

# PAMETI

## REPORTER



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### From Director's Desk

Punjab agriculture played a historic role in addressing national hunger during Green Revolution. However, the over dependence on the wheat-rice mono cropping system has now created pressing ecological, economic, and social challenges. That is why, agricultural diversification has become imperative for ensuring sustainability and resilience in Punjab's agricultural sector.

Diversified farming systems include cultivation of less water-intensive crops such as cotton, pulses, oilseeds, and millets that reduce pressure on depleting groundwater resources. Fruits, vegetables and pulses can enhance dietary diversity and nutritional security. Allied activities like dairy, poultry, fisheries, beekeeping and mushroom cultivation can provide supplementary sources of income to the farmers. Forestry species, medicinal and aromatic plants can boost health and fetch additional revenue.

Agricultural diversification, therefore, is not merely desirable but essential for conserving natural resources and enhancing farmers' income.

However, there are serious challenges for its adoption in Punjab. Lack of reliable markets, price fluctuations, and weak supply chains do not support alternate crops. Adoption of alternate crops by farmers often requires additional knowledge about latest scientific cultivation, post-harvest management, value addition and marketing of diversified crops. PAMETI is playing an important role in capacity building of farmers in this regard. Trainings and exposure visits to the fields of farmers, who have successfully switched to alternate crops, can help in crop diversification.



**Dr K B Singh**  
Director, PAMETI

### Contd..

- Learning and Awareness on Agribusiness and allied sectors
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## Vermi-composting and Bio-inputs

With growing health concerns, linked to overuse of chemical agricultural inputs, there is an increase in interest to find the natural alternatives which can be used to improve soil fertility, enhance plant growth, and protect crops from pests and diseases. These substances, derived from natural substances are called Bio-inputs. Bio-inputs include Vermicompost, Bio-fertilizers, Bio-pesticides, Bio-stimulants, *Panchgavya*, etc.

In view of the above, trainings were conducted in batches under RKVY scheme from April 21-23 and May 5-7, 2025, which were attended by a total of 74 farmers. Trainings included both theory and practical sessions on preparation of bio-pesticides, fruit fly traps and bio-control agents which are essential components of bio-inputs.



**Exposure visit to Agricare Organics Farm, Ludhiana during training on “Vermi-Composting and Bio-Inputs”.**



**Rural Women during their visit to “Kitchen Garden” Demonstration Unit at Vegetable Farm, PAU, Ludhiana.**



**Group Photo during training on “Economic & Social Development Programme for Rural Women”.**

## Water Management in Paddy Cultivation

Due to continuous depletion of underground water, the state farmers should be encouraged to use smart water management techniques in paddy cultivation such as direct seeding or alternate drying & wetting, etc. These sustainable practices will help in growing healthy rice plants while conserving groundwater.

Keeping this in view, PAMETI organized a training programme from May 6-8, 2025 in which 28 farmers participated. The training laid special emphasis on Direct Seeded Rice (DSR) method due to its ability to save water, reduce labour cost and early maturity. Experts also demonstrated the use of machinery like happy seeder, paddy transplanter, seed drill, laser land leveler, etc. for saving water in paddy crop.



**Showcasing the use of Paddy Nursery Seeder to the trainees during training on “Water Management in Paddy Cultivation”.**



**Dr Jaspal Singh, Principal Entomologist, PAU with trainees during training on “Bee-Keeping”.**



**Women trainees showcasing their value added products made from seasonal fruits.**



**Trainees witnessing the “Kitchen Garden” model at PAU, Ludhiana.**



**World Biodiversity Day Celebration at PAMETI with trainees from ATMA, Moga during training on “Sustainable Agriculture Practices”.**

## Bee-Keeping

Bee-Keeping can be a successful entrepreneurial venture for unemployed rural youth. It can be started with low capital investment with few hives and then can be expanded with time. This venture can not only provide income from multiple products it offers but also help in environmental sustainability. However, it is of utmost importance to learn about bee biology, their management, market demand etc., before diving into this business.

