



मानविकी गणितेड मानविकी, कृषि

KRISHI VIGYAN KENDRA, THOUBAL

DEPARTMENT OF AGRICULTURE, GOVERNMENT OF MANIPUR



NEWSLETTER / एडुमटोडड

Issue IV

January - December 2021

Interaction of Innovative Farmer with PM of India



Interaction of Hon'ble PM of India Shri Narendra Modi Ji with Shri Ph. Thoiba Singh, a beneficiary of KVK Thoubal at NIC Hall, Thoubal District as a part of Mass Awareness Campaign for Large Scale Dissemination of Climate Resilient Technologies and Method on 28th September 2021



Highlight of KVK Mandated Activities

Activities	No.
On Farm Trial (OFT)	9
Frontline Demonstration (FLD)	74
Training	78
Method Demonstration	23
Popular articles	134
Publication	10
Newspaper Coverage	11
Sponsored programs	9
Radio Talk	5
TV Talk	8
Lecture delivered	20

Message From the Desk of Director

It is a matter of great pleasure for me to know that Krishi Vigyan Kendra Thoubal is releasing its 4th Issue of Newsletter. I am confident that this Newsletter will highlight the mandatory activities of KVK carried out during the period w.e.f April 2021 to March 2022 pertaining to transfer of technologies to the farmers, extension functionaries, Rural youths, SHGs and stakeholders of the district thus paving the way for successful convergence in the process of agricultural development in the district.



I congratulate Sr. Scientist & Head KVK Thoubal and her staffs who have directly or indirectly contributed their support in bringing out this Newsletter which include sweeping information and recent developments in farming system and wish them all success with similar spirit in the years to come.

(N. Gojendro)

Director Agriculture Manipur

Message from the Sr. Scientist & Head

It is my pleasure and privilege to present this 4th Issue of Newsletter of this Institute. This Issue highlights the achievements made by this Centre within the framework of mandated activities of KVK during the period w.e.f April 2021 to March 2022 including sponsored programs in addition to carrying out all the approved annual action plans, more remarkably, I would like to put on record the achievement made by this Institute in promoting four FPOs in the District under the aegis of NABARD by functioning as Producer Organization Promoting Institute (POPI).



In spite of many limitations and constraints coupled with Pandemic Covid-19, all the above achievements were made possible with kind support of ICAR ATARI, Zone-VII, Barapani, Meghalaya and more importantly the Host Institute.

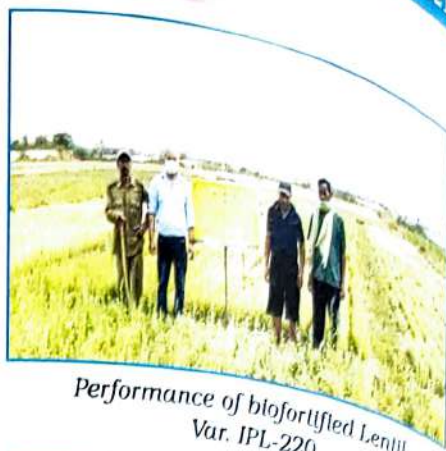
I express my sincere gratitude to the Editorial Team, line departments and farming communities of the district in particular for their constant support in bringing out this volume of Newsletter in the present modest, comprehensive and informative form.

Finally, I would appreciate if there could be any suggestions and advice from the readers for further improvement of this Newsletter in future.

(Dr. S. Zeshmarani)

Sr. Scientist & Head, KVK Thoubal

Sl. No.	Title of OFT	No. of trials	Source of technology	Remark (B:C Ratio)
1	Performance evaluation on Rice based cropping system (Rice-Lentil/ Rice-Chickpea)	6	RARS, Shillongani, AAU 2015	2.24 (Rice pulse cropping system can be taken up)
2	Integrated Weed Management in Lentil	5	AAU Jorhat, 2015	2.37 (IWM reduces weed population and cost of weeding)
3	Yield Performance in different Planting time of Onion var. Nashik Red	3	ICAR-IARI, Pusa, New Delhi- 2015	3.85 (Best planting time is second week of Nov.)
4	Organic management of painted bug, aphid and sawfly in mustard	3	ICAR- NOFRI, Tadong, Sikkim 2014	2.41 (Bio-pesticides can be recommended for management)
5	Performance Evaluation of Lentil Var. IPL 220	3	IIPR, Kanpur, 2018	2.41 (Bio-fortified varieties can be introduce)
6	Seed production of walking cat fish (Clarias magur) using BRICS (Barrier Removal In Catfish for Voluntary Captive Spawning) method	5	CoF, CAU, Lembucherra, 2020	2.25 (Breeding can be done without sacrificing brooders)
7	Seed production of Climbing perch (Anabas testudineus)	5	ICAR -CIFA Bhubaneswar, 2016	2.83 (Quality seed availability increases through breeding)
8	Preparation of Guava Cheese	5	Horticulture Division ICAR, Barapani, 2014	2.5 (Guava cheese -an option for minimizing the lost during peak season)
9	Introduction to year round nutri rich crops in NARI village during covid pandemic	5	ATARI, Jabalpur 2019	Nutrient requirement for a family of 5-7 members can be obtained from 200 sqm area of Nutri garden.



