



ICAR-Indian Institute of Rice Research NEWSLETTER

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RICE IS LIFE

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Director's Message

India has emerged as the world's largest rice producer in the last year. The 152 million tonnes of milled rice in 2025-26, a milestone built on the effort of farmers, researchers and the seed sector over many years. This production supports national food security and enables India to contribute to rice supplies in other countries. Sustaining this progress calls for rice varieties that yield well across different growing conditions. Changing climate scenario affect crop establishment and production, while emerging biotic and abiotic stresses can limit yield and quality. Farmers need varieties with stable performance under such conditions and grain quality that meets consumer preferences.

During the last year, ICAR-IIRR achieved a significant milestone with the release of eleven rice varieties and one hybrid. The world's first genome edited variety Kamala DRR Dhan 100 was dedicated to nation by Honourable Agricultural Minister. These cultivars bring together advances in tolerance to environmental stresses, resistance to major diseases and insect pests, nutrient use efficiency, biofortification, and grain quality. The range of traits reflects the diversity of rice-growing conditions across India. The All India Coordinated Research Project on Rice (AICRPR) has been central to this effort. Through testing across locations and seasons, ICAR-IIRR and its AICRPR partners supports the identification of varieties that combine productivity with useful traits for farmers.

To avail these advanced technologies to farmers' ICAR-IIRR is strengthening extension through outreach activities, use of mobile apps and need-based advisories to share information on varieties, crop management, nutrient use, and pest and disease management.

I thank the farmers, scientists, technical staff and partner institutions whose collective efforts have made this progress possible. I am pleased to share their work through this issue of the newsletter.

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निदेशक का संदेश

भारत गत वर्ष ववश्व के सबसे बड़े चावल उत्पादक देश के रूप में उभरा है। वर्ष 2025-26 में 152 वमवलयन टन वमल्ल चावल का उत्पादन एक उल्लेखनीय उपलब्धि है, जो वकसानों, वैज्ञानिकों और बीज क्षेत्र के वर्षों के सामूहिक प्रयासों का परणाम है। यह उत्पादन राष्ट्रीय खाद्य सुरक्षा को सुदृढ़ करने के साथ-साथ अन्य देशों की चावल आपूर्ति में भी भारत के योगदान को सुवर्णित करता है। इस प्रगति को बनाए रखने के लिए वववभन्न कृषि पररब्धतयों में बेहतर उपज देने वाली धान की वकसों का विकास आवश्यक है। बदलता जलवायु पररदृश्य फसल की स्थापना और उत्पादन को प्रभावित करता है, जबकि उभरते जैविक एवं अजैविक तनाव उपज और गुणवत्ता को सीमित कर सकते हैं। वकसानों को ऐसी वकसों की आवश्यकता है, जो इन पररब्धतयों में बृद्धि उत्पादन प्रदान करें तथा वजनकी दाना गुणवत्ता उपभोक्ताओं की प्राथमिकताओं के अनुरूप हो।

गत वर्ष भाकृअनुप-भारतीय चावल अनुसंधान संस्थान (आईसीएआर-आईआईआरआर) ने धान की ग्राहक वकसों और एक संकर के ववमोचन के साथ एक महत्वपूर्ण उपलब्धि प्राप्त की। ववश्व की पहली जीनोम-संपादित धान की वकस 'कमला-डीआरआर धान 100' माननीय कृषि मंत्री द्वारा राष्ट्र को समर्पण की गई। इन वकसों में पर्यावरणीय तनावों के प्रतिक सहनशीलता, प्रमुख रोगों एवं कीटों के प्रतिक प्रतिकार, पोषक तत्व उपयोग दक्षता, जैव-पोषण संवर्धन तथा दाना गुणवत्ता में अनुसंधान से प्राप्त प्रगति का समावेश वकसा गया है। इन ववश्वरताओं की वववधता भारत की धान उत्पादन पररब्धतयों की वापकता को प्रतिकवंबवत करती है। अब्बल भारतीय समन्वित चावल अनुसंधान पररयोजना (आईसीआरपीआर) की इस प्रयास में केंद्रीय भूमिका रही है। वववभन्न स्थानों एवं ऋतुओं में परीक्षणों के माध्यम से आईसीएआर-आईआईआरआर और इसके एआईसीआरपीआर सहयोगी ऐसी वकसों की पहचान करते हैं, जो उच्च उत्पादकता के साथ वकसानों के लिए उपयोगी गुणों से युक्त हों। इन उन्नत परीक्षणवकसों को वकसानों तक पहुँचाने के लिए आईसीएआर-आईआईआरआर अपने कृषि प्रसार कार्यक्रमों को सुदृढ़ कर रहा है। वकसान संपक्ष कार्यक्रमों, मोबाइल ऐप और आवश्यकता-आधारित कृषि परामर्शों के माध्यम से वकसों, फसल प्रबंधन, पोषक तत्वों के उपयोग तथा कीट एवं रोग प्रबंधन संबंधी जानकारी साझा की जा रही है।

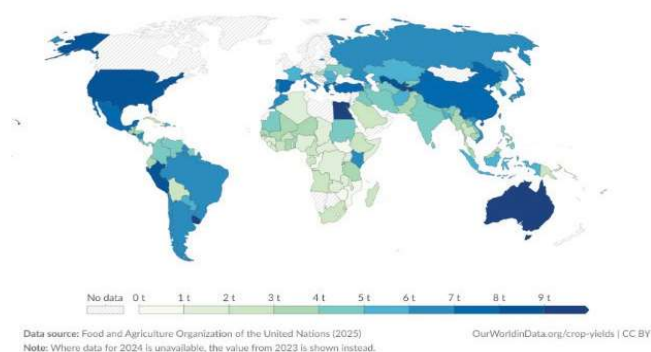
मैं वकसानों, वैज्ञानिकों, तकनीकी कर्मचारियों और सहयोगी स्थानों के प्रतिक आभार व्यक्त करता हूँ, वजनके सामूहिक प्रयासों से यह प्रगति संभव हुई है। समाचार-पत्रिका के इस अंक के माध्यम से उनके कार्यक्रमों और उपलब्धियों को साझा करते हुए मुझे प्रसन्नता हो रही है।

Global News on Rice

Global Rice Scenario: Area, Production and Productivity

Rice, the major global staple crop, with Asia accounting for the predominant share of its production and consumption. India has emerged as the world's largest rice-producing country in the previous year, surpassing China, and has maintained its position as the leading rice exporter, while also having one of the world's largest areas under rice cultivation and being a major global consumer of rice. USDA estimates India's 2025/26 rice area at about 52 million ha, production at 152 million tonnes (milled basis), and exports at about 25 million tonnes, representing roughly 40% of global rice exports. For 2025/26, USDA projected global rice production at 541.4 million tonnes on a milled basis, with India and China accounting for 152 and 146 million tonnes, respectively.

Rice remains one of the world's most important food crops, contributing substantially to global food and nutritional security, particularly across Asia. Recent FAOSTAT data indicate a gradual expansion in global rice harvested area and production, while productivity has increased only to a moderate level. However, the relatively modest increase in global average yield highlights the continuing importance of genetic improvement, climate-resilient varieties, improved crop management and efficient use of water and nutrients.



El Niño 2026 and implications for rice cultivation

A strong El Niño event has developed in 2026, with the World Meteorological Organization (WMO) reporting nearly 100% probability of its persistence and strengthening toward the end of 2026. El Niño is expected to cause substantial shifts in global rainfall and temperature patterns and can increase agricultural drought risk in vulnerable regions. For rice, the implications are particularly important because Asia accounts for the majority of global rice production. FAO has identified South and Southeast Asia, including India, as regions vulnerable to El Niño-related agricultural drought. Reduced southwest monsoon rainfall and higher temperatures can affect nursery establishment, transplanting, tillering, flowering and grain filling, particularly in rainfed rice systems. FAO notes that El Niño can weaken the Indian north east monsoon and place rice under stress during critical growth stages. At the global level, FAO's latest assessment projects 2026/27 rice production, with adverse weather, including conditions associated with El Niño, contributing to the decline.

In India, government and ICAR and SAU advisories emphasize climate-resilient crop planning, timely establishment, efficient water management, short-duration and stress-tolerant varieties, direct-seeded rice, balanced nutrient management, crop diversification and contingency planning as per suitability. Farmers are advised to follow location-specific advisories from IMD, State Agricultural Universities, KVKs and state agriculture departments, particularly when rainfall becomes erratic. IMD maintains a dedicated ENSO–monsoon information and seasonal/ extended-range forecasts for agricultural decision-making (<https://mausam.imd.gov.in/>).

IIRR Research Highlights

Hybrid Rice in India: Progress and Contribution of ICAR-IIRR

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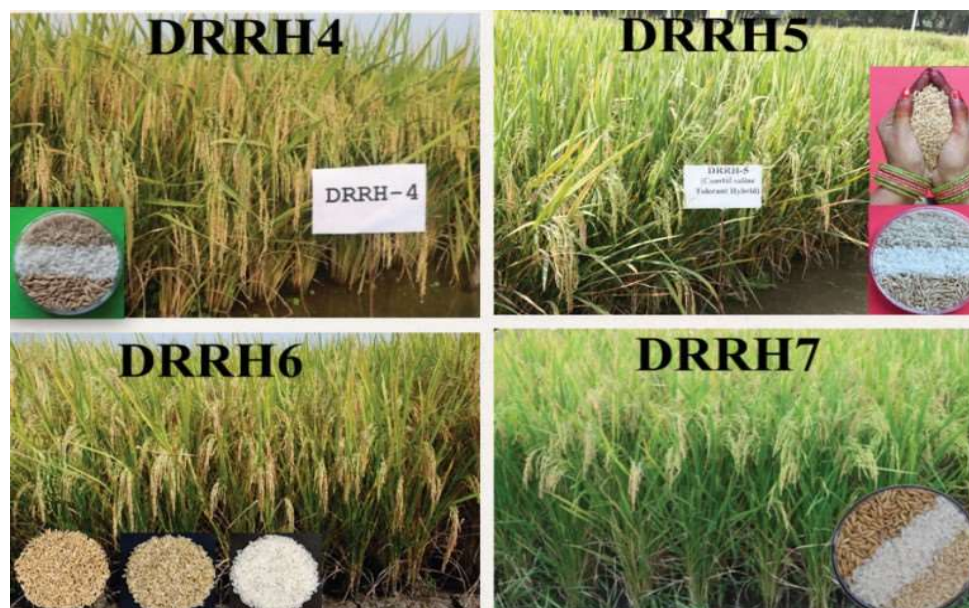
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India is one of the world's major rice-producing countries, with rice cultivated annually over approximately 51 million hectares and production reaching about 150.18 million tonnes during 2024–25. With increasing pressure on natural resources and the need to enhance rice productivity, hybrid rice technology was introduced in India in 1989 as an important approach for increasing productivity. Over the last three decades, concerted efforts by the ICAR–Indian Institute of Rice Research (ICAR–IIRR), Hyderabad, and other public and private-sector institutions have contributed substantially to the development and commercialisation of hybrid rice in the country. So far, 181 hybrid rice varieties have been released and notified for commercial cultivation, of which 49 (27%) were developed by the public sector and 132 (73%) by the private sector. As part of the All India Coordinated Research Project on Rice (AICRPR), hybrid rice entries are evaluated across 47 locations representing seven agro-ecological zones of India to assess their adaptability, performance and stability under diverse agro-climatic conditions. During 2025, hybrid rice was cultivated over approximately 4.0 million hectares, with more than 80% of the area concentrated in Uttar Pradesh, Jharkhand, Chhattisgarh, Madhya Pradesh, Odisha and Haryana. Approximately 75,000 tonnes of hybrid seed were produced during the year, with an average seed yield of about 3,000 kg per hectare. The private sector accounted for approximately 96.8% of hybrid seed production, while the public sector contributed 3.2%. Several hybrid rice technologies, including two-line hybrid systems, have also been developed and released, contributing to the diversification and advancement of hybrid rice breeding in India. ICAR–IIRR, Hyderabad, has played a significant role by releasing seven hybrid rice varieties for commercial cultivation. These hybrids were developed to address productivity and adaptation requirements of different rice-growing environments. The details and salient features of the seven hybrids released through ICAR–IIRR are presented in the table below. The continued efforts in hybrid rice breeding, seed production, evaluation and dissemination are expected to contribute to enhancing rice productivity and ensuring sustainable rice production under changing resource and climatic conditions.

