



Awards and Achievements

Best Teacher Award



Dr. T.V. Hymavathi, Professor, Department of Foods and Nutrition was awarded Telangana State Best Teacher during Teachers day celebrations on 5-9-2018.

Superannuation



Dr. Mrinalini, Dean of Home Science in charge, Administrative office PJTSAU and **Ms. T. Nagamani**, Associate Professor, Dept.of HDFS retired in the month of July, 2018

Performance at National Integration Camp, Bangalore

K. Sai Prasanna, I.D.No-CHNS/15-37 student of B. Sc. (Hons) Food Science and Nutrition participated in National Integration Camp from 03.09.18 to 09.09.18 organized by the State liaison cell, NSS, Govt. of Karnataka in collaboration with regional directorate of NSS, and University of Agricultural sciences, Bangalore. She won first prize in solo singing and group dance.



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CAFT - H.Sc. NEWS LETTER

April 2018 to September 2018

Issue No. 15
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News in Brief

CAFT- H Sc training programme

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NABL accreditation of QC Lab

PJTSAU Vaari Chenukaburlu

Events and celebrations

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- Teachers day
- Nirmiti-2018
- ECO Ganesha production and sale

Training programme / workshop / conference etc.

Exhibitions

- Millet products exhibition
- National Handloom Expo
- Rural innovators start up conclave (RISC)

Visitors

- Awards and achievements**
- Superannuation**

Forth Coming Training Programs

- Counseling agrarian families to combat socio emotional crisis (7th to 27th August 2019)
- Achieving food and nutritional security through nutrition sensitive agriculture in the context of changing climate (22nd January to 11th Feb, 2020)

CAFT training programme on “Emerging food processing and packaging technologies: A drive for economic opportunities”



The training programmes was inaugurated on 11th of July 2018 at Post Graduate & Research Centre, Rajendranagar, Hyderabad. Twenty participants have come from 10 different states from various disciplines like Home Science, Agricultural Extension, Agricultural Engineering, Veterinary Sciences Entomology, dairy technology, horticulture, food technology, fisheries etc. Dean of Faculty of Home Science Dr. A. Mrunalini presided the function. Dr. M. Uma Devi, Member – Board of Management, PJTSAU graced the occasion.



Dr. K. Uma Maheswari, Director, CAFT-H.Sc. welcoming the gathering



Hon'ble Board member PJTSAU Dr. M. Uma Devi addressing the gathering

Valedictory function of CAFT training programme was held on 31-04-2018. Dr.V. Praveen Rao, Honourable Vice Chancellor, PJTSAU, was the chief guest of the function. Dr.K. Sadasiva Rao, Dean of Agrl. Engg and Tech and Dean of Homescience.i.e, Dr. Ramesh Babu, Dy.Director (Retd.) NIN, were the guests of honour. Event started with invocation of University song. Course coordinator Dr. Anila Kumari, Asst. Professor, PGRC, PJTSAU welcomed the guests. Students and participants presented saplings to the dignitaries while welcoming them by Dr. Vijayalakshmi, Associate Dean, CHSc., Hyderabad. Honourable Vice Chancellor, Dr. V. Praveen Rao in his remarks gave many instances of commercialization of technologies and asked the participants actively contribute once they go back to their work places.

Dr. Sada siva Rao, Dean of Home Science i/e, stressed on the importance of reducing the post-harvest losses to boost the income of the farmers. Dr.Ramesh Bhatt, Guest of Honour in his remarks insisted the participants and the gathering to commercialize simple technologies and value addition of native food products. He asked the Agricultural Engineering professionals to make simple machines in a cost effective manner to reduce the imports. Dr. K. Uma Maheswari, Director CAFT – H.Sc., presented Training programme report. Dr. Jessie Suneetha W proposed vote of thanks.

RESEARCH

Faculty

Project on 'Bio degradable eco paint production for idol painting with dyes on large scale' at CHSc, HYD

Telangana State Pollution Control Board (TSPCB)has continued collaboration with PJTSAU for supply of the project was natural dye paints during 2018 with a budget outlay of Rs. 74.54 lakhs and was carried out by Principal Investigator, Dr. R. Geetha Reddy, Professor, EECM department and Co-PI, Ms. Lakshmi Pooja, Assistant Professor, APTX department.

During the year 2018, Natural Dye Processing and Incubation centre located at Rajendranagar, PJTSAU has produced natural dye paint of 22 tonnes and supplied to 2,00,000 Ganesh idols of various sizes ranging from 8 inches to 6 feet, through TSPCB, out of which, 12 tonnes of white and 10 tonnes of colour in fourteen shades.



