Vol. 4 No. 2

April - June, 2021



In this issue

1

2

3

3

5

6

6

6

7

7

8

8

9

9

9

10

10

11

1

2

From the VC's Desk	
Important Events	
Virtual Convocation Ceremony of PJTSAU	
Grand Launch of Platinum Jubilee Celebrations of CoA, Rajendranagar	
Promising Technology	
Dry – Direct Seeded Rice, A Way Forward for Ecological Sustainability in Telangana State	
Workshops, Conferences, Meetings, Seminar	s
ZREAC at STZ with Focus to Develop Farmer Friendly Technologies	
Validation of Drones to Control Pests in Sesamum at Jagtial	
National Webinars on Weed Management	
The 14 th Academic Council Meet	
Research Focus on Crop Productivity and Value Chain	
Irrigation Scenario in the State – Webinar by Water Technology Centre	
Extension Units to Focus on New Models for ToT	
The NSS Units of PJTSAU do their Part Under the Pandemic Situation	
Collaborations	
Prathima Agri Services and PJTSAU Collaborate for ToT on e-Platform	
Alliance with Al Institute for Pest Surveillance in Cotton	
Empowering the Rural Youth and Extension Functionaries on Precision Farming	
Capacity Building	
PJTSAU's Outreach to Bolster Farmers for Ensuing Kharif	i.
Agriculture Minister Enlightens Farmers of the State on DDSR through Rythu Mitra	, L
Success Stories	
Smart Irrigation Technique in Blackgram – A Success Story of a Farmer from Khammam	
Awards & Honours	1
Celebrations	1



Visit us at www.pjtsau.edu.in

From the VC's Desk

The Green revolution in India fueled an unparalleled six fold increase in food production to the tune of 305.4 mt in 2020 from a mere 50.82 mt in the 1950s which transformed the country's status from a ship to mouth existence to self sufficiency. This was achievable due to the introduction of high yielding varieties and intensive use of fertilizers as evidenced by the massive spike in fertilizer consumption from less than 2 kg/ha in 1950's to 133.4 kg/ha in 2020. However, excessive use of fertilizers has not translated into increased productivity in recent years, due to the lower fertilizer use efficiency and leaching losses which has also created a negative

impact on the environment. Such a scenario warrants a new approach that increases efficiency while reducing the human footprint on the environment. The past decade has seen an upward trend in research for harnessing nanotechnology in agricultural and food systems and there is much scope to utilize these "magic bullets" for improving the resource use efficiency and energy utilization at the farm level. Nano applications have also been explored in the fertilizer industry R&D.

The nanofertlizers i.e nanoparticles containing micro and macronutrients in nanometer scale has attracted the attention of farmers as it ensures higher productivity by improving NUE, preventing leaching losses and aids in retention of soil inherent fertility. The unique features of nanofertilizers are their micro size along with high solubility, mobility, large surface area which enables the controlled release of nutrients for its quick, effective translocation and penetration into the plant system, while preventing nutrient losses, soil acidification and environmental pollution.

Through the concerted efforts of the public & industry R&D certain promising nano nitrogen, nano Zinc, nano copper products are being tested on farm. IFFCO recently launched nano nitrogen in the country, a single unit of 500 ml is expected to substitute 45 kg of urea and reduce the cost by 10%. The company foresees reduction in the costs incurred on inputs, logistics, storage and also curtail the import of urea which was around 9 million tons during 2019-20. If the nano fertilizers succeed in delivering the promised outputs, it will reduce the mining of fertilizers across the globe which are major contributors to climate change and global warming. However, there is a need for research partnerships in PPP mode to develop customized smart nanofertlizers/ pesticides with potential for effective release as per plant requirements to achieve higher productivity under changing climatic conditions without disturbing the ecosystem. As elated as we are on the myriad use of nano applications in agriculture, we should not be blind to the safety aspects of the promising technology as the nanoscale of the technology has potential to disrupt the cell membranes and reach areas that conventional inputs cannot possibly reach. Hence nano research should also concentrate on the effects of the nanoparticles from source to sink for biosafety to gain end users and regulators acceptance in order to make the best use of the path breaking technology.