Table1: ICAR-IIRR Rice Hybrids Released for Commercial Cultivation

S. No.	Hybrid	Year	Female Parent	Male Parent	Key Characteristics	Recommended States
1	DRRH-1	1996	IR58025A	IR40750-82-2-2-2-3R	Semi-tall (105 cm), non-lodging and non-shattering; long panicles and long-slender grains; 130 days duration; 5.5 to 6.0 t/ha yield; high milling and head rice recovery; good cooking quality.	Telangana, Andhra Pradesh
2	DRRH-2	2005	IR68897A	DR-714-1-2R	Early duration (115 days); good yield performance and grain quality; 5.5 to 6.0 t/ha yield; resistance to leaf and neck blast and rice tungro; suitable for rainfed and alkaline conditions.	Tamil Nadu, West Bengal, Uttarakhand, Haryana
3	DRRH-3	2009	APMS6A	RPHR1005	130–135 days duration; 6.0–6.5 t/ha under irrigated conditions; medium-slender grains similar to BPT 5204; high milling and head rice recovery; good cooking quality.	Andhra Pradesh, Madhya Pradesh, Odisha, Uttar Pradesh, Gujarat
4	DRRH-4	2022	APMS6A	AR 9-18	Semi-tall, high-yielding hybrid (124–128 days); suitable for direct-seeded aerobic conditions; medium slender grains; 5.7 to 6.3 t/ha yield; good head rice and cooking quality; Moderate resistance to leaf blast and neck blast. Resistance to gall midge and rice thrips and moderate resistance to plant hoppers	Punjab, Odisha, Tripura, Chhattisgarh, Gujarat
5	DRRH-5	2023	APMS6A	NH12-124	Medium-slender grains; 124 days duration; 4.5–5.5 t/ha yield; first coastal salinity tolerant rice hybrid which can also be cultivated under irrigated conditions; good grain and cooking quality; Moderate resistance to leaf blast, neck blast, sheath rot & plant hoppers.	West Bengal, Gujarat, Goa, Andhra Pradesh
6	DRRH-6	2024	IR68897A	RP6380-46	Semi-dwarf, high-yielding hybrid with medium-slender grains; 115-120 days; 6.0–6.5 t/ha yield; resistance to stem borer and leaf folder; moderate levels of resistance to neck blast, leaf blast, bacterial leaf blight and false smut; good milling and head rice recovery; good grain quality.	Odisha, Bihar, Uttar Pradesh
7	DRRH-7	2025	IR79156A	PSV729	115–123 days duration; long-slender grains; 35.35 q/ha (Alkalinity), 34.78 q/ha (Inland saline); tolerant to alkaline and inland saline conditions; good grain and cooking quality; moderate resistant to leaf blast, neck blast, brown spot, grain discoloration, plant hoppers	Haryana, Uttar Pradesh, Tamil Nadu



KAMALA: A Genome-Edited Rice Variety and a Novel CKX2 Allele for Rice Improvement

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Increasing food demand, Global Climate Change and increasing abiotic stresses necessitate development of high yielding and climate resilient crop varieties. Indian Council of Agricultural Research (ICAR), New Delhi is the leader in basic and strategic research with frontier science to develop crop varieties suitable for the Nation. With a foresight on the potential of genome editing in crop improvement, ICAR has initiated genome-editing research in rice in 2018. Genome editing facilitates precision mutagenesis to create improved varieties at a shorter period.

DRR Dhan 100 (KAMALA) is a genome-edited rice variety developed at the ICAR-Indian Institute of Rice Research (ICAR-IIRR), Hyderabad, under the leadership of Dr Satendra Kumar Mangrauthia. Developed through targeted modification of the cytokinin oxidase/dehydrogenase 2 (CKX2, also known as Gn1a) gene in the popular rice variety Samba Mahsuri, KAMALA exhibited a 19% yield advantage, 15-25 days earlier flowering, stronger culms, and complete panicle exertion compared with its parental variety. The edited CKX2 allele in KAMALA represents a functionally modulated variant that promotes a moderately elevated cytokinin status, thereby contributing to enhanced plant growth and development. Consistent with this altered cytokinin homeostasis, KAMALA exhibited improvements in photosynthetic capacity, biomass accumulation, and harvest index, providing a physiological basis for its enhanced yield performance.

Some Facts about Genome Edited Rice Varieties

- Gene edited rice varieties (DRR Dhan 100/Kamala and Pusa rice DST1) released by ICAR do not have any foreign gene. They are not GM varieties.
- Gene editing is like gene correction for improvement of plants. Like other organisms, plants also have some undesirable genes which limit the performance of plants. Using gene editing, researcher remove/correct undesirable genes of plants.
- Gene editing is very similar to mutation breeding which is practiced worldwide for more than 100 years. While mutation breeding makes several thousands of random changes in DNA of a plant, gene editing makes very specific correction in DNA at few specific locations (mostly one or two). Therefore, gene editing is a highly precise, mutation tool.
- Gene edited plants are very much safe. Gene editing is considered as most precise and safe technology facilitating breeding. In gene edited plants, foreign genes are not incorporated.
- Gene edited rice varieties are like any other inbred rice variety developed solely by government institutions. They are not hybrids. Farmers can preserve the seeds and grow year after year, without any necessity to buy again from the original source.

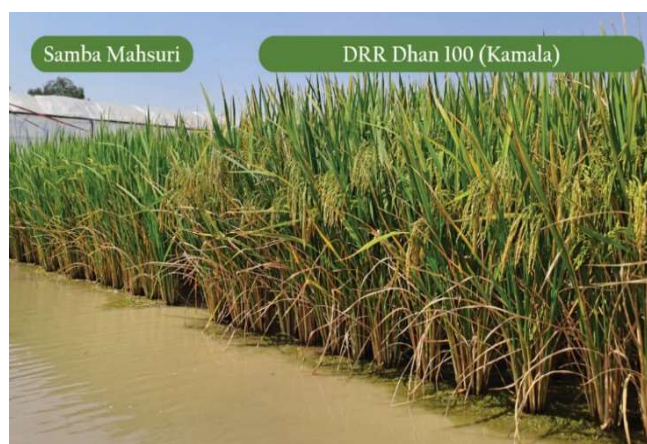
Importantly, the targeted modification enabled improvement of key agronomic traits while retaining the desirable grain quality characteristics of the Samba Mahsuri genetic background.

To facilitate the broader utilisation of the KAMALA-CKX2 allele in rice improvement, PCR-based diagnostic markers were developed for its efficient tracking and introgression into other genetic backgrounds. Introgression of the edited allele into more than 14 diverse rice varieties resulted in improved agronomic performance across multiple genetic backgrounds, demonstrating that the beneficial effect of the KAMALA-CKX2 allele is not restricted to the original Samba Mahsuri background. These findings establish the KAMALA-CKX2 allele as a promising genetic resource for rice improvement and demonstrate the potential of genome editing to generate novel, agronomically useful alleles that can subsequently be deployed through conventional breeding. The availability of diagnostic markers further facilitates the incorporation of this allele into diverse breeding populations, providing a potential strategy for developing high-yielding, early-maturing, lodging-resistant, and climate-resilient rice varieties adapted to different production environments.

Phenotypic superiority of genome edited variety “Kamala” over Samba Mahsuri (BPT5204).

Genome edited variety showed higher yield, reduction in duration, and stronger culm over its parent BPT5204.

- The gene edited rice varieties will be available to farmers by government channels without any hidden terms and condition.
- The gene edited rice varieties are very similar to other rice varieties, and do not pose any environment risk. Rather, the gene edited rice varieties DRR Dhan 100/Kamala and Pusa rice DST1 will help environment by saving water, fertilizers, and reduced methane emission from rice field.
- The gene edited rice varieties have been tested under All India Coordinated Research Project on Rice (AICRPR).
- Gene edited rice varieties DRR Dhan 100/Kamala and Pusa rice DST1 are very much suitable for organic rice cultivation.



AICRPR Experimental Database Portal (www.aicrip-intranet.in) - A Digital Platform for Multilocal Data Management, Analysis and Selection of Promising Rice Technologies

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The AICRPR Experimental Database Portal (aicrip-intranet.in) is a centralised digital platform developed to streamline the management, analysis, and reporting of experimental data generated under the All India Coordinated Research Project on Rice (AICRPR), one of India's largest coordinated research networks for a single crop, comprising 7 zones, 45 funded centres and more than 80 voluntary centres.

The AICRPR evaluates rice varieties, elite breeding lines, and crop production and protection technologies across diverse agro-ecosystems. Previously, experimental data were submitted manually in diverse formats, delaying data compilation, analysis, and reporting. To address this challenge, the AICRPR Experimental Database Portal was developed for standardised, real-time data submission, data normalisation, statistical analysis, and consolidated report generation.

The portal supports experiments with Randomised Block Design (RBD) and split-plot design. Built on a three-layer architecture comprising presentation, business, and data layers, the system uses Microsoft Visual C# and SQL Server and incorporates secure centralised data management and regular backups. The database consists of 113 relational tables, 512 stored procedures, and 80 user interfaces, supporting efficient data entry, retrieval, validation, and analysis.

The system enables centre-, state-, and zone-level statistical analysis, identifies low-performing centres, ranks breeding lines against checks, and generates Trial-Trait-Treatment reports with means, critical difference (CD), coefficient of variation (CV), and significance values. Role-based access is provided to the Administrator, National Coordinator, Principal Investigators, Centre In-charges, and Co-operators, ensuring secure and controlled access to the data. A copyright was registered in 2019 (Registration No. SW-12459/2019), and a copyright application has been filed for Version 2.0.

The portal has transformed the workflow from manual, fragmented data handling to standardised online submission, centralised storage, automated analysis, real-time monitoring, and rapid report generation, substantially reducing the time and effort required to analyse large, multi-location datasets. The extensive database also provides a valuable foundation for developing AI and other intelligence-based technologies for region-specific rice research and decision support, and the architecture can be adapted for coordinated research programmes on other crops under ICAR.

