



Independence Day Celebrations

ICAR-IIRR celebrated independence day with great patriotic spirit and fervor. Dr. RM Sundaram, Director, IIRR hoisted the national flag and addressed the staff. In his address, he remembered the sacrifices made by the freedom fighters in achieving the independence. He emphasized the significance of rice production in food and nutritional security of the nation and in achieving the goal of Atma Nirbhar Bharath. He requested all the staff to rededicate themselves for developing the novel technologies for the benefit of farmers. The year-long activities such as webinars, workshops, other outreach activities organized as a part of Azadi Ka Amrit Mahotsav culminated in a grand function in the Auditorium. The Director distributed prizes to winners of various competitions organized for the staff and congratulated the winners.

The Har Ghar Tiranga Mahotsav

The Har Ghar Tiranga Mahotsav was celebrated during from 13th to 15th August. National flags were distributed to all the employees and students of the Institute and were asked to hoist the flag at their home. Information posters on the flag code were put up and all precautions were taken to maintain the dignity of the National Flag.



IN THIS ISSUE	
Independence Day Celebrations	1
New Technologies Released	2
Research Notes	2
Panorama of Institute Activities	6
Capacity Building Programs	7
Workshops, Webinars & Seminars	9
Extension and Outreach Activities	10
Visitors to the Institute	11
Staff News	13
AICRP on Rice Centres' News	14
Global Rice News	14
Forthcoming Events	14
ICAR-IIRR in Press	15

New ICAR-IIRR Technologies Released

Continuing the legacy of releasing the high yielding rice cultivars since the days of green revolution, IIRR has released six high yielding and biotic stress resistant rice cultivars this year. As a first, IIRR also released the rice hybrid (DRRH-4) suitable for aerobic rice cultivation for the benefit of resource poor rice farmers. These varieties were approved for release in 88th CVRC meeting and later notified through a Gazette for cultivation in different parts of the country. Further, IIRR also facilitated the multilocation evaluation and release of 21 high yielding rice cultivars developed by its collaborating centres at State Agricultural Universities and other sister ICAR Institutes through AICRP on rice system.

		Recommended Area	
1 D	DRR Dhan 64	Bihar and West Bengal	
2 D	DRR Dhan 65	Telangana, Andhra Pradesh, Karnataka, Chhattisgarh, Jharkhand and Maharashtra	
3 D	DRR Dhan 66	Andhra Pradesh and Telangana	
4 D	DRR Dhan 67	Assam, West Bengal and Tripura	
5 D	DRR Dhan 68	Assam, West Bengal and Tripura	
6 D	DRR Dhan 69	Assam, West Bengal and Tripura	
7 D	DRRH - 4	Punjab, Odisha, Chhattisgarh, Tripura and Gujarat	

Research Notes

Novel bacterial blight donors identified from wild introgression lines derived from Swarna and Oryza nivara

Divya Balakrishnan, Gouri Sanker Laha, Yugander Arra, Ladhalakshmi D, Srinivas Prasad M, Subba Rao L V, RM Sundaram and Sarla N

ICAR-Indian Institute of Rice Research (ICAR-IIRR), Hyderabad, India dbiirr23@gmail.com

Wild species are potential donors for disease resistance genes in cultivated crops. Bacterial blight (BB) is known for causing yield reduction in rice and host plant resistance plays a key role in the management of this disease. Two sets of wild introgression lines derived from crossing popular Indian variety Swarna with two accessions of *Oryza nivara* were utilized for bacterial blight screening under glasshouse conditions and irrigated field conditions. Selected resistant lines were screened extensively at field conditions for 3 years (2018, 2019 and 2020) to confirm the resistance.

Among 94 back cross inbred lines derived from *O. nivara* accession (IRGC81848) in Swarna background (NPS), considering two-year average scores, 3 highly resistant (NPS58, NPS56 and NPS19) (score 0-3), 2 moderately resistant (score 3.1-5), 47 moderately susceptible (score 5.1-7) and 53 susceptible (score 7.1-9) BILs were identified. In another set of 90 lines derived from *O. nivara* accession

(IRGC81832) (NPK), based on average of glasshouse and field screening score, only one line NPK77 (Fig.1) was found highly resistant (score 0-3) and 3 moderately resistant (score 3.1-5), 37 moderately susceptible (score 5.1-7) and 51 susceptible lines (score 7.1-9) were identified. Selected progenies from these segregating BILs at $BC_{2}F_{5}$ were advanced by single panicle selection and NPK77-3, NPS19-1, NPS56-2, NPS58-1 were confirmed resistant in field conditions along with parent Swarna during Kharif seasons of 2018 to 2020. G \times E analysis using GGE biplot method (Kang, 1993) identified NPS19-1 (G2) as the most ideal genotype with highest average yield, and NPK77-3 as the most stable high yielding line followed by NPS56-2 and NPS58-1 when compared with Swarna. These high yielding resistant lines identified in the background of the mega rice variety Swarna serve as valuable donors in further crop improvement programmes for bacterial blight resistance.