Performance of biofortified Lentil Var. IPL-220



Seed production of walking catfish using BRICS method

FRONTLINE DEMONSTRATIONS (FLDs)



Popularisation of ICM in Rice



Popularisation of Potato var. Kufri Kanchan



Popularisation of Roselle Jam production

Sl. No.	Title	No. of Demonstration	% increase	Remark (B:C Ratio)
1	Integrated Crop Management in rice	5	18.20	1.7
2	Foliar Nutrition of lentil Var. IPL 316	10	12.6	2.45
3	Popularization of potato Var. Kufri Kanchan	5	5.6	1.38
4	Popularization of Oyster mushroom Var. Elm (<i>Hypsizygous ulmarius</i>)	5	31.25	3.82
5	Popularization of mustard Var. NRCHB-101 under Zero Tillage Condition	6	10.63	2.03
6	Popularization of Fish based integrated farming system	10	52.10	2.58
7	Popularization of Silver barb (<i>Puntius gonionotus</i>) in feed based seasonal carp polyculture pond system	10	32.98	2.8
8	Popularization of Roselle Jam	10	25	2.1
9	Popularization of chow chow bori	10	20	2.2
10	Economic utilisation of value added products of Water melon rind	3	100	2.5

TRAINING PROGRAMME

Target Group	No. of training	Mode of Training		Sponsored	Vocational	No. of beneficiaries		
		Virtu-al	On/off campus			Male	Female	Total
Practicing farmer	35	12	23	1	2	625	492	1117
Rural Youth	27	9	18	3	2	451	323	774
Extension Functionaries	8	-	8	-	-	115	67	182
Total	70	21	49	4	4	1191	882	2073



Virtual training on Breeding & Seed Production of climbing perch



Sponsored by NBPGR, New Delhi

Total of 78 nos. of training were conducted, 4 training programs were sponsored by MANAGE, Hyderabad; DEE, CAU, Imphal; MSPE, CAU, Imphal; NIAM, Jaipur through MSFAC; and NBPGR, New Delhi.

CLUSTER FRONT LINE DEMONSTRATION PROGRAMME



Field Day for CFLD Mustard



Demonstration field of Mustard at Ingourok

Crop	Variety	Demonstration Yield (Qt/Ha)			Yield of local Check (Qt/ha)	% increase/change in avg. yield over local	B:C Ratio
		H	L	A			
Blackgram	PU-31	9.5	5.9	8.5	7.2	18.06	2.47
Lentil	IPL-316	11.0	7.2	9.8	9.25	5.95	1.85
Mustard	NRCHB-101	11.2	7.5	9.7	8.4	15.48	1.94
Soyabean	VL SOYA-63	13.20	9.0	11.50	9.2	25.00	1.79

The programme CFLD was initiated by Ministry of Agriculture and Farmer's welfare, Government of India New Delhi on Oilseeds under National Mission on Oilseed and Oil Palm (NMOOP). During 2021-22, KVK Thoubal conducted CFLD on Soybean var. VL-Soya 63 (20ha) and Mustard var. NRCHB-101 (20ha) covering a total of 78 beneficiaries across 9 villages of the district.

KNOWLEDGE SYSTEM AND HOME-BASED AGRICULTURE MANAGEMENT IN THE RURAL AREAS (KSHAMTA)



Distribution of inputs to beneficiaries

KSHAMTA is implemented at Heinganglok village of Thoubal district covering 15 nos. of farm family with demonstration on (i). Establishment of nutrition gardening and (ii). Backyard poultry farming. Earned an income of Rs. 8520.00 from horticultural crops, Rs. 3750.00 from meat and Rs. 17500.00 from eggs could be earned during the year.