AICRPR News

13th Hill Rice Workshop on 20 February 2026

The 13th Hill Rice Workshop of the All India Coordinated Research Project on Rice (AICRPR) was organized virtually on 20 February 2026 by the ICAR-Indian Institute of Rice Research (ICAR-IIRR), Rajendranagar, Hyderabad, Telangana, India.

The 13th Rice Research Group Meeting for Hill Region (AICRPR) was conducted under the chairmanship of Dr. D.K. Yadava, Deputy Director General (Crop Science), ICAR. The meeting was co-chaired by Dr. S.K. Pradhan, Assistant Director General (FFC), ICAR. It was organized under the guidance of Dr. R.M. Sundaram, Director, ICAR-Indian Institute of Rice Research (IIRR), Hyderabad. The meeting was also attended by Dr. G.A.K. Kumar, Director, ICAR-Central Rice Research Institute (CRRI); Dr. Gopala Krishnan, Head, Division of Genetics, IARI; and Dr. B.N. Singh, Former Director, ICAR-CRRI. Dr. S.V. Sai Prasad and Dr. R. Mahender Kumar served as the conveners, while Drs. S.L. Krishnamurthy, G.S. Laha,

M.S. Anantha, and A.P. Padma Kumari served as co-conveners for the session. The rapporteurs for the programme were Drs. M.S. Anantha, Satish N. Chavan, Basavaraj K., and Jesudasu G. Scientists from ICAR-IIRR, ICAR-CRRI, and AICRPR cooperating centers of hill ecology participated in the meeting.

The workshop focused on varietal improvement for hill rice ecosystems, including the evaluation and identification of promising rice cultures adapted to diverse hill environments and associated stresses. In the workshop under AICRPR, hill rice varietal improvement trials conducted during 2025-2026 across diverse elevations to identify high-yielding rice cultures were discussed. Early- and medium-duration trials were evaluated under irrigated transplanted conditions, while upland trials were conducted under direct-seeded rainfed conditions. Trials were undertaken across low, medium, and high-elevation hill ecosystems, encompassing locations in Himachal Pradesh, Meghalaya, Manipur, Assam, Uttarakhand, Sikkim, Jammu and Kashmir, Arunachal Pradesh and Tamil Nadu. This multi-location evaluation facilitated the identification of well-adapted, climate-resilient rice cultures for diverse hill ecologies.

The programme emphasized strict monitoring to improve experimental data quality. Centres were encouraged to utilize SCSP, TSP and NEH funds for programme activities. Greater emphasis was recommended on genome-assisted breeding, japonica breeding, short-duration and high-yielding varieties, climate resilience, direct-seeded rice, seedling vigour and specialty rice and Trait-specific lines should be registered with NBPGR. The program ended with a vote of thanks by Dr. Jyothi Badri, Senior Scientist, Plant Breeding, ICAR-IIRR, Hyderabad.

Bio-intensive management of rice insect pests at Rice Research Station, Chinsurah, West Bengal

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The Rice Research Station (RRS), Chinsurah, belongs to the State Department of Agriculture under Directorate of Agriculture, Government of West Bengal. The station was established in 1932 with financial help from the Imperial Council of Agricultural Research & Empire Marketing Board, at 22°52' N latitude and 88°24' E longitude and at an altitude of 8.6 m MSL. A total of fifty-four high-yielding (HYVs) and hybrid rice varieties for different ecosystems have been released by RRS, Chinsurah.

Bio-intensive management of rice insects (BIPM) is an ecologically based approach that prioritises biological controls, habitat manipulation, and botanical pesticides over synthetic chemicals to maintain pest populations below economic damage levels. This system focuses on conserving natural enemies like spiders and ladybugs, which are often destroyed by traditional chemical spraying. A standard bio intensive module typically includes the following strategies: seed and seedling treatments, release of biological control agents, augmentative releases of egg parasitoids, applications of microbial pesticides, installation of bird perches, pheromone traps, light traps, neem-based products, etc.

BIPM modules often result in higher net returns and improved biodiversity, such as higher abundance of natural enemies (spiders, coccinellids), compared to fields with heavy chemical use. BIPM often provides a better Benefit-Cost (B:C) Ratio due to reduced input costs and higher market prices for residue-free grains, studies also show that BIPM can reduce stem borer damage while increasing grain yield. The following BIPM practices were conducted by RRS, Chinsurah, for good management practices of rice insect pests.

Light Trap: A key contribution of this station is the development of the 'Chinsurah Type Light Trap', an indigenous pest monitoring and management tool, fitted with a 200-watt electric bulb, an indigenous device that has been developed by modifying the Rothamsted light trap. This is a very popular and widely used light trap in India. This trap remains a popular secondary tool for monitoring various pests like stem borers, leaf folders, leafhoppers, rice bugs, etc., insect pests. Here, the phototactic insects are attracted to the light circle around the bulb and fall into a wooden collection box containing a killing bottle made of transparent glass or plastic, tightly fitted with the collection box. Daily insect collection from the light trap primarily helps to monitor the population fluctuations over the periods and seasonal incidence of major rice pests. The station utilises the light trap to develop forewarning models by correlating trap catches with meteorological data like temperature, rainfall, and relative humidity. Research at Chinsurah has identified two distinct population peaks for yellow stem borer (YSB) (*Scirpophaga incertulas*), one at the 4th week of September (at the vegetative stage, causing "dead hearts") and another at the 1st week of November (at the reproductive stage, causing "white ear heads").

Pheromone Trap: The RRS, Chinsurah, utilises pheromone traps as a key component of Integrated Pest Management (IPM), particularly for monitoring and controlling the YSB in rice crops. These traps attract male moths using synthetic pheromones to monitor population density and guide insecticide application. The station often uses a combination of pheromone traps and light traps (including the developed Chinsurah type light trap) to monitor population fluctuations during both *Kharif* and *Boro* seasons. For optimal monitoring, funnel traps are typically installed 30 cm above the crop canopy. Research suggests using 5-8 traps per hectare for effective monitoring. Research at RRS, Chinsurah, highlights pheromone traps as one of the most effective tools for monitoring and managing the YSB. Studies at the station, often in collaboration with AICRIP, focus on trapping efficiency of pheromone traps, which is significantly higher than light trap catches.

Data from RRS, Chinsurah, indicates specific windows for pest activity:

- September (3rd–4th week): Peak incidence of "dead hearts".
- November (1st–2nd week): Peak incidence of "white heads".
- November (3rd–4th week): Highest adult male YSB population caught in traps.

Screening of promising entries: Identification of resistant/tolerant advanced rice lines has been done against YSB, RLF and whorl maggot insect-pests.

Trap crop: Stem borer damage in terms of dead heart and white heads was comparatively lower when the main crop, *Swarna* (MTU 7029), was grown along with *Pusa Basmati 1* as a trap crop during the *kharif* season.

Effect of cultivation techniques: The System of Rice Intensification (SRI) technique is the most effective in reducing the pest population and conserving natural enemies, as well as enhancing the yield. Low white head and high dead heart attack were recorded in direct-seeded rice as compared to normal transplanted rice.

Release of 'Tricho card': The 'Tricho cards', small cards containing approximately 20,000 parasitised eggs of the *Trichogramma* wasp, are used as biological pest control tools released in the station's experimental fields. They act as a natural pesticide alternative by releasing tiny wasps that destroy the eggs of harmful rice pests like YSB (*T. japonicum*) and rice leaf folder (RLF) (*T. chilonis*). The 'Tricho cards' can manage rice pests effectively and can easily reduce the cost of chemical pesticides applied against rice pests.



Muktashree (IET 21845) - India's First Low-Grain-Arsenic High-Yielding Rice Variety

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Groundwater arsenic(As) contamination in the Bengal-delta is widely recognized as a serious chemical disaster in human history, with the quality of groundwater posing a serious environmental and health concern in more than 83 blocks of 9 districts in West Bengal. Accumulation of arsenic in staple food like rice through arsenic contaminated irrigation water, particularly during *boro* season, is alarming and rice has been reported to accumulate up to 1.8 mg kg⁻¹ As in grains and up to 92 mg kg⁻¹ in straw. Since large-scale chemical decontamination of As in agricultural soil is economically and logistically unfeasible, developing low-arsenic-accumulating rice varieties appears to be the most viable solution without compromising the state's projected demand of rice production. In this view, Rice Research Station, Chinsurah, in collaboration with CSIR-National Botanical Research Institute, Lucknow, initiated a joint research effort in 2007 to develop

specialized rice cultivars safe for human consumption. Following five-year multi-locational field trials both in wet and dry seasons (2007-08 – 2011-12) across As-contaminated blocks of the state, a few cultivars successfully met the safety guidelines of the World Health Organization (WHO). Amongst these, IET 21845 (CN 1794-2-CSIR-NBRI) emerged as the most exceptional performer during two-year on-farm yield trials (2011-12 – 2012-13) across *kharif* and *boro* seasons. Scientifically characterized as a high-quality Basmati derivative selected from 'Karnal Local', IET 21845 features desirable long slender grains and possesses mid-early duration (120-125 days), making it perfectly suited for different agro-climatic zones of the state. Besides, it exhibits higher grain productivity (4.0-4.5 and 5.0-5.5 t/ha during *kharif* and *boro*, respectively) with significant yield advantage of 25-48% over the standard Basmati check, and 10-15% over the popular HYV checks (IR 36 and IET 4786) in the ICAR-AICRIP trials and state trials as well. The broader potential of IET 21845 was further validated when it was nominated to the national Basmati Trial of ICAR-DRR (Hyderabad) during *kharif* 2011. In these trials, IET 21845 secured the first rank across both national Basmati production regions (R II and R III), registering grain yields of 4.99 and 5.88 t/ha, respectively, which translated into yield advantages of 25.74 and 47.91% over the best national check 'Pusa 1121' (3.97 t/ha). IET 21845 boasts exceptional grain qualities, recording a high milling recovery of 69.9% and a head rice recovery of 62.6%, combined with intermediate amylose content (19.3%) and soft gel consistency. Agronomically, it displays multiple resistance against blast and rice tungro diseases, alongside moderate resistance to sheath blight, sheath rot, and stem borers. IET 21845 has been released as a low-grain-arsenic rice variety 'Muktashree' by the SVRC in 2016, notified by the Government of India in 2019, and recommended for cultivation in the arsenic-contaminated regions of West Bengal. Due to its superior grain quality, *Muktashree* has gained widespread acceptance among local farmers, generating a higher profit margin of at least ₹7,500 extra per acre. Beyond this primary variety, ongoing research has successfully identified few other promising low-grain-arsenic genotypes, including *Shatabdi* (IET 4786, HYV), IET 19226 (short-grain aromatic), CN 1646-5 (IET 28384), CN 1643-3, CN 1646-2, and *Nayanmoni* (folk rice). This successful breakthrough offers a sustainable and scalable solution to ensure regional food security, safeguard public health, and protect vulnerable farming communities from the systemic dangers of environmental arsenic exposure.



