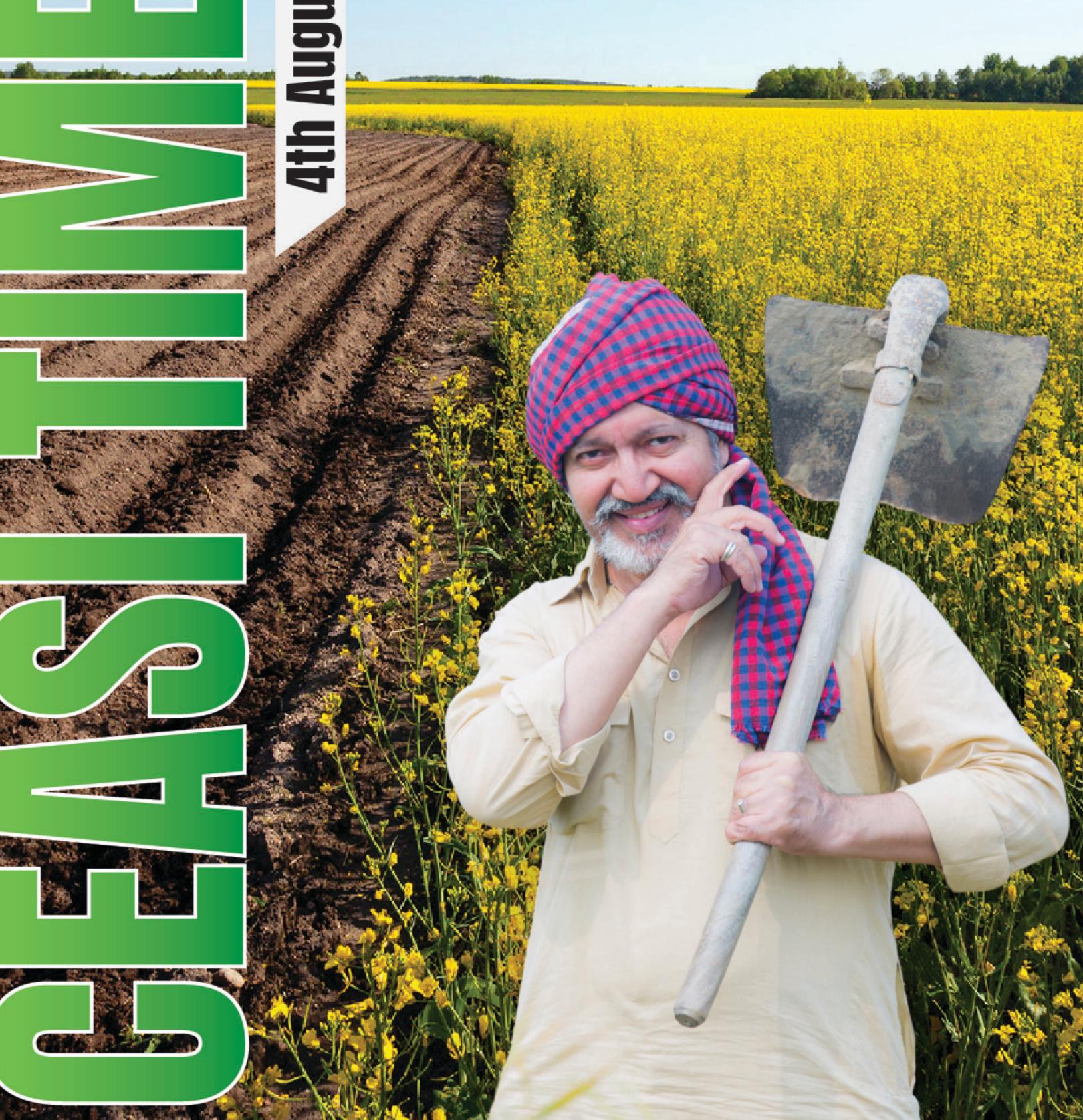






CEASI CENTRES OF EXCELLENCE FOR AGRICULTURE SKILLS IN INDIA





**CEFMI** Centre of Excellence for Farm Mechanization Skills in India

**CEHSI** Centre of Excellence for Horticulture Skills in India

www.ceasi.in

### **ABOUT CEASI**

#### Who We Are:

"Centre of Excellence for Agriculture Skills in India (CEASI)" is an autonomous organization working under the aegis of "Agriculture Skill Council of India (ASCI)", which is working under Ministry of Skill Development & Entrepreneurship (MSDE) for skilling and capacity building of farmers, wage workers, self-employed professionals, extension workers etc. engaged in organized and unorganized segments of Agriculture & Allied sectors.