> Dr. V. Praveen Rao Vice Chancellor



Important Events

Virtual Convocation Ceremony of PJTSAU

The fifth convocation of PJTSAU was held virtually on 17th April, 2021 at University Auditorium, Rajendranagar, Hyderabad. Dr. Tamilisai Soundararajan, Hon'ble Governor of Telangana, Lt. Governor of Puducherry and Chancellor of PJTSAU, Professor Ramesh Chand, Member, NITI Aayog and the students attended the programme virtually. Dr. V. Praveen Rao, the Hon'ble Vice Chancellor, Dr. S. Sudheer Kumar, Registrar and Other University Officers and students who secured gold medals participated in the convocation by following SOP's of COVID. Prof. Ramesh Chand, Chief Guest of the convocation in his address opined that the promising pathways for future of agriculture in the state would be diversification towards high value crops and sustainable intensification. He urged the researchers of PJTSAU to work on biofortification and encourage farmers to take up cultivation of nutri-cereals, vegetables, and biofortified varieties of food crops in view of child mortality, wastage, stunting and under weight of the developing children and poor health status of women in the country. He appreciated PJTSAU for



Dr. Tamilisai Soundararajan, the Hon'ble Chancellor addressing the students on the occasion of fifth convocation



Honouring Professor Ramesh Chand with Doctor of Science (honoris causa)



Dr. V. Praveen Rao presenting the University report

creating a new trend of public private partnerships for taking new technologies and practices to the farmers of the state. He urged the outgoing agri graduates to focus on IT, digital agriculture, e-commerce, value chain, precision farming and to tap the new opportunities opened by liberalized policy environment like contract farming, supply of quality inputs, running a farm service centre, plant clinics, running a supply chain between group of producers and consumers, organizing attribute based supply and demand, and providing consultancy services.

Dr. Tamilisai Soundararajan, the Hon'ble Chancellor of the varsity in her address highlighted that Telangana State has emerged as a torchbearer of the country in terms of ushering reforms in all the sectors and implementing a variety of welfare schemes and emphasized on the Hon'ble Prime Minister Sri Narendra Modi's vision on seamless integration of modern technologies with rich traditional knowledge to make agriculture vibrant and sustainable. She further appreciated the efforts of the state government for several welfare schemes for farmers in last six years viz. Rythu Bandhu, Rythu Bima along with services like uninterrupted power supply coupled with irrigation facilities which resulted in making the state "Annapurna" the Rice Bowl of the country. On this auspicious occasion she called all the participants to take a pledge to resolve to build a strong and self reliant India and ensure hunger free world through our efforts in the field of agriculture and allied areas.

Dr. V. Praveen Rao, the Hon'ble Vice Chancellor, PJTSAU presented the report of the University activities, for the period from 1st August 2019 to 31st July 2020 and mentioned about the new initiatives of University in Teaching, Research and Extension as well as on special



measures taken up during COVID 19. He further informed that University has developed and released 7 high yielding varieties in various crops during the year. In P.G and Ph.D programmes, 176 candidates received their degrees, while 558 students were qualified for Bachelor's degree in Agriculture, Agricultural Engineering and Technology, Community Science and Food Science and Technology. Twenty eight gold medals were awarded to undergraduate and post graduate students on the occasion. Prof. Ramesh Chand, Member, NITI *Aayog* was conferred the Doctor of Science (*honoris causa*) degree at the convocation.



Gold Medal Awardees with the Hon'ble Vice Chancellor, Board Members and University Officers

Grand Launch of Platinum Jubilee Celebrations of CoA, Rajendranagar

The College of Agriculture, Rajendranagar inaugurates its platinum jubilee celebrations in grandeur on 10th May 2021 virtually in gracious presence of Dr. V. Praveen Rao, the Hon'ble Vice Chancellor and chief guest and coveted alumni members of the college spread across the globe. Dr. C. Narendra Reddy, Associate Dean, College of Agriculture, Rajendranagar in his welcome address briefed the magnanimous journey of the college since its establishment from the year 1946. Dr. V. Praveen Rao in his inaugural address expressed happiness and delight for the



Unveiling of the platinum jubilee logo by the Hon'ble Vice Chancellor at the inaugural session of platinum jubilee celebrations

success of the alumni for occupying important positions in research, teaching, extension and administration across the globe. He with pride admired the alumni for their concerted effort in resolving the problems of farming community. He inaugurated the Platinum jubilee celebrations virtually and unveiled the platinum jubilee logo. The programme was concluded with the formal vote of thanks by Dr. K. Suhasini, Senior Professor and University Head, Department of Agricultural Economics, PJTSAU.