IIRR Institute Activities

New Year's Day celebrations

ICAR-IIRR, Hyderabad celebrated the New Year 2026 on 1st January with greetings and best wishes to all staff members. Celebrations were conducted at the ICAR-IIRR auditorium, marking the beginning of the new year with renewed enthusiasm and commitment towards rice research and institutional activities. Director ICAR-IIRR, RM Sundaram, addressed the gathering, highlighted last year's achievements, and wished the rice family a happy New Year. The year 2026 has started with great news of a gazette notification and the successful release of 10 new IIRR rice varieties. A proud moment and a great beginning to the year.



ICAR-IIRR Celebrated 77th Republic Day, Reaffirms Rice Sector's Strategic Role in Nation Building

ICAR-Indian Institute of Rice Research (IIRR), Hyderabad celebrated the 77th Republic Day, on 26th January, 2026 during which Dr. R. M. Sundaram, Director, highlighted the rice sector's strategic contribution to national food and nutritional security, rural livelihoods and socio-economic stability. He advocated climate-resilient, resource-use-efficient rice systems to mitigate climate change, population growth and natural resource depletion, while acknowledging key role of women and their indispensable contributions across the rice value chain, from seed selection to marketing.



ICAR-IIRR Conducted Rashtriya Karmayogi Jan Seva Programme Phase-II

The Rashtriya Karmayogi Jan Seva Programme (Phase-II), in consultation with the Capacity Building Commission, Government of India, was successfully conducted at ICAR-Indian Institute of Rice Research (IIRR), Hyderabad. Under DARE/ICAR's capacity-building initiative, the workshop witnessed enthusiastic participation from scientists, technical and administrative staff. Coordinated by Dr Chitra Shankar (ICAR-IIRR) and Dr Nagasree (ICAR-CRIDA), it covered professional ethics, role-based competencies and Karmayogi principles, accountability, continuous learning and excellence in public service, reaffirming the institute's commitment to capacity building.



ICAR-IIRR Celebrated National Science Day 2026 with Focus on Women in Science

ICAR-Indian Institute of Rice Research (ICAR-IIRR), Hyderabad, celebrated National Science Day 2026 on 27 February at Rajendranagar under the theme "Women in Science: Catalysing Viksit Bharat," hosting school students. Dr Jyothi Badri delivered a guest lecture on women scientists' contributions to rice research, while Dr Gobinath and Dr V. Manasa demonstrated the IIRR Soil Testing Kit with hands-on training. A quiz and poster competition engaged students, and Director Dr R.M. Sundaram urged nurturing scientific curiosity. The programme concluded with certificate distribution to the students.



IIRR Scientists interaction meeting on Advanced Rice Protection Research with ADG (Plant Protection)

ICAR-Indian Institute of Rice Research (ICAR-IIRR), Hyderabad, Crop Protection scientists held a productive discussion with Dr Poonam Jasrotia, ADG (Plant Protection), on 26th February, 2026, on advancing research on rice insect pests and diseases. Deliberations centred on strengthening integrated pest and disease management, accelerating climate-resilient resistant varieties, and deploying genomics, molecular tools and real-time surveillance. Director Dr R. M. Sundaram reaffirmed the commitment to collaborative, multidisciplinary efforts to ensure sustainable, farmer-centric rice protection and future food security.



International Women's Day 8th March 2026

On the occasion of International Women's Day, women scientists of ICAR-IIRR were invited to participate in the inauguration of the Mega Rythu Mela organized by PJTAU. The programme recognized and encouraged the valuable contribution of women scientists to agricultural research, innovation and farmer-oriented development. Scientists Drs. Amtul Waris, Krishnaveni,

Sailaja, Jyothi Badri, Manasa, Kalyani, Basavaraj, Chinna Babu Naik, Paparao and Mr Sadanandam engaged with farmers. Director Dr R. M. Sundaram conveyed Women's Day wishes and appreciated women scientists' contributions.



ICAR-IIRR Highlighted Rice Technologies at PJTSAU Mega Rythu Mela

ICAR-Indian Institute of Rice Research (ICAR-IIRR), Hyderabad participated in the Mega Rythu Mela organised by Professor Jayashankar Telangana Agricultural University (PJTSAU), Hyderabad, on 8-9th March, 2026, setting up an exhibition stall to sensitise farmers on biofortified and high-yielding rice varieties, the Soil Testing Kit, NAPSRI app, RAISE mobile app, and value-added products including rice snacks and Rice Riche pain-relieving gel.



ICAR-IIRR Highlighted Rice Technologies at oilseeds Kisan Mela

IIRR scientists team participated in oilseeds Kisan Mela was organized at ICAR-IIOR, Narkhoda Farm, Shamshabad, on 30 January 2026, reaching about 100 participants and introducing and explaining various rice technologies.



ICAR-IIRR Conducted POSH Awareness Programme to Foster a Safe and Inclusive Workplace

ICAR-Indian Institute of Rice Research (ICAR-IIRR), Hyderabad, successfully organised a POSH Awareness Programme on 18 March 2026 by POSH committee, ICAR IIRR led by Dr. PC Latha. Smt. Bharathi Kalavagunta, Co-Founder, Treenetra Foundation, elaborated the legal framework under the POSH Act, 2013, while Smt. Mooga Jayasree, CEO, Prakriti Environment Society, spoke on promoting safety and equality at work. The programme reinforced the institute's commitment to a safe, respectful and inclusive workplace, sensitising staff on their rights and responsibilities.



The AI-powered Bharat-VISTAAR initiative was formally attended by the farmers from nearby regions and scientists of ICAR-Indian Institute of Rice Research, Rajendranagar, Hyderabad, on February 17, 2026. During the event, farmers were welcomed to actively participate in the launch program and they were sensitized about various Government of India schemes, including Pradhan Mantri Kisan Samman Nidhi (PM-KISAN), Pradhan Mantri KUSUM (PM-KUSUM), Pradhan Mantri Dhan Dhanya Krishi Yojana (PMDDKY), and the revamped Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA). Farmers were encouraged to register and avail themselves of the benefits under these schemes. The Bharat-VISTAAR platform was explained as a first-of-its-kind, AI-enabled digital ecosystem designed to connect farmers through a single-window interface.



Inauguration of Plant Pathology Annexe

The Plant Pathology Annexe of ICAR-IIRR was inaugurated by Dr. R. M. Sundaram, Director, ICAR-IIRR, on 26 February 2026. Dr. M. Srinivas Prasad, Head, Division of Plant Pathology, along with scientists and staff, attended the inauguration ceremony. The new annexe is expected to strengthen laboratory and research facilities of the Division and support its ongoing plant disease management activities.



Dr KG Pillai, former Director(A), DRR visited ICAR-IIRR and interacted with the scientists related to their research programmes, appreciated all new technologies like Genome edited rice during the interaction meeting, conducted at Seminar Hall, ICAR IIRR on 5th march 2026.

Capacity Building Programs

Workshop on Climate Resilient Practices in Rice Production Systems

ICAR–Indian Institute of Rice Research (IIRR), Hyderabad, conducted a scientific workshop on climate-resilient rice production systems on 6 January 2026 during “Udyan Utsav” (3–11 January), organised at Rashtrapati Nilayam, Hyderabad, by the Ministry of Agriculture & Farmers’ Welfare, with MANAGE (National Institute of Agricultural Extension Management) as knowledge partner. The technical sessions featured Drs. Brajendra PS, Gobinath, K. Shruti, V. Chinna Babu Naik, Jesudas G, Jeyakumar and Jagriti Rohit. IIRR scientists demonstrated a rapid soil-testing kit, NAPSRI, Rice Clinic and RAISE-Rice AI Stress Evaluator apps, besides discussing varietal selection, pest and disease management, FPOs and outreach. Around 80 participants, including farmers from Sangareddy district and DAESI input dealers attended the workshop.



ICAR-IIRR Served as Knowledge Partner at SUSTAIN-2026

ICAR–Indian Institute of Rice Research (IIRR), Hyderabad, served as Knowledge Partner, with University of Agricultural Sciences, Bengaluru and ICAR- National Bureau of Agricultural Insect Resources (NBAIR), Bengaluru, for SUSTAIN-2026: Sustainable Transformation in Agriculture and Nutrition, organised by Tata Institute of Fundamental Research (TIFR) on 5–6 February, 2026 at National Centre for Biological Sciences (NCBS), Bengaluru. It convened researchers, policymakers, startups and industry leaders to discuss climate-resilient agriculture, pest management and nutrition security. Director Dr R. M. Sundaram joined the panel discussion, Dr C. N. Neeraja and Dr Satendra Kumar Mangrauthia delivered talks on rice biofortification and genome-edited cytokinin metabolism.



Training: Screening of Rice Genotypes for Blast and Bacterial Blight Resistance held during 9-13, March 2026 at ICAR-Indian Institute of Rice Research

The five-day training programme on “Screening of Rice Genotypes for Blast and Bacterial Blight Resistance” was conducted during 9-13 March 2026 at ICAR-Indian Institute of Rice Research. The programme provided comprehensive theoretical and practical exposure on major rice diseases, resistance screening methods, and recent advances in rice research. Sessions covered rice blast, bacterial blight, false smut, sheath blight, brown spot, tungro, sheath rot, and stem rot diseases, including their epidemiology, symptoms, pathogen isolation, culturing, inoculum preparation, screening protocols, and disease scoring methods. Participants received hands-on training in laboratory and field techniques such as media preparation, pathogen identification, host plant resistance screening, and Uniform Blast Nursery evaluation. Expert lectures also highlighted hybrid rice breeding, varietal improvement for disease resistance, biotechnology, agronomy, soil health management, biological control, insect pest management, and extension education technologies. Field visits to screening nurseries and research facilities at ICAR-IIRR provided practical understanding of disease screening infrastructure and crop management practices, concluding with a valedictory session marking the successful completion of the programme.



ICAR–IIRR, Hyderabad and Society for Advancement of Rice Research (SARR) along with The National Academy of Agricultural Sciences (NAAS) Hyderabad Chapter, Hyderabad organized a talk on Bio Economy and One Health in Indian Agriculture by Dr. M. K. Naik, Former Vice- Chancellor, KSNUAHS, Shivamogga on February 13, 2026 in hybrid mode.

Extension and Outreach Activities

Agri-inputs Distribution Program under Scheduled Caste Sub-Plan (SCSP)

ICAR-Indian Institute of Rice Research (IIRR), Hyderabad organized Agri-inputs distribution programme under the Scheduled Caste Sub-Plan (SCSP) 8th January, 2026 at Vinukonda, Palnadu District, Andhra Pradesh. Sri Gonuguntla Venkat Shiva Sita Rama Anjaneyulu, Member of the Legislative Assembly for Vinukonda constituency and Chief Whip, Government of Andhra Pradesh, graced the event as Chief Guest. Approximately 700 Scheduled Caste farmers participated and benefited through equitable access to critical agricultural inputs, thereby enhancing farm productivity, resource-use efficiency and livelihood resilience. The initiative reaffirms ICAR-IIRR, Hyderabad's commitment to inclusive, sustainable agricultural development.