Therefore, in order to educate and train the rural youth in bee-keeping, a training was organized under RKVY scheme in association with Department of Entomology, PAU from May 7-9, 2025, which was attended by 22 candidates. Training not only provided technical know-how of bee-keeping but also included knowledge about how to start this business and produce products in compliance with food safety standards and regulations.

The participants expressed their satisfaction about the training. They said that the training helped them in understanding and learning the scientific management of bees and income generation.

## Empowering Rural Women

To bring social change and challenge gender stereotypes, empowerment of rural women through education and training is needed. Empowered women can not only provide extra income to their families, but also inspire others.

So, keeping the above objective in view to equip rural women with the necessary knowledge, skills and resources to pursue self-employment and entrepreneurial ventures, a training was organized from May 13-15, 2025, under RKVY scheme, which was attended by 24 participants.

Training included sessions on various options for livelihood generation by rural women. Practical sessions on preparing Mango Chutney, *Aam Papad* and Mango Fruity were also conducted to make trainees acquainted with value addition of fruits at household level. Different aspects of women health including physical, mental, social and spiritual components were also discussed by experts with the trainees.

## Sustainable Agriculture Practices

Punjab agriculture is facing serious challenges like groundwater depletion, soil degradation due to rice-wheat cycle, excessive chemical use and stubble burning.

in this context, a training was successfully conducted at ATMA, Moga from May 20-23, 2025 under RKVY with 20 participants which focused on practical solutions addressing the issues. The training sessions covered a range of critical topics like soil health management, biodiversity conservation, Integrated Pest Management (IPM), etc. Trainees during their visit to Ludhiana, joined the celebration of World Biodiversity Day at PAMETI and witnessed the economic and environmental benefits of Integrated Farming System (IFS) at PAU.

## Organic Farming

Organic farming is a sustainable agricultural system that avoids the use of chemical agricultural inputs. These agricultural practices help maintain ecological balance, improve soil fertility and produce healthy and safe food.

To promote organic farming, a training with School of Organic Farming, PAU, was organized from June 2-4, 2025, which was attended by 21 farmers. Various scientists from PAU trained the farmers in using natural inputs like compost, green manure, bio-fertilizers, etc. instead of chemical pesticides. The farmers, in their feedback expressed that the training provided them practical insights about the organic farming and experts explained complex topics in a simple manner.



**Dr K B Singh, Director PAMETI and faculty with participants during valedictory session of training on "Organic Farming".**

## Communication and Media Skills for Extension Functionaries

Extension functionaries serve as a crucial link between research institutions and the farming community. Communication and media skills would equip them to deliver technical information in a clear, simple, and engaging manner.

Keeping this in mind, a training in collaboration with EEI, Nilokheri was organized from June 24-27, 2025 which was attended by 40 extension officials. Verbal and non-verbal communication, writing skills, use of social media, etc. were the key topics covered during the training. Training included various activities, exercises and hands on sessions on video editing. An exposure visit to the office of "Apni Kheti" mobile app in Mohali was also conducted to witness the use of modern communication media for delivery of effective extension services to the farmers.

During the valedictory session, S. Gurmeet Singh Khuddian, the Hon'ble Minister of Agriculture and Farmers' Welfare, Punjab, addressed the participants and encouraged them to apply the skills for effective message delivery to the farming community. Participants expressed great satisfaction with the training and appreciated the interactive methodology adopted.



**Exposure visit of trainees to the office of "Apni Kheti" mobile app at SAS Nagar.**

## Strategies for Linking Farmers to Markets (Online, in collaboration with MANAGE, Hyderabad)

Linking farmers to markets means connecting farmers to consumers in a way that help them in selling their produce at competitive prices and getting better profits. The innovative marketing strategies are used to bridge the gap between the producers and consumers.

