



ICAR-IFSR Newsletter

ICAR- INDIAN INSTITUTE OF FARMING SYSTEMS RESEARCH, MODIPURAM, MEERUT

VOLUME 32 | ISSUE 01 | January- June 2025

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Published by:

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Director**

ICAR-IIFSR, Modipuram,
Meerut – 250 110 (U.P.)

From Director's Desk

Dear Readers,

It is both an honour and a privilege to present this edition of the ICAR-IIFSR Newsletter, reflecting our institute's remarkable journey of scientific excellence and transformative impact. From its foundational agronomic trials in the early 1950s to its present stature as a premier national institute on farming systems research, ICAR-IIFSR has



continuously evolved in response to emerging agricultural challenges. What began as fertilizer response studies has matured into a multidisciplinary, systems-based research enterprise integrating crop science, livestock integration, natural resource management, and climate-resilient innovations.

Over the decades, the institute has pioneered holistic Integrated Farming System (IFS) models, advanced organic and natural farming frameworks, and strengthened evidence-based decision support for sustainable intensification. Our research today embraces precision nutrient management, conservation agriculture, circular bio-economy principles, carbon-efficient production systems, and diversified farm enterprises aimed at enhancing resilience, profitability, and ecological balance.

In recent months, our scientists have further accelerated translational research bridging laboratory discoveries with field-level adoption through participatory approaches, on-farm validation, and stakeholder-driven innovation. High-level visits by distinguished dignitaries and experts have reinforced our national relevance and strategic direction. Through capacity-building programmes, farmer-centric demonstrations, and collaborative networks across states and agro-climatic zones, we continue to catalyse technology diffusion and strengthen grassroots empowerment.

At ICAR-IIFSR, we envision agriculture not merely as production, but as an integrated, adaptive, and knowledge-driven system capable of ensuring food security, nutritional well-being, and environmental sustainability. I extend my heartfelt appreciation to our dedicated scientific fraternity and partners whose commitment fuels this journey. Together, we remain steadfast in advancing resilient, resource-efficient, and future-ready farming systems for the nation.



About the Institute

With a glorious legacy spanning more than 70 years, the ICAR-Indian Institute of Farming Systems Research (ICAR-IIFSR), Modipuram, has consistently led India's transition towards sustainable, resilient, and integrated farming systems. Its journey started in 1953 with the launch of the "Simple Fertilizer Trials on Cultivators' Fields" under the Indo-American Technology Cooperation Agreement, laying a robust scientific foundation for evidence-based agronomic research. This pioneering initiative evolved into the All India Coordinated Agronomic Experiment Scheme (AICAES) in 1956, broadening its mandate to include irrigation practices, nutrient management, cultural operations, and multiple cropping systems. Recognizing the need for a comprehensive systems approach to agriculture, the institute was elevated to the Project Directorate for Cropping Systems Research (PDCSR) during the 7th Five-Year Plan (1989). It was subsequently redesignated as the Project Directorate of Farming Systems Research (PDFSR) during the 11th Five-Year Plan, reflecting an expanded focus on integrated and diversified farming models. In 2014, during the 12th Five-Year Plan, PDFSR attained the status of a full-fledged national institute and was rechristened as ICAR-IIFSR, symbolizing its strategic leadership in sustainable agriculture and farming systems research. Today, ICAR-IIFSR coordinates two major national networks: the AICRP on Integrated Farming Systems (IFS) with 74 centres, and the All India Network Programme on Natural Farming (AINP-NF), formerly AINP-OF, spanning 26 States and Union Territories. The organic farming network, initiated in 2004 with 13 centres, has expanded significantly and now covers 16 states through collaboration with State Agricultural Universities, ICAR institutes, and a deemed university. In May 2025, the programme was formally renamed AINP-NF, reinforcing its commitment to natural farming approaches. Organizationally, the institute functions through three dynamic divisions—Integrated Farming Systems, Organic Agriculture Systems, and Cropping Systems & Resource Management—supported by a Project Coordinating Unit and a dedicated Technology Transfer & Assessment Section to ensure effective dissemination of innovations from lab to land. Recent evaluations (January–June 2025) indicate an annual income potential of ₹1.47 lakh per hectare, with growing adoption of high-yielding varieties (50%) and crop–livestock integration (27%). Through visionary leadership, interdisciplinary research, and farmer-centric innovations, ICAR-IIFSR continues to strengthen agricultural sustainability, profitability, and resilience across India.

Research Highlights

Standardization of IFS modules and model for different farming situations of western plain zone of U.P.

