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From the VC's Desk



The United Nations 2030 Agenda for sustainable development has put forth 17 Sustainable Development Goals (SDGs) wherein SDG 2 (Zero Hunger) is interconnected to six other SDGs (5,6,7,9, 13 and 17) that have a direct bearing on Food and Sustainable agriculture. So far the emphasis of every nation has been on enhancing food production with little attention to the nutrient richness of our diets and health. The agricultural policy focuses on staple crops production for economic gain, while nutrition remains more in the research and education domain. The consequences of poor nutrition are severe and often irreversible. Malnutrition manifests as

under nutrition resulting in underweight and stunting while overweight results in Obesity and diet related non communicable diseases in both children and adults affecting their quality of life and work productivity. Hence there is an urgent need and compelling reason to integrate across agriculture, nutrition and health.

At home, malnutrition status in India is also alarming with 69% of deaths of children below the age of 5 yrs attributed to poor nutrition while every second woman in India is anaemic and anaemia in adolescent girls is twice as much as in adolescent boys as per a UNICEF report. Urban children have been found to be protein and micro nutrient deficient due to excess consumption of unhealthy high fat snack foods. The Government of India has addressed this issue with the launch of Poshan Abhiyaan to improve nutritional status of children, pregnant women and lactating mothers. It becomes imperative for agricultural scientists to reorient their research programmes to develop nutrient and protein enriched cereals which are most consumed, affordable and accessible food and explore alternatives to animal protein such as insect, algae and plant derivatives catering to various income cohorts. There is also a need for closer interaction between agricultural extension functionaries and community health workers to raise awareness among the rural communities on the relation between nutrition and food produced for the health and prosperity of the community. PJTSAU has initiated efforts in this direction by studying the food consumption pattern in the various districts of Telangana, to estimate the food demand for factoring in crop planning in the State. Health profiling of students has been taken up in the Colleges to evaluate their nutrition status to bring in necessary dietary interventions to resolve deficiencies. Kitchen gardening is being promoted by all the extension units in their respective domain districts and adopted villages of the University. Thus all of us need to put concerted efforts in reformulating our diets to save ourselves from the effects of climate change, dwindling resources and newly emerging health issues.

Dr. V. Praveen Rao
Vice Chancellor

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New Initiatives

Agriculture Minister Inaugurates New College Building at Jagtial

The new college building of Agricultural College, Jagtial was inaugurated by Sri Singireddy Niranjan Reddy, the Hon'ble Minister for Agriculture, Co-operation and Marketing and Sri Koppula Eshwar, Minister for Scheduled Castes Development, Minority Welfare and Senior Citizen Welfare of Telangana state on 14th December, 2019. The Hon'ble Agriculture Minister in his inaugural address reiterated the importance of Agriculture in protection and conservation of the environment and added that students of agriculture know the significance of food and soil in life. Sri Koppula Eshwar, the Hon'ble minister urged the scientists to develop low cost technologies and identify alternate crops to rice to conserve water. Dr. V. Praveen Rao, the Hon'ble Vice Chancellor, PJTSAU proudly announced that university has released eight varieties in Rice, Jowar, Sesamum, Redgram and Groundnut this year, secured third position among the Agricultural universities in India. The building which houses administration, academic and library blocks was constructed with a total outlay budget of



Sri S. Niranjan Reddy inaugurating the new college building at Agricultural college, Jagtial

Rs. 15.75 crores. Several local representatives participated in the inaugural ceremony.

Workshops, Conferences, Meetings, Seminars, Exhibitions

Food Processing and Value Addition is Key to Doubling Farmers Income-J.R. Reddy Memorial Lecture

Dr. C. Vasudevappa, Vice Chancellor, National Institute of Food Technology and Entrepreneurship Management (NIFTEM), Sonepat, Haryana delivered the Sri J. Raghotham Reddy Memorial Lecture 2019 on "Doubling of Farmers Income -An Approach through Food Processing and Value Addition" organised by Farm and Rural Science Foundation, Hyderabad and PJTSAU on 18th October, 2019. He gave an overview of food processing industry in the country and stressed on the need for processing facilities in vegetables and fruit crops which incur huge post harvest losses. He reiterated the need for a comprehensive policy to ensure

food value chain for achieving access, quality and safety of food in the country. Sri S. Narsing Rao, Principal Secretary to Chief Minister in his address opined on the need for a sustained food supply chain rather than increased food production and added that at least 5-6% growth rate in Agricuture for a decade is essential to ensure a GDP growth rate of 11% to 12% annually. On the occasion of J. Raghotham Reddy Memorial Lecture, innovative farmers were bestowed awards in the following category.



