

## Newsletter

## KRISHI VIGYAN KENDRA (K.V.K)

**Farm Science Centre** 

January - July 2023

Lawngtlai District



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## **Scientific Advisory Committee (SAC) Meeting:**

The scientific advisory committee meeting of KVK Lawngtlai District, Lawngtlai, Mizoram was convened in an online mode on 13.12.2022 and was presided over by Mr. James Vanlalluaia, Additional Director of Agriculture, Gov't of Mizoram. The primary agenda of the meeting was to deliberate upon and approve the annual action plan of KVK Lawngtlai for the year 2023-24.

Key participants in the meeting included the SAC members, prominent experts from ATARI Zone-VII, Dr. A.K Singha, Director In-charge, Dr. R. Bordoloi, Principal Scientist (Extension) ATARI Zone-VII, Mr. F. Lalmalsawma, Deputy Director of Agriculture and staff of KVK Lawngtlai, Mizoram. The annual action plan of KVK under various disciplines are proposed based on the challenges faced by the local farming community. The meeting also served as a platform to review the achievement of KVK Lawngtlai during the year 2022-23, assess their impact on the community, and identify areas for improvement. Dr. C. Lalfakawma, Senior Scientist & Head, KVK Lawngtlai presented the annual action plan 2023-24 as well as annual progress report for the year 2022-23. Key decisions, recommendations and suggestions put forward during the meeting were meticulously recorded as minutes. These minutes serve as a record of the discussions and will be used to guide the implementation of the annual action plan for KVK Lawngtlai in the year 2023-24.

## The Annual Zonal Workshop of KVKs, Zone-VII:



The Annual Zonal Workshop of KVKs Zone VII was convened at the National Research Centre on Mithun, Medziphema, Nagaland from 20<sup>th</sup> to 22<sup>nd</sup> July 2023. The event brought together agricultural experts, researchers and officials from various KVKs in the zone to discuss and share insights on agricultural developments, challenges, and achievements. Dr. C. Lalfakawma, Senior Scientist and Head, KVK Lawngtlai also presented the noteworthy achievements of KVK Lawngtlai during the year 2022 (January-December). The workshop served as a valuable platform for knowledge sharing, collaboration and dissemination of best agricultural practices.

#### MANDATED ACTIVITIES OF KVK LAWNGTLAI, MIZORAM

## Performance Evaluation of Brinjal variety Kashi Sandesh

Performance of Brinjal variety Kashi Sandesh and Kashi Taru was evaluated during Kharif season in KVK Lawngtlai District's demonstration plot and farmer's field which showed a good result in quality attributes. The fruit weight and size and yield were evaluated and found to be an excellent quality. The duration of this variety is 80 days. Performance of these varieties during Rabi season is yet to be demonstrated.



## Preparation of Mango Squash (Rangkuai)

Training-cum-practical demonstration on Mango Squash with farm women was organized under post harvest management programme at KVK Training Hall. In order to compensate the losses due to insect infestation, the unmarketable fruits were prepared for additional source of income. The Mango squash product have good keeping quality and the taste, colour, odour etc were satisfactory with storage stability of more than 6 months.



#### Performance Evaluation of Sunflower under Kharif Season

A trial was conducted on Sunflower (Var. COH 3, CSFH-12205), a newly released variety from AICRP (Sunflower) Centre, Tamil Nadu Agriculture University, Coimbatore, 2018. The crop was found to be suited on the prevailing climate of Lawngtlai area with respect to vegetative growth and yield parameter. But one drawback observed during rainy season was drying of seed head, however, it could manage for oil purpose by keeping the head under shade and sunlight alternately.



## **Evaluation of different types of Millets**

Different types of Millets - Finger Millet (Var. *VL Mandua* 379 & 382 ), Pearl Millet (Var. *GMB* 1225 & 1129), Foxtail Millet (Var. *PRK* 1) were tested in upland condition to see the performance during kharif period. Most of the Millets varieties evaluated showed satisfactory result in different parameters recorded as compared to other Millets growing state. However, Finger Millets (Var. *VL Mandua* 379 & 382 ) showed crop lodging due to excess water at the bearing stage which created problems in harvesting and caused yield loss.