(RP Mishra, P Punia, Lalit Kumar, Chandra Bhanu, Poonam Kashyap, Sunil Kumar and Kamlesh Kumar)

A diversified Integrated Farming System (IFS) model (1.38 ha) was developed by integrating crops, dairy, horticulture, aquaculture, mushroom cultivation, and boundary plantations with efficient resource recycling. It recorded a sugarcane equivalent yield of 236.84 t year⁻¹, net returns of ₹5,72,840, and a benefit–cost ratio of 2.53, while generating 716 man-days of employment. The system improved food and nutritional security through surplus production of cereals, fruits, milk, fish, and mushrooms. Resource-use efficiency increased with water productivity of ₹58.8 m⁻³, soil organic carbon rising from 0.55% to 0.63%, and an energy efficiency of 2.18. High sustainability indices (SVI 0.92, SYI 0.83, Simpson's index 0.92) and a net greenhouse gas balance of –1,488.8 kg CO₂ eq demonstrated the environmental viability of the model.

Sustainable resource management for climate-smart All India Coordinated Research Project on Integrated Farming Systems (AICRP-IFS)

(RP Mishra, Poonam Kashyap, M Shamim, and Kamlesh Kumar)

An Integrated Farming System (IFS) model (0.72 ha) integrating crops, agri-horti and multi-layer farming, boundary plantation, dairy, and secondary agriculture, producing 127.2 t sugarcane equivalent yield with crops (57%) and dairy (23%) as major contributors. It generated net returns of ₹2.70 lakh and 390 mandays of employment while meeting household nutritional needs with surplus cereals, pulses, oilseeds, vegetables, fruits, and milk. The system recorded high resource-use efficiency with water productivity of ₹69.9 m⁻³, improved soil organic carbon from 0.57% to 0.66%, and energy efficiency of 2.28. Sustainability indicators were high (SVI 0.92, SYI 0.83, Simpson's index 0.932), chemical use was minimal, and the system acted as a net greenhouse

gas sink with a balance of $-2,261 \text{ kg CO}_2 \text{ eqv.}$ The model showed strong extension potential, attracting 1,045 visitors, including 570 farmers.

Development of a regenerative agroforestry based Integrated Farming Systems model for sustainable productivity and livelihood

(Kamlesh Kumar, Sunil Kumar and Raghavendra KJ)

The moringa-based system recorded the highest yields of sorghum (48.56 t ha^{-1}), pearl millet (44.66 t ha^{-1}), and guinea grass (41.6 t ha^{-1}), while teak performed better for green gram (7.45 q ha^{-1}) and sesame (7.11 q ha^{-1}), and mustard yielded maximum seed (15.12 q ha^{-1}) and stover (28.75 t ha^{-1}) under moringa. Lower productivity under sheesham was associated with greater canopy height and crown spread causing increased shading. Soil fertility improved under all tree systems, with higher surface soil organic carbon ($0.70\text{--}0.74\%$), maximum available nitrogen under teak ($339.94 \text{ kg ha}^{-1}$), and potassium under moringa ($280.30 \text{ kg ha}^{-1}$). Soil enzymatic activities were significantly enhanced, with highest dehydrogenase and FDA activity under teak, β -glucosidase under sheesham, and protease and alkaline phosphatase under moringa.

Ensuring food and nutritional security through IFS in Western Plain Zone of U.P. (SC-SP Project)

(PC Jat, Chandra Bhanu, AL Meena, Raghuvver Singh, Raghavendra KJ and Kamlesh Kumar)

The project is being implemented in Meerut district (Rohta and Sarurpur blocks) and Haridwar district (Bhadrabad block) to enhance farm productivity, income and nutritional security of SC farmer through IFS interventions. Phase-I (2023–2027) focuses on demonstrations, capacity building and impact assessment. The in case of improved crop varieties significantly enhanced farm profitability. Mustard 22.20% yield increase, net return of ₹1,09,023.3 q ha^{-1} and B:C ratio of 4.29. was obtained Wheat recorded 6.76 q ha^{-1} additional yield with net return of ₹87,667 q ha^{-1} and B:C ratio of 2.89. Rice showed improvement 13.76% yield (6.38 q ha^{-1}) and in net return (₹63,192.9 q ha^{-1}). Berseem recording highest economic efficiency with net return of

₹87,441.1 q ha^{-1} and B:C ratio of 4.55, while oat produced 15.18% higher yield with net return of ₹63,437 q ha^{-1} . Sugarcane intercropped with Gobhi Sarson required further refinement due to lower yield compared to farmer practice. Mineral mixture and health management increased milk yield by 17.11% in buffaloes and 16.02% in cows, providing additional incomes of ₹13,740 and ₹10,850 per farmer respectively. Backyard poultry with improved breeds generated ₹2,22,000 income from 22,200 units. Provided kitchen garden kits were distributed to 247 households in Meerut and 331 households in Haridwar, strengthening household nutrition.