Delegates with Awardees at Sri J. Raghotham Reddy memorial lecture

Name of the Awardees	Category
U. Jagadish Babu, Varni, Nizamabad Dist.,Telangana. M.Krishna Rao, Amadalavalasa, Srikakulam Dist., Andhra Pradesh.	Remunerative farming practices in Agriculture
G. Upender Reddy, Hyderabad. K.V.V. Surya Lakshmi, Rajahmundry, East Godavari, Andhra Pradesh.	Animal husbandry
Ashok Katte, Zaheerabad, Sangareddy Dist., Telangana. T. Ramana, Buttaigudem, West Godavari, Andhra Pradesh.	Horticulture
B. Chandrashekhar, Journalist, The Hindu	Agriculture Journalism

INSPIRE - Indian Youth towards Business Oriented Agriculture-Regional Workshop for South India

A regional workshop on "Youth as torch bearers of business oriented agriculture in South India" was organized by PJTSAU in collaboration with Trust for Advancement of Agricultural Sciences (TAAS), Asia- Pacific Association of Agriculture Research Institutions (APAARI) and ICAR –NAARM on 21st and 22nd October, 2019 at PJTSAU, Rajendranagar, Hyderabad.

Dr. Tamilisai Soundararajan, the Hon'ble Governor, Telangana state inaugurated the workshop and urged the post matriculate students to opt for agriculture as a first choice for which the profession has to be made attractive to the youngsters. She applauded the Central and State Government initiatives to improve the livelihood of farmers. She appreciated Dr V. Praveen Rao, Vice Chancellor, PJTSAU for taking the initiative to organize the workshop and his efforts in education, research and extension for betterment of agriculture in Telangana. She concluded with a quote by Mahatma Gandhi "Farmer is the father of the world" and urged that all should work for his well being. Sri Singireddy Niranjan Reddy, the Hon'ble Minister for Agriculture, Telangana highlighted the initiatives taken by Govt. of Telangana like Rythubandu, Rythubhima, Mission Kakatiya, Re-engineering of irrigation projects etc. Emphasizing the need to encourage youth in agriculture who are reluctant to take up agriculture as a profession, he said, rural youth should be trained in agri allied sectors like Dairy, Mushroom production, Sericulture, Aquaculture etc. and further development of food processing sector, proper marketing facilities, input supply, financial assistance and digitalized farm services are essential to make farming lucrative.

Dr. R. S. Paroda, Chairman, TAAS expressed the need for a new revolution in agriculture in the field of agri enterprise in this decade to ensure sustainable growth in agriculture sector. He added National Innovation Fund and conferences like MAYA (Motivating and Attracting Youth in Agriculture) are some initiatives to encourage youth in Agriculture. He urged the Institutes and Universities to support the youth by training in agriculture. Dr. V. Praveen Rao, the Hon'ble Vice Chancellor delivered the welcome address and underlined the aim of the workshop to effectively deploy youth in agriculture. He opined that India with largest workforce should motivate youth towards modern agriculture powered by IOT based farming practices. Dr. Peter Carberry, Director General, ICRISAT and Sri B.V.R.



Dr. Tamilisai Soundararajan, the Hon'ble Governor, Telangana State along with delegates at the inaugural session



The Hon'ble Governor, Telangana State inaugurating the exhibition "Potential Agri-enterprises"

Mohan Reddy, Founder Chairman, CYIENT also gave their valuable remarks at the inaugural session. In addition to the technical sessions IGNITE a novel idea contest for students and an Exhibition "Potential Agri- enterprises" showcasing novel innovative technologies by successful entrepreneurs were an added attraction.

From initiatives to experiences in agripreneurship, specific sessions were conducted on themes - International and national initiatives on youth empowerment in agriculture; Scaling innovations, steering partnerships & nurturing Agripreneurship - Corporate & Innovative farmers/ agripreneurs experiences and learning; Interaction with innovative farmers & agripreneurs; Agri Incubators - Policy and innovation in mentoring and fostering young minds; Gender inclusive Agri-preneurship learnings and way forward; Panel Discussion- Enabling policies and financial support for Agri - preneurship and Youth in Agriculture. Ms. K. Padmasree & Team, CFST, PJTSAU, Ms. Divya Sriram & Team, CCMB, Hyderabad, Mr. E. Suraj Kumar & Team, Agricultural College, Jagtial, Mr. Ajay Verma & Team, PVNTVU, Hyderabad and Ms. Padmasree Mishra, Presidency University, Bengaluru secured prizes in the IGNITE-Agripreneurial Idea contest.

The exhibition on "Potential Agri-enterprises" comprised of diversified 25 enterprises displaying value added products, advanced technologies in agriculture and allied sectors, Aquaculture, biofertilizers and biopesticides etc., industry represented by TAFE, Coromandel International Ltd., Kaveri seeds, FPO's from NABARD, Incubators from ICRISAT, MANAGE, NAARM and TANVAS and financial institutes (SBI and Andhra Bank) was organized on the occasion.

Sri B. Vinod Kumar, Chairman, Telangana State Planning Board in his address in the valedictory highlighted the biggest upcoming challenge would be to provide appropriate marketing facilities for the expected huge rice production due to enhanced irrigation facilities in the state. Hence he saw a bright future for the food processing sector in the state. Sri S. K. Joshi, Chief Secretary, Govt. of Telangana, stressed the need for establishment of Agri hubs like T hub at Agricultural Universities to provide incubation facilities and financial assistance through institutes like NABARD. Sri M. Vijay Kumar, CGM, NABARD urged the agri graduates to

study the market and explore value addition opportunities for the produce and its biproducts to resolve the problem of marketing of agri produce. He also assured assistance from NABARD to the agrigraduates in production, capacity building and agri start ups.