NPS19-1



Fig.1. Glasshouse screening and field screening wild introgression lines for bacterial blight resistance at IIRR, Rajendranagar, Hyderabad



Bengal Assam Aus Panel (BAAP): Promising genetic diversity for root-related traits

Kalyani M Barbadikar¹, Nakul D Magar¹, Vishal Reddy¹, K Suman¹, D Subrahmanyam¹, P Raghuveer Rao¹, Raman Meenakshi Sundaram¹, Adam Price², C N Neeraja^{1*}

¹ICAR-Indian Institute of Rice Research, Hyderabad, India 500030, ²University of Aberdeen, Aberdeen,

United Kingdom AB243UU

cnneeraja@gmail.com

Targeting per drop more crop, there is a need for the next areen revolution with the minimum inputs and sustainable yield. Appropriately known as the hidden half, the root system architecture (RSA) plays a major role in an adaptation by rapidly responding to external cues. The RSA has implications for plant development, anchorage, nutrient uptake, and stress response to specific conditions based on its plasticity. Roots are the first organ to sense the below-ground signals ultimately proliferating to respond to a particular condition. The root parameters like root length, volume, and dry weight are of paramount importance for absorption of nutrients from the soil and increasing nutrient use efficiency (nitrogen and phosphorous), water use efficiency, etc. The available genetic resources need to be explored for understanding the diversity in root-related traits. This work is a part of the UKRI Global Challenge Research Fund (GCRF) for the South-Asian Nitrogen Hub (SANH) project for the identification of potential NUE donors and mapping of genomic regions associated with NUE.

An association panel called Bengal and Assam Aus Panel (BAAP) consisting of 266 *aus* accessions assembled by the University of Aberdeen, Aberdeen, United Kingdom was made for exploring the aus rice resources for economically important traits. Additionally, genotyping data was generated with ~ 2 million informative SNPs using skim sequencing and is openly available. In a preliminary study, we studied the root traits viz., root length, root volume, and root weight in Bengal Assam Aus Panel (BAAP) lines under irrigated field in rabi 2022. The BAAP lines (215), 75 days after transplanting were uprooted (in three biological replications) carefully without disturbing the root systems washed thoroughly for recording root length, volume, fresh and dry weights. A wide range of diversity among the BAAP lines for root traits was observed. The BAAP lines, 28, 71, 87, 112, 128, 153, 192 exhibited comparatively higher root length (>28 cm). The lines, BAAP 72, 79, 87, 90, 116 exhibited comparatively higher root volume among the BAAP lines along with mega variety, MTU1010



Fig. 1: BAAP lines showing variations in root-related traits

(Fig 1). These lines with higher root length, volume, and weight could be promising lines for nutrient and water use efficiency. Further phenotyping under nutrient gradients

can confirm the root parameters of BAAP lines for deploying in crop improvement programs.

Profile of New IIRR Varieties and Hybrids Released

DRRH-4 (Aerobic Hybrid)

Characteristics: World's first public bred direct seeded aerobic rice hybrid with multiple disease resistance. **Recommended Area:** Aerobic ecologies of Punjab (Zone II), Odisha (Zone III), Chhattisgarh (Zone V), Tripura (Zone IV) and Gujarat (Zone VI). **Notification date: S.O. 4065(E)**, 31st Aug, 2022.

Yield: 5.0-5.5 tons/ha under aerobic conditions

Disease reaction: Moderately resistant to leaf blast and neck blast.

Pest reaction: Moderately resistant to gall midge, stem borer and whorl maggot.

Grain type: Long Bold, HRR: 62.8%., Gel Consistency: 30 mm., Amylose Content: 24.6%.



Fig. 1A: Field view of DRRH-4 hybrid at grain filling stage



Fig. 1B: Paddy, brown and polished rice of DRRH-4

DRR Dhan 64 (N use efficient Variety)

Characteristics: An early maturing (115-120 days) and **N use efficient rice variety** with multiple disease resistance. **Recommended Areas:** Irrigated ecosystems of **Bihar and West Bengal (Zone III).** Notification date: **S.O. 4065(E)**, 31st Aug, 2022.

Yield: 5.3-6.0 tons/ha

Disease reaction: Moderately resistant to Leaf blast and Neck blast.