Plate 1: Distribution of farm implements to SC Farmers



Plate 2: Distribution of the backyard poultry chicks and supportive feed to SC farmers



Plate 3: Collection of the eggs from the backyard poultry



Plate 4: SC farmers exposure visit to ICAR-IIFSR

Evaluation of extension methods for effective dissemination of integrated farming interventions

(Nisha Verma, Chandra Bhanu, Kamlesh Kumar, Vipin Kumar Chaudhary, Pushpendra Pratap Singh, Nirmal, PC Jat, Poonam Kashyap, M Shamim and Raghavendra KJ)



Plate 5: Scientist-Farmer interaction in Jeetpur village of Meerut on 10 Sept 2025



Plate 6: Scientist-Farmer interaction in Lisora village of Muzaffarnagar on 27 Feb 2025

The study of 80 randomly selected farm households from four villages (Chillora and Jeetpur) of Meerut district and (Pachenda Kalan and Lisoda) of Muzaffarnagar district was taken up. Results showed that the most common farming system was Crop (sugarcane/sorghum–wheat/mustard) + Dairy, followed by 65% of the farmers. The Crop (sugarcane/paddy–wheat) + Vegetables (potato/tomato) system gave the highest sugarcane equivalent yield and water use efficiency, while the highest net returns (₹5,43,599 ha⁻¹) were recorded in the Crop + Dairy + Apiary system. Input dealers were the main source of information for farmers, followed by neighbouring farmers and the internet. Among formal agencies, the sugarcane processing industry, State Agricultural Universities, and agriculture and horticulture officers were commonly consulted. The major problems faced by farmers were high cost of cultivation, insect and disease attacks, and shortage of farm labor. Adoption of improved practices showed that half of the farmers used high-yielding varieties, while fewer farmers adopted crop–livestock integration practices.

All India Coordinated Research Project on Integrated Farming Systems (AICRP-IFS)

(N Ravisankar, AK Prusty, M Shamim, Raghuvver Singh, MA Ansari and Raghavendra KJ)

During 2024–25, 925 Front Line Demonstrations (FLDs) on oilseed-based cropping systems covering soybean, groundnut, mustard, sesame, and castor were conducted in collaboration with DA&FW. Capacity-building initiatives included training of 100 Extension Officers and input dealers through five programmes in five states, and 345 farmers through six training programmes in six states. Integrated Farming System (IFS) models served as active learning platforms, attracting 54,280 farmers and other stakeholders for exposure visits during the year. Additionally, IFS models from five states were presented in NABARD SLTC/DLTC meetings during 2024–25 to facilitate institutional convergence and scaling-up. On-farm evaluation of different management approaches under Nature Positive Farming (NPF) including Organic Farming (OF), Natural Farming (NF), and Integrated Crop Management (ICM) was undertaken in farmers' participatory mode (FPR) involving 252 farmers. A total of 20 cropping systems across 13 agro-climatic regions were evaluated, of which 11 cropping systems

in 7 agro-climatic zones showed positive responses to NPF practices.

AICRP on Integrated Farming Systems (On-Station National)

(AK Prusty, M Shamim, N Ravisankar, Raghuveer Singh, MA Ansari and Raghavendra KJ)

Under All India Coordinated Research Project (AICRP) on Integrated Farming Systems (IFS) on station experimentation sustainable resource management for climate smart IFS were implemented (25 main, 2 sub and 5 ICAR institute centres) across different agro-climatic zones, and continued through reporting period of 2024-25. Development of region-specific IFS models where in progress at 9 sub centres and Carbon crediting and GHG emission estimation and measurement in IFS models (25 main, 11 sub and 5 ICAR institute centres) during the reporting period. Mean system production from IFS models in terms of REY was found to be 25.1 tonnes (Figure 1). Mean recycling value in IFS models was found to be Rs 76323 with highest being ₹ 128115 in Southern Plateau and Hills and lowest being ₹ 28873 in Gujarat Plains and Hills (GPH). Mean improvement in soil Organic Carbon over initial status was found to be 23.67% (Figure 2). Mean employment generated from IFS models was observed as 365 mandays. In most of the IFS models of different ACZ, the net emission of GHG i.e. source and sink difference as estimated using IPCC Tier II coefficients were found to be negative suggesting environmental suitability of these IFS models. Mean sustainable value index for different IFS models were found to be 0.52 during 2024-25.

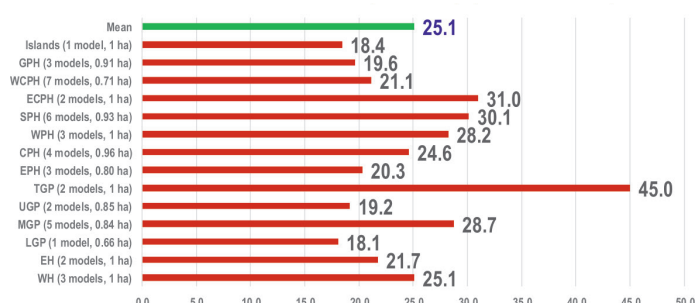


Figure 1: Production in IFS models (2024-25, (REY; tonnes)