The Hon'ble Vice Chancellor interacting virtually with the participants

Promising Technology

Dry – Direct Seeded Rice, A Way Forward for Ecological Sustainability in Telangana State

Rice occupied 53.33 and 50.58 lakh acres in the state during *Kharif* and *Rabi* 2020-21 respectively with thirteen districts in the state having more than 40% area under rice to the gross cropped area of the district (Directorate of Economics and Statistics, 2020). With the creation/ strengthening of surface irrigation after the formation of the state, rice is the major crop under canal

irrigation. However as Telangana state is situated at higher elevation in comparison to its river flows, lift irrigation is inevitable thus increasing the recurring costs thereby necessiating judicial use of water. Further the traditional ways of rice cultivation (Nursery raising, puddling, manual transplanting) not only causes irreversible damage to the environment but also results in inefficient use of inputs with increased scarcity of resources, especially water and labour. In addition the changing climate with energy crisis and rising fuel prices has increased the cost of cultivation. Under these situations it is very much essential to bring a paradigm shift in rice cultivation from puddled transplanting method to Direct seeding of Rice for sustainable cultivation of rice in the years to come.

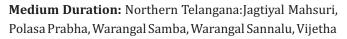
In Direct Seeding of Rice (DSR), seeds are sown directly in the main field instead of raising a nursery and transplanting the seedlings, while in Dry Direct Seeded Rice (D-DSR) rice is grown by sowing seed in the well prepared unpuddled field just like any other rainfed crop. The most important prerequisites for a successful crop by dry direct seeded rice are precise land leveling, good crop establishment, good water management and effective and efficient weed management.

Preparation of land

Using monsoon showers, soil should be well pulverized to maintain good soil moisture for seeding and good soil-to-seed contact. It is important to first knock down the existing vegetation (annual and perennial weeds) or self-sown rice.

Suitable Varieties

Long Duration: Samba Mahsuri, Siddi. In single season Rice areas of Central Telangana, Indra can also be grown.



Central Telangana: Warangal Samba, Warangal Sannalu, Somnath, Warangal Vari-1, Vijetha

Southern Telangana: Krishna, Jagtial Mahsuri,Warangal Vari-1,Vijetha

Short Duration: Telangana Sona, Jagtial Vari-1, Kunaram Sannalu, Batukamma, Cotton Dora Sannalu

Sowing: The optimum time of planting for wet-season rice is with onset of monsoon (based on forecast or historical weather data) or a week before for effective use of rainfall, however sowing after onset of rain is tedious as machine sowing is difficult in wet soil and may also result in poor crop establishment. The cut of dates for sowing of long duration varieties is up to end of June, while for medium duration varieties is 15th of July and for short duration varieties is up to end of July. Based on the historical trend of the onset of monsoon in Telangana, the optimum time for seeding rice is from June 10th to July 10th.

Seed rate : The seed rate can be decreased drastically when sown using a seed drill under effective management of weeds. Based on recent experience with on-farm farmer participatory trials, a seed rate of 8 kg /acre has been found optimum for fine-grain rice cultivars and 10 kg/acre for bold seeded varieties when sown using seed drills and by



Land preparation



Levelling of land with rotavator



Direct sowing of rice seed with planter



Spraying of herbicide with boom sprayer

broadcasting method a seed rate of 10 kg/acre and 12 kg/acre is recommended for fine and for bold seeded varieties respectively.

Depth of seeding and moisture

Rice should not be drilled deeper than 2.5 cm to maximize uniform crop emergence and it is important to have sufficient moisture during the germination period. Planking after seeding will conserve soil moisture and improve soil-to-seed contact.

Fertilizer management

60 kg of N, 20 kg of P_2O_5 and 16 kg of K_2O can be applied per acre. The phosphorous and half the dose of potash should be applied as basal, while nitrogen is applied in three equal splits at 15-20 days after sowing, tillering and finally at panicle initiation along with remaining potash. Deficiency of Fe is more common in DSR rice systems than in flooded, hence based on the requirement 2-3 times foliar sprays of FeSO₄@ 5 g + 1 g citric acid /lit of water should be taken up.

