

PAMETI

R E P O R T E R



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From Director's Desk

Today, Punjab stands at a critical juncture in its agricultural journey. The state is facing severe challenges in the form of groundwater depletion, labor shortages, and rising cultivation costs. For the state's agricultural sustainability, the technology of Direct Seeded Rice (DSR) is not an option but a necessity.

DSR is a technique for growing rice in which seeds are sown straight into the field, either by hand or with a seed drill, without first growing a nursery and transplanting seedlings.

DSR can help reduce water usage, cut costs, and maintain crop productivity. By removing puddling and preserving ideal soil moisture, DSR can cut water consumption by 15–30%. As DSR uses mostly machines to sow seeds into the field, it reduces labor requirements by up to 50% as compared to manual transplanting which is highly labor-intensive and increasingly unsustainable due to labor shortages and rising wages. DSR also contributes to climate change mitigation and improves soil health by reducing the anaerobic conditions that generate methane.

Farmers may initially find it challenging to adopt this practice because they are accustomed to the usual puddling process. Nonetheless, farmers in the state can be assisted and encouraged to use this rice cultivation technique with the use of more efficient agricultural extension services.

Since DSR is a knowledge-intensive and management-sensitive technology, successful implementation depends heavily on farmers being well-informed, skilled, and confident. Through trainings, farmers can be educated about the practicalities of DSR. They might also be informed about the difficulties in using this cultivation method and how to overcome them.



Dr K B Singh
Director, PAMETI

Innovative Marketing Models **(Online, in collaboration with MANAGE, Hyderabad)**

Traditional agricultural marketing inhibits major problems to the producers. These include wastage of food, deterioration in produce quality and loss of access to lucrative markets etc. Producers need innovative methods to reach new consumers across wider markets.

With the idea of generating awareness about latest innovative agricultural marketing models so that more number of farmers may adopt them, an online training was organized with MANAGE, Hyderabad on February 18-20, 2025 in which 45 extension officials and scientists from all over the country participated.

Among the topics covered in the training were exports, direct marketing, and Internet-based marketing. The advantages and difficulties of the Electronic National Agricultural Market (e-NAM) site were thoroughly examined. Attendees paid close attention to the presentations, interacted with the experts, and asked their queries. They thanked the organizers for their efforts.

Climate Smart Agricultural Technologies **(Online, in collaboration with MANAGE, Hyderabad)**

Climate smart agricultural technologies are innovative tools, practices, and technologies which better cope with varying climate and mitigate the negative impact of weather change while ensuring agricultural sustainability and food security. These technologies include use of drought resistant varieties, smart irrigation methods, precision agriculture, soil health monitoring systems, weather prediction tools and early warning systems, etc.

Agricultural extension services can play a pivotal role in educating farmers about climate smart agricultural practices. The extension functionaries need not only to be trained in the above technologies but also in how to encourage and persuade farmers for the adoption of these technologies. Keeping this in view, an online training was organized on March 11-13, 2025 in collaboration with MANAGE, Hyderabad. This training was attended by 71 extension officers from agriculture and allied departments and scientists from SAUs/ICAR institutions.

During the training, eminent scientists from eminent institutions like ICAR-IARI, CIPHET, PAU, GADVASU, in Ludhiana, NIPHM in Hyderabad, and VNMKV in Maharashtra, etc. interacted with the trainees online and discussed about various climate smart agricultural technologies along with their importance and challenges. Dr Balasubramani, Director (CCA), Dr Shreelaxmi, Academic Associate (CCA) from MANAGE and Ms. Bharti Madan, Deputy Director (IT) from PAMETI coordinated this training. Participants admired the efforts of both the institutions for organizing such programme.



Trainees with Mr V K Saini and PAMETI faculty during the exposure visit to "Agricare Organics" Farm at Ludhiana during training on "Organic Farming" organized under STRY scheme.



Dr R K Theodore, Principal, Kumaraguru Institute of Agriculture, Tamil Nadu with scientists and progressive farmers at Integrated Farming System Model, PAU during their educational visit to Punjab facilitated by PAMETI.