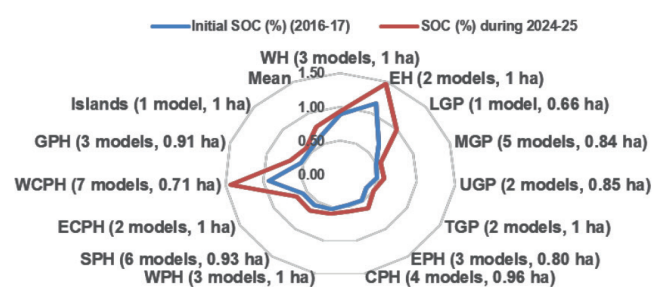


Figure 2: Soil organic carbon (%)

Multi-criteria assessment of Integrated Farming System schemes design and its impact on farmers livelihood

(Raghavendra KJ, N Ravisankar, AK Prusty, M Shamim, MA Ansari, Raghuveer Singh and CCPI from identified AICRP-IFS centres)

State-wise distribution of IFS units during 2024-25, with Tamil Nadu having the highest number (12,419), followed by Uttar Pradesh (7,740) and West Bengal (5,274), indicating strong adoption in these states. Karnataka (2,458) and Jharkhand (1,312) form the next tier with moderate coverage (Figure 3). States such as Uttarakhand, Chhattisgarh, and Maharashtra have a relatively similar and lower number of units (around 600–700). Jammu & Kashmir (416) and Nagaland (332) showed limited spread, while Meghalaya (73), Himachal Pradesh (13), and Gujarat (5) have very minimal adoption. Overall, the distribution is highly skewed, suggesting regional concentration and significant scope for expansion in low-performing states.

The progress against targets up to March 2024 shows strong performance in several areas, with most indicators nearing or matching planned levels (Figure 4). Block coverage is almost complete, with 164 blocks achieved against a target of 165. Village coverage slightly exceeded expectations, reaching 1,478 villages compared to the target of 1,476. Deployment of senior CRPs reached 330 out of 400, reflecting substantial but incomplete staffing. Positioning of IFS anchors shows slower progress, with 179 deployed against a target of 296. Formation of LSCs also remains modest, with 192 formed compared to the target of 389. Household coverage shows strong outreach, achieving 1.09 million households against the target of 1.19 million. Overall, the programme demonstrates high geographical

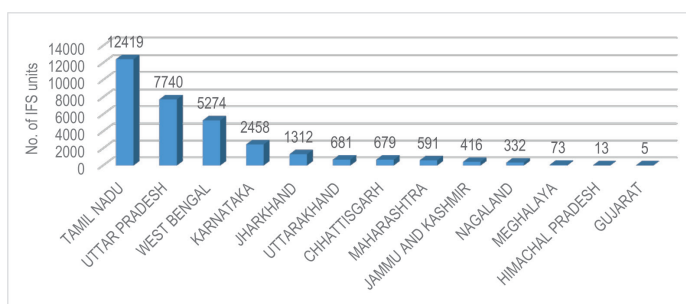


Figure 3: IFS units under RAD programme (2024-25)

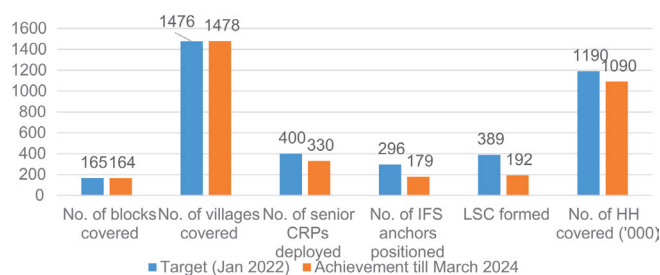


Figure 4. State of targets and progress achieved under IFC or IFS

coverage and household reach, though human-resource-related targets lag behind.

Co-creating sustainable water use in the Hindon sub-basin: A multiscale participatory approach

(AK Prusty, N Ravisankar, M Shamim, Raghuveer Singh, Raghavendra KJ, MA Ansari, Poonam Kashyap and Partners from IISER, Kolkata, IIT, Roorkee, PSI, Dehradun, Dutch partners: WUR & Utrecht University, The Netherlands)

The Project is being implemented in Hindon Basin along with other partners with major objectives to i) assess the contribution of agricultural practices to water depletion and pollution in the Hindon basin, and ii) identification and development of agricultural pathways in participatory fashion which can reduce the pressure on the river system while remaining productive and competitive. Demonstration of crop diversification using oilseed crops (30 ha area sown with mustard in rabi) and introduction of hybrid bajra napier and intercropping of gobhi-sarson in sugarcane has been done providing year round green fodder (100%) contributing towards livestock nutrition while reducing dependency on sugarcane top. Demonstration of improved wheat and mustard variety in study area for improved productivity and water management. Improved varietal introduction

of wheat to address low. Biomonitoring of benthic macro-invertebrate shows heavy pollution of Hindon, Krishni, Kali and Yamuna rivers (presence of Chironomid larvae). Catfishes and some Cyprinids observed during monsoon season and confluent points. Fish kill also reported at confluence of Hindon and Kali Rivers (September) possible cause being untreated effluent discharge as claimed by locals.



