



Striving for a greener tomorrow...

PJTSAU

News



In this issue

From the VC's Desk	1
New Initiatives	
<i>Building SOP's for Drone Spraying for Aerial Drop of Pesticides</i>	2
Workshops, Conferences, Meetings, Seminars, Exhibitions	
<i>6th National Youth Convention – Call for Youth to Accrue Big Gains through Agripreneurship</i>	2
<i>Strengthening the Course Curricula of ABM</i>	3
<i>ZREAC – Bringing Farmers and Scientists Together</i>	3
<i>Review meeting on Crop Darpan App</i>	4
<i>NCC Cup Horse Show at PJTSAU</i>	4
<i>RAWEP on Pace under Pandemic Situation</i>	4
<i>PJTSAU and Pranadhara Work Together to Drive DDSR Technology in Telangana</i>	5
Collaborations	
<i>PJTSAU and AIOI Join to Collaborate Together on Organic Farming Research</i>	5
Capacity Building	
<i>Facilitating Training Programs to Empower TSP Beneficiaries</i>	6
<i>Towards Self Sufficiency in Seed Production – Training to Jadcharla Farmers</i>	6
<i>Training programmes under SCST sub plan</i>	6
Awards & Honours	7
Celebrations	8

From the VC's Desk



The utilization of greener energy is gaining importance to meet the energy requirements across the world and to combat the effect of climate change. The photovoltaic technology, a modern source of renewable energy is gaining importance in recent past across the world, however it may lead to land use conflict for food production and energy generation especially in countries with dense population combined with land constraint. Under these situations, Agrophotovoltaics, a combination of photovoltaics and crops offer a potential to increase land productivity upto 70%

especially in Semi-Arid and Arid regions. Agrophotovoltaic system with its multifaceted applications would not only improve rural off grid electrification but also provide additional income to farmers through power generation. The technology has synergistic effect on crops especially in Arid and Semi-Arid regions where crops can be protected from adverse effects of high solar radiation with improved water productivity. The incident radiation under Agrophotovoltaics can be utilized optimally by the plants through use of dynamic photo voltaic modules with controlled tracking wherein both increased crop yields and electricity can be achieved.

Agrophotovoltaic system not only facilitates self sustenance in farming but also serves as an independent energy source with increased productivity due to reduced evapotranspiration. It is reported that, approx. 2200 APV's are installed across the world with a capacity to generate 2.8 GWP. The shade tolerant crops like legumes, turmeric, fruits and vegetables can be potentially exploited under Agrophotovoltaics. An elevated and dispersed arrangement of solar arrays can be utilized for shade intolerant crops like cereals for sufficient passage of sunlight and air. The GoI through its policy intervention i.e *Kisan Urja Suraksha Evam Uttan Mahabhiyan* (KUSUM) in 2019 has offered an opportunity to set up a decentralized solar capacity of 27,750 MW by 2022. These government interventions can be further extended to systems like Agrophotovoltaics where in arable land can be potentially utilized for power generation and crop production.

PJTSAU as part of its green initiatives has installed roof top solar plants of capacity 717.6 KWP with around 3230 units of power generated per day to meet the domestic power requirements of the campus. The varsity which is always keen to venture into new technologies is also planning to move ahead in adoption of Agrophotovoltaics, to assess its potential for adoption by the farming community in the state both to enhance farm income and sustainability.

V. Praveen Rao

Dr. V. Praveen Rao
Vice Chancellor

Visit us at
www.pjtsau.edu.in

New Initiatives

Building SOP's for Drone Spraying for Aerial Drop of Pesticides

The adoption of new age technologies is the need of the hour to make agriculture sustainable, hence together with its collaborators Marut Dronetech Pvt. Ltd., PJTSAU is experimenting with aerial spraying of pesticides and fertilizers using drones. The varsity has conducted pilot studies in crops rice, cotton, redgram, maize and soybean in five districts in the state to standardize the Standard Operating Procedures (SOP's). This will help to determine

the height of flight, width of spray coverage and intensity of spray on plant parts which would help in replicating the same in farmers fields. The Civil Aviation Ministry has also given permission upto March 16, 2022 to PJTSAU and Marut Dronetech Pvt. Ltd for diagnosis of major pests and diseases and for evaluation and standardization of their management through aerial spray using the technology.