Weed management

In dry direct drill-seeded rice, the "critical period" for weed competition is up to 45 days from seeding. Land preparation including tillage and precise land leveling before crop planting plays an important role in controlling weeds in dry drill seeded rice. Pendimethalin 30 % EC (1.2 lit/ac) is an effective pre-emergence herbicide to control weeds in dry-direct seeded rice. Good soil moisture is essential for the activation of pre-emergence herbicides. Post emergence herbicides like Bispyribac Sodium10% SC @ 100-120 ml or Penoxulam 1.02% + Cyhalofop-p-butyl 5.1% OD @ 800 ml or Fenoxyprop-p-ethyl 6.7% w/w EC at @ 325 ml or Triafamone20%+ Ethoxysulfuron 10% WG @ 90g per acre in 200 lit of water can be used.

Water management

The soil should be kept moist from sowing to emergence and avoid over flooding to prevent seed rotting. After sowing in dry soil, irrigate to wet the soil if it is unlikely to rain followed by saturating the field at three-leaf stage. Later maintain 1-2 cm of water level when canal water is released and 5 cm of water level from PI stage of the crop.

Adopting DDSR technology not only overcomes labour problem but also maintains physical condition of soil, helps in timely sowing with efficient utilization of water and other natural resources. An early crop maturity by 7-10 days which allows timely planting of subsequent crops and a profit of Rs.8000-10,000/acre under assured irrigation facilities are the added advantages. However the constraints associated with the technology are reduced availability of nutrients like N, Fe, and Zn, higher weed infestation and unsuitability of saline soils and low lying fields.

Workshops, Conferences, Meetings, Seminars

ZREAC at STZ with Focus to Develop Farmer Friendly Technologies

The farmers, scientists and officials from Department of Agriculture of Southern Telangana Zone participated in the Zonal Research and Extension Advisory Council (ZREAC) meet of Vanakalam and Yasangi 2021-22 held at Silver Jubilee Auditorium, Regional Agricultural Research Station, Palem, Nagarkurnool district on 7th and 8th April, 2021 under the chairmanship of Dr. R. Jagadeeshwar, Director or Research, PJTSAU. Special focus was laid on new technologies like Dry Direct Seeded Rice (DDSR) in rice, crop diversification, usage of Phosphate Solubulizing Bacteria (PSB) for enhancing availability of phosphorous in the soils and crop residue management in major crops during the meeting. The researchable areas for the ensuing year were identified on this platform. Sri P. Srinivas Reddy, Addl. Collector, Nagarkurnool district was the chief guest on the occasion. Dr. G. Samuel, Director of Extension, PJTSAU,



Dr. R. Jagadeeshwar, Director of Research lighting the lamp at ZREAC

Sri B. Singa Reddy representative from Agril. Commissionerate, Dr. Ch. Damodar Raju, ADR, RARS, Palem, Sri Amitabh from NABARD, all the scientists, DAOs, AOs and farmers of the zone participated in the meeting



Validation of Drones to Control Pests in Sesamum at Jagtial

Regional Agricultural Research Station, Jagtial as part of network project on "Evaluation and standardization of plant protection solutions in field crops using Drones" organized a programme to study the efficacy of spraying by drones on management of pest and diseases in sesamum on 8th April, 2021. Smt. Dava Vasanta, Z.P. Chairperson, Jagtial launched drone spraying in the farmers field at Takkalapalli village, Jagtial district. Dr. P. Jagan Mohan Rao, ADR, RARS, Jagtial, Sri P. Suresh, DAO, Jagtial, ADA & AEOs, Scientists of RARS, Jagtial, and farmers participated in the programme.



Smt. Dava Vasanta, Z.P. Chairperson, Jagtial launching the drone spraying in sesamum field

National Webinars on Weed Management

Weeds which are contributing to major yield losses are an important concern to farmers in India under the current situations of acute labour shortage and higher costs to be incurred for its management. Hence to update on happenings in weed management AICRP on weed management, PJTSAU in collaboration with ICAR-DWR, Jabalpur organized two National Webinars on weed management. Dr. A. Subrahmanyeswara Rao, Former Director of Research, ANGRAU was the guest speaker for the webinar entitled "Weed Management in rice fallows: Options and Challenges" wherein 122 Scientists, researchers from AICRP on Weed Management Coordinating Centres, SAUs and Post graduate students participated in the webinar and shared their views.