Plate 7: Demonstration of improved wheat variety in Atali village of Meerut



Plate 8: Demonstration of improved mustard variety in Atali village of Meerut

Adaptation and mitigation potential through cropping system/farming system (NICRA Project)

(Raghavendra Singh, AL Meena, Mohd. Arif, M Shamim, MA Ansari and Ved Prakash)

In rice-wheat system, RDF+inhibitor treatment in DSR practices improved 5-40% energy use efficiency, 25-40% lower CH₄ emission, 5-28% N₂O and GWP by 20-40% over the RDF treatment in conventional practices. Estimated GHG emission during the production vermicompost - N₂O (7.83 mg/kg of VC) and CH₄ (57.81 mg/kg of VC). In IFS, diversified systems reduced climate impact, with GWP as low as 21-74



Plate 9: Pulse intercropping in sugarcane



Plate 10: Measurement of GHG in vermicompost unit



Plate 11: Sugarcane+cowpea system



Plate 12: Green manuring of Dhaincha in sugarcane

kg CO₂-eq (Napier–bajra hybrid; blackgram–onion–greengram) over to 1601 kg CO₂-eq in rice–wheat–dhaincha, indicating 85-99% lower global warming potential under alternative cropping systems.

Optimisation of N and water application in Sugarcane through sensor in Western Uttar Pradesh

(Mohd. Arif, Raghavendra Singh, AL Meena, PC Jat, Monalisa, RN Sahoo and Rajiv Ranjan)

The Network Programme on Precision Agriculture (NePPA) team of IARI Co-PIs from the Agricultural Physics Division and the Water Technology Centre of ICAR–Indian Agricultural Research Institute visited ICAR-IIFSR, Modipuram to undertake advanced drone-based imaging and field monitoring activities under the Institute’s precision farming project. During the visit, aerial surveys were carried out using RGB, multispectral (MX), thermal, and other sensor-based payloads across both experimental plots and selected farmers’ fields. The objective was to capture high-resolution spatial data for crop growth assessment, stress detection, nutrient variability mapping, and evaluation of soil-plant interactions under precision farming practices. The team demonstrated real-time image acquisition and highlighted the application of remote sensing tools for improving input-use efficiency and enabling site-specific crop management.

Crop improvement for organic production system

(Devendra Kumar, KH Singh, TP Swarnam, BS Gill and Mohd. Arif)

The 15 promising homozygous lines of mustard identified from the transgressive breeding program were tested against the National check “RH-749” in a multilocation trial (AVT) at Ajmer, Udaipur, Ludhiana, Modipuram, and Jabalpur, under the All India Network Project on Natural Farming during 2024-25. Three lines, viz., OMM4, OMM 15, and OMM 13, were identified based on their yield performance across the locations. The OMM4 performed best in all the locations except Jabalpur, recording an average yield of 26 ± 1 q ha⁻¹ as against the National check RH 749 20 q ha⁻¹ under organic production. The highest yield of 27 q ha⁻¹ was recorded at Ajmer, followed by Ludhiana, Udaipur, and Modipuram, recording 25 q

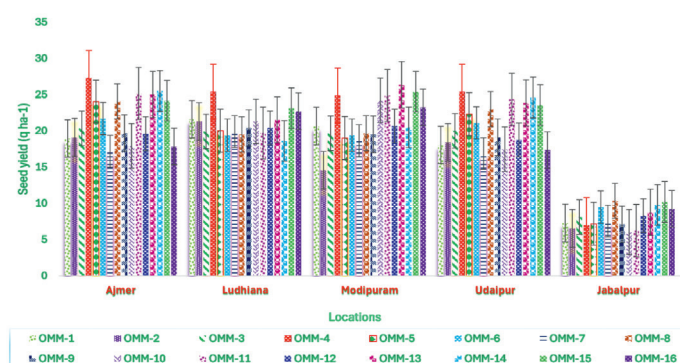


Fig 5: Performance of organic mustard lines in a multilocation trial under AI-NPNF

ha⁻¹ each. The other two lines, OMM 15 and OMM 13, recorded on par yield of 24 q ha⁻¹.

All India Network Programme on Natural Farming (AINP-NF)

(N Ravisankar, M Shamim, Raghuveer Singh, MA Ansari and Raghavendra, KJ)

A scientific package of practices for organic crop

production in a systems perspective was developed for four cropping systems across four states, namely soybean–french bean (Chhattisgarh), pigeonpea + greengram intercropping (Karnataka), rice–brinjal (Maharashtra), and tomato–finger millet–green manure (Tamil Nadu). Under organic farming, insect and pest management studies were undertaken at multiple locations. At Ajmer, management strategies were evaluated for coriander (powdery mildew) and maize (Turcicum leaf blight). At Gangtok, interventions addressed ginger (rhizome rot), okra (yellow vein clearing virus), brinjal (little leaf disease and early blight), while at Coimbatore, studies focused on tomato (leaf curl virus and tomato spotted wilt virus) and chilli (yellow leaf curl disease). Similarly, disease management trials under organic systems were conducted at Almora (soybean, toria), Ajmer (coriander), Udaipur (cabbage), and Gangtok (maize and ginger), and the most effective treatment measures were identified and documented.