Workshops, Conferences, Meetings, Seminars, Exhibitions

6th National Youth Convention – Call for Youth to Accrue Big Gains through Agripreneurship

The 6th National Youth Convention on “Innovation and agricultural reforms for farmer prosperity” was organized virtually by Professor Jayashankar Telangana State Agricultural University (PJTSAU) in association with All India Agricultural Students Association (AIASA) during 20th and 21st February, 2021. Dr. R.C. Agarwal, Deputy Director General (Education), Indian Council of Agricultural Research (ICAR) in his inaugural address reiterated that the curriculum of the agricultural courses were modified from time to time based on the needs of the farm sector and further added that ICAR was funding for establishment of incubation units and AELP units at the varsities to motivate students towards entrepreneurship. He urged the youth to have passion towards the sector and thereby establish innovative and profit led units in agriculture. Dr. Ashok Dhalwai, CEO, National Rainfed Area Authority, the Guest of Honour in his address reiterated that all Agricultural Universities should include few basic sciences in their curriculum and in his inspiring speech requested the students to be innovative. Dr. V. Praveen Rao, the Hon'ble



Dr. V. Praveen Rao, the Hon'ble Vice Chancellor addressing the gathering



Lighting of lamp by the dignitaries at inaugural session

Vice Chancellor, PJTSAU in his welcome address reiterated the need for safe and nutritional food for public and further called upon the youth to utilize several opportunities and challenges put-forth under current covid situations to develop innovative sustainable business models. Guest of Honour Mr. Yemi Adeyeye, Director, YPARD, Mr. Arun K. Oshi, CIMMYT Asia Regional Representative & MD, BISA, Dr. S. Sudheer Kumar, Registrar & Organizing Secretary, Dr. J. Satyanarayana, DSA & Programme Coordinator, Mr. D.R.K. Saikanth, State President, AIASA, Telangana, Mr. Ashish Khandelwal, National President, AIASA participated in the inaugural session.

From innovations to reforms in agriculture, specific sessions were conducted on themes - Hi-Tech horticulture for farmers' prosperity, Innovation in aquaculture for farmers' prosperity, Agricultural mechanization innovations for sustainable agriculture for farmers' prosperity, Technology driven ideas and their application for promoting agribusiness opportunity, Technological

innovations in livestock production for farmers' prosperity, Plant breeding and biotechnological approaches for crop improvement towards food and nutritional security.

As part of this 6th National Youth Convention several awards were bestowed in offline mode which include Life Time Achievement Award to Dr. Vilas Madhukar Bhale, Vice Chancellor, Dr. PR Deshmukh Krishi Vidyapeeth, Akola, Best Vice Chancellor Award to Professor N Kumar, Vice

Chancellor, Tamil Nadu Agricultural University, Coimbatore, and AIASA National Award for outstanding leadership in Agriculture-2019 to Dr. G.P Singh, Indian Institute of Wheat and Barley, Karnal. Valedictory session was graced by Dr. Soam, Joint Director, NAARM, Mr. Subhash, Deputy General Manager, RO, NABARD, Hyderabad, Dr. P. Chandrasekhara, DG, MANAGE, Dr. H. N. Mishra and Dr. V. Ravinder Reddy, Hon'ble Vice Chancellor, PVNRTVU.