Pest reaction: Resistant to gall midge and thrips, and moderately resistant to plant hoppers and whorl maggot. **Grain type:** Long slender, **HRR:** 66.8%., **Gel Consistency:** 62 mm, **Amylose Content:** 22.5%



Fig. 2A. Field view of DRR Dhan 64 at grain filling stage



Fig. 2B: Paddy, brown and polished rice of DRR Dhan-64

DRR Dhan 65 (Low P tolerant variety)

A high yielding low phosphorus tolerant variety developed from wild introgression lines with promising yield performance under various recommended dose of fertilizer P. It showed multiple biotic and abiotic stress tolerance especially heat stress tolerance and tolerance to leaf blast, neck blast and plant hoppers. It is released and notified for Andhra Pradesh, Telangana, Karnataka, Chhattisgarh, Jharkhand and Punjab.



DRR Dhan 66 (Low P tolerant variety)

DRR Dhan 66 (IET 28066) is a low soil P tolerant variety developed with introgression of QTL '*Pup1*'. It is derived through marker assisted selection (MAS) in

the background of 'MTU 1010' (Cottondora sannalu) which is widely cultivated across Telangana and Andhra Pradesh and quite popular among farmers.



Panorama of Institute Activities

Institute Research Council Meeting



Institute Research Council (IRC) meeting was held during August 2-18, 2022. Director, Dr. R M Sundaram, chaired the meeting. All scientists were given ample time to present the progress of work done under their research projects. Each presentation was followed by a thorough discussion and suggestions for the further improvements from the members. Five new projects were proposed and were approved following the critical discussion on the technical program.



The 20th IBSC meeting of ICAR-IIRR was held in hybrid mode on August 5, 2022, with the following newly constituted Institute Biosafety Committee (IBSC) members: Dr. R.M. Sundaram, Director, ICAR-IIRR & Chairman; Dr. D. Balakrishna, DBT Nominee & Principal Scientist, ICAR-IIMR, Hyderabad; Dr. K. Ulaganathan, Expert Member & Professor, CPMB, Osmania University, Hyderabad; Dr. K. Gopinath, Expert Member & Professor, University of Hyderabad; Dr. Nuzhath Fatima, Medical Officer, ICAR-ICAR-1IRR, Hyderabad; Dr. C. N. Neeraja, Principal Scientist and Head, Biotechnology, ICAR-IIRR; Dr. A.P. Padmakumari, Principal Scientist (Entomology), ICAR-IIRR, Internal Member; Dr. D. Krishnaveni, Principal Scientist (Plant Pathology), ICAR-IIRR, Internal Member; Dr. S.K. Mangrauthia, Sr. Scientist (Biotechnology), ICAR-IIRR, Internal Member; Dr. Kalyani M. Barbadikar, Scientist (Biotechnology), ICAR-IIRR, Internal Member. All the members actively participated in the meeting. Dr. R.M. Sundaram, Director IIRR welcomed the members. Dr Satendra Kumar Mangrauthia presented the status and progress related to IIRR-IBSC. He updated the progress made during the last year and emphasized the need for biosafety measures involved therein. The experts gave their inputs for better operation and management of transgenic and genomeedited products.

Virtual Monitoring of AICRP Hill Zone-1 Trials



Virtual Monitoring of AICRIP Trials in Hill Zone-1 was conducted online by a team of scientists from crop improvement, crop production, and crop protection divisions on September 17, 2022.

Official Language Implementation Committee Meeting



Official Language Implementation Committee Meetings were held under the chairmanship of Dr. R M Sundaram, Director, IIRR. All the members of the official language committee participated and deliberated on the progress in implementing the official language in office work.

Hindi Chethana Maas



The *Hindi Chethana Maas* program was inaugurated at ICAR-IIRR on Septmber 14th 2022. The Director, Dr. R M Sundaram in his inaugural address called for increased use of Hindi in day-to-day office activities. Mr. Shitanshu Kumar, CAO talked about the importance of the Hindi language in



national integration. Mr. Mahesh Kumar, Hindi Officer briefed about various activities lined up for celebrating the Hindi Chethana Maas. The meeting ended with the vote of thanks proposed by Mrs. Vanitha.

Capacity Building Programs

DST- SERB sponsored high end workshop on "Statistical and Machine Learning Techniques for Agricultural Systems Modelling and Forecasting using R"

IIRR conducted a two-week high-end workshop on "Statistical and Machine Learning Techniques for Agricultural Systems Modelling and Forecasting using R" (Under the KARYASHALA Scheme - a SERB Initiative) from 18th to 30th July 2022. This workshop was funded by the Science and Engineering Research Board (SERB), Department of Science and Technology, Government of India. Dr. Rajendra Prasad, Director, ICAR-IASRI, participated virtually and inaugurated the training program.