Technology/Concepts/Methods/Product/Models certified by ICAR



Atlas of Cropping Systems in India

(Raghuveer Singh, N Ravisankar, V Ramamurthy, M Shamim, AK Prusty, Meraj Alam Ansari, Raghavendra, KJ, AS Panwar, S Bhaskar, N Subash, Sunil Kumar, Rajbir Singh and Meenu Rani. Product ICAR-NRM-IIFSR-2025-095.)



Framework for quantification of carbon sequestration and trade off in alternative agricultural systems
(MA Ansari, N Ravisankar, M Shamim, AK Prusty, Raghuveer Singh, Raghavendra KJ, Sunil Kumar, AS Panwar, Meenu Rani, Himanshu Joshi, Mahesh Kumar. Methodology ICAR-NRM-IIFSR-2025-096)

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Manual on Methodology for impact assessment of Integrated Farming Systems.
Raghavendra, KJ, AK Prusty, MA Ansari, M Shamim, Raghuv
Singh, N Ravisankar and Sunil Kumar
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Sustainable soil management for climate resilience in the upper Indo-Gangetic plain
(Amrit Lal Meena, Debashis Dutta, PC Ghasal, Jairam Choudhary, Chandra Bhanu, PC Jat, Sunil Kumar, RP Mishra, Raghavendra KJ, TP Swarnam, Poonam Kashyap, Raghavendra Singh, Peyush Punia and Shivam Rathi)



Framework for ecosystem services assessment in organic and natural farming systems.
Ansari, MA, N Ravisankar, M Shamim, Raghavendra, KJ, Meenu Rani, Himanshu Joshi, Raghuveer Singh, AK Prusty and Sunil Kumar
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Kisano Ki Aaya Evam Rojgar Vridhi Hetu Samekit Krishi Pranali.

Panwar, AS, N Ravisankar, AK Prusty, M. Shamim, Raghuveer Singh, Poonam Kashyap, S Bhaskar, A Arunachalam and Suresh Kumar Chaudhari.

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डिजाइन के पंजीकरण का प्रमाण पत्र | Certificate of Registration of Design

डिजाइन सं. / Design No. 433375-001
तारीख / Date 09/10/2024
पारस्परिकता तारीख / Reciprocity Date*
देश / Country

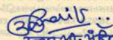
प्रमाणित किया जाता है कि संलग्न प्रति में वर्णित डिजाइन जो **UNIFORM BAR TOOL FOR FORMING UNIFORM BARS OF JAGGERY** से संबंधित है, का पंजीकरण, बेगने 31-00 में 1.ICAR-Indian Institute of Farming Systems Research 2. Dr. V P Chaudhary 3.Dr. Amit Nath 4.Dr. Sunil Kumar के नाम में उपर्युक्त संख्या और तारीख में कर लिया गया है।

Certified that the design of which a copy is annexed hereto has been registered as of the number and date given above in class 31-00 in respect of the application of such design to **UNIFORM BAR TOOL FOR FORMING UNIFORM BARS OF JAGGERY** in the name of 1.ICAR-Indian Institute of Farming Systems Research 2. Dr. V P Chaudhary 3.Dr. Amit Nath 4.Dr. Sunil Kumar.

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In pursuance of and subject to the provisions of the Designs Act, 2000 and the Designs Rules, 2001.

जारी करने की तिथि 01/05/2025
Date of Issue




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Jaggery. (ICAR)
ICAR-IIFSR, VP Choudhary, Amit Nath, Sunil Kumar.
Patent No. 433375-001

New Appointments/Superannuation/ Transfer/Promotions

- Dr Jagan Singh Gora Senior Scientist (Fruit Science) joined ICAR-IIFSR on 23 June 2025 from ICAR-CIAH, Bikaner
- Smt. Jailata Sharma Personal Secretary, superannuated on 28 February 2025
- Sh Satish Kumar Duhoon Senior Technical Officer superannuated on 28 February 2025
- Dr SP Singh Chief Technical Officer superannuated on 31 May 2025
- Sh Satish Kumar Bansal Private Secretary superannuated on 30 June 2025
- Dr Amrit Lal Meena selected as Senior Scientist (Soil Science) on 4 June 2025



Plate 14: Release of publications during IFSC 2025

Farming System Research and Development Association in collaboration with ICAR-IIFSR organized (FSRDA) 1st International Farming Systems Conference (IFSC 2025) at Modipuram during 7-9 March, 2025.