#### CEASI is an apex organization of Centres of Excellence in various sub-sectors of agriculture viz.

- Centre of Excellence for Dairy Skills in India(CEDSI)
- Centre of Excellence for Horticulture Skills in India(CEHSI)
- Centre of Excellence for Farm Mechanization Skills in India(CEFMI)
- Centre of Excellence for Climate Resilient Agriculture(CoECRA)
- Centre of Excellence for Artificial Intelligence in Agriculture(CoE-AI)

#### What We Do:

#### **Skilling & Capacity Building:**

Building capacity based on stakeholder needs in agriculture and allied sectors.

#### **Knowledge Management:**

Developing QPs, NOS, skill gap reports, and newsletters to support workforce standards.

#### Research:

Conducting industry research to identify needs and bridge skill gaps as per industry demands.

#### **Advocacy & Advisory Services:**

Creating networks to share innovations and address sectoral challenges.

#### **Our Vision**

An autonomous institution of excellence committed to developing a highly skilled workforce in agriculture, driving innovation, technological advancement, and sustainable practices to enhance the prosperity and resilience of Indian agriculture.

#### **Our Mission**

To emerge as the leading organization for skill development in cutting-edge agricultural practices, both nationally and globally, fostering holistic sector growth through sustainability, profitability, capacity building, knowledge dissemination, policy advocacy, and innovative research.

#### **CEASI's Impact:**

CEASI is driving transformative change in Indian agriculture by empowering individuals, enhancing skills, and uplifting communities across the country.

- 15+ States
- ▶ 15 FPOs Trained & Supported
- 20,000 Agri / Dairy Professionals Upskilled
- ▶ 5000+ Entrepreneurs Skilled
- ▶ 3000+ Women Empowered
- 30,000+ Lives Impacted

### FARM MECHANIZATION INSIGHTS

### KERALA TESTS DRONE-BASED SEED SOWING FOR WATERLOGGED PADDY FIELDS



In a major step toward modernizing traditional paddy farming, Kerala Agricultural University (KAU) has successfully conducted a trial of drone-based seed broadcasting in the waterlogged Pokkali fields of Kumbalangi. Supported by the World Bank and conducted in partnership with Fuselage Innovation, the initiative addresses long-standing challenges posed by muddy and saturated soils.

The drone used in the trial could carry and disperse up to 10 kg of germinated seeds, sowing one acre in just 20–25 minutes. This method cuts down on labour and ensures more

uniform seed distribution, while also saving up to 10 kg of seeds per acre, said Dr. K.P. Sudheer, head of KAU's agri-business incubator.

Germinated seeds proved ideal for aerial sowing, anchoring well in wet soil. With promising results, KAU is now exploring higher-capacity drones for larger operations. Experts believe this innovation could revolutionize paddy cultivation in regions like Pokkali and Kuttanad, where conventional

## PUNJAB FARMERS PREFER PERSONAL OWNERSHIP OF STUBBLE MANAGEMENT EQUIPMENT OVER CHCS



Despite generous subsidies for custom hiring centres (CHCs), Punjab's paddy farmers continue to favour owning crop residue management (CRM) machinery. From 2020–2025, nearly two-thirds of 98,153 subsidised CRM machines were purchased by individual farmers, while CHCs and allied groups accounted for just 29,499 units.

Under the central scheme launched in 2018-19, CHCs receive an 80% subsidy, higher than the 50% offered to individuals. Yet, challenges such as delayed service during the short post-harvest window, understaffed CHCs, and

equipment maintenance issues have limited their effectiveness.

The number of machines procured by CHCs has dropped sharply—from 15,184 in 2020-21 to just 465 in 2023-24—revealing a growing disconnect between policy design and field realities. Farmers cite flexibility, timely access, and multi-purpose use (especially with machines like the super seeder) as key reasons for choosing private ownership, despite the higher cost.