ICAR-IIRR Promoted Biofortified Rice Adoption Among Tribal Farmers in Vikarabad

ICAR-Indian Institute of Rice Research (ICAR-IIRR), Hyderabad, organised a Farmers' Awareness and Interaction Programme on Advancing Biofortified Rice Adoption under the CRP on Biofortification-TSP on 17th February, 2026 in Dharur Mandal, Vikarabad District, Telangana. Conducted across two Rythu Vedikas Dharur and Gurudotla clusters the programme sensitised 200 tribal farmers from eight villages and thandas to biofortified rice varieties. It aimed to enhance nutritional security and wider adoption.



Hands-on Training Programme on Biopesticides and Biofertilizers

A Hands-on Training Programme on Biopesticides and Biofertilizers was organized on 26 February 2026 at Central Tribal University of Andhra Pradesh, Vizianagaram, under the Tribal Sub Plan (TSP) of the ICAR-CRP on Biofortification. The programme was organized in collaboration with ICAR-Indian Institute of Rice Research (IIRR), Hyderabad, to promote sustainable agricultural practices among tribal farmers. Experts from ANGRAU provided training on the preparation, application, production and quality management of biofertilizers and biopesticides.



ICAR-IIRR Promoted Soil Testing at Telangana and Andhra Pradesh Campaign

The Farmers Commission, Telangana, inaugurated a Soil Health Testing Campaign on 19th February, 2026 at Kondareddypally, Nagarkurnool district, Telangana to foster scientific soil testing and healthier soils. Officials stressed that routine testing ensures balanced fertiliser application, higher yields and sustainable agriculture. ICAR-IIRR scientists Drs. Brajendra and V. Manasa exhibited the institute's Rapid Soil Testing Kit for instant soil health evaluation, while the NAPSRI app was unveiled to help farmers interpret results and receive tailored nutrient recommendations. Another Programme was organised at Macherla, Andhrapradesh on 8th March 2026 under AICRPR TSP Programme.

సేంద్రియ ఎరువులతో అధిక దిగుబడులు

మంగూరు, మ్యాన్ టూల్: రాష్ట్ర వ్యాప్తంగా ప్రతి పచ్చిలో రైతులు రసాయన ఎరువులకు సన్నాహంతో సేంద్రియ ఎరువులను వాడతేనే అధిక దిగుబడులు వస్తాయని రాష్ట్ర వ్యవసాయ కమిషన్ చైర్మన్ కోదండరెడ్డి, ఎమ్మెల్యే డా.పంకిశ్వు అన్నారు. గురువారం నాగర్ కర్నూల్ జిల్లా మంగూరు మండలంలోని సీఎం రేవంత్ రెడ్డి స్వగ్రామమైన కొండారెడ్డిపల్లిలో రైతులకు భూసార పరీక్ష మట్టి నమూనాపై అవగాహన కార్యక్రమాన్ని తొలుత ప్రారంభించారు. కమిషన్ చైర్మన్ మాట్లాడుతూ 10 ఏళ్ల చారాన హయాంలో రైతులపై కనీస ప్రేమ చూపించారని, కాంగ్రెస్ అధికారంలోకి రాగానే వారి సంక్షేమంపై ప్రత్యేక దృష్టి సారించింది చెప్పారు. ఎమ్మెల్యే డా.పంకిశ్వు



ప్రసంగిస్తున్న రాష్ట్ర వ్యవసాయ కమిషన్ చైర్మన్ కోదండరెడ్డి మాట్లాడుతూ రసాయన ఎరువుల వినియోగం తగ్గించాలన్నారు. కర్తెర్ల బదావత్ సంతోష్ మాట్లాడుతూ భూసార మిసి కిట్టు ప్రతి రైతు కేంద్రంలో అందుబాటులో ఉన్నాయని, త్వరలో ఏతూల్ లకు రెండు లేటల శిక్షణ ఇస్తామన్నారు. రాష్ట్ర వ్యవసాయ కమిషన్ సభ్యులు కమిషన్ రెడ్డి, గోపాల్ రెడ్డి, భూమి సునీల్, భూమి రెడ్డి, రాములు నాయక్, సంధ్యారాణి పాల్గొన్నారు.



ICAR-IIRR facilitated Farmers Engage with AI-Powered Bharat-VISTAAR Initiative

ICAR–Indian Institute of Rice Research (IIRR), Hyderabad, along with farmers from neighbouring regions, participated in the AI-powered Bharat-VISTAAR initiative on 17th February 2026. Farmers were sensitised about flagship Government of India schemes, PM-KISAN, PM-KUSUM, PMDDKY and the revamped MGNREGA and encouraged to register and avail their benefits. Bharat-VISTAAR was described as a first-of-its-kind, AI-enabled digital ecosystem offering farmers a unified single-window interface.



Maharashtra Farmers Training on Improved Rice Cultivation at ICAR-IIRR

ICAR–Indian Institute of Rice Research (IIRR), Hyderabad, organised a Training-cum-Exposure Visit on Rice Cultivation Practices for Maharashtra farmers on 25 February 2026, aiming to strengthen knowledge of improved production technologies and profitability. Participants explored recent advances in varietal development and sustainable crop management through scientist interactions and field exposure. Dr Abdul Fiyaz R, Senior Scientist, spoke on "Varietal Identification: Right Choice for Right Price," stressing agro-climatic suitability, market demand, grain quality and quality seed production as an entrepreneurial opportunity for FPO members.



ICAR-IIRR Empowered 300 Tribal Farmers in Kolli Hills, Tamil Nadu Under TSP

ICAR-IIRR, Hyderabad, conducted an input distribution and training programme on 3 March 2026 at Kolli Hills, Namakkal, Tamil Nadu, under the Tribal Sub Plan, in collaboration with

PAJANCOA & RI, Karaikal. Director Dr R. M. Sundaram, along with Dr P. Jeyakumar and Dr Chinna Babu Naik, distributed sprayers, tarpaulins, drums and baskets to 300 tribal farmers. Sessions covered AI applications, biofortified varieties, social health and integrated pest management, equipping farmers with tools for resilient agriculture.



ICAR-IIRR Conducted Training and Input Distribution under TSP-CRP Biofortification

ICAR–Indian Institute of Rice Research (ICAR-IIRR), Hyderabad, organised an Input Distribution and Training Programme under TSP-CRP Biofortification on 9th March, 2026 at Chinthagattu Thanda, Siddapur, Kottur Mandal, Rangareddy district. Dr Amtul Waris elaborated on biofortified rice varieties, Dr Jyothi Badri highlighted DRR Dhan 48, and Dr Chinna Babu Naik explained integrated pest management practices. Village president Mr Basu, other officials and over 100 farmers attended the programme. Tarpaulin sheets were distributed to the beneficiaries at the end of the programme.



ICAR-IIRR Distributed Biofortified Rice Inputs at Jaggudora Valasa, Vizianagaram

A sensitisation and input distribution programme under TSP-CRP Biofortification was organised by Centurion University of Technology and Management (CTUAP) and ICAR-IIRR on 16

March 2026 at Jagudora Valasa, Vizianagaram. DRR Dhan 48 seeds were distributed to 90 farmers and soil testing kits to 30 volunteers. Dr Sreedevi discussed about direct-seeded rice and weed management, Dr Sailaja introduced RAISE, NAPSRI and Rice Clinics apps, Dr Jyothi Badri explained the nutritional benefits of DRR Dhan 48, and Dr Neeraja highlighted biofortified cereals and Vice Chancellor T. Srinivasan (CTUAP) graced the event.



Agricultural Input Distribution Programme to SC farmers under SCSP was successfully conducted at Undi

More than 650 SC farmers actively participated in the programme Agricultural Input Distribution Programme to SC farmers by ICAR IIRR. The programme was attended by Shri Raghurama Krishnam Raju garu, Deputy Speaker, Andhra Pradesh Legislative Assembly & MLA, Undi, and Smt. Chadawalada Nagarani, IAS, Collector of West Godavari District, along with the officials of State department of Agriculture. Dr MBB Prasad Babu, Dr. Brajendra, Dr. Y. Sridhar, Dr. MS Anantha, Mr. K. Mallikarjuna and Mr. Sriramulu participated in the programme.



ICAR-IIRR outreach activities to North-Eastern Farming Communities under CRP Biofortification NEH Programme

ICAR–Indian Institute of Rice Research, Hyderabad, in collaboration with regional institutions, conducted a series of farmer training and input distribution programmes across Arunachal Pradesh, Assam, Mizoram and Meghalaya during February to March 2026 under the CRP Biofortification NEH Programme. The programmes combined awareness on nutritionally enriched rice with practical soil testing and access to agricultural inputs to NEH region reaching to high Altitudes and border areas of country. Women's contribution to rice cultivation was highlighted in the context of the International Year of the Woman Farmer 2026 with active participation by women farmers was a notable feature across the locations under this programme led by IIRR women scientists.



Tawang, Arunachal Pradesh, 9 February 2026: A programme jointly organised with KVK Tawang at Zomkhang Hall brought together 150 farmers, extension officials and local representatives. Dr. C. N. Neeraja led the ICAR–IIRR team comprising Dr. Jyothi Badri, Dr. Kalyani M. Barbadikar and Dr. Veerendra Jaldhani. Following the welcome address by Dr. Anjanand Tripathy, the scientists discussed biofortified rice, varietal adaptability, nutrient-use efficiency and balanced fertilisation, and demonstrated a soil testing kit provided under the programme. Ms. Keertika Kashyap and Ms. Nawang Chonzom attended as Chief Guest and Guest of Honour, respectively, alongside Mr. Tashi Lungtan and Mr. Jambezy Tenzin.

Titabar, Assam, 2 March 2026: A joint programme with Assam Agricultural University (AAU) trained nearly 200 farmers. Dr. C. N. Neeraja explained the nutritional value of biofortified cereals, supported by varietal posters and practical training in soil testing. Farmers received DRR Dhan 67 and DRR Dhan 69 seeds, soil testing kits, hand hoes, vermicomposting bags, tarpaulins, lime, sprayers and biopesticides.

Dholabagan, Tinsukiya, Assam, 4 March 2026: Nearly 100 farmers attended training on biofortified rice and rapid soil testing. Dr. Brajendra demonstrated the soil testing procedure, while Dr. Milon, Dr. Sharat and Dr. Manoj Gogoi of AAU coordinated the programme. Each farmer received a soil testing kit, along with other agricultural inputs, to support field-level application of the training.

Bebejia, Nagaon, Assam, 6 March 2026: this training and input distribution programme reached nearly 200 farmers, with participation from Dr. Niranjana Deka, Dr. K. M. Bujarbaruah and

Dr. H. C. Bhattacharyya. DRR Dhan 67 and DRR Dhan 69 seeds, solar sprayers, pheromone traps, vermicompost, biopesticides, lime, drum seeders and rotary paddy weeders were distributed. ICAR-IIRR and AAU technical bulletins provided supplementary guidance for farmers.

South Vanlaiphai, Mizoram, 12 March 2026: A programme organised with KVK Hnanthial engaged around 100 farmers, along with the Village Council President and village authorities. Dr. C. N. Neeraja discussed high-zinc rice as a dietary approach to addressing micronutrient deficiencies and recognised women's role in hill agriculture. Dr. Kalyani M. Barbadikar explained nutrient-use-efficient rice varieties and demonstrated soil testing kits for informed nutrient management.