Winning teams with delegates at INSPIRE

The regional workshop attracted over 500 participants representing students and faculty from different SAU's and allied Universities, innovative farmers and agripreneurs from south India, representatives from industry, financial institutes and local ICAR institutes.



The Hon'ble Governor, Telangana State interacting with exhibitors

PJTSAU to Introduce PG in Vegetable Science - Resolution of 11th Academic Council

The 11th Academic Council Meeting was held on 21st November 2019 under the chairmanship of Dr. V. Praveen Rao, the Hon'ble Vice Chancellor, PJTSAU at University Auditorium, Rajendranagar. The council approved the introduction of PG (Horticulture) in Vegetable Science and further discussed important academic issues pertaining to filling up of the University Officer posts, admission into B.Sc. (Hons.) Community Science and various Diploma courses in the University, regulations pertaining to the issue of degree certificate and institution of endowments for award of gold medals for U.G students.



 ${\it Dr.~V.~Praveen~Rao, the~Hon'ble~Vice~Chancellor~presiding~the~meeting}$

Spreading Knowledge - Seminar on Application of RS & GIS for Water Management

The Water Technology Centre, PJTSAU organized a one day seminar on "Application of RS & GIS for Water Management" on 26th November, 2019 on the occasion of first anniversary celebrations of establishment of Remote Sensing and GIS laboratory. Dr. M. Uma Devi, Director, WTC underlined the works carried out at Remote sensing and GIS lab past one year. Dr. R. Jagadeeshwar, Director of Research, PITSAU underscored the importance of RS and GIS tools in identification of suitable crops and cropping patterns essential for the State under enhanced irrigation facilities with projects by Govt. of Telangana. Eminent resource persons, Er. Annie Maria, Sci/Eng, NRSC, ISRO, Department of Space delivered lecture on "Application of RS and GIS in irrigation and water management", while Dr. K.V. Rao, PS (Soil and Water Conservation Eng), Division of Resource Management, CRIDA on "Planning of water harvesting structures in watersheds using RS and GIS tools", Dr. B. Krishna Rao, Director (Agril. and Research), WALAMTARI, Rajendranagar on "Application of RS and GIS for real time monitoring of command areas" and Dr. K. Ravi



Dr. R. Jagadeeshwar, Director of Research addressing the participants

Chandra, Inspector of Police (IT and Communications), Telangana on "Role of GPS/ GNSS at microwave frequency meteorological parameters". The participants of the three months online course on "Basics of Remote Sensing, GIS and GNSS' shared their experiences on the occasion.

Smart Farming for Profitable Agriculture - Dr. B. Ramamoorthy Memorial Lecture

Smart farming is a ray of hope to progress said Dr. K. S. Subramanian, Director of Research, Tamil Nadu Agricultural University, Coimbatore who delivered the eminent Soil Scientist Dr. B. Ramamoorthy 3rd Memorial Lecture on "Smart Farming for Evergreen Revolution" at PJTSAU, Rajendranagar on 1st November, 2019. He explained that smart farming finds its application in precision agriculture, protected cultivation, drones in agriculture, farm and livestock management and smart nano-agri inputs and how artificial intelligence, sensors, robotics, drones and nano technologies play a crucial role in agriculture in future. He urged the agricultural universities and ICAR institutes to work together with industries to progress further in smart farming in the country. Dr. V. Praveen Rao, the Hon'ble Vice Chancellor and University Officers, Dr. Audi lakshmi, Ex. Principal



Dr. K.S. Subramanian interacting with the participants

scientist and daughter of Dr. Ramamoorthy, faculty and students participated in the programme.

PJTSAU Varieties and State of Art Technologies Steal the Show - Kisan Melas at RARS

Farmers hailing from Northern Telangana Zone participated in field visit and farmer scientist interaction programme held at Regional Agricultural Research Station (R.A.R.S), Polasa, Jagtial on 8th November, 2019. Participants showed keen interest in the field visit where varieties of rice, sesame, groundnut, redgram, cold management, machine transplanting and direct sowing in

Farmers at Kisan Mela at RARS, Jagtial

rice, water management in different crops and crop residue management were showcased at RARS, Jagtial. The technology demonstrations at the exhibition with 35 stalls of different private seed and fertilizer companies received enthusiastic response from the participants. The scientists shared their research findings and interacted with farmers. Some scientists and farmers were felicitated on the occasion for their immense contribution to agriculture.

Regional Agricultural Research Station, Warangal also organized a *Kisan mela* on 25th November, 2019 showcasing the varieties of Rice and Pulses released from Warangal and exhibits like handmade fertilizer applicator, china fertilizer cum seed drill and drone sprayer which were centre of attraction. Farmer scientist interaction delivered information on Fall Army Worm management in Maize, Chillies, Turmeric pests & diseases, Weed management, importance of millets, *Rabi* paddy varieties, mechanization in rice, Judicious use of fertilizers *etc.* The officials from Dept. of Agriculture and 1000 farmers representing Khammam, Warangal and Medak districts participated in the *kisan mela*.