#### TRAINING CONDUCTED



#### **Vocational Training**

Vocational training programme called "Capacity Building on Livelihood Improvement through Food Processing (Pickle making )' for WSHGs members was jointly organized by KVK, Lawngtlai district and World Vision India, Lawngtlai, Mizoram at Mampui village during 6<sup>th</sup>-24<sup>th</sup> March, 2023. During these trainings, theory and practical demonstration were done on uses of different preservatives, preservation of pickles and their processes, problems in pickle making, packing, labeling, marketing, FSSAI licensing and registration procedure, market survey, costing and pricing. Different processes of pickles from beef, dry prawns, dry red chilli, plantain flower etc were demonstrated. Trainees were requested to prepare at least one pickle at home after every training.

## **Skill Training of Rural Youth (STRY)**

Skill Training of Rural Youth (STRY) is aimed at imparting skill-based training to rural youth on agri-based vocational areas in agriculture & allied areas to promote employment of rural areas and for creation of skilled manpower to perform farm and non-farm operations. One training lasts for a period of 6 days. During this period, KVK Lawngtlai organized three numbers of training under STRY covering 45 numbers of rural youths in Lawngtlai district.









## On & Off - Campus, Sponsored Training

During January - July, 2023, KVK Lawngtlai organized 14 numbers of on, off and sponsored training under various disciplines covering 520 numbers of farmers, farm women, rural youth and extension personnel.









## **Skill Training on Information Technology**

In March-April 2023, KVK Lawngtlai District organized Computer Application Skill Training course for Salvation Army Chawnhu Corps for 5 days. The program aimed to enhance information technology skills among youth dropouts through daily one hour training sessions



#### **EXTENSION ACTIVITIES**

## Field day conducted on Field pea at Tuiphal zau, Lawngtlai

A research trial on high yielding with tolerant to Rust and powdery Mildew diseases of Field pea (*Var. Aman*) was conducted at Tuiphal zau, Lawngtlai. The overall performance was found satisfactory as compared to other local/existing varieties. Yield recorded was 21.6Qlt/ha, per cent disease incidence was below ETL (1.22%). Feedback from farmer found that the Pod size was longer, firm and more number of seeds per pod than other varieties grown in the part year.



## Farmers Scientist Interaction on "Information and Communication Technology (ICT) in Agriculture"

Programme has been organized in collaboration with National Centre for Integrated Pest Management (NCIPM), New Delhi. Dr. Mukesh Sehgal (Principal Scientist) and Dr. Meenakshi Malik (Scientist), NCIPM delivered the importance of ICT tools and implementation in the present scenario of Agriculture Development followed by interaction programme with farmers and scientists of KVK Lawngtlai



## **Distribution of Groundnut Seeds (Var. Girnar 4)**

To popularize oilseed crops in Lawngtlai District, Groundnut seeds (*Var. Girnar 4*) were distributed to farmers of different villages, Girnar 4 is a high yielding bio-fortified variety with tolerant to Tikka disease (Most common disease of Groundnut). Average yield recorded as per trial based was 26.8 Qlt/ha.



## Cluster Frontline Demonstration (Oilseeds) at Tuiphal zau, Lawngtlai

Demonstration was conducted on oilseed - Toria (Var. TS 67), a high yielding and late sown variety with an area of 0.5 ha at Tuiphal zau, Lawngtlai. The variety showed higher number of siliquae per plant and number of seeds per siliqua. Dwarf and semi-dwarf with higher number of branches per plant. Yield recorded was higher (8.5Qlt/ha) as compared to local/ existing varieties.



## Off-season Watermelon production using Poly-mulch method

Demonstration was conducted under National Initiative on Climate Resilient Agriculture (NICRA) on Off-season Watermelon (var. Namdari) production using Poly-mulch method. Field day was organized with Department of Horticulture, Govt' of Mizoram Lawngtlai. The crop was successfully cultivated during the period of dry spell and harvested in the mid of February when the demand was more in the local market. The variety (Namdari) was newly introduced in Mizoram having deep crimson red flesh and sweet to taste (12-13% TSS) with an average weight of 3.5kg.