Strengthening the Course Curricula of ABM

PJTSAU with a vision to empower the students pursuing MBA (ABM) with sound technical knowhow so as to ensure them to choose a placement pathway of interest organized a two day workshop on "Envisioning Future for SABM" for revamping the MBA (ABM) course presently being offered by School of Agribusiness Management (SABM), Rajendranagar. The programme was organized in collaboration with Indian School of Business (ISB), Hyderabad at Ella hotel, Hyderabad on 1st & 2nd of February, 2021 to discuss in detail on the mission, vision, core values, core purpose and business model for SABM. Prof. D.V.R. Sheshadri of ISB, Dr. V. Praveen Rao, the Hon'ble Vice Chancellor, Dr. Seema, Dean of Agriculture, Dr. V. Anitha, Dean of PG Studies, Faculty of SABM and Dr. K. Suhasini, Professor and University Head, Dept. of Agricultural



Team PJTSAU along with ISB staff at the workshop

Economics, alumni, parents and students of SABM, Industry representatives participated in the workshop.

ZREAC – Bringing Farmers and Scientists Together

The farmers and scientists of two agro climatic zones of the state met at the Zonal Research and Extension Advisory Council (ZREAC) meetings held in Northern Telangana Zone and Central Telangana Zone on 23rd & 24th March, 2021 at Z.P. Hall, Adilabad and 26th and 27th March, 2021 at RARS, Warangal respectively under the chairmanship of Dr. R. Jagadeeshwar, Director of Research to review the research and extension activities during 2020-21 and discuss on plan of action for the ensuing *Vanakalam*

and *Yasang* seasons of 2021. This meeting laid special focus on technologies viz., different rice cultivation methods i.e. dry converted wet, AWD, direct sowing by broadcasting & drum seeding, popularization of application of phosphorous solubilizing bacteria in soil, alternate crops to rice and Crop residue management.

Smt. Siktha Patnaik, District collector, Adilabad in her address at ZREAC meeting held at NTZ reiterated the need for inclusive interventions in research and extension to make



Smt. Siktha Patnaik, District collector, Adilabad addressing the gathering at ZREAC of NTZ



Dr. R. Jagadeeshwar, Director of Research, PJTSAU addressing the gathering at ZREAC of CTZ

agriculture profitable to farming community in the state. She further added the necessity to address the newly arising problems in agriculture. This platform helped to draw researchable areas for ensuing season. Dr. R. Jagadeeshwar,

Director of Research, PJTSAU, Dr. G. Samuel, Director of Extension, PJTSAU, Associate Directors of Research, RARS, Jagtial & Warangal, District Agricultural Officers, Scientists and Farmers participated in the meeting.

Review meeting on Crop Darpan App

A *Crop Darpan App* designed with an objective to mimic an agriculture expert by IIIT, Hyderabad in collaboration with PJTSAU under India Japan Joint Research Laboratory Programme would serve as a ready reckoner to the farmers. The App is currently designed for cotton crop in English and Telugu. In a view to further extend to other crops, a review meeting to discuss the progress of *Crop Darpan App* for rice was held virtually

under the chairmanship of Dr. V. Praveen Rao, the hon'ble Vice Chancellor on 22nd March, 2021 to discuss insect pests, diseases, nutrient problems in rice and their management. Prof. P. Krishna Reddy, Prof U.B. Desai, Chief Investigators from India; Prof Seishi Ninomiya, Chief Investigator from Japan, Indo-Japan Project, Prof P.J. Narayanan, Director, IIIT, Hyderabad and Prof. B.S. Murthy, Director, IIT, Hyderabad participated virtually in the meet.

NCC Cup Horse Show at PJTSAU

A two day NCC cup horse show organized by the 1(T) R & V Regt NCC, Rajendranagar on 30th and 31st January, 2021 was inaugurated by Dr. V. Praveen Rao, the Hon'ble Vice Chancellor, PJTSAU. The events namely Jumping Juniors-A, Show Jumping Juniors-B, Show Jumping Senior & Arena polo exhibition, Balloon bucket (under 10 yrs), Stick and ball (under 18 years), Cow boy race for children, Hacks juniors of show Jumping top score junior were conducted on the occasion by Col.B.P. Dubey, Commanding Officer, Telangana R & V Regt. NCC, Lt. Col. Srinivas, CTO-NCC, College of Agriculture, Rajendranagar, Hyderabad. Sri S.S. Krishnan, Air Commodore and The Deputy Director General NCC AP & Telangana was the guest of honour. Dr. S. Sudheer Kumar, Registrar, PJTSAU and Dr. C. Narendra Reddy, Associate



Dr. V. Praveen Rao, the Hon'ble Vice Chancellor inaugurating NCC Cup Horse show

Dean, College of Agriculture, Rajendranagar, Hyderabad participated in the programme.