NUTRI-SENSITIVE AGRICULTURE RESOURCE INNOVATION (NARI)



NARI model at KVK, Thoubal

NARI has been continuing in two villages viz., Lourembam & Ingourok covering 15 nos. of household base on their dietary requirement through cultivation of different vegetables and bio-fortified crops along with value addition of the produces to meet seasonal scarcity and micro nutrient deficiency of the household. From an area of 200sqm NARI garden, Roots and tubers crop (77.50 kg), Leafy and other vegetables (202 kg), pulses (20kg), diversified crops (10.50 kg) and fruits (30 kg) were obtained for nutrient supplement of 5-7 family members in a rotational manner throughout the year.

SEED HUB



During 2020-22 under the Pulse Seed hub, KIK Thrift has been in place to help the region with seed. Cabbage producing 25, 120, 15 quintal respectively.

SEED CULTIVATION IN COLLABORATION WITH ICDF

With an objective for inclusive growth mustard cultivation has been taken up in an area of 45 ha at 12 villages viz., Ingourah, Nongok Sekana, Hyan Kinnon, Uthongong, Lourenham, Teulia, Teulia Kinnon, Thohal, Wainguraha, Sakalanga, Peela, Beng and Lamwether under the sponsorship of ICDF Foundation.



RAWE & ELP PROGRAMME



A total of 9 students came for RAWE & ELP programme from different College viz. Lakshya Kyrtemahala, Meghalaya School of Agriculture (SMA), Uttaranchal University, Dehradun, Sri Sri University, Sri Sri Wheat Biotechnology, Arun, Cuttack, Quantum University, Kharagpur, Uttaranchal and Bahadranath Tegar University, Hoopal, MP.

RESEARCH PAPER

- i. R. K. Lenthiana., Y Pratikshat Devi., and Y. Samanta Devi. (2021): Processing Technique Affects Shelf life and Sensory Quality of Fruit Pickle. Society of Artists Nigan, Jan-June 2021, Vol. 9 Issue 2, p 163-171.
- ii. Shobhya W., Zeshmarani S., Prabin S. and Premkate R. (2021): Seed production of Walking Tattisi Cactus Water using BRIS method: an exploratory study in Timalal district, Manipur. Conference paper on IC on Integrated Agriculture Natural farming, Biodiversity conservation and Rural Bio-Entrepreneurship under changing climate Scenario-2021.
- iii. Prabin S., Zeshmarani S., Tamita R., Shobhya W. and Jiten W. (2021): Factor influencing Enhancement of Income through Zero Tillage Direct Seeding Mustard Cultivation in Timalal District, Manipur. Conference paper on IC on Integrated Agriculture Natural farming, Biodiversity conservation and Rural Bio-Entrepreneurship under changing climate Scenario-2021.

AWARD & RECOGNITION



2nd position in poster competition, Theme-Nutritious foods & Nutri Thalis of the region.



Best Poster presentation-Enhancing farmers income through horticulture based farming

EXTERNAL FUNDING PROJECTS

Oil Palm emerged in Manipur as 22nd State in the Oil Palm Map of India under NMEO-OP

Scientists and dignitaries of GOI inspecting Oil Palm Nursery and Adaptive trials at KVK Thoubal under Department of Agriculture Manipur



FPOs and Farmer Club

9 nos. of Farmer clubs totaling to 69 nos. of FC under KVK have been formed, out of which 10 were sponsored by NABARD Imphal. 4 Farmers Producer Organisation were registered with KVK, Thoubal as POPI under the aegis of NABARD Imphal.

1. Khana Chaoba Farmer Producer Company Ltd
2. Loumigi Thouna Farmer Producer Company Ltd
3. Nongpok Nongthou Farmer Producer Company Ltd
4. Kaoren Phaba Farmer Producer Company Ltd



Adoption & Promotion on Seed Production of Air Breathing Fishes

Clarius magur (Ngakra) & *Anabas testudineus* (Ukabi) sponsored by NABARD, Imphal

No. of village covered : 6 (Tentha, Hijam Khunou, Lourembam, Hiyanglam, Komnao, Thongjao) Total No. of Beneficiary : 18. Breeding and seed production of air breathing fishes can be taken up to generate huge income for improving the Socio-economic status of farmers of the district.