Fly Ash for Sustained Soil Nutrition - C- Farm Co-organizes Seminar

Fly ash can be effectively used in agriculture and forestry as it builds soil nutrition without effecting soil health. This was the key message delivered at the seminar on "Use of Fly Ash in Agriculture, Forestry and other purposes" held at PJTSAU on 17th and 18th December, 2019 in collaboration with Centre for Fly Ash Research and Management (C-FARM), New Delhi. Prof. V.S. Raju, Former Director, IIT, New Delhi in his inaugural address highlighted the activities of first Fly Ash Mission consequent to which fly ash use went up from one million tons to 160 million tons with 99% of it used in civil works. He reiterated the need to educate the farmers on use of fly ash in agriculture and forestry adding that around 260 million tons of fly ash is available every year which can be used in organic farming.

Speaking at the valedictory session of the workshop, Sri S. Niranjan Reddy, the Hon'ble Minister for Agriculture, Cooperation and Marketing, Telangana State highlighted the need to educate the farmers on nutrient value of fly ash

and added, the abundant quantities of fly ash available in the country can be best utilized to reduce the input costs. He assured the implementation of the recommendations made at the conference.



Sri S. Niranjan Reddy, the Hon'ble Minister, Telangana State presiding the valedictory session

Closer Ties for Greater Impact - AICRP Community Science Centres Meet

"AICRP – Home Science should work in holistic approach on wider perspective covering 21 agroecological regions in 29 states by 13 AICRP centers in association with all the development departments for greater impact of the technologies", said Dr. V. N. Sharada, RAC chairman and Ex-member, ASRB at review meeting of AICRP- Home science held at PJTSAU on 19th December, 2019. Dr. R. Jagadeeshwar, Director of Research, PJTSAU in his welcome address emphasized the need to collaborate with line departments of Community Science for

addressing location specific problems. Dr. V. Vijaya Lakshmi, Unit Coordinator updated the accomplishments of the centre. Dr. S. Prabhu Kumar, suggested working on formulating gender specific socio-economic policies, while Dr. Kalpana Sastry highlighted the importance of water conservation. Dr. V. Praveen Rao, the Hon'ble Vice chancellor gave the overview of developments in University and expressed the need for reorienting the activities of AICRP in a holistic approach for better impact and visibility in the community.

Vertebrate Management should Ensure Safety of Wild Life _ Principal Chief Conservator of Forests

The third All India Group meeting of AINP on Vertebrate Pest Management was held at PJTSAU on 28th and 29th December, 2019. Smt. R Shobha, the Principal Chief Conservator of Forests in her inaugural address emphasized on the need to educate farmers on biological pest management as chemical control is not only hazardous to wild life but also to human beings. She further added that there is a drastic reduction in wild life from 40,000 tigers in our country in 1930 to 2967 currently and only 26 in Telangana due to forest encroachment and manmade activities. She urged the scientists to ensure safety of wild animals while formulating vertebrate management strategies. Dr. V. Praveen Rao, the Hon'ble Vice Chancellor advocated on multidisciplinary approach using digital technology for the vertebrate pest management should be studied for better results. Dr. Rajan, Asst. Director General



Smt. R. Shobha, Principal Chief Conservator of Forests felicitated by the Hon'ble Vice Chancellor

(Plant Protection and Bio diversity), ICAR New Delhi delivered the welcome address, while Dr. R.S. Tripathi, Network coordinator, AINP- VPM gave an overview of Vertebrate Pest Management project across the country.

Collaborations

PJTSAU and TAFE to Build Adaptive Research and Agricultural Extension Centre at Hyderabad

An Adaptive Research and Agricultural Extension Centre and Product Training Centre to educate farmers on sustainable agriculture will kick-start shortly as a collaborative effort between TAFE and PJTSAU as per MoU signed on 4th October, 2019. The adaptive research and agricultural extension centre will facilitate the implementation of appropriate farm mechanisation through active participation and collaboration with farmers, while Product Training Centre aims to educate the farmers on the integrated mechanization model of TAFE that combines the use of tractors and relevant machinery in farming. Sri T. R. Kesavan, Group President, TAFE, Chennai, Dr. V. Praveen Rao, the Hon'ble Vice Chancellor, PJTSAU and University officers participated in the MoU ceremony.



Sri T. R. Kesavan, Group President, TAFE, Chennai exchanging MoU with the Registrar i/c

PJTSAU Join Hands with CESS for Rural Development Activities



Dr. E. Revathi, Director, CESS signs MoU with PJTSAU

Centre for Economic and Social Studies (CESS) a premier institute delving in national and state policies and PJTSAU plan to take up collaborative research programmes in agriculture and rural development activities facilitated through a Memorandum of Understanding signed on 5th December, 2019. The MoU was signed by Dr. S. Sudheer Kumar, Registrar, PJTSAU and Dr. E. Revathi, Director, CESS in presence of the Hon'ble Vice Chancellor and Prof. Radhakrishna, Chairman, CESS.