Lawsohtun, Meghalaya, 24 March 2026: A programme for tribal women farmers was organised with the College of Postgraduate Studies in Agricultural Sciences, Umiam. Coordinated by Dr. Amtul Waris and Dr. Vennila Mahalingam, the sessions focused on dietary zinc and high-zinc rice variety DRR Dhan 69. Dr. V. Manasa demonstrated rapid soil testing. Each participant received one kilogram of DRR Dhan 69 seed for the ensuing kharif season, along with vegetable seeds, kitchen garden tools, soil testing kits and mushroom starter kits.



ICAR-IIRR outreach activities and Capacity-Building Activities by Soil Science Team

The Soil Science team actively contributed to knowledge dissemination, farmer training and capacity building, with emphasis on soil-test-based nutrient management, soil health and climate-resilient crop production. The group also conducted a series of training and field-based programmes. Training on soil diagnostics and rapid testing kits, along with distribution of kits to tribal farmers, was conducted at Dharur Mandal, Vikarabad District, on 18 February 2026, benefiting approximately 100 participants. A Soil Health Testing Campaign and hands-on training on soil health assessment was subsequently organized at Kondareddypally village, Nagarkarnool District, on 19 February 2026, reaching to nearly 200 farmers led by Dr. Brajendra. Field

and classroom-based teaching on soil-test-based nutrient recommendations was provided to 30 university students at Kanha Shanti Vanam on 14 February 2026.

Guest lectures were delivered during the period by Dr. Brajendra and Dr. Gobinath addressed participants at Rashtrapati Nilayam, Hyderabad, on "Soil test based judicious use of fertilizers for climate resilient rice production" on 6 January 2026. Dr. V. Manasa delivered a lecture on "Soil health management for sustainable crop production" at the MITHRA Foundation, Yadadri-Bhongiri District, on 21 January 2026. Dr. V. Manasa, Jagriti Rohit, Dr. Bandeppa, and Dr. Satish Chavan visited natural farming and conventional farming fields at Aratlakatta and Poduru villages in West Godavari District, Andhra Pradesh, under the Natural Farming Project. The team visited the field sites to observe the farming practices being followed under both systems, interact with farmers, and document field-level observations as part of the ongoing project activities. Each programme was attended by around 50 participants. These initiatives strengthened awareness of soil testing, balanced nutrient management and soil health assessment, supporting the broader goal of sustainable and climate-resilient agricultural production.



IIRR technology unveiled by The Hon'ble Minister of Agriculture and Farmers Welfare

The Hon'ble Minister of Agriculture and Farmers Welfare (Ag & FW) visited the ICAR-National Academy of Agricultural Research Management (NAARM), Hyderabad, on 21 February 2026 for an interaction with Directors and Scientists of Hyderabad-based ICAR institutions. During the programme, the soil testing kit developed by Dr. Brajendra was presented as part of the scientific and technological initiatives showcased at the event.



MITHRA Foundation (NGO), Vivera Hotel, Yadadri Bhongiri District



Field Visit to Natural and Conventional Farming Fields



Kondareddypally village, Nagarkarnool district



Training on DSR under SBI CSR project

Dr R M Kumar Principal Scientist Agronomy and Dr SV Sai Prasad, Principal Scientist, Plant Breeding conducted training and meeting for the farmers at KVK Wyra, and Kampasagar as part of large Scale Promotion of DSR in Telangana to increase yield, income and resilience to the climate change. He in detail explained the practices and benefits, of adoption of Direct Seeded Rice, to the farmers under the SBI sponsored project.



In-House Training and Input Distribution Programme at KVK, Kothagudem

As part of the ICARIIRR-SBI Foundation CSR initiative, an In-House Training Programme on Direct Seeded Rice (DSR) and input distribution was conducted at KVK, Kothagudem on 6th February 2026 coordinated by Dr. Bharat and Dr. Kaviraju. Around 80 farmers from three villages participated through the Kisan Sarathi bus. Dr. R. Mahender Kumar, Head, Agronomy Division, ICAR-IIRR, provided technical guidance on DSR management, including land preparation, seed rate, nutrient, weed and water management. Dr. Ch. Padmavathi, Principal Scientist, ICAR-IIRR, delivered a session on insect pest management with special emphasis under DSR conditions and pheromone traps. High-yielding variety seeds, drum seeders, pesticides and fungicides were distributed also distributed during the programme.



Invited lectures and Participation of IIRR Scientists in important meetings

ICAR-IIRR Director delivered Invited Address at IIRI-Odisha Workshop on Healthier Rice

Dr. R. M. Sundaram, Director, ICAR-IIRR, Hyderabad, delivered an invited special address during the inaugural session of the workshop "Positioning and Scaling Healthier Rice in Odisha's Agri-Food System," organised by IIRI and the Government of Odisha at Bhubaneswar on 12th January, 2026. His address offered critical insights, enriching deliberations on aligning frontier rice research with state and national priorities for nutrition-sensitive agriculture, climate resilience and farmer-centric innovation.



ICAR-IIRR Scientists participated in Brain-Storming Session at ICAR-NMRI

Brain-Storming Session on "Role of Agripreneurship in Viksit Bharat: Translating ICAR Technologies into Scalable Enterprises" will be organized by ICAR- National Meat Research Institute, Hyderabad on 7th January 2026. The dignitaries and scientists participating brainstorming session included the Directors of ICAR Institutes, Heads of Regional Stations at Hyderabad, Discipline Coordinators, Nodal Officers, Faculty, Research guides, advisory committee members of PG and Ph D students of IARI Hyderabad Hub.



ICAR-IIRR Scientists Deliver Talks at ICAR-NAARM Bioinformatics Workshop

Dr. R.M. Sundaram, Director, ICAR-IIRR, delivered an insightful talk on "Development of Climate-Resilient Rice through Genomics-Assisted Breeding and Dr. Satendra Kumar Mangrauthia delivered an lecture titled "Genome Editing Insights for Crop Improvement" at the workshop on "Applications of Bioinformatics in Accelerating Biological Research," sponsored by Anusandhan National Research Foundation (ANRF) and the National Academy of Agricultural Sciences (NAAS) Hyderabad Chapter held at ICAR- National Academy of Agricultural Research Management (NAARM), Hyderabad. Their deliberations underscored the integration of genomics and bioinformatics to accelerate crop improvement and climate-resilient rice.



National Seminar on Climate Resilient Technologies for Sustainable Agri-Food Systems (CREST-AGRI-2026)

Dr. R.M. Sundaram, Director of ICAR-Indian Institute of Rice Research, graced the inaugural session of the National Seminar on Climate Resilient Technologies for Sustainable Agri-Food Systems (CREST-AGRI-2026) held from March 12–13, 2026 at Professor Jayashankar Telangana State Agricultural University, Rajendranagar.



ICAR-IIRR Director chaired the panel discussion at UAS, Dharwad

Dr. R.M. Sundaram, Director, ICAR-Indian Institute of Rice Research (IIRR), Hyderabad, chaired the panel discussion on "Advances in Molecular Breeding and Tools for Multiple Pest and Disease Resistance in Rice" during the National Conference on Advances in Molecular Breeding and Tools for Disease and Pest Resistance Breeding in Rice, Corn, Pulses, and Cotton, held from 1–4 February 2026 at the University of Agricultural Sciences, Dharwad. Dr. Sundaram also delivered a Lead Talk titled "Advances in Molecular Breeding and Tools for Multiple Pest and Disease Resistance in Rice." In his presentation, he comprehensively highlighted recent progress in molecular breeding strategies, genomics-assisted selection, and the deployment of advanced biotechnological tools for developing rice varieties with durable resistance to multiple biotic stresses. During the panel discussion, Dr. Sundaram shared his extensive expertise on the integration of molecular markers, functional genomics, gene pyramiding, and precision breeding approaches to enhance resistance against major pests and diseases in rice, while also addressing emerging challenges under changing climatic conditions.



ICAR-IIRR Scientist Delivered Invited Talk at CEPLAS, Germany

Dr SK Mangrauthia presented genome editing work in Germany at The Cluster of Excellence on Plant Sciences (CEPLAS) is a joint initiative of Heinrich Heine University Düsseldorf (HHU), University of Cologne (UoC), Max Planck Institute for Plant Breeding Research Cologne (MPIPZ), Forschungszentrum Jülich (FZJ) and the Leibniz Institute of Plant Genetics and Crop Plant Research (IPK).



ICAR-IIRR Scientist Delivered Invited Talk at PAG-33, USA

Dr. Jyothi Badri, Principal Scientist (Genetics & Plant Breeding), participated in the Plant and Animal Genome Conference-33 (January 9–14, 2026, San Diego, USA), delivering an invited talk on "Integrated Breeding Approaches for Development of Climate-Resilient and Nutritious Rice Varieties for Sustainable Farming" during the workshop "Harnessing Genomics for Sustainable Rice Farming," organised by Dr. Prasanta K. Subudhi, LSU AgCenter. She highlighted trait stacking, biofortified DRR Dhan-48, and sub-species hybridisation for broadening genetic diversity and yield stability.



ICAR-IIRR Scientist Delivered a lecture at ANRF-sponsored workshop

Dr. Kalyani M. Barbadikar delivered a lecture on "Gene Enrichment Analysis" on 20 January 2026 during the ANRF-sponsored workshop on "Application of Bioinformatics in Accelerating Biological Research," held on 20–21 January 2026 at ICAR-National Academy of Agricultural Research Management (ICAR-NAARM), Hyderabad.



ICAR-IIRR Scientists participated in Agri-AI Deliberations at India AI Impact Summit 2026

ICAR-Indian Institute of Rice Research (ICAR-IIRR), scientists Drs. B. Sailaja, Ch. Padmavathi, N. Somasekhar, R. Gobinath and K.V. Raghavendra participated in the India AI Impact Summit 2026, themed People, Planet, Progress. They attended Agri-AI panel discussions organised by ICAR on AI-driven pest and disease diagnosis, weather-based advisories and carbon sequestration. At India AI Impact Expo 2026, they explored innovations advancing smarter, data-driven farming, productivity and farmer incomes, while fostering research partnerships and collaboration.



ICAR-IIRR Participated in North East Festival of Rice at Dimapur, Nagaland

ICAR-Indian Institute of Rice Research (ICAR-IIRR), Hyderabad, participated in the North East Festival of Rice held at Dimapur, Nagaland, from 26 to 28th February, 2026. Dr Sai Prasad, Head, Division of Genetics and Plant Breeding, attended the programme, representing the institute. The festival offered a valuable platform for knowledge exchange, stakeholder engagement and deliberations on rice research and varietal development relevant to the North Eastern region.