#### Popularization of French bean - Zorin bean

Zorin bean has been popularized through different programmes like Frontline demonstration, Schemes, Project etc within the District covering more than 15 villages which is purple colour (Anthocyanin rich) with high yielding (Avg. yield - 112 Qlts pod/ha) trailing type identified and released through State Variety Release Committee (SVRC), Mizoram on 5<sup>th</sup> March, 2019.



# **Seeds production under NICRA (National Initiative on Climate Resilient Agriculture)**

Seed production is one of the most important part of agriculture development in our area. Availability of seeds at the time of sowing affect the quality and quantity of production. So, KVK initiated different crops for seeds production - Groundnut var. Girnar-4 (4.2 qlts), Toria var. TS 67 (4.6 Qlts), Soybean var. JS 335 (2.2 Qlts) & Local (1.3 Qlts), Zorin Bean (1.12 Qlts), French bean var. Local (0.45 Qlts), Maize var. RCM 76 (2.42 Qlts), Rice var. Local (5.5 Qlts), Field Pea var. Aman (0.62 Qlts) etc.



## Popularization of Nutrition garden

Nutrition garden is one strategy for addressing malnutrition, anaemia and micro-nutrient deficiencies by consumption of freshly grown vegetables. And, increased family income by self sufficient in family consumption. KVK Lawngtlai established Model Nutri - garden at complex area and promoted interested farmers by distributing different vegetables seedlings, seeds, vermi-compost, farm inputs etc. KVK popularized Nutri-Garden through Frontline demonstration and Nutri-sensitive Agricultural Resource and Innovation (NARI) projects.





#### Distribution of Broiler chicks to farmers and farm women

KVK Lawngtlai organized broiler chicks distribution programme on July 11, 2023 at KVK complex, Chawnhu. The objective of this program was to support local beneficiaries in establishing small-scale poultry farming and promoting self-sufficiency in poultry production. A total of 30 broiler chicks and 50 Kgs of broiler starter feeds were distributed to each 10 beneficiaries who had been selected based on their interest in poultry farming and their potential to effectively manage the chicks. The beneficiaries were educated about the proper care, feeding and management of broiler chicks including bio-security measures to prevent diseases.





#### **Method Demonstrations on Composting**

Training and method demonstration on composting was conducted among the farm women. In this programme, 30 numbers each of farm women in two different locations participated. Lecture and method demonstration on importance of waste management and benefits of composting was also delivered to these farmwomen.





## Training and distribution of Mushroom spawn:

Training and demonstration on mushroom cultivation was conducted among the farm women, the programme engaged 15 numbers of farm women. Mushroom spawn was distributed to the participants on the same day.





#### OTHER IMPORTANT ACTIVITIES

#### **Millet Recipe Contest - 2023**

On occasion of International Year of Millets 2023, Millet Recipe contest has been organized by Krishi Vigyan Kendra, Lawngtlai district at 3 villages - Chawnhu, Vaseikai and Saizawh W under 3 selected blocks Chawnhu, Bungtlang S and Chawngte Block, respectively under the direction of ICAR-ATARI Zone VII, Umiam, Barapani. Women from these villages take great zeal in participating in the contest. Each contest usually has about 30-40 millet recipes ranging from simple traditional recipes to modern culinary inspired recipes. Upon inspection by a team of experts, 5 best recipes from each village were selected and given award and certificate.







#### Poshan Pakhwada - Preparation of Organic Manure



On occasion of Poshan Pakhwada, a lecture on the topic 'Preparation of Organic Manure' was delivered to the students of Eklavya Model Residential School (EMRS) on 25<sup>th</sup> May, 2023 by SMS (Soil Science). The school housed 150 students, with 13 teaching and non teaching staffs. They were taught the importance of organic manures and different ways of its preparation. They showed great interest and were keen in listening to the lecture. This was followed by interaction between expert and students.