Dr. A. Subrahmanyeswara Rao delivering a lecture online at the Webinar

Webinar entitled "Genetics, Genomics and Breeding of Herbicide-Tolerant Grain Sorghum to Address Weed Control Challenges" was held on 19th April, 2021 wherein Dr. Mithila Jugulam, Professor - Weed Physiology, Department of Agronomy, Kansas State University, USA was the guest speaker. Dr. S. Bhaskar, ADG, ICAR, New Delhi, Dr. J. S. Mishra, Director, DWR, Jabalpur, Dr. R. Jagadeeshwar, Director of Research, PJTSAU, and 115 Scientists, researchers and students across the world participated in the webinar. Dr. T. Ram Prakash, Principal Investigator and Dr. B. Padmaja, Principal Scientist successfully organized the webinars.



Dr. Mithila Jugulam delivering a virtual talk at the webinar

The 14th Academic Council Meet

The 14th Academic Council meeting of PJTSAU was held on 20th May 2021 at Committee Hall-1, Administrative Office, PJTSAU, Hyderabad through video conference. The council discussed on academics, finalized

the number of seats for UG, PG and Ph.D programmes for the academic year 2021-22, on new gold medals, fee structure, student READY programmes including AELP for entire year.



Research Focus on Crop Productivity and Value Chain

"Focus on complete value chain while developing new varieties is very much essential for profitable agriculture" was emphasized by Dr. V. Praveen Rao, the Hon'ble Vice Chancellor at the inaugural address of State Level Technical Programme meetings of Crop Improvement, Crop Production, Crop Protection of PJTSAU organized virtually from 24th to 28th May 2021. For the first time since the inception of the varsity, a group of experts were invited to guide and plan an apt technical programme in each discipline so as to achieve the desired results at the earliest. Dr. V. Praveen Rao expressed his appreciations to expert committee for readily accepting the invitation and giving their valuable time and guidance. He further urged the experts to guide researchers in planning their experiments to meet the local and national requirements. He expressed his happiness for the University being recognized at national level within a short period and also on the popularity gained for the university bred varieties across the country. He visualized a future for short duration varieties as they fit well into any cropping system and further stressed to concentrate



Dr. V. Praveen Rao addressing the research team of PJTSAU at State Level Technical Programme for 2021-22 held virtually

on HDPS technology in cotton, farm mechanization and biotic stress management. He also emphasized on development of rice varieties with low glycemic index and according to consumers demand from other states also. The scientists presented the work done report for 2020-21 and the technical programme for the ensuing *Vanakalam (kharif)*, 2021 and *Yasangi (rabi)*, 2021-22.

Irrigation Scenario in the State - Webinar by Water Technology Centre

The Water Technology Centre, PJTSAU organized a webinar on "Irrigation development and management in Telangana State" on 17th June, 2021. Dr. R. Jagadeeshwar, Director of Research, PJTSAU, in his welcome address stressed the need to discuss on importance of irrigation development in Telangana State. Er. Sridhar Rao Deshpande, OSD to CM (Irrigation), Govt. of Telangana and guest speaker briefed about the catchment area, allocations and actual utilization of Krishna and Godavari river water between Andhra and Telangana. He further explained the government proposals to enhance the irrigation facilities in the state and on pilot projects like mission Kakatiya for restoration of minor irrigation tanks. He further informed that the government interventions led to an increase in 51 % of gross irrigated area with decrease in gap ayacut by 19.2% and increase in yields of major field crops in the state. He also presented the progress of pending projects, partially completed project over Godavari and Krishna basin and the multistage lift irrigation Kaleshwaram project which is contemplated to irrigate 45 lakh acre ayacut in 20 districts. He also highlighted the modernisation of existing projects to supply irrigation water to tail end farmers. The impact of this has placed Telangana in first place in terms of paddy production in India, 100% supply of drinking water to rural households, increased ground water level, increase in per capita water availability and per capita storage availability.