PJTSAU and ISU to Collaborate in Research and Education

PJTSAU and IOWA State University, USA would work together for development of delivery of course and programs in the areas of Agricultural and Biosystems Engineering (ABE), Small Farm Sustainability, Food Safety and Farm, Food and Enterprise development as per the Memorandum of Understanding signed on 10th October, 2019. This collaboration will facilitate collaborative

research and publications in teaching, research and extension, organization of conferences, technical and administrative training programs for PJTSAU scholars and faculty on topics of mutual interests, visits between two universities by academic and research scientists for undertaking projects and PG and Ph. D student exchange programme for gaining expertise in advanced technologies.

Partnership with Community Based Organization for Better ToT to Farmers

Spoorthi Foundation, a Non-Governmental Organization, Karimnagar and PJTSAU entered into a Memorandum of Understanding on 5th December, 2019 for extending services of ICT like *Annapurna Krishi Prasar Seva*, conducting seed and other technology demonstrations in farmer's fields and facilitate soil testing in farmers' fields. The University will provide technical backup in crop production, nutrient management, pest and disease management and dissemination of advanced technologies to the farmers of adopted villages of Spoorthi Foundation. Mr. Konduru Jagan Mohan Rao, Founder & President, Spoorthi Foundation, Karimnagar, Dr. V. Praveen Rao, the Hon'ble Vice Chancellor and all University officers participated in the MoU ceremony.



Mr. Konduru Jagan Mohan Rao, Founder & President, Spoorthi Foundation join hands with PJTSAU

Capacity Building

Hands on Training on Hybrid Rice Seed Production to Seed Growers

To upscale the hybrid rice seed production, an International Hybrid Rice Seed Production Training Course was offered to public/private seed growers by International Rice Research Institute, Philippines in collaboration with Professor Jayashankar Telangana State Agricultural

Breeders explaining hybrid rice seed production techniques

University at College of Agriculture, Rajendranagar from 22^{nd} to 24^{th} October, 2019. Participants learned basic aspects of recent implementable technologies in hybrid rice seed production and practical concepts like staggered sowing, transplanting of A, B and R lines, management techniques for synchronized flowering, supplementary pollination techniques, at ARI, and Indian Institute of Rice Research, Rajendranagar. Participants were also enlightened about improved crop production and protection technologies.

Dr. Changxiang Mao, Senior Hybrid Rice Breeder from China updated on various technical operations involved in hybrid rice seed production in China. Dr. Jauhar Ali, Hybrid Rice Breeder, IRRI, Philippines and course director enlisted the available highly heterotic hybrids suitable for India and more particularly to Telangana state. Eminent scientists of PJTSAU, ICAR-IIRR and managers from seed companies having vast experience in the field of hybrid rice delivered

guest lectures. Twelve participants from USA, Philippines, Bangladesh and India and from different Universities and Seed industries participated in the programme. Dr. V. Praveen Rao, the Hon'ble Vice Chancellor, PJTSAU opined that hybrid rice would be the potential alternative to break the yield plateau in rice while mooting Technology mission in Hybrid Rice to develop and popularize high yielding hybrids based on food patterns of consumers in India. He also made a mention on training the rural youth in hybrid rice seed production which would not only improve the seed yields but also provide employment opportunities.



Participants of the international hybrid rice training programme

Promoting the Concept of 4 R's for Effective Use of Fertilisers

Collaborating with M/s. Coromandel International Ltd. and Department of Agriculture, Telangana PJTSAU organized a Fertilizer Awareness Programme with a concept of 4 R's i.e. right source, right rate, right placement and right time at University Auditorium, Rajendranagar on 17th October, 2019. Training on fertilizer usage based on agro climatic zones, soil analysis, application of different types of fertilizers, methodology, new technologies and

increasing crop yield *vis-a-vis* fertilizer usage was imparted to the Scientists from agronomy and soil science disciplines working at different research stations and KVKs. KVK's at Adilabad, Bellampalli, Rudrur and Wyra also organised similar programmes in their constituent districts on 22nd October, 2019 to create awareness on right application of fertilizers among the farming community.



The Hon'ble Vice Chancellor addressing the participants at Fertilizer Awareness Programme



Programme Coordinator, KVK, Adilabad addressing the farmers on right application of fertilizers

Skilling the Crop of New Breeders at the University

To strengthen the crop improvement programme at the University, PJTSAU's Seed Research and Technology Centre trained 25 newly recruited breeders of the University on "Basic Skills in Crop Breeding and Quality Seed Production". The training was organized during 19th to 23rd November, 2019 and was sponsored by ICAR-Indian Institute of Seed Science, Mau under MSP (HRD). Participants learnt pre breeding in different crops, biometrics techniques in different crops with different designs, maintenance of pedigree records, procedures for variety release and notification proposals, breeding for biotic and abiotic stress,

maintenance of plant genetic resources and registration with PPVFRA, Seed health testing methods, in addition to practical sessions on maintenance of nucleus and breeder seed plots, seed germination methods, management of storage pests etc. Resource persons from public (ICAR institutes and Principal Scientists of concerned crops) and private sectors (Bio Seed Ltd, Kaveri Seeds and Hi-Bred Pioneer) delivered talks. In the valedictory session Dr. V. Praveen Rao, the Hon'ble Vice Chancellor, PJTSAU emphasized the growing need to develop high yielding, climate resilient, early maturing varieties with high nutritional quality.