RAWEP on Pace under Pandemic Situation

To keep in pace with curricula, Four hundred and fifty two (452) B.Sc (Ag) students of final year were allotted to nine DAATTCs and eight KVKs of PJTSAU to undertake the RAWEP activities in their native villages, while ICAR nominees were allotted to the nearest ICAR / SAUs / Research stations / KVKs in their respective states. As part of their programme, students conducted Rythusadassu at different DAATTC's and KVK's of PJTSAU and DAATTC Peddapuram, East Godavari, KVK, Jowai, Meghalaya ; KVK, Venkataramannagudem, West Godavari; KVK, Kandukuru, Prakasham and KVK, Panital Bhadrak Odisha (OUAT). An array of agritechnologies in the form of models constituting mulching technology, solar panels, vermicompost, IPM in cotton, biogas production, mushroom cultivation, rainwater harvesting, Integrated Farming System, rice cum fish

culture, soil profile, rice cultivation methods, pest and disease management in cotton and paddy, different types of



Sri E. Ram Chandra Naik, District Rythu Samanvaya Samithi President, Nalgonda interacting with students at Rythusadassu held at KVK, Kampasagar

surface irrigation, management of rats, cold management in paddy, organic farming, IPM practices in groundnut, pest management in major crops (paddy , cotton), wild boar management, weed management in various crops, stem application in cotton, soil sampling etc were prepared and displayed by students. Farmer - Scientist interactions were also organized with active involvement of scientists from various research / extension centres of PJTSAU to deliver need based low cost innovative agricultural technologies to the farmers. Agricultural officers, local representatives and farmers participated actively in the programme.



Sri A. Jeevan Reddy, PUC Chairman & MLA, Armoor releasing leaflets at Rythusadassu held at Armoor

PJTSAU and Pranadhara Work Together to Drive DDSR Technology in Telangana

A team of delegates from Pranadhara foundation visited PJTSAU to discuss on upscaling the mechanized Dry Direct Seeding of Rice (DDSR) in the state during 2021-22 on 12th February, 2021. The meeting was held under the chairmanship of the Hon'ble Vice Chancellor, Dr. V. Praveen Rao. In his opening remarks the Hon'ble Vice Chancellor highlighted the importance of DDSR under the current situation of acute labour shortage leading to delayed transplanting of rice with decrease in yield and increase in cost of cultivation. He further added the necessity to fill the vacuum by introduction of innovative technologies like DDSR in the state with relevant modifications based on the ecosystem of the respective locations.

Pranadhara team played the videos of success adoption of DDSR technology in Jammapalem and Kodali villages wherein sowing of rice with DDSR was completed in 6000 acres within a week with locally available machinery by adopting an average seed rate of 8 -10 kg per acre followed by soil compaction with adda operation, pre-emergence application of herbicides with boom sprayer, fertilizer application with fertilizer spinner and informed



The Hon'ble Vice chancellor discussing with Pranadhara team on DDSR technology in Rice

that a net profit of Rs. 8000/ acre was earned by adoption of this technology. The Hon'ble Vice Chancellor discussed on sharing of knowledge material and videos on DDSR technology by pranaadhara foundation for proper publicity of the technology among the farming community in the state and to further submit the budgetary requirements and machinery needed to upscale the technology in the state.