To address this, the state has proposed monitoring dashboards, app-based tracking, and incentive schemes under its 2025-26 stubble management plan.

### FARM MECHANIZATION INSIGHTS

### ICAR, ICRISAT LAUNCH AI-POWERED AGROMET ADVISORY FOR CLIMATE-RESILIENT FARMING



To strengthen climate-resilient agriculture, ICAR and ICRISAT have jointly launched an Al-powered Agromet Advisory Service tailored for smallholder farmers. Supported by the Government of India's Monsoon Mission-III, the initiative also involves IMD, IITM, and CGIAR's AI4CRA network.

The advisory uses Artificial Intelligence (AI) and Machine Learning (ML) to deliver real-time, hyper-local climate advisories that are cropand context-specific. Key features include an AI-powered WhatsApp bot in regional languages, personalised guidance based on

soil, crop cycle, and location, and integration of real-time weather data from IMD and satellites. Initially piloted in Maharashtra through ICAR's Agromet Field Units, the platform is designed for broader national and global rollout. The system disseminates advisories via mobile apps, IVRS, and village resource centres.

This innovation aims to empower over 120 million small and marginal farmers, reducing climate risks and improving productivity while bridging the last-mile gap in agri-advisory delivery.

### EMPHASIS ON MODERN TECHNOLOGY TO LOWER FARMING COSTS



At a recent event held at Acharya N.G. Ranga Agricultural University in Guntur, stakeholders highlighted the importance of adopting modern agricultural technologies to reduce input costs and improve productivity. The programme was part of the 20th phase of the PM-KISAN Samman Nidhi scheme.

Experts noted that the cost of cultivating crops like paddy, chilli, Bengal gram, and cotton ranges from ₹35,000 to ₹50,000 per acre, underscoring the need for efficient practices. Emphasis was laid on using drones, precision agriculture tools, and Krishi Vigyan Kendras

(KVKs) for farmer advisory support.

The university, equipped with advanced research and training infrastructure, is playing a key role in promoting climate-resilient and cost-effective technologies. Officials also discussed the growing use of bio-pesticides, while cautioning against unregulated products in the market.

With rising availability of agri-drones and integrated water management systems, the adoption of mechanisation is seen as essential for reducing dependency on manual labour and ensuring sustainable farm income.

### HORTICULTURE INSIGHTS

### ARUNACHAL PRADESH EMERGES AS INDIA'S KIWI CAPITAL; UNVEILS HORTICULTURE POLICY 2025-35



Arunachal Pradesh has emerged as India's top kiwi producer, with output exceeding 7,000 metric tonnes and becoming the first state to secure organic certification for the fruit. It ranks second nationally in mandarin orange production with 84,000 tonnes and leads the Northeast in large cardamom with 4,467 tonnes. In a major export milestone, oranges from Dambuk are now reaching international markets, including the United Arab Emirates, signaling a new phase in the rural economy driven by growing confidence and opportunity. The surge is attributed to strategic cultivation practices and enhanced farmer engagement,

fostering sustainable growth.

These gains coincide with the unveiling of the Horticulture Policy 2025–35, a long-term framework aimed at accelerating agricultural transformation by focusing on sustainability, value addition, and livelihoods. The policy is framed as an investment in dignity and opportunity, reinforcing the region's agricultural potential and the resilience of its farming communities. The recent achievements reflect the spirit of farmers and the fertile promise of the land.

## APPLE REVOLUTION IN KASHMIR: HIGH-DENSITY PLANTATION AND FOOD PROCESSING SCHEMES TRANSFORM HORTICULTURE



Horticulture has become a key economic driver in Jammu & Kashmir, contributing ₹5,000 crore annually and engaging over 7 lakh families. With 236 private nurseries producing 13 lakh plants, apple productivity stands at 10 MT/ha, with the potential to rise to 45 MT/ha through the High-Density Plantation Scheme. This 100% UT-funded initiative targets 5,500 hectares over five years, supporting 12 fruit crops and offering capital subsidies, loan assistance, and institutional support to boost farmer income and output.

Alongside, the PM Formalisation of Micro Food

Processing Enterprises (PMFME) Scheme under the ODOP framework strengthens value chains through credit-linked capital subsidies, branding, marketing, and capacity building. Individual and group enterprises, including FPOs and SHGs, receive support for infrastructure, training, and institutional linkages. With diversification into walnut and cherry cultivation and the adoption of advanced varieties like Ambri and Red Fuji, the region is witnessing a sustainable horticulture transformation aligned with employment generation and rural prosperity.