It is a first-of-its-kind program aimed at capacitybuilding graduate students and research scholars of the country. This workshop was designed exclusively





to improve the research productivity of promising Post-Graduate and Ph.D. Students from the Universities and Colleges through high-end workshops on specific themes. The programme provided the opportunities to acquire specialized research skills in Statistical Machine Learning, Remote Sensing, and GIS Techniques and also the hands-on experience for modelling and forecasting agricultural data to the selected 25 Students from eight disciplines primarily from Universities and Private Academic Institutions from 15 different States in India. Apart from resource persons from IIRR, well-known experts in this field from ICAR institutes, SAUs, JNU, NIT, and IITs delivered the lectures during this workshop. The post-training evaluation showed a significant improvement in the knowledge and skills of the participants. Dr. Seema Jaggi, ADG (Education), the chief guest for the valedictory function distributed the certificates to the participants. She appreciated the efforts taken by the IIRR in organizing such a unique and specialized training program for the benefit of research scholars.

Training on Agro-techniques in Rice Production for ITC Staff



A three-day training programme for the thirty field staff of ITC and its NGO partners was organized at IIRR during September 27-29, 2022. The trainees were given lectures on different crop establishment methods in rice, suitable varieties, land preparation methods with modernized machinery, integrated pest, disease, rodent, and weed management strategies in rice, and a demonstration of an on-farm soil testing kit developed by IIRR. A special emphasis was also given one emerging rice cultivation systems like Direct Seeded Rice (DSR) and aerobic rice practices. Participants were also taken on a field visit to the IIRR research farm to show various research trials in progress.

Workshops, Webinars & Seminars

Workshop on "Effective use of Nano-fertilisers in Agriculture"



A one-day workshop on "*Effective use of nano-fertilisers in agriculture*" was jointly organised by ICAR-Indian Institute of Rice Research and Coromandel International Private Ltd, Hyderabad on 01-09-2022 at Radisson Blu Plaza, Banjara Hills, Hyderabad. The focus of this workshop was to understand the mechanisms and enable the use of nano-materials/fertilisers for the sustainable production of crops. Delegates from Coromandel including Mr. Sameer Goel, MD, Coromandel Private Itd., Mr. Shankar Subramanian, President (Fertilisers), Dr. Subbarao (Former Director, ICAR-IISS), and Scientists of ICAR-IIRR namely, Drs. Mahender Kumar, MBB Prasad Babu, P. Muthuraman, P. Brajendra, R. Gobinath, and V. Manasa participated in this workshop. Subject matter specialists from other institutes *viz.*, Dr. Manoj Srivastava (IARI), Dr. S.S. Mukopadhyay (PAU), Dr. TNVKV. Prasad (ANGRAU), Dr. Rahul Kumar (UoH) and Dr. Elanchezhian (ICAR-IISS) presented their work. This was followed by a panel discussion on the current relevance and scope of nano-fertilisers in Agriculture.

Webinars/Seminars

The following webinars/seminars were organized at ICAR-IIRR as part of *Azadi ka Amrit Mahotsav*. These webinars/ seminars with eminent speakers were attended by the scientists of IIRR and also by the scientists from other ICAR Institutes and PJTSAU.

S. No.	Speaker	Торіс	Date
1	Dr. S. Shobana Head, Department of Diabetes Food Technology, Madras Diabetes Research Foundation (MDRF), Chennai	Food and Nutrition Research in relevance to Diabetes	01-07-2022
2	Dr. CR Mehta, Director, CIAE, Bhopal.	Sustainable mechanization for Rice production"	26-07-2022
3	Dr. NK Krishna Kumar , Former DDG (Horticulture)	Agrobiodiversity, Ecosystem services for Sustainable Agriculture"	03-09-2022
4	Dr. RC Chaudary Former Global Co-ordinator, INGER and Chairman PDRF Gorakhpur	Kalanamak rice - from germplasm to gemplasm"	26-08-2022
5	Dr. Shaik N Meera Pricipal Scientist, ICAR-IIRR	Eyes in the Sky and Feet on the Ground: Integrating Digital Strategies into IFAD/ R&D Investments	17.09.2022
6	Dr. N Varatha Rajan University Librarian, University of Hyderabad	Significance of Institutional Repository in Research Institutes	30-09-2022

Extension and Outreach Activities

Field visits



Scientists from IIRR Hyderabad, Drs R Mahender Kumar (Agronomist) A V S R Swamy (Plant Breeder), M.B B. Prasad Babu (Soil Science) along with officials from NGO Pranadhaara, visited the Dry-Direct Seeded Rice plots in Kakumanu village, Guntur district, and interacted with farmers to share their experiences on July 7, 2022. IIRR Scientists Drs. Jeyakumar, G.S. Laha, and Dr. AVSR Swamy visited farmers' fields in Thallada Village, Khammam District, for field monitoring of rice variety DRR Dhan 53 variety on September 22, 2022.