Collaborations

PJTSAU and AIOI Join to Collaborate Together on Organic Farming Research

PJTSAU and Association of Indian Organic Industry (AIOI) would collaboratively work together in the area of organic farming as per the MoU held virtually on 1st February, 2021. This agreement will create opportunities for collaborative research in organic farming, training and marketing of organic products. This collaboration will further provide an opportunity to offer a certificate course on "Skill and entrepreneurship development in Organic products" and pave the way to improve the quality standards of organic products and development of innovative technologies for post harvest management of organic foods.



PJTSAU inks MoU with Association of Indian Organic Industry

The MoU was executed between Dr. S. Sudheer Kumar, Registrar, PJTSAU and Dr. P.V.S.M. Gouri, CEO, AIOI, New Delhi in presence of Dr. V. Praveen Rao, the Hon'ble Vice

Chancellor. Mr. S. Rajashekar Reddy of 24 Mantra and University officers of PJTSAU graced the occasion.

Capacity Building

Facilitating Training Programs to Empower TSP Beneficiaries

Under the Tribal sub plan programme training programmes and exposure visits were organized to impart sound technical knowhow in crop management to various tribal farmers. Regional Agricultural Research Station (RARS), Warangal organized demonstration cum training on drum seeding in paddy to the tribal beneficiaries of Ankannagudem and Jaggannagudem villages of Mulugu mandal and district at RARS, Warangal under Tribal Sub

Plan (TSP) on 4th February, 2021 under the chairmanship of Dr. R. Uma Reddy, Associate Director of Research, RARS, Warangal. Similarly KVK, Malyal trained the Agricultural Extension Officers (AEOs) on “Better management practices in Agricultural & Horticultural crops” at Rythu Vedika, Narsampet on 16th March, 2021, while KVK, Bhadradi Kothagudem conducted a “Field day on 'Integrated crop management in Chilli” at Nimmalagudem village, Sujathanagar Mandal on 30th January 2021 and a training programme on “Fertigation in Papaya” at Chukkalabodu Village, Tekulapally mandal on 12th February, 2021.



Training to AEOs at KVK, Malyal

KVK, Malyal organized an exposure visit to 25 farmers from 2 TSP villages to Centre of Excellence, Mulugu, Siddipet District on 12th March, 2021 to acquaint them with pruning techniques in fruit crops, nursery raising of vegetables in plug trays under shadenet, Ultra High Density Mango, Guava, Pomegranate, Sweet Orange, Acid Lime, Dragon Fruit, Intercropping of Srigandham with cajurina plantation, farm pond, cultivation of cucurbit under pandal system etc.

Towards Self Sufficiency in Seed Production – Training to Jadcharla Farmers

Seed Research and Technology Centre (SRTC), Rajendranagar with a vision to achieve self sufficiency in seed production at village level offered a training programme entitled “Quality Seed Production through Participatory Approach” to 52 tribal farmers of Chittaboipally, Earlapally, Burugupally, Aloor and Vallur thandas/villages of Jadcharla mandal at SRTC, Rajendranagar on 10th March, 2021 under HRD component of Mega Seed Project. Dr. T. Pradeep, Director (Seeds), in his address emphasized that, every farmer should make a modest beginning to produce his own seed first and upscale the activity in a phased manner to achieve self sufficiency in quality seed production of different crops at village/mandal level. The farmers were trained on seed production techniques in rice, pulses, oilseeds and cotton, followed by



Distribution of knapsack sprayers to beneficiaries

pest and disease management for production of quality seed. 25 battery operated knapsack sprayers were distributed to farmers under Tribal Sub Plan.

Training programmes under SCST sub plan

Agricultural Research Station, Tornala organised a training programme on “Production Technologies in *Rabi* Sunflower” under scheduled caste sub plan (SCSP) to the farmers of Tornala and Chinnagundavelly villages on 2nd February, 2021. Sri T. Harish Rao, the Hon'ble Finance Minister, Govt. of Telangana graced the occasion and in his address urged the scientists to come up with technologies to make agriculture sustainable and remunerative to the farming community. The scientists of the station explained seed production, crop management and plant protection techniques in sunflower to achieve higher yields. Sri T. Harish Rao on this occasion, equipments viz., M.B. plough and Disc plough were distributed to farmers under SC sub plan funded under AICRP on Sunflower by ICAR-IIOR, Hyderabad.