# **International Conference on Natural Farming for Revitalizing Environment and Resilient Agriculture NF-RERA 2023**

Central Agricultural University, Imphal, Manipur organized International Conference on Natural Farming for Revitalizing Environment and Resilient Agriculture on 17<sup>th</sup> to 19<sup>th</sup> March 2023. Amongst the representatives from different KVKs under ATARI Zone VII, SMS (Soil Science) was sent to represent KVK Lawngtlai and participate in the exhibition stall. Upon inspection by scientists, ATARI Zone VII was awarded 3<sup>rd</sup> Prize amongst the Exhibiting Stalls.



#### **Radio Talks**

Dr. C. Lalfakawma, Senior Scientist & Head, KVK Lawngtlai was honoured to be invited by All India Radio, Aizawl, Mizoram. The radio talk aimed at disseminating valuable information about the KVK scheme. The broadcast took place on 8<sup>th</sup> July, 2023, and served as a platform to educate the public about the KVK scheme's significance in driving agricultural advancements and improving rural livelihoods. The radio talk effectively conveyed the essence of the KVK scheme and its impact on transforming Indian agriculture. The broadcast also provided an excellent opportunity to raise awareness about the KVK scheme's contributions to agricultural development. It is expected that such informative sessions will further encourage the adoption of modern agricultural techniques among farmers, fostering growth and prosperity in rural areas.

#### **AWARDS AND RECOGNITION**

## Best Innovative Farmer Award under TDC-NICRA (ATARI Zone VII)



KVK Lawngtlai proudly recognized and honoured their progressive farmer, Mr. K. Lalnunzira for his exceptional contributions and innovations in agriculture. He was bestowed with the Best Innovative Farmer Award under the TDC-NICRA (ATARI Zone VII) with the initiative of KVK Lawngtlai. The award was a testament to his dedication, creativity and commitment to implementing climate-resilient agricultural practices. Mr. K. Lalnunzira's achievements serve as an inspiration to fellow farmers in the region. The innovative farming technologies he adopted are adoption of ex-situ water harvesting structure, cultivation of improved varieties of Maize, Groundnut, Cabbage and Okra, use of tractor drawn implements and vermi-composting.

## World Environment Day:

Krishi Vigyan Kendra (KVK) Lawngtlai District demonstrated its commitment to environmental conservation by celebrating World Environment Day as a part of Mission LiFE programme on June 5, 2023 at KVK complex, Chawnhu with a tree plantation drive. The event aimed to raise awareness about environmental issues and promote a sense of responsibility among individuals towards nature. The event concluded with a pledge-taking ceremony for Mission LiFE, where participants vowed to contribute to environmental protection in their daily lives.





#### **PROJECTS**

#### **National Innovations on Climate Resilient Agriculture (NICRA):**

NICRA project was started in KVK Lawngtlai District on January, 2022 with an objective to enhance the resilience of Indian agriculture covering crops, livestock and fisheries to climatic variability and climate change through development and application of improved production and risk management technologies.

#### Half-yearly activities under Technology Demonstration Component - NICRA 2023 - 24



 Ex-situ moisture conservation: Intervention includes irrigation of rabi crops using Jalkunds constructed for selected farmers under the project, and nearby spring water or streams.





3) Cultivation of pest resistant variety of brinjal Kashi taru





6) Distribution of poultry chicks & feed: 50 numbers of Rainbow Rooster chicks and a bag of poultry starter feed were each distributed to 6 selected farmers









2) Cultivation of multiple disease resistant F<sub>1</sub> hybrid, HYV Tomato-Arka Abhed.





4) Cultivation of composite variety of maize (RCM 75) for sequential cropping





5) Cultivation of stress tolerant F1 hybrid HYV of cabbage var. *Ryozeki* 





7) Common Hiring Centre (CHC) status

8) Success Story: Success of 2 farmers Pi F. Kapmawii - backyard raising of rainbow roosters, and Pu Lalnunzira-cultivation of *rabi* tomato using water stored in *Jalkund* 

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# 2. Natural Farming Title of Project: "Outscaling of Natural Farming through KVKs"

"Outscaling of Natural Farming through KVKs" is a four year (2022-2026) project sanctioned by the Department of Agriculture and Farmers Welfare, GoI. This Project is being implemented in 425 KVKs all around India, and 25 KVKs under ICAR-ATARI, Zone- VII, Umiam. Under this project several awareness works have been conducted including Training, Kisan Gosthis, Awareness Poster camps etc. to make the farmers aware about natural farming. Eight demonstrations have also been executed on selected farmers at Chawnhu and Lungzarhtum villages. Several awareness literatures in the form of folder, leaflet, flyer, brochure and bulletin have also been extensively circulated to the farmers.