On-Farm Trainings



IIRR Scientists Drs A.V.S.R. Swamy and Y. Sreedhar visited Muddemguda village, Shadnagar mandal and attended the farmers' meet on "*Varilo sasya rakshna mariyu yajamanya paddatulu*" on 27.09.2022, organized by Spoorti Seva foundation.



ICAR-IIRR in association with Seva Spoorthi Foundation organised a one-day awareness programme on Sustainable rice production and the application of drone technology in agriculture on 5th September 2022 at Muddamguda village, Shabad mandal, Ranga Reddy District of Telangana. Dr. AVSR Swamy, Principal Scientist (Plant breeding) and Dr. V. Manasa, Scientist (Soil science),



Mr. Ratnakar, Manager, Seva Spoorthi foundation, Mr. Charan, Vyomic Drones, representatives from State Agricultural Department, Village sarpanch, and around 40 framers participated in the meeting. IIRR in collaboration with Vyomik Innovations Private Limited is conducting research for developing SOPs for use of drones for sowing and application of herbicides and insecticides in rice.

Distribution of Soil health cards



ICAR-IIRR distributed **Soil Health Cards** to 100 farmers. A demonstration of the soil testing kit was also organized to the farmers at Sirigiripuram Village, Maheshwaram Mandal, Ranga Reddy District, under SCSP program on



22nd July 2022. Further, seeds of rice varieties DRR Dhan 48 and DRR Dhan 49 were also distributed to 200 farmers of Ramannapet village, Yadadri Bhuvanagiri District, Telangana, under this program.

Visitors to the Institute



ICAR-IIRR in association with SARR felicitated Dr. V. Praveen Rao, Former Vice Chancellor, PJTSAU for his outstanding contributions to the agricultural research and farming sector on 4th August 2022.



Mr. G P Sharma, Director Finance, ICAR visited IIRR on 9th July 2022 and interacted with Dr. R M Sundaram Director, IIRR, and Mr. Shithanshu Kumar, CAO, IIRR.



Dr. R C Chaudary, Former Global Co-ordinator, INGER and Chairman of PDRF, Gorakhpur visited the Institute and delivered a talk on "Journey of Kalanamak-an aromatic rice variety" on 26th August, 2022.



Students from Pandit Jawaharlal Nehru College of Agriculture and Research Institute (PAJANCOA & RI), Karaikal, U.T. of Puducherry, and Annamalai University (Tamil Nadu) visited ICAR-IIRR to know about Rice Research and Extension activities.



Dr. D.K. Yadava, ADG (Seeds), ICAR visited the research farm of ICAR-IIRR, Rajendranagar, and interacted with scientists regarding the material developed under CRP-Biofortification, CRP-Hybrid Rice, and CRP-Molecular Breeding and addressed the staff on 24.9.2022.



Dr. Seema Jaggi, ADG (Education), visited IIRR and participated in the interactive session on "*Refinement of statistical methodologies for AICRIP*" on July 30, 2022.



Dr. A.R. Pathak, Former VC, Junagadh Agricultural University, and Dr. A.K. Singh, Former DDG, NRM, Former VC, RVSKVV, and Former Director, IARI visited ICAR-IIRR on 29 September 2022. Dr. R.M. Sundaram, Director along with his team of scientists took them on



a field visit to the IIRR research farm and briefed them regarding the ongoing research experiments. Dr. A.R. Pathak appreciated the progress made in phenotyping facilities for nutrient management and biotic/abiotic stress management.

Vol: 20 No. 3, 2022

Staff News

Awards & Honours



Dr. K. Sruthi, Scientist, received Neelamraju Ganga Prasad Rao and N Kamala *Gold Medal* for having secured the highest overall grade point average (9.46 OGPA) in Ph.D. in the major field of Genetics and Plant breeding during the 8th foundation day of PJTSAU held on 03.09.2022.

Drs. Divya Balakrishnan (Senior Scientist) and **C. Gireesh** (Senior Scientist) won prizes for **Best Poster** in the online poster presentation competition held during the Symposium on "*Tending Mendel's Garden for a Perpetual and Bountiful Harvest*" organized by ICAR-IARI, New Delhi from 19-21 July 2022.

Appointments



Mrs. O. Suneeta, Principal Private Secretary joined the Institute on 04-08-2022 on transfer with promotion from ICAR - Directorate of Poultry Research, Hyderabad.

