Name of leaflet or folder		No. of copies published	
1	Nutritional and health Benefits of Millets	2021	300	Dr. Telem Ratan Singh

F. OTHER EXTENSION ACTIVITIES

Sl. No.	Extension Activity	No. of activities	Total Participants
1.	Advisory services	264	330
2.	Field day	3	120
3.	Scientists visit to farmers fields	240	490
4.	Farmers visit to KVK	267	360
5.	Method Demonstration	20	350
6.	Exposure visits	1	60
7.	Awareness campaign (Kharif & Rabi)	3	406
8.	Lecture delivered as resource person	22	850
9.	Radio talk	2	-
10.	PRA	4	90
11.	Soil test campaign	1	42
Grand Total		**902**	**4699**