Similar programme on cultivation of summer sesame and management practices for higher yields was organised by Regional Agricultural Research Station, Jagtial as a part of SC Sub plan to the farmers of Thalladharmaram and Mangela of Jagtial District on 26th March, 2021. Dr. P. Jagan Mohan Rao,

ADR, RARS, Jagtial and his team pondered on the importance of the crop and its value addition along with the best management practices to be adopted to achieve higher yields. Later they distributed tarpaulins, inputs i.e., fungicides and insecticides etc. to the beneficiary farmers. A total of 50 farmers participated in this programme.



Sri T. Harish Rao, the Hon'ble Finance Minister, Govt. of Telangana distributing ploughs to beneficiaries

Awards & Honours

- PJTSAU was conferred with prestigious “*Samruddhi Krishi Siksha Samman*” award for effective implementation and popularization of Alternate Wetting and Drying technology in Rice by Mahendra Samruddhi India Agri Awards - 2020 constituted by the Mahindra & Mahindra Ltd on 10th February 2021. The award was handed over to Dr. V. Praveen Rao, the Hon'ble Vice Chancellor by Mr. K. Vamsikrishna Reddy, representative of Mahindra & Mahindra in a programme organized at Committee hall, Administrative Office, PJTSAU.



PJTSAU bestowed with Samruddhi Krishi Siksha Samman by Mahindra & Mahindra Ltd

- Ms. Divya Mishra, Ph.D. Student of the Department of Plant Pathology, College of Agriculture, Rajendranagar received First Prize for her Oral Presentation entitled “6-pentyl-2H-pyran-2-one- a potential secondary metabolite from *Trichoderma asperellum* IIRCK1-Extraction, purification, characterization and path ahead” under theme area Secondary Metabolites, Novel Molecules and Plant Products for Pest and Disease Management in the International Conference on “Industrial perspective, challenges and strategies in the development of novel bio-pesticides: Its implication in sustainable pest and disease management” held on 11th and 12th March, 2021 by Department of Plant Pathology, Tamil Nadu Agricultural University, Coimbatore.
- Ms. Nunavath Aswini, Ph. D I year Student of Department of Genetics and Plant Breeding, College of Agriculture, Rajendranagar, received first best poster presentation awards for her posters on “Characterization of RIL population and validation of molecular markers linked to flowering time genes in Chickpea” at 6th National Youth Convention held on February 20-21, 2021 at Hyderabad organized by PJTSAU and at the “International Conference on Advances in Agricultural and Food Sciences to Face the Challenges to Environment and Biosecurity” held during 16-20, January, 2021 by School of Agricultural Sciences, Sharda University, Greater Noida, U.P.
- Ms Rachanasri, IV year Student of College of Community Science has won 1st prize in Healthy meal photo competition conducted by Brats Research centre for women's health (Brats) & WHO Global collaborative center for women's health, Birmingham Queen Mary University, London, U.K.

Celebrations



Dr. V. Praveen Rao participating in Harithaharam organised at PJTSAU on the occasion of Birthday of the Hon'ble Chief Minister, Telangana



Dr. V. Praveen Rao and University officers saluting the national flag on the occasion of Republic day



College of Agriculture, Rajendranagar observed Martyrs' Day on 30th January, 2021



Rally organised at Agricultural College, Aswaraopet on the eve of Azadi ka Amrit Mahostav on 12th March, 2021



Celebration of International Women's Day at Agricultural College, Palem

Patron-in-Chief

Dr. V. Praveen Rao

Chief Editor

Dr. Ch. Venu Gopala Reddy

Editor

Dr. C.V. Sameer Kumar

Assistant Editor

Dr. M. Pallavi

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.