The 1st International Farming Systems Conference (IFSC 2025) was convened under the theme “Transforming Food, Land, and Water Systems under Global Climate Change.” Over three days, deliberations included 14 concurrent sessions, a



Plate 15: Glimpses of IFSC 2025



Plate 16: Glimpses of IFSC 2025



Plate 17: Esteemed participation in IFSC 2025

Meeting organized



Plate 13: Inaugural session of FSRDA IFSC 2025 on 7 Mar 2025



Plate 18: Cultural night organized in IFSC 2025



Plate 19: Cultural evening at IFSC 2025



Plate 20: Felicitation of worthy performers of cultural night in IFSC 2025



Plate 21: Felicitation of Lady entrepreneurs of Maharashtra during IFSC 2025

plenary session, a Farmers–Scientist Interaction (OLM-UPRKVY-ICRISAT Initiative), and a Farmer Scientist–Industry–Policy Interface meeting. The conference aimed to generate actionable recommendations to guide policy, research, and practice in sustainable farming systems. The Inaugural Session was graced by Dr. Devesh Chaturvedi, Secretary (DA&FW) and Secretary (DARE, GOI), as the Chief Guest. The Plenary Session, titled “Building Resilience towards Global Climate Change for Sustainable Food, Land, and Water Systems,” was held on March 7, 2025 and with Dr. Asok Dalwai, Commissioner (KAPC, GOI) and CEO (NRRA, New Delhi), as a key speaker. The session was chaired by Dr. Panjab Singh, Chancellor, RLBCAU, Jhansi, with Dr. Arvind Kumar, Former Vice Chancellor, RLBCAU, Jhansi, and Dr. Kabita Debnath Das, Chief, Agricultural Sciences, Fertilizer Association of India, served as co-chairs.

HRD and Capacity Building

- 10 days short course on “Estimation of ecosystem services” sponsored by ICAR organized by ICAR-IIFSR during 10-19 February, 2025



Plate 22: Participants of 10 days Short Course during 10-19 Feb 2025

- Three Days Training programme on entrepreneurship development for women under “Establishment of Women Technology Park for empowerment of rural/peri-urban women of Western Uttar Pradesh” by DST, New Delhi during 29-31 January 2025 was organised at ICAR-IIFSR Modipuram.



Plate 23: Showcase of value added products utilizing marigold flower



Plate 24: Natural died/tied fabricks developed by Women farmers

Exhibition/Demonstration

- ICAR-IIFSR displayed improved technologies of IFS, OF, NF in Pusa Krishi Vigyan Mela, at IARI, New Delhi from 22-24 February 2025.



Plate 25: Display of IFS/NMNF/ Organic Technologies at ICAR-IARI, New Delhi on 22-24 Feb 2025

- Kisan Goshthi cum exhibition programme organized by ICAR (ICAR-IIFSR as local co-coordinator) at Dabathwa village, Meerut on 1st June 2025 for the interaction of farmers with Hon'ble MoA & FW Sh Shivraj Singh Chauhan, HDG, Dr M L Jat and other dignitaries



Plate 26: Dr. ML Jat, DG ICAR visiting ICAR-IIFSR stall on 1 June 2025 at Dabathua, Meerut at VKSA 2025

- Exhibition of value-added products by FPOs, start-ups and SHGs on the occasion of Institute's 36th Foundation Day



Plate 27: Demonstration of value added products developed by Women SHGs

- Demonstrated Improved IFS, Organic and Natural Farming, diversified products under ABI and DST project including newly developed herbal colours to dignitaries/delegates during 1st International Farming Systems Conference 2025.

Celebration of Events

The 36th Foundation Day of ICAR-Indian Institute of Farming Systems Research was celebrated on 01 April 2025. Dr S N Jha presided, and Dr B S Dwivedi was Chief Guest. Emphasizing AI, robotics,



Plate 28: Inaugural Programme of 36th Foundation Day of ICAR-IIFSR

precision farming, and the "One Health" approach, they advocated innovation-led Integrated Farming Systems. Dr. Sunil Kumar, Director IIFSR,

highlighted the progress of PAN-India through 94 centres and 110+ IFS models. Publications were released, and scientists, farmers, agri-entrepreneurs, and competition winners were felicitated.

International Day of Yoga organized on 21 June, 2025

Institute organized the International day of yoga on 21 June 2025, in which the scientists, officers, employees, their family members, the Chairperson and members of the Institute's Women's Club, and the residents of Pallavpuram colony participated enthusiastically. Yoga Guru Mrs. Sonia Sindhu and Yoga Guru Dr. Manoj Kumar Rana demonstrated in detail special yogasanas and pranayama for various physical ailments.



Plate 29: Yoga session organized on 21 June 2025 at ICAR-IIFSR



Plate 30: Health Camp organized during International Yoga Day on 21 June 2025

The programme was celebrated under the aegis of 'Azadi ka Amrit Mahotsav' with the theme "Yoga for One Earth and One Health".