Training on Resilient Agricultural Households through Adaptation to Climate Change (RAH-ACT)

With a view to impart training on climate resilient farming to the farmers and officials from Dept. of Agriculture, RARS, Palem organized three days training programme from 18th to 20th December, 2019. Adaptation strategies prepared by PJTSAU in co-ordination with ICRISAT and Department of Agriculture were explained to officials and 80 farmers from five villages *viz.*, Lattupally, Vattem, Vaddeman, Salkarpeta, Vasanthapure of Bijinepally mandal, Nagarkurnool district. Training was imparted on maintenance of CLICs, suitable crops and cropping systems for contingent situations, agronomic practices for soil and moisture conservation practices, farm ponds for better

management of rainfed crops, micro irrigation methods for efficient use of harvested water, custom hiring centers and availability of low cost implements, drudgery reduction, forecasting market price in rainfed areas, production technologies of rainfed horticultural crops, suitable IFS module for small and marginal farmers and dairy, poultry and small ruminants as integral part of IFS by involving PJTSAU scientists, Department of Agriculture and Veterinary and Animal Husbandry. Dr. K. Avil Kumar, ADR (STZ), Dr. M. Jagan Mohan Reddy, Programme Co-ordinator, KVK, Palem, ADA, Nagarkurnool division, Scientists of RARS and KVK, Palem participated in the inaugural session.

Paramparagat Krishi Vikas Yojana (PKVY) – A Mission for Sustainable Agriculture

Paramparagat Krishi Vikas Yojana (PKVY) started with a motto of organic farming in cluster approach and its certification all over the country was officially launched at KVK, Palem on 18th December, 2019. Dr. K. Avil Kumar, ADR, RARS, Palem in his inaugural address advised the farmers to adopt organic farming for safeguarding the natural resources, soil, water, air and preservation of ecology and biodiversity. Dr. M. Jagan Mohan Reddy, Programme coordinator, Palem narrated the use of plant and animal based products in organic farming, Dr. R. Raghavaiah, consultant on organic farming TSSOCA illustrated the importance and procedure of organic certification. Mr. Chandrakanth Reddy, Ekalavya Foundation, Regional coordinator explained the steps involved in group certification and record maintenance in organic farming. Sri K. Ramana Reddy, farmer and member of appealing committee, TSSOCA shared his experiences of successful organic farming. Mr. Ramesh Babu, ADA, Nagarkurnool



Dr. K. Avil Kumar, ADR, RARS, Palem addressing the farmers at inaugural session

division and Mr. Kamal kumar, MAO discussed the privileges offered by the government for organic farmers. Thirty farmers participated in the programme.

Vice Chancellor's Participation

The Hon'ble Vice Chancellor participated in

- Conference of Vice Chancellors' of the Universities in the State of Telangana held at STML Auditorium, Dr. B. R. Ambedkar Open University, Jubilee Hills, Hyderabad on 3rd October, 2019.
- Inaugural session of State-of-the-art R&D Laboratory "Centre for Applied Genomics & Seed Technology" of Kaveri Seeds on 14th October, 2019 at Pamulaparthy (village), Markook mandal, Siddipet dist.
- Organizing Committee Meeting of the XIX International Plant Protection Congress, IPPC 2019 on 10th November, 2019 at HICC, Hyderabad.
- Chaired the technical and Brainstorming session in the 14th Annual Group Meeting of All India Network Programme on Organic Farming (AI-NPOF) held at ICAR-CIARI, Port Blair (Andaman & Nicobar Islands) from 12th to 14th November, 2019.
- National Conference on "Climate Change Adaptation in Agriculture for Sustainable Livelihoods" on 22nd November, 2019 at NIRD & PR at Rajendranagar, Hyderabad and delivered inaugural address.
- Visited Madras Institute of Technology, Anna University, Chennai on 25th and 26th November, 2019 to discuss

- scope, terms and conditions of the proposed MoU between the two institutes on application of drone technology in Agriculture.
- Round Table discussion on New Approaches in Sustainable Farming System at NITI Aayog, New Delhi on 17th December, 2019.
- Inaugural Session of the 7th NICRA Annual Review Workshop held at NASC, New Delhi on 17th December, 2019 and Co-Chaired the session on Resilience through Natural Resource Management as Member, NICRA Expert Committee on 18th December, 2019.
- Consultation Workshop to discuss Establishment of Think Tank for Drought & Farmer Distress Alleviation at IIMR, Rajendranagar on 20th December, 2019 and Chaired a Thematic session on Climate change, drought mitigation and technologies for drought proofing.
- ICAR Committee Meeting on Developing Model Act for Higher Agricultural Education Institutions in India on 23rd December, 2019 at NASC Complex, New Delhi.
- Presided over the inaugural function of Third All India Group Meeting of AINP on Vertebrate Pest Management on 27th December 2019 at University Auditorium, PJTSAU, Rajendranagar, Hyderabad.