With the idea of training extension officials in this area and to present the successful practical cases of marketing models used in agriculture, an online training with MANAGE was organized from July 8-10, 2025, which was attended by 30 trainees. The training included direct marketing models, ICT and digital platforms, contract farming, export linkages, etc.



**S. Gurmeet Singh Khuddian, the Hon'ble Minister of Agriculture and Farmers' Welfare, Punjab; Director PAMETI and Dr Jasvinder Kaur, EEI, Nilokheri during training of "Communication and Media Skills".**



**Dr S S Walia, Director, School of Organic Farming, PAU explaining the Integrated Farming System (IFS) to trainees during their exposure visit to the IFS model, PAU.**



**Glimpse of training on "Bee-Keeping" under STRY.**



**Dr Yesmin Kaur, Dept. of Plant Pathology, PAU interacting with farmers on "Disease Management in Paddy Crop".**



**Dr Neha Lakhanpal, Psychologist, Ludhiana with Director PAMETI, faculty and trainees during "Behavioural Skills for Effective Extension Delivery" training.**

## Learning and Awareness on Agribusiness and allied sectors

Considering the youth to be the key agents of social change, economic development, and technological innovation, a comprehensive training module was developed for the 30 selected leaders of the Youth Knowledge Hub Project (YKHP) of Fairtrade Network of Asia and Pacific Producers (NAPP). Fairtrade NAPP trains and works to secure fairer deal for farmers and workers in Asia.

The training held from July 14-16, 2025, was focused on Agribusiness and Livelihood, Agri Innovation and Technology, Digital Marketing, Climate Change and Environment and Sustainable Farming. The training included field visits, practical sessions and group discussions.

The participants appreciated the training and as a key take away, they come up with the idea to co-develop Digital Agro-Climatic Technology Centers in their regions with the aim to promote farmer-friendly technologies.

## Paddy Cultivation

There is a need to impart knowledge on modern agronomical practices and resource efficient management of water, nutrients, pests and diseases in paddy crop so as to promote climate-smart and sustainable rice farming.

Therefore, 2 one day training programmes were organized on 17<sup>th</sup> and 18<sup>th</sup> July 2025 for paddy farmers from Punjab, in association with Manav Vikas Sansthan (MVS), an NGO from Himanchal Pradesh. A total of 145 farmers attended these trainings.

These programmes gave opportunity to the farmers to not only learn scientific methods of paddy cultivation but also how to reduce cultivation costs. The training also included session on crop residue management for improving soil health.

## Behavioural Skills for Effective Extension Delivery

Behavioural skills are important for extension delivery because they directly influence how effectively knowledge, technologies and innovations reach the farmers.

In order to enhance the behavioural competencies of extension professionals for more impactful outreach and development activities, a training was organized from July 23-25, 2025, in which 22 officials participated. Understanding human behavior, attitude influences altitude, assertiveness, mindful living, haptitude, empathy, and relationship building were among the important subjects covered in the interactive training sessions. In order to improve attention, communicate with confidence and respect, and establish trust and genuine connections with farming communities for successful extension delivery, experts urged the participants to live in the present.

The participants praised the training for its participatory style, practical ideas, and relevance.

## Certified Course on Integrated Nutrient Management (CCINM)

In order to enhance the professional competency of prospective fertilizer dealers and to develop them as para extension professionals on soil health management, a 15-days residential course was organized from July 14-28, 2025 under the aegis of MANAGE, Hyderabad. A total of 30 candidates attended the first batch of this course.

Under this course, trainees were given comprehensive knowledge on soil health, balanced nutrient management, organic manures bio-fertilizers, etc. Field visits at farmers' fields and Labs at PAU, Ludhiana were also conducted for practical exposure.

The candidates took keen interest in learning site-specific nutrient management and 5R Nutrient Stewardship (Right Source, Right Dose, Right Time, Right Method and Right Management) during the course. They wholeheartedly appreciated the efforts of the organizers and decided to share and apply what they learnt.