VISIT OF DIGNITARIES

1. Kh.Lalmani Singh, Director Agriculture, Manipur visited in relation to Functioning of KVK farm activities on 25-06-2021
2. Dr.AK.Singha, Principal Scientist, i/c Director ICAR-ATARI Zone-VII Visited KVK Campus on 30-08-2021
3. Shri I.Meghachandra Singh ,Joint Director ICAR ,Tudinang Pammei Addl. Director Agriculture,Manipur ,Dr.Th.Robindro Singh Deputy Director,CAU ,Kh.Ngamreishang Breeder RRS on 4-09-2021 for inspection of Oil Palm project at KVK Thoubal
4. Th.Radheshyam Singh Hon/ble MLA Heirok Assesmbly Constituency, Prof.Ph.Ranjit Sharma Director of Extension Education CAU, Imphal Shri Polem Lenin Singh, AC to DC Thoubal , Todinang Pammei Add. Director, Agriculture Manipur for Climate Resilient Agriculture programme on 28-09-2021



Dr. Anupam Mishra, VC CAU, Imphal with team of GOI & State officials visiting KVK Thoubal



Shri AK. Singha, Principal Scientist, i/c Director ICAR-ATARI Zone-VII inspecting Bokashi Piggery system

5. Shri N.Gojendro Director Agriculture, Manipur Visited KVK Campus in relation to functioning of KVK farm activities on 9-11-2021
6. A.Subhash Singh DC/Thoubal visited KVK for Rabi Campaign on 12-11-2021
7. Dr.Anupam Mishra, VC, CAU Imphal , B.K Srivastava Deputy Commissioner Dept. Of Agriculture & Farmers Welfare Krishi Bhawan,New Delhi and Shri M.Joy Singh, Commissioner Agriculture, visited KVK Campus on 19.02.2022

EXTENSION ACTIVITIES



Method Demonstration on bagging of Banana



Method Demonstration on preservation of Mango



Scientist Visit to Farmers Field



Participation in Farmers Mela



Diagnostic Visits



Farmers Visit to KVK



Radio Talk



TV Talk



Awareness on Jal Shakti Abhiyan Mission



Virtual Annual Zonal Action Plan Workshop 2022



MERA GAON MERA GAURAV



SWACHHTA ACTIVITIES



LECTURE DELIVERED AS RESOURCE PERSON

Name and designation of resource person	Lecture delivered on	Date
Dr. S. Zeshmarani, Senior Scientist & Head	Enhancing income through rearing of Livestock and Poultry for the second batch of the 45 days Residential Agri-Clinics and Agri-Business Centr org. By Green Biotech Ecosolutions Pvt. Ltd.,Lamsang Laingamkhul Spinning mill road	7-04-2021
	Resource person on Capacity Building of Manipur Fish farmers & Mobile Aqua Clinic Activity Sponsored by NABARD & Green Biotech Eco Solutions Pvt. Ltd and Aqua One Centre,Imphal West	6-12-2021
Sribidya Waikhom, SMS (Fisheries)	Fish Farming organised by ATMA Thoubal	11-10-2021
	Pre and Post stocking management of fish farm organized KVK IE	29-12-2021
S. Prabin Singh PA (Agriculture Extension)	Problem faced by the farmers on availing the benefit of PM-KISAN scheme in Thoubal & Kakching district organised by District Legal Service Authority, Thoubal & Manipur State Legal Service Authority.	30-09-2021
N. Tomba Singh SMS (Agronomy)	Seed production of rice Organized by NCUI Thoubal branch	2-03-2021
	Weed Management in rice cultivation Organized By DAO, Bishnupur	16-03-2021
	Scientific cultivation of Pre Kharif rice Organized by DAO, Bishnupur	19-03-2021
	Oilseed, maize & Oil palm development Organized By DAO, Bishnupur district	7-12 Sep., 2021