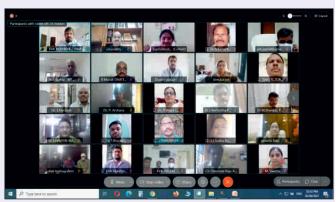
Er. Sridhar Rao Deshpande addressing the participants at the webinar

Dr. V. Praveen Rao, the Hon'ble Vice Chancellor, PJTSAU in his presidential remarks on irrigation with reference to agriculture, suggested to review on crops and cropping pattern in new command areas and mapping of irrigated area through advanced RS and GIS techniques and called upon the scientists of the varsity to focus on strategies for increased water use efficiency and reorient their research according to state needs and policy by using advanced AI and IOT tools and drones. Around 360 participants attended the webinar, which included University Officers, Associate Deans, Associate Directors of Research, Directors from local ICAR institutes, Scientists from PJTSAU and ICAR institutes, Irrigation department officials and Students across the state.



Extension Units to Focus on New Models for ToT

Dr. V. Praveen Rao, the Hon'ble Vice Chancellor urged the extension scientists to work out new models of science for delivering the apt technologies effectively to the farming community in the state at the State Level Technical Programme of Extension Centres for the year 2021-22 held virtually from 1st to 3nd June, 2021. He further advised them to have one flagship programme in addition to their routine programmes, mapping of hotspots of Pest & disease in various crops in the state in the ensuing *Vanakalam* & Yasangi, 2021-22 and document the success stories for publication at University level. Dr. C. Padma Veni, Director of Extension briefed work done report of eight KVKs and nine DAATTCs during the year 2020-21. Dr. J. V. Prasad, Director, ATARI, Zone X advocated to quantify the impact of training programmes and spread of technologies disseminated through various extension methodologies. He further suggested the KVK's to concentrate on publications and document the success stories as videos for publishing on



Director of Extension and Director of Research interacting with extension scientists of PJTSAU

appropriate social media platforms for recognition at national level. The scientists working under different extension units presented the work done report for the year 2020-21 and action plan for the year 2021-22. Dr. R. Jagadeeshwar, Director of Research congratulated the extension team for their commendable work done during the year 2020-21 and further advised them to concentrate on publications and project proposals.

The NSS Units of PJTSAU do their Part Under the Pandemic Situation

Under the glimpse situations faced currently, dissemination of health information to combat health inequities is the need of the hour. NSS volunteers from the constituent colleges of the University took their part in community education by preparing videos and collage posters to create awareness among the public on vaccination against COVID 19 virus and information about Do's and Dont's to contain the spread of COVID 19 through various e-platforms. Thirty two NSS volunteers of the College of Agriculture, Rajendrangar moved ahead and registered a iGoT portal for creating awareness and motivational campaigns on COVID 19 and vaccination drives. Further "**ASHRAYAH**" was started by a team of students to aid and assist the COVID patients by taking up tasks like identifying plasma donors and updating them on availability of beds for hospitalization and oxygen cylinders.

They also organized yoga for unity and wellbeing – 100 days towards the international day of yoga 2021. A online slogan reciting (Theme: Freedom struggle) was also conducted on 3rd May 2021 under *Azadika Amrut Mahotsav* programme.



Virtual Awareness programme on COVID 19 by Agricultural College, Jagtial and Palem

Collaborations

Prathima Agri Services and PJTSAU Collaborate for ToT on e-Platform

A mobile app and e-commerce website e-Raithu will kick start shortly with a collaborative effort of Prathima Agri services and PJTSAU as per the MoU signed in virtual mode between the two organizations on 27th April, 2021. This collaboration between the two institutes will help to take up farming as a service in the public interest of action research, policy analysis, policy advice, crop advisory, monitoring, evaluation, system development and technology development. The technical backstop for the mobile app and e-commerce website of *e-Raithu* which are one stop solution to farmers carrying information on agri inputs like crop protection, crop nutrition, seeds and implements with corresponding advisory and guidance to farmers will be provided by the University. They are further planning to open 30 retail outlets in the state by recruiting three agricultural graduates / diploma holders in each outlet to provide technical guidance to farmers. In addition services like soil testing, water testing, tracking farm



Virtual MoU ceremony of PJTSAU and Prathima Agri services

operations using smart card and Custom Hiring Centres for farm machinery are also initiated. Sri V. Ramana Rao, CEO, Prathima Agri Services, Dr. V. Praveen Rao, the Hon'ble Vice Chancellor, Dr. S. Sudheer Kumar, Registrar, University Officers and staff members of Prathima Agri services participated in the MoU event.