**Practical session on "Soil Testing" at Dept. of Soil Science, PAU during CCINM course.**

## Skill Training of Rural Youth (STRY)

With the aim to empower farmers and entrepreneurs to start new ventures and bring agricultural diversification in the state, PAMETI organized 13 trainings under this scheme.

These training programmes covered bee-keeping, goat rearing, nursery management, protected cultivation, bio-fertilizers and vermi-composting, etc. Focus of the trainings was on promoting scientific sustainable practices in agriculture and allied sectors in the above mentioned areas. This would help unemployed rural youth in the state to start their own ventures. Trainings were conducted at Moga, jalandhar, Ludhiana, Faridkot and Bathinda.



**CCINM candidates during their visit to "Farmer Agri Mart" developed by the progressive farmer S. Davinder Singh at Mushkabad, Ludhiana.**

## Diploma in Agricultural Extension Services for Input Dealers (DAESI)



**S Gurmeet Singh Khuddian, Hon'ble Agriculture Minister, Punjab; Dr S S Gosal, Hon'ble Vice Chancellor, PAU; Director PAMETI and other dignitaries during Release of Book "Vigyanak Kheti ate Psar Sewavan" during DAESI Valedictory function.**



**S. Kular Singh Sandhwan, Hon'ble Speaker of Punjab Legislative Assembly being welcomed by Dr K B Singh, Director PAMETI, Dr Kulwant Singh, CAO, Dr Aman Keshav, PD (ATMA) during DAESI inauguration at Faridkot.**



**Sh. Raman Behal, Chairman, Punjab Health Corporation inaugurated DAESI batch at ATMA, Gurdaspur**



**Sh. Sagar Setia (IAS), Deputy Commissioner, Moga during inauguration of DAESI at ATMA, Moga**

S Gurmeet Singh Khuddian, the Hon'ble Minister of Agriculture and Farmers' Welfare, Punjab, graced the occasion at valedictory session of two batches of DAESI on June, 27, 2025 at PAMETI. In his address, he said that the input dealers are the first contact point of information for farmers. He urged the newly certified dealers to share accurate and up-to-date information with the farmers so that agricultural productivity can be increased while ensuring sustainability.

Dr S S Gosal, the Hon'ble Vice Chancellor, PAU and also the Vice-Chairman, PAMETI Governing Board encouraged candidates to do ethical business and provide high quality agricultural inputs to the farmers. A DAESI course book titled "Vigyanak Kheti ate Psaar Sewavan" was also released during the event.

S Kular Singh Sandhwan, the Hon'ble Speaker of Punjab Legislative Assembly inaugurated the DAESI batch at ATMA, Faridkot on June 21, 2025. Currently, a total of 9 batches of DAESI are operational in Ludhiana, Faridkot, Sri Muktsar Sahib, Moga and Gurdaspur districts.

Sh. Sagar Setia, IAS, Deputy Commissioner, Moga inaugurated the DAESI batch at ATMA, Moga on May 15, 2025. Dr. KB Singh, Director, PAMETI joined the event as Guest of Honour.

Sh. Raman Behl, Chairman Punjab Health Corporation, Government of Punjab inaugurated the DAESI batch at ATMA, Gurdaspur on June 28, 2025 in the presence of Dr. Amrik Singh, CAO, Gurdaspur and Dr. KB Singh, Director, PAMETI.

Similarly, at ATMA, Sri Muktsar Sahib, the inauguration was held on July 9, 2025 by Mr. Rajan, Assistant Registrar, Department of Cooperation, Punjab. Dr. Karnjit Singh Gill, CAO, Sri Muktsar Sahib graced the occasion as guest of honour.