# 3. SP Biotech - Krishi Innovation Science Application Network (Biotech-KISAN):

A two year project entitled "SP Biotech - Krishi Innovation Science Application Network (Biotech-KISAN)" is being implemented by KVK Lawngtlai District since 2022 in collaboration with Department of Horticulture, Aromatic and Medicinal Plants, Mizoram University, Aizawl. The objectives of the project are; (i) Demonstration of round-the-year vegetable cultivation (both protected cultivation using low cost bamboo-based polyhouses and open cultivation) in farmers' field using multiple disease-resistant high yielding varieties of vegetables and (ii) Demonstration of improved production and post-harvest processing of spice crops (ginger) in farmers' field.

Activities accomplished under KVK Lawngtlai are trainings for farmers, field visit, interaction with farmers, open cultivation of French Bean var. Zorin Bean, Chilli, Cabbage var. Ryozeki, Tomato var. Arka abhed, Ginger var. Thinglaidum, protected cultivation of capsicum var. Indra and round the year production of vegetables in bamboo based, low cost poly house (Tomato, indeterminate var. Arka abhed and Gynoecious Cucumber).



Cultivation of Tomato var. Arka Abhed under Low Cost Polyhouse



Open Cultivation of Cabbage var. Ryozeki at Ngengpuikai



Cultivation of Cucumber under Low Cost Polyhouse



Protected Cultivation of Capsicum var. Indra

#### **About KVK**

Krishi Vigyan Kendra (Farm Science Centre), an innovative science based institution, is established mainly to impart vocational training to the farmers and field level extension workers. The training programmes were designed to impart the latest knowledge to the farmers through work experience by applying the principles of 'Teaching by Doing' and 'Learning by Doing'. The prime goal of KVK is to impart training as per needs and requirements in agriculture and allied enterprises to all farmers, farm women and farm youths including school dropouts in the rural area. The effectiveness of the KVK was further enhanced by adding the activities related to on-farm testing and front-line demonstration on major agricultural technologies in order to make the training of farmers location specific, need based and resource-oriented.

Krishi Vigyan Kendra (KVK), Lawngtlai District is one of the youngest KVKs in NE India. The Kendra was inaugurated on 5<sup>th</sup> August, 2008 by the Hon'ble Agriculture Minister of Mizoram, Shri. H.Rammawi. The host organization is Directorate of Agriculture (Research & Education), Govt. of Mizoram. It is located at a beautiful hill of Chawnhu Village, about 2.5 km from Lawngtlai town, capital of Lawngtlai District. From the KVK complex, there is a good panoramic view of the mighty Blue Mountain (Phawngpui), the highest peak of Mizoram (2157 metres) on the northeast side and a scenic view of Siaha town and the neighbouring KVK, Siaha District on the eastern side. The biggest river Chhimtuipui (*Kolodyne*) separates these two districts.

The inauguration function was chaired by Shri. Zahminga, Deputy Commissiner, Lawngtlai District. Shri J. Lalzamliana, Dy. Director, Department of Agriculture (R&E) gave a brief introduction of Krishi Vigyan Kendra. Speech was also delivered by Guest of Honour Shri. C.Thanghluna, CEM, Dr. O.P.Singh, Director, Department of Agriculture (R&E) and Shri. Zoramdinthanga, VCP, Chawnhu, followed by introduction of the newly recruited staff of KVK, Lawngtlai.

Since the inauguration, Officers & staff of KVK, Lawngtlai gear up for activities to bring about changes to the community of Lawngtlai district. Different activities like trainings, farm demonstrations, on and off campus trainings, detail survey of Lawngtlai District etc. had been taken up.



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