ICAR-IIRR team at Diamond jubilee (60th) Maharashtra state annual rice group meet

The Diamond Jubilee (60th) Maharashtra State Annual Rice Group Meeting was organized during 31st January to 1st February 2026 at the Regional Agricultural Research Station (RARS), Karjat, District Raigad, under the aegis of Dr. Balasaheb Sawant Konkan Krishi Vidyapeeth (DBSKKV), Dapoli. The inaugural session was presided over by Dr. S. G. Bhawe, Hon'ble Vice-Chancellor, DBSKKV, Dapoli, with eminent Guests of Honour from ICAR, POCRA and MCAER. Distinguished scientists and officials from IRRI, DBSKKV, ICAR-IIRR and RARS, Karjat, attended the programme. Dr SV Saiprasad and Dr SK Mangrauthia from ICAR IIRR presented lead research on Rice Research in India: Present Status & Future Prospects and Genome Editing Innovative tool for Rice Improvement respectively. Rice Specialist and Associate Director of Research, RARS, Karjat Dr. B.D. Waghmode, and Rice Scientists of Maharashtra involved in the organization and presentation of state annual rice group meet.



ICAR IIRR team at International conference, BHU Varanasi

ICAR IIRR Director and scientists participated in International Conference on "Climate-Resilient Agriculture for Sustainable Development: Innovations and Solutions" (February 5-7, 2026) organised at BHU-Varanasi and presented lectures.



ICAR-IIRR Director at IARI Convocation on 8th Feb 2026 at New Delhi



ICAR-IIRR scientists at TNAU for AICRIP-TSP programme

Dr MBB Prasad Babu delivered Inaugural Address during the "Demonstration on Productivity Enhancement in Farming Systems on Rice in Jawadhu Hills, Tiruvannamalai District, organized jointly by AC&RI, Vazhavachanur, TNAU, and IIRR under the AICRIP-TSP programme on 13 Feb 2026.



ICAR-IIRR Showcased Rice Innovations at RTIIS 2026, Cuttack

ICAR-Indian Institute of Rice Research (ICAR-IIRR), Hyderabad, participated in the National RiceTech Industry Innovation Summit 2026 at ICAR-Central Rice Research Institute, Cuttack, where Director Dr R.M. Sundaram joined an online panel on market-driven resilient rice varieties and strategic partnerships, highlighting market-driven and resilient rice breeding aligned with consumer preferences and global trade requirements. Dr. M. S. Anantha and Dr. Basavaraj represented IIRR, showcasing the Institute's technologies and engaging with industry stakeholders on commercialization, technology transfer and strategic

partnerships. The IIRR stall was also visited and appreciated by the Hon'ble Minister of Agriculture, Government of Odisha.



ICAR-IIRR Presented Breeder Seed Plans at Kharif-2027 Indent Finalisation Meeting

The Breeder Seed Indent Finalisation Meeting for Kharif-2027, chaired by the Joint Secretary (Seeds), DA&FW, convened on 26th February, 2026 at NAS Complex, New Delhi, in the presence of Dr D. K. Yadava (DDG, Crop Science) and Dr Sanjeev Gupta (ADG, Seeds), ICAR. Dr. Abdul Fiyaz R., Senior Scientist and Nodal Officer (Seed), ICAR-IIRR presented detailed crop-wise breeder seed production plans and indents, highlighting varietal availability, production targets, and strategies for timely supply of quality breeder seed. The discussions focused on rationalization of indents, prioritization of promising varieties, and strengthening coordination among stakeholders to ensure adequate availability of quality breeder seed to meet farmers' requirements for the Kharif-2027 season.



ICAR-IIRR Scientist delivered invited lecture in Workshop on Plant Germplasm Registration

Dr. Divya Balakrishnan delivered an Invited lecture on "Germplasm Registration Documentation Requirements and Submission Process to NBPGR Workshop on "Plant Germplasm Registration: Towards Efficient Breeding Programmes" 18th February 2026 at Dr. Rajendra Prasad Central Agricultural University, Pusa.

ICAR-IIRR Scientists delivered talk in Direct Seeded Rice (DSR) conference

Dr. R. Mahender Kumar, Principal Scientist, and Dr. S. Vijayakumar, Scientist, from the Agronomy Department participated in the 2nd edition of the conference on "Direct Seeded Rice (DSR) for Sustainable & Profitable Rice Production," organized by the Federation of Seed Industry of India (FSII) at the NAAS Complex, Pusa, New Delhi, on March 10, 2026, and delivered a talk in the technical session "Seeding a Sustainable Future – Integrating Stewardship & Carbon Credits."



ITMU ACTIVITIES

Technology License Agreements (TLAs) signed by ICAR-IIRR

ICAR-Indian Institute of Rice Research (ICAR-IIRR), Hyderabad, has entered into five Technology License Agreements (TLAs) with the companies, Abhiram Naturals Private Limited, R.S. Agritech, Harlal Seeds Pvt Ltd, Shambavi Aagri Seeds Pvt Ltd Science and Tech Siri Voluntary Organisation on a non-exclusive basis, through Agrinnovate India Limited (AgIn), during the period from January- March 2026, for the large-scale production, commercialization and promotion of the technologies viz. DRR Dhan 48 - Low GI, Zinc Rich, BLB Resistant, Saline Tolerant Fine Grain Rice Variety, DRR Dhan 75 - High Yielding Irrigated Fine Grain Rice Variety, IIRR Manual Soil Testing Kit - Portable, User friendly, Easy to Use & Fast Result, developed by the Institute. ITMU actively involved in the technology management of institute and revenue generation under the chairmanship of Dr. C Kannan and team.



ITMU-IIRR online Workshop on IP Management

The Institute Technology Management Unit (ITMU), ICAR-Indian Institute of Rice Research (ICAR-IIRR), Hyderabad, organized a one-day workshop on IP Management, Germplasm Registration and Technology Commercialization for AICRPR Partners" on 02 March 2026. The programme aimed to sensitize AICRPR

partners on regulatory frameworks, registration procedures, intellectual property management, germplasm exchange and commercialization pathways for crop varieties, genetic stocks and jointly developed technologies.

Technical sessions covered registration of genetic stocks and import/export procedures for crop germplasm by Dr. Anju Mahendru Singh, NBPGR; registration of crop varieties under PPV&FRA by Dr. Dipal Roy Choudhury, PPV&FRA; and commercialization procedures for jointly developed ICAR–SAU technologies by Dr. Praveen Malik and Mr. Dhruva V C, Agri Innovate India Limited. The programme concluded with remarks and an interactive discussion with the Director, IIRR. The workshop provided valuable guidance to AICRPR partners on statutory compliance, protection of intellectual property and effective technology transfer, commercialization and collaborations.



ICAR-IIRR MOU with the National Remote Sensing Centre (NRSC)

ICAR–Indian Institute of Rice Research (ICAR–IIRR) signed a Memorandum of Understanding (MoU) with the National Remote Sensing Centre (NRSC) on 22 January 2026 to collaborate on the mapping and monitoring of rice cultivation areas using satellite-based remote sensing and geospatial technologies.



ICAR-IIRR MOU with IIT Hyderabad



QRT Team constituted for ICAR -IIRR

The Quinquennial Review Team (QRT) for ICAR–IIRR, Hyderabad has been constituted by ICAR on 25th February 2026 under the Chairmanship of Dr. Trilochan Mohapatra, Former Secretary (DARE) & DG, ICAR. The QRT will review the work carried out by IIRR and AICRP on Rice for the period 2020–2025 and submit its comprehensive report with recommendations to the Council.

Awards and Recognitions

Letter of Appreciation to ICAR-IIRR

The Telangana Agriculture and Farmers Welfare Commission appreciated the visionary leadership of Dr. R. M. Sundaram, Director, ICAR-IIRR, and the Institute's contributions to farmer-oriented agricultural research and technology dissemination. The letter highlighted IIRR's development of rapid soil-testing kits, enabling farmers to assess soil nutrient status and adopt scientific fertiliser management. The Institute's efforts in promoting Direct Seeded Rice (DSR) through scientific guidance, demonstrations and farmer-awareness programmes were also recognised for supporting water conservation, reduced labour requirements and improved farm profitability. The contribution towards developing high-yielding varieties such as DRR Dhan-75 was also acknowledged.

- Dr SK Magrauthia joined the Editorial Board of the International Journal of Biological Macromolecules (Elsevier).

ICAR-IIRR Scientists Bagged Awards at National Plant Health Conference

At the National Conference on Innovations in Plant Health Management for Resilient Agriculture and Agri-Export Promotion (26–28th February, 2026, NIPHM, Hyderabad), Dr V. Prakasam, Senior Scientist (Plant Pathology), won the Golden Jubilee Best Scientist Award (Senior Category) in Plant Pathology, while Dr B. Sailaja, Principal Scientist, earned the Best Oral Presentation Award for “Smart Mobile Applications for Sustainable Rice Farming” under the theme Advanced Technological Innovations in Plant Health. ICAR IIRR Director, Dr RM Sundaram chaired a special session at National Conference on “Innovations in Plant Health Management for Resilient Agriculture”, at NIPHM on 27–26,



ICAR-IIRR Scientists received Best Oral Presentation

Dr. Suvarna Rani received the Best Oral Presentation at the National Seminar on Climate-Resilient Technologies for Sustainable Agri-Food Systems (CREST-AGRI-2026). The award recognized her research presentation entitled, Multi-Trait Stability & Environmental Interaction Analysis in Aromatic Rice using AMMI and BLUP models. The seminar was held at PJTSAU, Rajendranagar, Hyderabad, on 12–13 March 2026, and the award was presented by the CREST-AGRI-2026 Organizing Committee.



AICRP-Rice Scientist Conferred with 'Achiever of the Year' Award

Prof. (Dr.) Tasneem Mubarak, Chief Scientist–Agronomy, Mountain Research Centre for Field Crops (MRCFC), SKUAST-Kashmir and Cooperator under the All India Coordinated Research Project on Rice (AICRP-Rice) at the Khudwani Centre, was conferred the 'Achiever of the Year' Award by the Vice-Chancellor, SKUAST-Kashmir, in January 2026. The award recognizes his significant research contributions towards the development, evaluation and refinement of dry direct-seeded rice (DSR) technology for the agroecological conditions of Kashmir. His work has focused on developing a resource-efficient alternative to conventional transplanted rice, with particular emphasis on improved crop establishment, efficient water and nutrient management, weed management and enhanced productivity under temperate conditions. The technology has demonstrated considerable potential for reducing irrigation-water and labour requirements, improving water productivity and lowering cultivation costs, while maintaining competitive grain yields. The research represents an important contribution towards promoting resource-use-efficient, sustainable and climate-resilient rice production systems in Kashmir and strengthening the technological base for wider adoption of dry DSR in the region. Study has been published in Nature Journal Scientific Reports.

ICAR-IIRR Exceeded at ICAR South Zone Sports Meet 2026

ICAR–Indian Institute of Rice Research (IIRR), Hyderabad, proudly took part in the prestigious ICAR South Zone Sports Meet 2026, held at RSC Grounds, Secunderabad, Hyderabad from 10 –13th February, 2026. Its contingent exemplified the institute's commitment to fitness, teamwork, unity and overall employee well-being. Displaying discipline and sportsmanship, contingents triumphed in multiple events, thereby brought laurels to ICAR-IIRR.