### HORTICULTURE INSIGHTS

### UTTAR PRADESH GEARS UP TO BECOME GLOBAL HUB FOR HORTICULTURE EXPORTS



Uttar Pradesh has intensified efforts to position itself as a global horticulture export hub with the first meeting of the State Horticulture Export Promotion Board held in Lucknow. The event gathered stakeholders, experts, and policymakers to chart a roadmap for expanding agricultural exports and improving global market access. Discussions emphasized aligning farm produce with international standards and enhancing branding efforts. The recent Mango Festival 2025 was cited as a successful initiative that boosted global visibility, with UP mangoes now fetching up to ₹800/kg in Russia.

The upcoming Jewar Airport is expected to significantly enhance air-based exports, providing faster connectivity to global markets. A major development was the signing of an MoU with AFC India Ltd to establish a single-window system for exporters, aimed at easing procedures and providing integrated support. These steps reflect the state's focused approach to increasing farmer incomes, promoting export-quality produce, and creating a strong global footprint for UP's horticulture sector.

### TRIPURA EMPOWERS TRIBAL WOMEN FARMERS THROUGH GIS TECHNOLOGY UNDER TRESP



In a progressive move to boost rural livelihoods and empower tribal women, the Horticulture Department of Tripura has integrated GIS (Geographic Information System) technology into the World Bank-supported TRESP project. This initiative aims to enhance agricultural planning and streamline implementation in 23 tribal-dominated blocks. A one-day training session on GIS mapping was recently conducted in Agartala, equipping officers with the skills to geo-map project activities and monitor field-level outcomes effectively.

The introduction of GIS will enable real-time tracking of modern agricultural practices introduced through Farmer Field Schools and provide targeted support to women-led Producer Groups. Field-based training was also provided, ensuring practical knowledge transfer. The initial geo-mapping data from all blocks is expected to be compiled within a week. This digital integration under TRESP marks a significant step toward data-driven agriculture, improved transparency, and better support systems for women farmers, reinforcing Tripura's commitment to inclusive rural development and sustainable horticulture practices.

#### DAIRY INSIGHTS

### KRISHNA MILK UNION TO **DISBURSE ₹13 CRORE** BONUS AND LAUNCH NEW FARMER SUPPORT INITIATIVES



Krishna Milk Union has announced a bonus of ₹13 crore for dairy farmers, to be distributed as the first instalment for the financial year 2025-26. The bonus covers milk supplied between April and July 2025 and will be disbursed in August. This decision was made during the Union's governing body meeting held on July 31, 2025.

The Milk Union continues to lead in offering the highest procurement prices to dairy farmers and ensures regular bonus payments. In line with its commitment to farmer welfare and dairy productivity, the Union is also offering sex-sorted semen doses—an important tool for

enhancing milk yield—at a significantly subsidised rate.

While the market price is ₹150 per dose, farmers in the undivided Krishna district will pay only ₹50, with the Union subsidizing the remaining ₹100. This initiative aims to improve livestock productivity and strengthen rural livelihoods. Additionally, two new veterinary hostels will be set up in Pedakallepalli (Avanigadda mandal) and Munagacherla (Nandigama mandal) to support animal healthcare services.

### MAHARASHTRA GRANTS AGRICULTURE-EQUIVALENT STATUS TO ANIMAL HUSBANDRY SECTOR



In a major policy shift to boost rural livelihoods and employment, the Maharashtra government granted has agriculture-equivalent status to the animal sector. husbandry Issued through government resolution (GR) on August 1, 2025, the move enables eligible livestock-based enterprises to access benefits similar to crop farming.

Key benefits include agricultural power tariff rates, subsidies on solar pumps and equipment, uniform gram panchayat taxes, and up to 4% interest subvention on loans—previously

unavailable to the sector. The resolution targets small and medium-scale units, such as poultry farms (up to 25,000 broilers or 50,000 layer birds), cattle sheds (up to 100 milch animals), goat and sheep farms (up to 500 animals), and pig units (up to 200 pigs).