Alliance with AI Institute for Pest Surveillance in Cotton

The University entered into a MoU with Wadhwani Institute for Artificial Learning, Mumbai with a motto to provide early warning advisory on pest infestation to cotton growing farmers in the state. The MoU was signed virtually in the presence of Sri Jayesh Ranjan, Principal Secretary (IT), Sri M. Raghunandan Rao, Secretary (Agriculture), Dr. V. Praveen Rao, Vice Chancellor and representatives of Wadhwani Institute on 25th May, 2021. This agreement will facilitate development of AI based pest management system to identify pink boll worm and other pests in cotton in advance which would help the farmers to take up timely control measures. The Agriculture Department, KVK's of the agriculture varsity, IT department and Wadhwani Institute would collaboratively work in the project.



Wadhwani Institute for AI and PJTSAU enter into MoU in presence of Sri Jayesh Ranjan, Principal Secretary (IT), Telangana

Empowering the Rural Youth and Extension Functionaries on Precision Farming

The University, Asia Pacific Flight Training Academy Limited (APFTAL) and Marut Drones Tech, Hyderabad will collaboratively offer a certificate course on "Use of drones in Precision Agriculture" to the students/ rural youth/ farmers/ stakeholders/ extension functionaries/ beneficiaries and other stake holders as per the MoU signed on 25th June, 2021. The three organizations will collaboratively work on conducting training, research and development activities with Unmanned Aerial Vehicles



MoU ceremony between PJTSAU with APFTAL and Marut Drones Tech

automation and intelligence and establish a Skill Development Center on Remotely Piloted Aircraft System (RPAS) /Drone Technology. The university will provide the required infrastructure for the training on RPAS, while APFTAL and Marut Drone Tech proposes to design, develop, and deliver the training to trainees.

Capacity Building

PJTSAU's Outreach to Bolster Farmers for Ensuing Kharif

The varsity amidst the pandemic situations has organized several outreach programmes offline and online to give technical inputs to the farmers for the ensuing *kharif* season. The various research and extension functionaries of PJTSAU have organized webinars, demonstrations and seed sales to supply quality inputs and technologies to the farmers in the state. The University has placed quality seed for sale through its research stations and KVK's from second fortnight of May, 2021. The units in Northern Telangana zone organized a Webinar on "Preparation of farmers for *vanakalam* -2021" on 7th June 2021 through Zoom platform, Audio Conference on "Importance of Soil Testing and Balanced Use of Chemical Fertilizers in Agriculture & Horticulture Crops" and "Importance of intercropping in



Awareness Programme on DDSR organized by KVK, palem

Cotton with Red gram" on 12th June, 2021. Several awareness programmes like "Soil sample collection and soil testing" on 10th May, 2021, "Sustainable ways to reduce environmental pollution from Agriculture" on 5th June, 2021, "Base line survey and pre kharif awareness programmes" on 11th June, 2021, "Balanced Use of Fertilisers" on 18th June, "Nursery management in Horticultural crops" for line department officers on 4th June were organised in Central Telangana Zone.The DDSR in Rice was well popularized by research stations and KVK's by organizing awareness programmes and demonstrations at their locations *viz.* demonstration in an area of 5 acres at Veldhurthi village on 11th June 2021, at Hegdoli on 12th June 2021 and training programme at RARS, Palem on 30th June, 2021.



Base line survey and pre kharif awareness programme organized by KVK, Malyal

Agriculture Minister Enlightens Farmers of the State on DDSR through *Rythu Mitra*

In view of popularization of Dry-Direct Seeded Rice (DDSR) among the farming community in the state a Phone –in –Live programme (*Rythu Mitra*) was organized in T- Sat on 15th June, 2021. Sri Singi Reddy Niranjan Reddy, the Hon'ble Minister for Agriculture, Telangana State, Sri Palla Rajeshwar Reddy, MLC and Chairman, *Rythu Samanvaya Samithi*, Dr. P. Raghurami Reddy, Principal Scientist (Rice) & Head and Dr. Hemanth Kumar, Coordinator, KVK, Wyra participated in the programme to give technical inputs on the technology to farmers. The Hon'ble Minister for Agriculture informed that DDSR technology is gaining popularity among the farming community and would resolve labour problems and help in enhancing system sustainability, while the Principal Scientist (Rice) & Head



The dignitaries interacting with farmers in Phone–in-Live programme at T- Sat

suggested the package of practices of D-DSR to farmers in the interaction programme.