PAMETI faculty with participants during training on "Mushroom Cultivation and Processing" organized under STRY.



State agriculture extension officers with PAMETI faculty during their exposure visit to Kulraj Natural Farm, Vill- Sarabha, Ludhiana.



Exposure visit to Bhagat Puran Singh Pingalwara Natural Farm at Amritsar.



Group photo of goat farmers during training on "Goat Rearing, Management & Value Addition" organized under RKVY scheme.



Dr Sudhir Thaman, Dept. of Soil and Water Engg., PAU demonstrating the use of drip irrigation in protected cultivation of vegetables to farmers.

Natural Farming (Two, Offline, in collaboration with MANAGE)

Natural Farming is a method of growing crops that relies on natural processes and traditional knowledge to maintain soil fertility, pest control, and overall farm health. It is not just an alternative for Punjab, rather it's a necessity for ensuring long-term agricultural sustainability, ecological balance, farmer well-being, and food security. Keeping this in view, PAMETI, in collaboration with MANAGE, organized two trainings on March 17-20 and March 24-27, 2025, each attended by 25 trainees.

Along with interactive theory sessions, both training courses included exposure visits which provided opportunity to trainees to observe how natural farming techniques are practically applied to create a resilient farming system without relying on chemicals. Visits were conducted at Kulraj Natural Farm, Vill.-Sarabha, Ludhiana, Kang Natural Farm, Vill.-Dhahan Kaleran, SBS Nagar and Bhagat Puran Singh Pingalwara Natural Farm at Shri Amritsar Sahib.

Goat Rearing, Management and Value Addition

For farmers, Goat Farming can be a profitable and sustainable subsidiary occupation. It complements traditional farming, provides additional income and requires relatively low inputs for management. Training in goat farming practices can help the rural community grow by improving their standard of living.

With this objective, a training was organized in collaboration with Directorate of Extension Education, GADVASU, Ludhiana on March 4-6, 2025 under *Rashtriya Krishi Vikas Yojna* (RKVY) scheme. This was attended by 25 farmers across the state.

Training included sessions on identifying breeds, housing, feeding and breeding of goats. Trainees visited Goat Farm at GADVASU & Integrated Farming System model at PAU for practical learning of the subject. Farmers appreciated the programme and said that the sessions were highly informative and practical.

Judicious Use of Water in Horticultural Crops

Water management in horticulture is essential to optimize plant growth, conserve water resources, and ensure sustainability. Capacity building of farmers in modern water management technologies is crucial for effective adoption and long-term success.

With this objective, a training was organized from March 10-13, 2025, under RKVY scheme, which was attended by 21 farmers. During the programme, various experts practically explained different irrigation methods like drip irrigation, subsurface irrigation, sprinklers and use of digital sensors and controllers.

Exposure visits were also conducted to Centre of Excellence for Potato, Jalandhar and Bhangu Natural Farm, Bhogpur for the trainees. In their feedback about the training, farmers mentioned that the training was very practical and informative and they will adopt the technologies as per their resources.

Mushroom Production and Value Addition

Mushroom Cultivation can provide a means of crop diversification and an alternative or supplementary income source to the farmers. It requires minimal land, basic infrastructure, and farm waste as inputs like straw, cotton waste and rice husk which makes it ideal for small and marginal farmers, especially in rural and peri-urban areas.

Therefore, a training was conducted from March 17–20, 2025, under RKVY scheme, in cooperation with the Department of Microbiology, PAU, to teach farmers about mushroom cultivation which was attended by 21 farmers. Director, PAMETI discussed the increasing demand for mushrooms in urban areas in relation to the possibilities for their cultivation. The intricacies of growing several mushroom varieties and spawn preparation were discussed in the training. Farmers were also explained about mushroom processing and packaging through a live demonstration. Ms. Vandana, PAMETI's Deputy Director-IT, thanked everyone who attended and encouraged farmers to pursue mushroom farming as a side business.



Trainees during the exposure visit to “Gill Mushroom Farm” at Patiala organized under RKVY scheme.