The policy aims to correct long-standing disparities and encourage modern practices like group-based livestock farming. With over 60 lakh families engaged in animal husbandry and the sector contributing 24% to agricultural revenue, the shift is expected to drive rural growth and investment.

### DAIRY INSIGHTS

### 353 CRORE DISBURSED TO 16.77 LAKH PM-KISAN BENEFICIARIES IN HARYANA



Under the 20th installment of the Pradhan Mantri Kisan Samman Nidhi (PM-KISAN) scheme, ₹353 crore was directly transferred to the bank accounts of 16.77 lakh farmers across Haryana. The announcement was made during a special event organized by Krishi Vigyan Kendra (KVK) at the National Dairy Research Institute (NDRI), Karnal, coinciding with the Prime Minister's address from Varanasi.

A live telecast of the PM's programme was held at the NDRI auditorium, attended by a large gathering of farmers and their families. During the event, it was highlighted that 80,794

farmers from Karnal district alone received ₹18 crore through Aadhaar-linked Direct Benefit Transfer (DBT).

The PM-KISAN scheme, launched in 2019, provides eligible farmer families ₹6,000 annually in three installments to support input costs such as seeds and fertilizers. To date, Haryana has disbursed ₹6,563.67 crore under the scheme.

Similar events were also held at KVKs in Ambala and Yamunanagar, highlighting the state's ongoing support for farmers through direct financial assistance and technological integration.

### NDRI PARTNERS WITH CORNELL UNIVERSITY TO ADVANCE SUSTAINABLE DAIRY PRACTICES



In a significant move toward environmental sustainability, ICAR-National Dairy Research Institute (NDRI) has partnered with Cornell University, USA, to enhance milk productivity and reduce methane emissions from livestock. A research team from Cornell visited NDRI to explore collaborative opportunities and share future research strategies with the institute's faculty.

Methane emissions from livestock remain a major concern, contributing significantly to climate change. The collaboration aims to address this through innovations in dairy

efficiency, manure management, environmental monitoring, and animal welfare technologies.

Cornell's Dr. Joseph W. McFadden emphasized the importance of India's resilient indigenous cattle breeds and expressed keen interest in joint research focusing on methane reduction and improved dairy systems for smallholders.

NDRI, with a legacy of over 100 years, maintains 1,076 dairy animals and runs a 10,000-litre per day commercial dairy plant. It is also known for its pioneering work in cloning, genome editing, and indigenous sexed semen technology.

A joint research project worth ₹1.20 crore will also be launched to develop a rumen nutrition model and feed library.

### DAIRY INSIGHTS

### FIVE-DAY SKILL TRAINING ON SCIENTIFIC DAIRY MANAGEMENT AT AAU, KHANAPARA

A five-day skill development training on Scientific Dairy Management was organized by the Directorate of Extension Education (Veterinary), Assam Agricultural University (AAU), Khanapara, from July 21 to 25, 2025. The training was financially supported by the Sikkim Livestock Development Board (SLDB), AH&VS Department, Government of Sikkim, with the aim of strengthening the dairy sector in Sikkim.

The inaugural session was attended by officials from AAU and SLDB. Dr. Hiranya Kumar Bhattacharyya, Associate Director, Extension Education (Veterinary), welcomed the dignitaries and participants, encouraging active engagement throughout the program.

Dr. Probodh Borah, Director of Research (Veterinary), stressed the importance of such training in equipping professionals with practical skills. Dr. Tenzing Lobsang Bhutia, Veterinary Officer, SLDB, underlined the need to promote best practices in dairy farming.

The training included expert-led lectures, interactive sessions, and a field visit to a dairy farm in Sonapur and a milk processing unit in Koinadhara, Guwahati. Twenty participants attended the program. The training concluded with a post-training evaluation and certificate distribution. Participants appreciated the hands-on learning and requested more such programs to enhance dairy development in the region.





### GENERAL AGRICULTURE INSIGHTS

### GOA FACES PERSISTENT MILK DEFICIT AMID RISING DEMAND AND STRUCTURAL CHALLENGES



Goa's milk production continues to fall significantly short of its daily demand, with average monthly procurement in FY 2024-25 at just 37,986 litres well below the daily requirement of 48,818 litres. Recent figures show a further dip to 35,653 litres/month up to June 2025, while demand remains steady at 45,380 litres/day.