Success Stories

Smart Irrigation Technique in Blackgram –A Success Story of a Farmer from Khammam

The increased usage of water across various sectors has led to increased demand for water in agriculture which envisages the need for efficient use of every drop of water to meet the water requirements of crops at their critical stages to get higher productivity. Drip irrigation is a best alternative which not only increases the production but also helps in increasing water use efficiency with reduced pest and weed infestation and also reducing the cost incurred on labour towards weeding and irrigation. This technology was successfully utilized in horticultural crops and few agricultural crops like cotton, sugarcane, maize etc.

An innovative farmer from Khammam district Sri Kanneboina Srinivasulu of Basavapuram village, Chintakani mandal set an example to other farmers by exploiting drip irrigation technique for cultivation of blackgram in his light soiled field. The crop is generally grown in *rabi* after *kharif*



Sri Kanneboina Srinivasulu at his farm

maize, paddy or green gram in Khammam depending on availability of water. Although this crop requires less amount of water, irrigation for atleast 3 - 4 times is essential. The farmer took up sowing of blackgram variety of PU – 31 at a seed rate of 10 kg/ acre during last week of September by machine seeder. Later drip laterals were placed between two rows of seeds at 1 feet distance. He adopted the recommended package of practices and took up timely control measures for management of pests and diseases.

The crop was harvested in first week of December and he obtained yields @ 10 quintals per acre within 75 – 85 days. He fetched a gross returns of Rs. 68000/- and after deducting Rs. 20540/- towards cost of cultivation, he earned a net profit of Rs. 47460/- in a span of less than 3 months which would definitely inspire his fellow farmers to replicate the same in their fields



KVK, Wyra staff organized a field demonstration at innovative farmer's field

Awards & Honours

- The NSS Unit, College of Agricultural Engineering, Kandi, Sangareddy has been conferred with "One District One Green Champion Award" MGNCRE under Swachhta Action Plan 2020-21.
- Dr. V. Vijaya Lakshmi, Professor & Univ. Head, Dept. of RMCS reviewed a manuscript for Asian Journal of Agricultural Extension, Economics & Sociology on "Perception of farmers about sugarcane varieties released for jaggery production" and received a Certificate of Excellence in Peer Reviewing from International Knowledge Press.
- Dr. Bhuvana. N, RAD/2017- 09 received MANAGE Second Best Agricultural Extension Thesis Award – for her Ph.D dissertation work on 'Ecosystem analysis of *Krishi Vigyan Kendras* in Southern India' and Mr. P.

Akshith Sai, RAM/2018-24 received MANAGE Second Best Agricultural Extension Thesis Award for his M.Sc dissertation work on 'A Study on Effectiveness of Climate Resilient Agricultural Technologies in Southern Telangana Zone of Telangana State'.

Condolences

On the day of May 3rd, 2021 Dr. G. Samuel, Director of Extension, PJTSAU has left this world for eternity. He has worked in various positions in Teaching and Extension in the University with great



enthusiasm and commitment. Our deepest condolences to his family and may his soul rest in peace.

Celebrations



Paying floral tribute to Sri Jagjeevan Ram on his birth anniversary on 5th April, 2021 at PJTSAU



Telangana formation day celebrations on 2nd June at Administrative office, PJTSAU



Dr. B. R. Ambedkar Birth Anniversary celebrations at RARS, Jagtial on 14th April, 2021



Virtual Celebration of World milk day on 1st June at KVK, Adilabad



International Yoga day celebrated virtually by College of Agricultural Engineering, Kandi on 21st June



The University officials paying tribute to Professor Jayashankar on his death anniversary on 21st June



Published by Principal Agril. Information Officer, Agricultural Information and Communication Centre and PJTSAU Press, Rajendranagar, Hyderabad -500 030, Telangana State, Phone no. 040 24015380, Email: pjtsau.editor@gmail.com.

Printed at PJTSAU Press, Rajendranagar, Hyderabad -500030, Telangana State.

Pub.No.28/NL/PJTSAU/2021