Skill Training of Rural Youth (STRY)

STRY scheme is an initiative by the Government of India under which rural youth of age between 18–40 years, are given opportunity to get trained in agriculture based vocational areas, so that they may start their own business. Trainings under STRY are short-term programs, typically of 6 days duration, focused mainly on practical skills along with technical knowledge.

For the period from December 2024 to March 2025, a total of 12 STRY trainings were conducted in collaboration with FASCs and ATMA at district level, in which 277 candidates were trained. Major training areas were Organic Farming, Integrated Pest Management, Marketing and Bee-keeping.



DAESI class in progress at PAMETI.

Diploma in Agricultural Extension Services for Input Dealers (DAESI)

Padma Bhushan Dr. Sardara Singh Johl, Honorable Former Chancellor, Central University of Punjab inaugurated two batches of One-year Diploma in Agricultural Extension Services for Input Dealers (DAESI) on March 20, 2025. Dr. Parvender Sheoran, Director, ICAR-ATARI, Zone-1 and Dr. Makhan Singh Bhullar, Director of Extension Education, PAU also graced the occasion.

Dr. SS Johl, in his inaugural address, advised the candidates to learn about use of right inputs along with their right application in right quantity and on right time. He said that the farmers should not completely rely on labourers rather they should also perform/supervise agricultural operations. Apart from these two batches at PAMETI, three (3) more DAESI batches are successfully running, one each at ATMA- Moga, ATMA-Faridkot and ATMA- Sri Muktsar Sahib. Final examinations for five (5) batches were also completed in February, 2025.



Ms. Kanchan, Consultant, DAESI from MANAGE, Hyderabad supervising the spotting-part of DAESI final examination at PAMETI.



Padma Bhushan Dr. Sardara Singh Johl, Honorable Former Chancellor, Central University of Punjab, Dr. Parvender Sheoran, Director, ICAR-ATARI, Zone-1, Dr. M S Bhullar, DEE, PAU, Director PAMETI and faculty with DAESI facilitators and candidates during the inauguration of DAESI batches at PAMETI.

Other Activities

- Director PAMETI attended a workshop on "Strategies for Crop Residue Management in India" at New Delhi on December 16, 2024.
- Dr Harmeet Kaur, DD(BM) participated in online collaborative trainings titled "Natural farming" and "Climate Resilient Agriculture" organized by MANAGE from January 13-17 and January 20-22, 2025 respectively.
- Director PAMETI and Mr. Ravneet Singh, DD(PHT) discussed administrative issues of PAMETI with the Hon'ble Special Chief Secretary and Farmers' Welfare, Punjab, Chandigarh in the period from January to March, 2025.
- Dr Rupinder Kaur, DD(HRM) monitored DAESI examinations at five districts from 27 January – 6 February, 2025.
- Director PAMETI presented a paper in the Global Conference on "Smart Horticulture for Prosperity and Nutritional Security (GCSH-2025) at University of Horticultural Sciences, Bagalkot, Karnataka from February 12-14, 2025.
- Director PAMETI delivered an interactive session to 3rd and 4th year students of PAU- CoA, Ballowal Saunkri regarding Agricultural Extension and Training programmes in Punjab on February 19, 2025.
- Ms. Vandana, DD(IT) and Mr. Ravneet Singh attended an online training on "Climate Smart Agricultural Technologies" organized by PAMETI and MANAGE from March 11-13, 2025.
- Director PAMETI attended National Seminar on "Climate Resilient Agriculture in the Facet of Transition in Agriculture (CRAFT)" organized by PAU on March 17, 2025.
- PAMETI was sanctioned two projects under *Rashtriya Krishi Vikas Yojana* (RKVY) for the financial year 2025-26.
- 27th General Meeting of PAMETI Governing Board was held under the chairmanship of the Hon'ble Special Chief Secretary and Farmers' Welfare, Punjab at Chandigarh on March 28, 2025.

ABOUT PAMETI, Punjab

PAMETI in Punjab, known as PAMETI (Punjab Agricultural Management and Extension Training Institute), is working as an autonomous institute at Punjab Agricultural University campus, Ludhiana to provide extension and management trainings to the state extension staff. The institute is registered under the Societies Act 1860 and started functioning in 2000.



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