To bridge the supply gap, Goa relies heavily on milk imports from neighbouring states. Despite subsidy schemes, small-scale dairy farming has seen limited growth, particularly in coastal areas. Factors contributing to the deficit include youth preference for tourism and

service jobs, fragmented landholdings, minimal community dairying efforts, and expanding urbanisation.

Experts note that Goa's case reflects broader integration issues in India's milk ecosystem. Strengthening interstate supply chains, promoting cooperative and community-based dairy models, and providing better fodder and farm support are seen as critical to addressing the shortfall in ecologically constrained regions like Goa.

### ICRISAT LAUNCHES FIELD TRIAL OF HEAT-TOLERANT PIGEONPEA IN KARNATAKA.



ICRISAT has initiated field trials of the world's first heat-tolerant pigeonpea variety, ICPV 25444, in Bantanur village of Bagalkote district, North Karnataka. The cultivar, bred for summer cultivation, marks a significant shift in pulse farming, offering resilience to extreme temperatures up to 45°C and maturing within 120–125 days.

Developed in collaboration with Karnataka State Seed Corporation and the State Agriculture Department, this effort is further supported by the University of Agricultural Sciences, Dharwad. Farmer Hanamanth Mirji,

who hosts the trial, noted the crop's suitability for mechanized harvesting due to its thin stems and uniform maturity factors that lower labour costs and enable quicker market access.

Mechanization combined with traits like photo- and thermo-insensitivity, pest resistance, and high recovery rates make this variety a potential game-changer. Experts believe this innovation may not only optimise land use but also help bridge India's pigeonpea production gap and reduce pulse imports, supporting broader food security goals.

### EMPOWERING SUSTAINABLE SUGARCANE FARMING IN AYODHYA THROUGH THE SASHWAT MITHAS INITIATIVE

As part of the Sashwat Mithas initiative, the Centres of Excellence for Agriculture Skills in India, in collaboration with UPL SAS Limited, promoting sustainable sugarcane are cultivation in Ayodhya. To date, 431 farmers have been surveyed across 66 unorganized and 3 organized farmer groups to assess current practices and identify areas for improvement. Based on the insights gathered, village-level demonstration plots have been established to showcase best practices in efficient health water soil usage, management, and organic input application.

To foster community participation and peer learning, the team has conducted 50 farmer meetings, 8 field days, and engaged with 70

retailers to extend outreach local knowledge dissemination. these During interactive platforms, participants discuss on-ground challenges with experts and observe climate-resilient techniques in action.

Through rigorous field research, hands-on demonstrations, and stakeholder the initiative engagement, empowers sugarcane growers to adopt eco-friendly, resource-conserving methods that enhance yields, preserve ecosystems, and promote climate-smart agriculture. The ultimate goal is to not only boost sugarcane productivity but also develop a scalable model for ecological balance and long-term sustainability in the Ayodhya region.







#### **CEASI ACTIVITIES**

# CEFMI IN COLLABORATION WITH ESCORTSIKUBOTA SUCCESSFULLY CONCLUDES THREE-DAY FPO TRAINING IN KURUKSHETRA

The Centre of Farm Mechanization Skills in India (CEFMI), in collaboration Escorts\Kubota\Limited, successfully concluded a three-day residential training program for Farmer Producer Organizations (FPOs) held from 21-23 July 2025 in Kurukshetra. Tailored for FPO board members and CEOs, the intensive workshop focused on strengthening leadership and technical capabilities advance mechanized to agriculture at the grassroots level, with participation from around 20 FPOs across various districts of Haryana.

The first day covered effective governance models, board responsibilities, institutional structures, and transparent decision-making processes laying a strong foundation for robust FPO operations. On the second day,

participants gained hands-on experience with tractors, attachments, and other advanced farm machinery, learning essential operation techniques, safety measures, and maintenance routines. The final day was dedicated to agribusiness financing, including credit appraisal, working capital management, and strategies for engaging with banks and financial institutions.

The program combined expert-led classroom sessions, live field demonstrations, and peer networking opportunities to bridge key skill gaps, enhance productivity, and promote climate-smart, resilient agribusiness. All participating FPOs received certification, marking their improved capacities to drive sustainable, inclusive growth through mechanization in their communities.







## CEASI

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