NEW PROJECTS SANCTIONED

1. Cloning and functional characterization of a novel class of brown planthopper (BPH) resistance gene, a serine/threonine-protein kinase receptor (OsSTPKR) in rice, has been approved for implementation with a total sanctioned budget of ₹48.55 lakhs (Non-recurring: ₹6.00 lakhs; Recurring: ₹42.55 lakhs) for a duration of three years (01/01/2026 to 31/12/2028). ICAR Corpus Fund.

2. Comparative Analysis of Natural Farming (APCNF) and Conventional Farming in Paddy (*Oryza sativa* L.) Cultivation. Funding Agency: Rythu Sadhikara Samstha (RySS) sanctioned budget: Rs 117 lakhs

TECHNOLOGIES AND PRODUCTS

New Varieties

Honourable Union Minister of Agriculture & Farmers Welfare, Shri Shivraj Singh Chouhan, unveiled 184 improved crop varieties on 4 January 2026 in New Delhi, across crops. This landmark initiative significantly strengthens Indian agriculture by enhancing food and nutritional security and empowering farmers with superior genetic resources. Notably, ICAR–IIRR, Hyderabad, contributed ten rice varieties viz., DRR Dhan 81 (low glycaemic index, high grain zinc), DRR Dhan 82 (high-yielding, mid-early duration), DRR Dhan 83 (NIL of Krishna Hamsa with xa5, Xa21 for BLB and Pi9 for blast), DRR Dhan 84 (NIL of Jaya with Xa21 and Pi54, moderate hopper resistance and enhanced yield Gn1a), DRR Dhan 85 (NIL with Xa21 + xa13 + xa5 for BLB and Gm4 + Gm8 for gall midge), DRR Dhan 87 (phosphorus-use-efficient with resistance to blast Pi54, BLB xa4, sheath blight and tolerance to hoppers Bph32), DRR Dhan 88 (phosphorus-use-efficient wild introgression line of *Oryza rufipogon*), DRR Dhan 89 (MAS-derived NIL of Swarna with Xa21, Pi54 and yield gene OsSPL14), DRR Dhan 90 (nitrogen-use-efficient with moderate resistance to blast and major insect pests), and DRR Dhan 91 (NIL of Samba Mahsuri with Xa21, xa13, Pi54 and Sub1), along with one hybrid DRRH 7 suitable for alkaline and inland saline soils. The varieties were developed through marker-assisted selection, deployment of wild rice alleles, and a combination of conventional and molecular breeding approaches, supported by rigorous phenotyping under nitrogen and phosphorus stress, reflecting ICAR-IIRR's strong commitment to farmer-centric, climate-smart rice technologies. As notified in The Gazette of India ON CVRC Notification No. S.O. 6125(E). dt 31st December, 2025, a total of 60 rice varieties and hybrids were dedicated to the nation, with their release and notification coordinated by the ICAR-IIRR, Hyderabad.

DRR Dhan 88





DRR Dhan 90

Patent

Indian Patent No. 582022, entitled "**Natural Skin Care Composition and Preparation Thereof**," was granted by the Indian Patent Office on 27 February 2026. Dr. M. M. Azam is the inventor of the patented invention, and the Director, ICAR-Indian Institute of Rice Research (ICAR-IIRR) is the Patentee.



Deputations abroad

- Deputation of Dr. Jyothi Badri, Sr. Scientist to attend workshop on Harnessing Genomics for Sustainable rice farming at San Diego, California, USA during 09.01.2026 to 14.01.2026
- Deputation of Dr. Satendra Kumar Mangrauthia to attend training under at Heinrich Heine University, Dusseldorf, Germany under "Enhancing climate resilience and ensuring food security with genome editing tool"- A component of the Sub-Scheme "Basic and Strategic Research and Education" of the Scheme "Crop Science for Food and Nutritional Security" (2025-26) during 16.02.2026 to 16.05.2026. Dr Mangrauthia attended training in laboratory of Prof Wolf B Frommer in the area of prime editing and protoplast transformation during 17 February-17 May 2026.

Staff News

Promotions

- Smt. K. Padmaja, Promoted to the post of ACTO in pay level – 11 w.e.f. 26.02.2021 and Re-Designated as Assistant Chief Technical Officer (Field/Farm).



- Shri. S. Amudhan, ACTO Promoted to next higher grade in pay level – 12 w.e.f. 31.03.2025 and redesignated as Chief Technical Officer (T-9) (Filed / Farm).



- Smt. M. Anthamma, SSS granted Third Financial Upgradation to next Pay Level – 4 w.e.f. 12.01.2026.
- Dr. Elizabeth Mandela, Appointed as Part time Medical Officer w.e.f. 02.02.2026.

Transfer & training

- Special session of IRC was conducted for new project presentation of scientist joined on transfer from ICAR-CRIDA, Dr. Jagriti Rohit on 29-1-2026
- Dr. Nandini, D.A, Scientist has joined to for Professional Attachment training (PAT) on 12.01.2026.
- Shri. Ashish Kumar Yadav, Assistant ICAR-IIR Hyderabad has reported for orientation Training programme of Assistant at ICAR – IIRR, Hyderabad vide Council No: 16-5/2024-R&P dt: 11.12.2025 period of 05 days from 09.03.2026 to 13.03.2026.

- Deputation of Dr. A.S. Hari Prasad, Principal Scientist, to participate in meeting on the in the World Deputation of Bank-sponsored "Scaling Next Generation Rice – Impact Program & Learning Journey" held in Vietnam during 01.03.2026 to 06.03.2026. As a core cohort member representing India, he participated in scientific and policy discussions on Direct Seeded Rice (DSR) and low-emission rice cultivation, along with workshops on commercialization and private-sector engagement. Field visits provided exposure to mechanization and rice straw-based circular economy practices. The programme brought together participants from five Asian countries—China, Cambodia, Indonesia, Thailand and Viet Nam—along with representatives from the World Bank and IRRI, for discussions on Direct Seeded Rice (DSR) and low-emission rice production practices.



RETIREMENT

Dr RM Kumar

- Dr. R. Mahender Kumar, Principal Scientist and Head (Agronomy), is retired from Council's Service on attaining the age Superannuation on 31.03.2026 (AN).



- Smt. M. Anthamma, SSS Retired from the Council Service on attaining the age of Superannuation on dt: 31.01.2026.



OBITUARY

Prof. Dr. E.A. Siddique, Former Director, IIRR & DDG (CS), IIRR
Expired on 22.01.2026.



- Dr. E.A. Siddiq, a legendary rice breeder, renowned agricultural scientist and distinguished contributor to Indian rice research, passed away on 22 January in Hyderabad. His illustrious career spanning more than five decades profoundly influenced rice improvement in India and earned him international recognition. He was honoured with the Norman Borlaug Award in 1995 and the prestigious Padma Shri in 2011 for his outstanding contributions to agriculture. Dr. Siddiq began his scientific career as a cytogeneticist at IARI in 1968 and later served as a Rice Expert at the International Rice Research Institute (IRRI), Philippines (1983–1986). He subsequently served as Project Director, Directorate of Rice Research, Hyderabad (1987–1994) and rose to become Deputy Director General (Crop Science), ICAR, New Delhi. He also served as ICAR National Professor at the Directorate of Rice Research, Hyderabad (1997–2002). His pioneering contributions to rice breeding, genetics and genetic resources will remain an enduring legacy for generations of rice scientists. His passing is an irreparable loss to the agricultural research community.

- Mr. R. Yellaiah, SSS (Retd) expired on 27.01.2026.



- Smt. Ms. Durgamma (SSS) entomology section Expired on 11.02.2026.

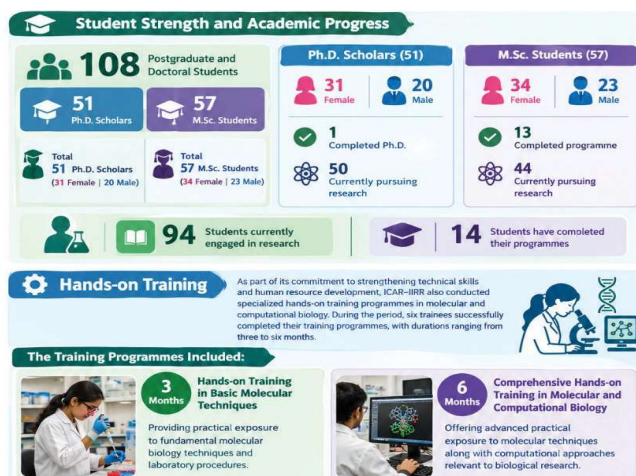
ACADEMIC CORNER: Student Research and Training at ICAR-IIRR

ICAR-Indian Institute of Rice Research (ICAR-IIRR), Hyderabad, serve as a centre for advanced research, academic training and capacity building in agriculture for students of IARI MU, SAUs and other universities. The institute provides an enriching research environment for postgraduate and doctoral scholars, along with hands-on training opportunities for students and young researchers in modern molecular and computational techniques.

Student Strength and Academic Progress

The institute currently hosts 108 postgraduate and doctoral students, comprising 51 Ph.D. scholars and 57 M.Sc. students during 2025-26. Among the 51 Ph.D. scholars, 31 are female and 20 are male. The institute also has 57 M.Sc. students, comprising 34 female and 23 male students. Of these, 14 have successfully completed their programmes and submitted thesis during the academic year and 94 students are currently pursuing research at ICAR-IIRR.

In addition to hosting students from various State Agricultural Universities (SAUs) and other universities, ICAR-IIRR plays a significant role in the IARI Mega University (MU), Hyderabad Hub, contributing to teaching and research training at the Undergraduate, Postgraduate and Ph.D. levels. The Institute provides research guidance to M.Sc. and Ph.D. students in Plant Breeding and Entomology. Under the IARI Mega University programme, five M.Sc. students have successfully completed their research, while five M.Sc. and eight Ph.D. students in Plant Breeding are currently pursuing their research at ICAR-IIRR. Through this engagement, IIRR continues to contribute significantly to developing skilled human resources and advancing research in rice improvement and allied agricultural disciplines. (contact: Academic committee-academiccommitteeiirr21@gmail.com,director.iirr@icar.org.in)



Achievements of students and Project staffs

- Dr Akshay Mamidi, who conducted doctoral research at ICAR-IIRR under the supervision of Dr Jyothi Badri, on Molecular Mapping of Novel Genomic Regions Associated with Strong Culm in Rice (*Oryza sativa* L.), received the Professor E.A. Siddiq Endowment Award for Best PhD Thesis in Agricultural Biosciences at PJTAU's 58th Convocation.



- Dr. Vanama Sowmya who conducted doctoral research at ICAR-IIRR under the supervision of Dr. C Kannan received the prestigious Professor E.A. Siddiq Endowment Award for Best PhD Thesis in the area of Agricultural Biosciences during the 56th Convocation of PJTAU on Development of Bio-formulations using native bio-control agents (BCAs) for the biological management of false smut and stem rot diseases of rice.



- Dr Thiagarajan, research associate at Dr SK Magrautia's lab received best poster award at 47th Annual Meeting of the Plant Tissue Culture Association (India), Symposium & Industry Conclave on "Plant Tissue Culture for Boosting Biomanufacturing, Nutritional Security, and Climate Resilience", at the JNU Convention Centre, New Delhi, India.

Official social media handles of ICAR-IIRR for daily updates

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