Outreach/Extension Activities

ICAR-Indian Institute of Farming Systems Research celebrated World Intellectual Property Day on 30 April 2025 by organizing an expert lecture by Dr. Praveen Malik, CEO, AgriInnovate India Ltd.



Plate 31: Dr. Praveen Malik, CEO, Agri innovate addressing the scientist on World Intellectual Property Day



Plate 32: Glimpses of World Intellectual Property Day on 30 June 2025

- Exposure visit of trainees from RCOF Ghaziabad to organic and natural farming unit of ICAR-IIFSR was organised on 20 March, 2025
- Exposure visit of a group of farmers to organic and natural farming unit of ICAR-IIFSR was organised on 22nd March, 2025
- Organised the exposure visit cum training programme on organic and natural farming for farmers of KVK, Kaushambi, U.P. on 27 March, 2025



Plate 33: Visitors from KVK, Kaushambi, U.P. at ICAR-IIFSR



Plate 34: Visitors at ICAR-IIFSR on 20 Mar 2025



Plate 35: Field visit of Indo-Dutch DST Project Team at Village Atali of Meerut on 8 Feb 2025



Plate 36: Indo-Dutch DST Project Team at ICAR-IIFSR on 8 Feb 2025

Important Visitors



Plate 37: Tree Plantation by Dr. Vandana Dwivedi member RAC on 1 Apr 2025



Plate 38: Dr BS Dwivedi, Member (ASRB) and Dr Vandana Dwivedi, Member (RAC) and other dignitaries visited ICAR-IIFSR on Foundation Day of ICAR-IIFSR on 1 Apr 2025



Plate 39: Ms. Maninder Kaur, Additional Secretary (INM), Shri Purna Chandra Kishan, Joint Secretary and Ms. Phani Tulasi, Under Secretary from DA&FW visited IIFSR on 23 Apr 2025

Institute Participation/ activities



Plate 40: Participation of ICAR-IIFSR contingent in the Annual Sports Meet (North Zone) held at ICAR- NDRI, Karnal from 1-4 Jan 2025



Plate 41: Curtain Raiser VKSA-2025 by Meerut based ICAR Institutions



Plate 42: Celebration of Hindi Pakhwada at ICAR-IIFSR (12-26 Sep 2025)



Plate 43: Krishi Choupal organised by DD Kisan at ICAR-IIFSR on 17 Jan 2025



Plate 44: Director's address in Krishi Choupal at ICAR-IIFSR on 17 Jan 2025



Plate 45: Scientists interacting at Krishi Choupal organised by DD Kisan at ICAR-IIFSR on 17 Jan 2025

Viksit Krishi Sankalp Abhiyan (VKSA-2025) during 29 May – 12 June 2025

The Viksit Krishi Sankalp Abhiyan (VKSA-2025) was launched on 29 May 2025 under the leadership of Shivraj Singh Chouhan, Hon'ble Minister of Agriculture & Farmers' Welfare, with the objective of fostering direct dialogue with farmers. The campaign focused on creating awareness about Central and State agricultural schemes while collecting field-level feedback to refine need-based, location-specific research priorities.

Scientists from ICAR-Indian Institute of Farming

Systems Research (ICAR-IIFSR), along with experts from KVKs of Meerut and Muzaffarnagar, ICAR-Indian Agricultural Research Institute, and state departments, actively participated. Farmers highlighted key issues such as limited diversification in the sugarcane-ratoon-wheat system due to stray animals, increasing pest and disease incidence, rising input costs, spurious pesticides, and livestock fertility problems. Scientists provided immediate technical guidance and promoted Integrated Farming System (IFS) models to enhance income and sustainability.

The campaign emphasized diversification through

horticulture, fisheries, poultry, goatery, mushroom cultivation, and vermicomposting, along with awareness on organic farming, INM/IPM, conservation agriculture, and major government schemes like PM-Kisan and Soil Health Card. During the campaign (29 May–12 June 2025), ICAR-IIFSR

scientists covered 279 villages across Meerut and Muzaffarnagar districts of Uttar Pradesh, directly reaching 27,824 farmers. Meerut accounted for 17,550 farmers (63%), while Muzaffarnagar covered 10,274 farmers (37%).



Plate 46: Dr. Sunil Kumar, Director ICAR-IIFSR flagging-off the teams for VKSA in Meerut and Muzaffarnagar district on U.P. on 29 May 2025



Plate 47: Hon'ble Union Agriculture Minister Sh. Shivraj Singh Chouhan interacting with farmers during 'Khat pe Charcha' programme in Jangethi village of Meerut on 1 June 2025



Plate 48: Hon'ble Agriculture Minister Sh. Shivraj Singh Chouhan MOAF&W and Hon'ble Secretary DARE and DG-ICAR Dr ML Jat interacting with farmers during 'Kisan Gosthi' programme in Dabathua village of Meerut on 1 June 2025

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