Promotions

The following scientists were promoted to the next higher grade:

Dr. B. Nirmala, (Agricultural Economics); Dr. P. Senguttuvel (Plant Breeding); Dr. P. Revathi, (Plant Breeding); Dr. Satendra Kumar Mangrauthia, (Biochemistry); Dr. Mangal Deep Tuti, (Agronomy); Dr. Divya P.S. (Biotechnology); Dr. C. Gireesh, (Plant Breeding); Dr. Suneetha Kota, (Plant Breeding); Dr. Kemparaju K. B, (Plant Breeding); Dr. D. Ladha Lakshmi, (Plant Pathology); Dr. Jyothi Badri, (Plant Breeding); Dr. Anantha M.S, (Plant Breeding); Dr. S. Arun Kumar, (Agricultural Extension); Dr. Abdul Fiyaz, (Plant Breeding); Dr. V. Prakasam, (Plant Pathology); Dr. Sanjeeva Rao, (Plant Biochemistry); Dr. Divya Balakrishnan, (Plant Breeding); Dr. Sowmya Saha, (Agronomy); Dr. P. Gobinath, (Soil Science); Dr. Vakada Manasa, (Soil Science); Dr. K. Sruthi, (Plant Breeding); Dr. Aarti Singh, (Agronomy); Dr. Suvarna Rani Chimmil, (Plant Breeding); Dr. K. Basavaraj, (Plant Pathology); Dr. Satyaswara Jasudasu Gompa, (Plant Pathology).

Deputations and visits



Dr. P. Sengutttuvel, Senior Scientist, has been deputed to participate in Hybrid Rice Development Consortium (HRDC) 2022 Annual Meeting held during September 21-23, 2022 at IRRI, Philippines.



Dr. R. M Sundaram, Director, ICAR-Indian Institute of Rice Research(IIRR) along with senior colleagues visited ICAR-CRIDA on 19th August 2022.

Dr. R.M. Sundaram, Director, ICAR-IIRR participated in the interaction meeting with Dr Himanshu Pathak, Secretary (DARE) & Director General (ICAR) at NAARM, Hyderabad on 24.9. 2022. He also participated in the Executive Development Programme on Leadership Development at NAARM, Hyderabad.



AICRP on Rice Centers' News



Dr. T.R. Sharma, Hon'ble DDG (Crop Sciences), ICAR and Prof. J.P. Sharma, Hon'ble Vice Chancellor, SKUAST-Jammu visited Rice Research Farm at AICRP on Rice centre at Chatha on September 9 2022.



Dr. Anuradha Saha, Chief Scientist (Agronomy) and I/C AICRP on Rice has taken them around the research farm and explained about the ongoing experiments at the centre.

Global Rice News

Three-day Annual Meeting of the Hybrid Rice Development Consortium (HRDC) was held in hybrid mode during September 21-23, 2022 at IRRI Headquarters in the Philippines. Both Public and private partners from around the world participated in the meeting and discussed the progress of activities for promoting hybrid rice research and development for ensuring global food security.

Forthcoming Events

International Conference (ICSCI 2022) – "System of Crop Intensification for Climate-Smart Livelihood and Nutritional Security" will be held at ICAR-IIRR from 12 to 14 December, 2022.

ICAR-IIRR in NEWS



గ్రామాలలో వ్యవసాయ శాస్త్రవేత్తల బృందం ప

οττ. μεταγχ. Έχους 21 Οτο πονδου, ποιτήδια μεταική ανώ η πήρδης προστά υξηκούο, ανατικη-ιστ το πολογια το υξηκούο, ανατικη-ιστ το το το υξηκοι αλαλά θεται το ποια του το υξηκοι αλαλά το το το τους του το το υξηκοι αλαλάτις το ποι το το το το το το το πηθαι το αλαλάτιο τη θημα πολα τη πήρα το αλαλάτιο το τη θημα το το πηθαι το αλαλάτιο το τη θημα. Ο τη యా తెకు ఎందుతెగులు కు ఆగ్రార్టుకర్, 0.4 గ్రా సందురావు పరికార కేయాల్సందగా పూరిందారు.