### **PAMETI participation in "Technology Demonstration Exhibition" at PAU, Ludhiana**



**PAMETI showcased its activities to S. G S Khuddian, Hon'ble Minister of Agriculture and Farmers' Welfare, Punjab; Sh. Manish Sisodia, Former Deputy Chief Minister, Delhi; Sh. K A P Sinha (IAS), Chief Secretary, Punjab; Dr. S S Gosal, Vice Chancellor, PAU and other dignitaries during Technology Demonstration Exhibition at PAU, Ludhiana.**



**S. Gurmeet Singh Khuddian, Hon'ble Agriculture Minister, Punjab; Dr S S Gosal, Hon'ble Vice Chancellor, PAU; Dr K B Singh, Director PAMETI and other dignitaries with DAESI Facilitators and Candidates during the valedictory function of DAESI batches on 27.06.2025.**

## Other Activities

- PAMETI organized five exposure visits of farmers and farm women under RKVY to get them in touch with fellow farmers, share experiences, and clarify their doubts.
- Director, PAMETI attended meeting of SLSC for RKVY and *Krishonnati Yojana* 2025-26, held under the chairmanship of Hon'ble Additional Chief Secretary, Punjab at Chandigarh on April 16, 2025.
- Dr Harmeet Kaur, Dy. Director-BM attended online trainings on "Natural Farming" and "Commodity Options" organized by MANAGE on April 24-26 and April 30, 2025 respectively.
- Sh. Sagar Setia (IAS), Deputy Commissioner, Moga inaugurated DAESI batch at ATMA, Moga which was presided over by Director, PAMETI and Dr. Rupinder Kaur, Dy. Director-HRM on May 15, 2025.
- Director, PAMETI attended National Apicultural Entrepreneurship Workshop entitled "Beeconomy 2025" in recognition of World Bee Day at Kisan Vikas Chamber Auditorium, Mohali on May 20, 2025.
- Ms. Bharti Madan, Dy. Director-IT took a session on "Role of IT in Agril. development" to candidates during training on "Sustainable Agricultural Practices" under RKVY at ATMA office, Moga on May 23, 2025.
- Dr. Rupinder Kaur & Ms. Bharti Madan took sessions for DAESI candidates at ATMA, Moga on June 7, 2025.
- Director, PAMETI attended Nation Seminar on "Apicultural Innovation and Entrepreneurship: Igniting Ideas, Inspiring Enterprises", organized by ICAR-CIPHET, Ludhiana on June 20, 2025.
- S. Kultar Singh Sandhwan, Hon'ble Speaker, Punjab Legislative Assembly, Punjab inaugurated DAESI batch at ATMA, Faridkot which was presided over by Director, PAMETI on June 21, 2025.
- Dr. Rupinder Kaur supervised the final DAESI exams at ATMA, Moga on June 25, 2025.
- Director, PAMETI attended valedictory programme of DAESI batch at KVK, Bathinda on June 26, 2025.
- S Gurmeet Singh Khuddian, Hon'ble Agriculture Minister, Punjab; Dr S S Gosal, Hon'ble Vice Chancellor, PAU released a book titled "*Vigyanak Kheti ate Psaar Sewavan*" on June 27, 2025.
- Sh. Raman Behl, Chairman, Health Corporation, Punjab inaugurated DAESI batch at ATMA, Gurdaspur presided over by Director, PAMETI on June 28, 2025.
- Dr. Rupinder Kaur delivered two sessions on 'Extension Methods' and 'Communication Skills' to DAESI candidates at ATMA, Faridkot on July 12, 2025.
- Ms. Bharti Madan attended National workshop at MANAGE, Hyderabad on "Transforming Agricultural Marketing in India- Linking farmers with digitally enabled integrated platforms" from July 29-30, 2025.

## ABOUT PAMETI, Punjab

SAMETI in Punjab, known as PAMETI (Punjab Agricultural Management and Extension Training Institute), is a state-level training institute established on the campus of Punjab Agricultural University, Ludhiana. The institute imparts training to root and middle level extension functionaries from agriculture and allied departments in the areas of agricultural management and extension. It is the sole autonomous training institute in the state functioning by the funds provided under the "Krishonnati (Krishi Unnati) Yojna." (60:40) of Ministry of Agriculture and Farmers' Welfare, Govt. of India. It started functioning in Dec., 2000.



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