Faculty Capacity Building Programmes Overseas

- Dr. K. Sujatha, Scientist, (Pl. Breeding), ARS, Tandur attended the International Training course on "Breeding approaches for enhancing genetic gains in Grain Legumes and Dryland Cereals" held at Nelson Mandela African Institution of Science and Technology (NM-IST), Arusha, Tanzania from 10th to 18th October, 2019.
- Dr. T. V. Hymavathi, Professor & University Head, Dept. of Foods and Nutrition, Postgraduate & Research Centre, Rajendranagar, Hyderabad attended session on Agronomy and Food Processing during the Knowledge Summit held at Lyon, France from 17th to 18th October, 2019.

Digital Agriculture in the hands of Farmers of Telangana - Gyan Kisan App

The designing of *Gyan Kisan* Mobile App was initiated by the University in collaboration with Western Sydney University, Australia for furthering the digital technology to the farmers of Telangana. Dr. M. Sreenivasulu, Professor (Agril. Extension), College of Agriculture, Rajendranagar, Hyderabad and M. Parimal Kumar, Scientist (Agronomy), RARS, Palem visited the Western Sydney University Australia from 16^{th} August to 7^{th} November, 2019 to work on furthering the technology. The team came up with taxonomy of package of practices for major crops like Rice, Maize, Groundnut, Castor, Cotton, Red gram and Chillies for the App, actionable information of major crops to be uploaded to next version and listing farmers queries as per crop stages. The faculty also visited School of Environmental Sciences, Molecular biology, Soil biology, Insect research, Next generation, Pathology laboratories, Protected cultivation at Horticulture block at Hawkesbury



PJTSAU faculty at Hawkesbury Institute for the Environment

campus at East Richmond, WSU T.V.Studio, Language lab and Simultaneous Interpreting labs at Parramatta South campus.

Advanced Training in Food Processing at Cornell University

Mrs. Supraja, Assistant Professor, Ms. B. Neeharika and Ms. J. Prasoona, M.Sc. Students, College of Community Science and Ms. D.R. Pravalika and Ms. V. Mounika, M.Sc. (ABM) Students, College of Agriculture, Rajendranagar participated in IARD 4020 Course on Food processing and business at Cornell University, Ithaca, New York from September 14th to October 1st, 2019, putting into action the MoU between Cornell University- Sathguru foundation and PJTSAU.

Dr. K.V Raman gave a bird eye view about the course and College of Agriculture and Life Science, Cornell University. As part of the programme field visits to Mann Library - the world's biggest library, Biotechnology resource centre with genomics, proteomics, metabolics, imaging, bioinformatics and biotechnology facilities, wind farms on hatchery, Department of Apparel and Textile with facility of nano technology to assess the quality of fabrics, Wegmann super market to explore marketing management skills, Intergrow-a green house, hydroponics unit, germplasm

unit for apple, grapes and raspberry maintained at Geneva campus, in addition to interaction with entrepreneurs in the Indian Milk Honey- Flavoured Lassi as the main component, cidery, winery and goat milk based enterprises were organized for wide exposure to the participants.



Faculty and Students of PJTSAU at Intergrow

PJTSAU Student Researchers Pursue Advanced Seed Vigour Testing Procedures in Collaboration with UOH, Germany

Post graduate students B. Akshitha, P. Sadhana from Department of Genetics and Plant Breeding and S. Udaysree from Department of Seed Science and Technology grabbed the opportunity to carry out research work at University of Hohenheim, Germany as part of Indo - German Student Exchange Programme from 7th October to 13th November, 2019. The collaborative research work involved assessing vigour of paddy and soybean seed lots by using Q2 (QUICK AND QUALITY) Scanner through single seed oxygen sensing technology and compared with conventional vigour testing procedures i.e Controlled Deterioration, Radicle Emergence test (RE) for paddy and Accelerated Ageing test for soybean. The Q2 analysis estimates for seed vigour were found to be fast and accurate when compared to traditional methods.

In addition to the research, field visits to Animal Experimental station, Meiereihof, UOH experimental station (Versuchsstation Agrarwissenschaften) and seed testing lab-LTZ (Land wirtschaftliches Technologie zentrum), Karlsruhe



PJTSAU students with Dr. Sebastian Bopper, Dr. Britta Algayer and Dr. Michael Kruse of UOH, Germany

enabled the students to gain exposure to technologies like GPS enabled farm machinery for online data recording, Combined harvesters equipped with NIR (Near Infrared) technology which estimates oil and protein content simultaneously during harvesting in a non-destructive manner and seed testing and certification procedures at Germany.