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ఆరోపిస్తరా రైతులు ఎందు తెగుద తల్ల కినీ రాజలు తి రెగులు ఆరిశరా ఉన్నయను సత్తుకు వాదరు రాజ్యా పోలంలో 2 నుండి 3 సార్పు సిరు పెట్టి తీయాళ్ళించి కోవులు జర్యార్థలు తీయోకాలని సూదంజారు. త పారుగుల్ అర్ధన్నేతులు సార్లిస్ అందుగుడాని.సార్లగ్ 4 త్వామి, ఎం తాలల్లిస్.సామ్ క్రవీజీ మాతురులు, ఎం సార్రోస్మామి ఎం జాలల్లిస్.సామ్ క్రవీజీ మాతురులు, ఎం

వలి పాలాల పలిశీలన

తల్లాడ, వ్యూస్ట్రేటుడే: తల్లాడ మండలం నూతనకల్, చెంగన్న పేట గ్రామాల్లో భారత వరి పరిశోధన సంస్థ(ఐసీఎఆర్..వజలర్ఆర్) హైద రాబాద్ శాస్త్రవేత్తల బృందం గురువారం వరి పొలాలను సందర్శించారు. భారత వరి పరిశోధన సంస్థ శాస్త్రవేత్తలు వానాకాలం-2022లో ధన్ 53 రశం వరి పొలాలను శిష్టవేత్తలు పరిశీలించారు. దన్ కొరిరనం వరి చిత్ర నాలు సాగువేసిన పొలాలకు ఎటువంటి అగితెగులు, ఎందుతెగులు లేకుండా మంచి ఎదుగుదల ఉన్నట్లుగా గమనించడం జరిగిందన్నారు.



ఐఐఆర్ఆర్ సంస్థ శాస్త్రవేత్తల బృందం సందర్శన

සිංසුරියෙනි.සිංකිලියෙන් 22. එලසි කියාසාවෙනවේ ව මංජිකින් මහත්ය මංජිමුවිස (පරංශාල් අතිම නි වෛත්ත හා මංකාවයක් හා සංකාශක කරන්න නි පුණුපත සාර්න් වින්නාවෙන් හා සීංකාන තිබාන්න



ລົງລົວເວລີດຕົກ ²³ Sep 1012 - Page 3 epiperinteval-diatelecturcom

డ్రోన్తో రసాయనాల పిచికారీ



రైయలు అంగాపాల కర్మిషన్లు శాస్త్రవేశ్వలు స్కారి. మానవ

శాస్త్రవీత్రలు రాక్షర్ ప్రామ. రాక్షర్ పూడం

dad flags toney were that -as another anglement for the given my appropriate grant and gates and store & warries styleres a sussiy . Seed, soyed any watch and a and in the singular colored to be with since the style and ລູດາວະ ກະເດີດາ ຊຸລົມາ ການດາ ບໍ່ກໍ່ ອາ, ຊຸລົມ ໂດກ. ຊະໄດ້ ຊຸລິມ ອະລະ ລິຊາງ ຮູ້ອຸດມະດາດ ພໍ່ມີເຮັ້ອກວ່າ ແຫຼງມີ.

Statestyl lighter Store to Lotter. μαίο κάνταν έχο κάτα βάτας του τ or 5/26 5° 000 2020 2000

한편 Tac. 66 September 2002 Ettps://epaper.sakabil.com/c/70065268



వరి పైరును పరిశీరిస్తున్న శాస్త్రవేత్తలు

తల్లాడ : మండలంలోని నూతనకల్, వెంగన్న ేపట గ్రామాల్తో గురువారం భారత వరి పరిశో ధన సంస్థ(ఐకార్) శాస్త్రవేత్తలు పర్యటించారు. ఈ సందర్భంగా పలువురు రైతులు సాగు చేసిన డీఆర్ 53 రకం వరి పంటను శాస్త్రవేత్తలు డాక్టర్

వలి సాగులో సస్యరక్షణ చర్యలు

mgt and a mgt fight memorie

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సద్వినియోగం చేసుకోవాలి

- రైతులకు ఉచితంగా
- ත්ව කිඡුනාභා බ්රකිස්.
- ఎస్టీ రైతులకు చేయూత
- అందించడమే లక్ష్మం.
- భారతీయ వల పల-తోధన సంస్థ ఆధ్మర్యంలో నిర్మహణ.
- ෂාම්ಯාබ්ගො ඉන්
- පෘණුණු බහුමර කොහා
- రామన్నపేట రైతు వేటితలో
- බටඩස් පතුළිකානම් ලිපාරට.
- కార్యక్రమంలో పాల్గాన్న
- ಎಂపీపీ కన్నెటోయిన జ్యోతి, శాస్రవేత్త డాక్టర్ జి .నిర్హల.