SEED AND PLANTING MATERIALS PRODUCED DURING THE YEAR

Item	Crop	Variety	Quantity produced (q/ha)	Qty Supplied/ Provided to (No. of farmers)
Cereals	Rice	Tampha phou	176.8	2186 farmers
		Akul phou	1.64	
		Sana phou	10	
		Gin phou	5.7	
		RC Maniphou-7	17.1	
		RC Maniphou-13	97.8	
		Chakhao	2.46	
		Pari phou	2.8	
Fruits	Passion Fruit	Kaveri	50	26
	Papaya	African Red papaya	200	
Spices	Onion	Prema	20000	42
	Chili	Arka Meghna	20000	
Vegetables	Cabbage	Green hero	5550	12
	Cauliflower	White flash/ Candid charm	4650	12
	Broccoli	Green magic	1300	25
	Tomato	Arka Rakshak, Arka Abhed	2700	25
	Brinjal	Local- Serpentine type	2500	60
	Pumpkin	Big gold	1300	10
	Bottle guard	BSS-333 pratik	400	10



PARTICIPATORY RICE SEED PRODUCTION

To meet the increasing demand for quality rice seed, participatory rice seed production have been continuing with farmers



and certified by certification Agency Dept. of Agri. producing 251 quintals of certified seed during the year 2021 & supplied to Dept. of Agriculture, Manipur.

PM'S PROGRAM THROUGH VIRTUAL MODE

1. Webcasting of Live Inaugural session of National Horticulture Fair, 2021.
2. Celebration of International Women's Day 2021.
3. Webcast - Climate resilient Agriculture PM interaction with Farmers
4. Farmers Outreach program on Natural farming.



CELEBRATION OF IMPORTANT DAYS THROUGH ONLINE

1. Celebration of World Honey Bee Day on 20th May 2021
2. Celebration of World Milk Day on 1st June 2021
3. Observation on National Fish Farmers' Day on 7th July 2021
4. Celebration of World Breast feeding week on 1st-7th August 2021



SUCCESS STORIES



Shri A.K. Deben Singh is a progressive farmer. He practices Integrated Farming System comprising of dairy, poultry, duckery, fishery, apiary, vermi-composting, vegetable crops, rice, maize and mustard in his 1.5 ha land. He also grows black turmeric, sweet corn, Ginger, turmeric etc and earned an annual income of Rs. 6,30,000. He is an

innovator of furrow making tools which can be fitted into tractor and power tiller. Acknowledging his performance, he was awarded first position in district rice crop cultivation and also conferred with Innovative Farmer Award 2022 on the occasion of Regional Agriculture Fair held at AAU, Jorhat.

Mrs. Ksh. Radhamani Devi, age 45 yrs from Kakching khunuda ching is a progressive farmer and entrepreneur. She produces different value added products of dehydrated fruits and candy. Her products are branded as SHRE SHRE FOODS with proper packaging and labelling with fssai registration no. 2162001500036. She could earned an gross income of Rs.4,60,280 and net income of

Rs.1,53,424 with B.C. ratio of 1.5. Now she is successfully running her enterprises by giving job opportunity to youths of her locality.



Doubling of Farmers' income is a target set by Govt. of India in Feb. 2016 to be achieved by 2022. Under KVK Thoubal a total of 145 farmers success stories from adopted village have been documented.



Staff Position:-

- | | |
|---------------------|---|
| Dr. S. Zeshmarani | - Senior Scientist & Head |
| N. Tomba Singh | - SMS (Agronomy) |
| Kh. Premlata Devi | - SMS (Horticulture) |
| R.K. Lembisana Devi | - SMS (Home Sc.) |
| Sribidya Waikhom | - SMS (Fisheries) |
| Dr. Chuwang Hijam | - SMS (PBG) |
| L. Boris Singh | - SMS (PP) |
| L. Babita Devi | - Programme Assistant (Computer) |
| Dr. W. Jiten Singh | - Farm Manager |
| S. Prabin Singh | - Programme Assistant (Agri. Extension) |
| O. Shilhenba Singh | - Assistant |
| M. Geeta Devi | - Jr. Steno cum Computer Operator |
| M. Hemanta Singh | - Driver cum Mechanic |
| Th. Tiken Singh | - Driver cum Mechanic |
| E. Dhabali Singh | - Peon cum Chowkidar |
| Mangminthang Zou | - Peon cum Chowkidar |

Editorial Committee:

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Dr. S. Zeshmarani
 Sr. Scientist & Head, KVK Thoubal
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N. Tomba Singh
 SMS (Agronomy)
- R.K. Lembisana Devi**
 SMS (Home Sc.)
- Sribidya Waikhom**
 SMS (Fisheries)
- L. Babita Devi**
 Prog. Asst. (Computer)
- S. Prabin Singh**
 Prog. Asst. (Agri. Extension)