Awards & Honours

- An Award of Excellence for the year 2018 for outstanding dissemination and outreach of Agromet Advisories conferred on Agro-meteorological Field Unit of PJTSAU, Rajendranagar, Hyderabad on the occasion of 13th Annual Review Meeting of *Grameen Krishi Mausam Sewa* during 18th to 20th December, 2019 by the Indian Meteorological Department, Ministry of Earth Sciences, Government of India.
- Dr. G. Samuel, Associate Dean, Agricultural College, Sircilla received Dr. A.P.J. Abdul Kalam Excellency Award on 15th October, 2019 from Health care International, Hyderabad.
- Dr. I.V.S. Reddy, Assistant Professor (Horticulture), Agricultural College, Aswaraopet received National Award for the Empowerment of Persons with

Disabilities, 2019 under the category – Best Employee / Self Employed with Locomotor Disability (male) 2019 from Hon'ble Vice President Sri M. Venkaiah Naidu on 3rd December, 2019 at Vignan Bhavan, New Delhi.

NABL Accreditation to MoFPI - Quality Control Laboratory

MFPI-QC Lab, Rajendranagar has been awarded with the Certificate of Accreditation as per the International Standard ISO/IEC 17025:2017 valid up to 2021. With this the Lab becomes the first facility of the University to adopt the new Quality Management System under NABL accreditation.

Institutional Activities - Show of Reverance and Responsibility

150th Birth Anniversary Celebration of Mahatma Gandhi

The Hon'ble Vice Chancellor and other University Officers celebrated the 150th birth anniversary of Mahatma Gandhi on 2nd October, 2019 by paying floral tributes to Mahatma Gandhi at University head quarters and recollected his contributions for an Independent India. All the constituent colleges and research stations of the varsity also celebrated his birthday in a befitting manner.



Dr. P. Raghu Rami Reddy, Associate Dean, Agricultural College, Palem paying floral tribute to Mahatma Gandhi

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Students of Agricultural College, Sircilla at rally on occasion of Rashtriya Ekta Diwas

Constitution day

The Constitution day was celebrated at the University on 26th November, 2019 by organising lectures on Indian constitution focusing on how the constitution extends dignity to every citizen beyond socio cultural barriers with information on formation, execution, and relevance of the Constitution of India and the need to uphold it as the most important document in democracy. The preamble was read out by all the participants to uphold

Rashtriya Ekta Diwas

The National Unity Day (*Rashtriya Ekta Diwas*) was celebrated by all the constituent colleges of the University on 31st October 2019 in memory of Birth Anniversary of Sri Sardar Vallabhai Patel. The staff and students participated in oath taking ceremony to preserve the unity and integrity of the nation and spread the message among the countrymen. Literary and painting competitions were held for students followed by prize distribution.



Dr. G. Samuel, Associate Dean, Agricultural College, Sircilla addressing the students at Constitution day celebrations

the values of India as a sovereign socialist secular democratic republic and secure to all its citizens justice, social, economic and political; liberty of thoughts, expression and to promote among them all fraternity assuring the dignity of the individual and the unity and integrity of the nation.

Agricultural Education Day

Agricultural Education Day was celebrated by all the constituent Colleges of the University to commemorate the Birth anniversary of Dr. Rajendra Prasad, Former President of India on 3rd December, 2019. Exhibitions showcasing various facets of agriculture and allied sectors attracted children from various schools in and around. The school children enthusiastically participated in elocution competitions on various aspects in agriculture which were organized as side events.



Dr. V. Praveen Rao, the Hon'ble Vice Chancellor observing the displays at exhibition held on the occasion of Agricultural Education day

World Soil Day

The World Soil day was celebrated at all the KVKs of PJTSAU on $5^{\mbox{\tiny th}}$ December, 2019 by conducting training programmes on "Soil Health Management" wherein importance of Soil Testing and Soil Health Management to stop soil erosion for future generation was explained. The programme closed up with participants taking a soil day pledge.

The world soil day was organized at Seriguda Badryapally village, Kottur mandal, Ranga Reddy district, an adopted village of Rice Research Centre, ARI, Rajendranagar on theme "Stop soil erosion and save our future" with a motto to enlighten the farmers on effects of soil erosion and its management to improve crop productivity. In addition

knowledge on the importance of soil testing for balanced fertilizer application to achieve better yields and sustained soil health was delivered followed by distribution of soil health cards to 89 farmers in the village.



Dr. M. Venkata Ramana, Principal Scientist (Rice) and Head distributing soil health cards to farmers

Homage to Dr. B. R. Ambedkar

The contributions of Dr. B. R. Ambedkar in formulation of Indian Constitution, the longest constitution in the world were recalled on the occasion of Dr. B. R. Ambedkar Death Anniversary on 6th December, 2019. The Hon'ble Vice chancellor along with staff and students paid rich floral tributes to Dr. B. R. Ambedkar. All the constituent colleges and institutes of the university paid floral tributes and recalled his services and commitment as the architect of Indian Constitution.



The Hon'ble Vice Chancellor paying floral tribute to Dr. B. R. Ambedkar

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