వరి పెత్తనాలను అందించాలని పెళ్లిస్తే దేశారు. ప్రపిపాదుం లో కొత్త పద్ధశులపై అవగాచాన కర్తించాలని కోరారు. పెత్తనాలను వెరింట్లే పద్ధశులు ప్రాపంభమయాద్రమి 80పారు. అందర్రక్షంలో నిరుగు అందులు సరి పరిశోవన సంస్థ అధ్యార్థంలో నిరుగుం చెళ్ళే కైతులకు జరితంగా వరి పెత్తనాలు నిరుగి చేసి ఇద్యమినికి త్రీతారం పరిశ్రది అన్నాడి. నిరుగా కని వరి సెత్తనాలను ఎరింటీ నేన చేయాత నిరురిలది ఈ సంస్థ విధియా 8 తెలిపాటి. శ్రీలు భ్రభుత్వ పోయింలోనే ఈ నంస్త విధిహుణ అదుగుతుందని 8రిపారు. జారీయుర్తీయలో గత

మారికి పిర్మేసన అభ్రవేత్తను అలువాలతో నత్తరించి కృత్యుతలు తెలిపారు. ప్రత్యేక భష్టి కనలన్నాని ఈ సందర్భంగా అమెను కోచారు.ఈ కాద్యకమంలో యారార్ల జిల్లా క్లవ్రే జూర్లే కారించింది. మందల జూర్లై మంటి కింగింగ్రామ, టిఆర్మ్ మందల పార్పే అర్జక్ష,కార్యదర్మలు మందరి ఉదయ డారాధ్ర శర్మా శర్షర్ బార్స్ కారోడ్డ నరసించి. మందం బార్స్ మంది రెంగింగ్రావి. రిశించిన పెంది బార్స్ అర్మక్రశార్మరర్మలు మందరి ఉరచు రెక్టి.పొందోయిన మెళ్లించిన్ను శివిత అర్హక్రణ హాఠరాల సెయిజినికి. సర్వం రెకిం ఇరచు, కోళ్ల సార్రెషి ఎందికి గారి సరియి కోళ్ల ఎందికి యాదచ్చు. శర్మ సార్రిషి ఎందికి గారి సంకియి శిరితు ఎం.ఓ. అమేర్,పునసారు విగ్రణ అధికార

నిరుపేద రైతులకు చేయూత

• జాతీయ వరి పరిశోధన సంస్థ శాస్త్రవేత్త దాక్టర్ నిర్తల

రామన్నపేట, జూలై 6: పేదరికంలో ఉండి వరి సాగు చేసే రైతులకు విత్తనాలు, ఎరువులు పంపిణీ చేస్తూ వారికి చేయూ తనందిస్తున్నట్లు జాతీయ వరి పరిశోధన సంస్థ శాస్త్రవేత్త డాక్టర్ నిర్మల చెప్పారు. బుధవారం మండలకేందంలోని రైతు వేదికలో ఎస్పీ సబ్పాన్ కింద పేద ఎస్పీ రైతులకు వరి విత్తనాలను ఆమె ఉచి తంగా పంపిణీ చేసి మాట్లాడారు.దేశంలో 150 కేంద్రాల్లో ఈ కార్యక్రమం అమలు చేస్తున్నట్లు తెలిపారు. రోగ నిరోధక శక్తిని పెంపొదించే విధంగా బీపీటీలో 48-49 అనే రెండు రకాల వరి విత్తనాలను రైతు లకు పంపిణీ చేస్తున్నామని తెలిపారు. ఈ విత్తనాల్లో జింక్ స్థాయి ఎక్కువగా ఉండ టంతో రోగ నిరోధక శక్తి పెంపొందుతుం దన్నారు. విత్తనాలను రైతులు సద్విని యోగం చేసుకోవాలని కోరారు. సాగులో



రామన్మపేటలో రైతులకు వరి విత్తనాలను అందిన్నున్న అధికారులు ప్రజాప్రతినిధులు

మెళకువలు పాటిస్తూ శాస్త్రీయ పద్ధతిలో వరి సాగు చేయాలన్నారు. త్వరలోనే అవ గహన సదస్సులు ఏర్పాటు చేస్తామని తెలిపారు. కార్యక్రమంలో రైతు సమ న్వయ సమితి జిల్లా డైరక్టర్ గుత్తా నర్నిం హారెడ్డి, ఎంపీపీ కన్నెబోయిన జ్యోతీబ లరామ్, ఎస్సీ సబ్షష్టాన్ జిల్లా కోఆర్డినే

టర్ నర్సింహ,సర్పంచులు అప్పం లక్ష్మీనర్సు, యాదయ్య, టీఆర్ఎస్ మండలాధ్యక్ష, కార్యదర్శులు మండడి ఉదయ్రెడ్డి, పోచబోయిన మల్లేశం, పట్టణాధ్యక్షుడు సాయికుమార్, ఎంపీ టీసీ గొరిగె నర్నింహ, ఆమేర్, మండల కోఅర్ధినేటర్ లింగస్వామి పాల్గొన్నారు.





6th Decade in Service of Rice Farmers

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Drs. N. Somasekhar, G. Padmavathi, P. Jeya Kumar, V. Manasa, B. Nirmala, Kalyani Barbadikar and U. Chaitanya

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16