PI and Co PI along with TSPCB officials monitoring the training programme for artisans in painting

(RAHACT) . The proposed project will be implemented through a multi stakeholder partnership involving the technical partners of the RAHACT project (Dept of agriculture, PJTSAU, ICRISAT, NABARD) and other line departments.

Exhibitions

Millet Products Exhibition

An exhibition was organized by the university during the national seminar on Road Map of Vegetable Oil production by 2022 at PJTSAU Auditorium during 28th and 29th April 2018. Union Minister of State for Agriculture Gajendra Singh Shekhawat, Deputy Director General of ICAR A.K. Singh, Union Agriculture Commissioner S.K. Malhotra, Joint Secretary in the Agriculture Ministry B. Rajender, Vice Chancellor of PJTSAU V. Praveen Rao and Director of IIOR A.Vishnuvardhan Reddy visited the exhibition.

National Handloom Expo

ELP students from Dept. of APTX working under Apparel Production module set up stall at National Handloom Expo as part of National Handloom Day celebrations from 6.8.2018 to 13.8.2018.



The event was organized by Commissioner Handloom & Textiles, Govt. of Telangana. Sri. K.T. Rama Rao, Honorable Minister the Textiles and Handlooms inaugurated the exhibition on 7.8.2018 at Hyderabad.

Rural innovators startup conclave [RISC]:

The students of IV year B. Sc. (Hons) Food Science and Nutrition, participated in Rural innovators startup conclave [RISC] at National Institute of Rural Development (NIRD) PR, Rajendranagar, Hyderabad, organized on 30th and 31st of August 2018. The program was inaugurated by Honorable Vice President of India, Dr.S.Venkaiah Naidu and Honorable Governor of Telangana State Shri.E.S.L. Narasimhan. Students projected their views through slogans and



explained about the millet products and their importance. Dr. S.Venkaiah Naidu also tasted millet food products and appreciated the ELP students about their work. The aim of the event was to emphasize the creative and innovative products of millets and create awareness among the people.



VISITORS

- On 9.4.2018 Dr. A. Sharada Devi, Retd. Dean, Faculty of Home Science, ANGRAU, Ms. Sarah Fee, Royal Ontario Museum, Toronto, Canada and Ms. Jagad Rajappa, NGO, Hyderabad visited department of Apparel & Textiles, CHSC, PJTSAU. They were apprised about the courses and academic and research facilities available



- Sri. Jupally Krishna Rao, Honb'le minister for Rural Development and Panchayath Raj of Telangana State visited Millet processing and Incubation centre on 2nd March to understand the activities of the centre and collaborate with the university in training and technology transfer of millet products. Sri P.Mahinder Reddy, Minister for Transport, Telangana State, and Chief Executive Officer of SERP, Government of Telangana Mrs. Pausumi Basu, I.A.S were also present during the visit.



- Eleven IAS probationary officers of 2017 batch visited MPIC along with Dr.Jagadeeswar, Director research on 20th June 2018. Dr.T.V. Hymavathi explained about the need for encouraging millet cultivation in Telangana and explained the importance of value addition to crops in the context of doubling farmers' income.





rural families through All India Radio (AIR). It has a noble intention of linking the innovations to the farming community of Telangana, utilizing the students' creativity. Dr. R. Neela Rani, Associate Professor, Dept. of EECM coordinated around 63 programmes of Colleges of Agriculture and Home Science in recording and editing for the broadcast as Farm & Home programmes through AIR.

Events and celebrations
College day celebrations

College of Home Science celebrated College Day on 13.04.2018. Smt. Shailaja Ramaiyer, IAS, Vice Chairperson & Managing Director, Telangana State Handicrafts Development Corporation Ltd was the Chief Guest of the function. Dr.D.Vishnuvardhan Reddy, Dean of Students Affairs i/c, Dr. K.SadasivaRao, Dean of Home Science i/c, Dr.Jagdish, Member, Board of Management, PJTSAU, graced the occasion.



Teacher's Day celebrations



Teacher's day was celebrated by the students of College of Home Science. The students spoke about the teachers. The students also organized a gala show with cultural programmes, games.

Nirmiti-2018 Lift the Hands for Handloom, A Graduates' Apparel Design Show

The show and fabrics were sponsored by Director Textiles & Handlooms, AEPC's, Government of Telangana, 5th Floor, BRK bavan, Hyderabad. Honorable Vice Chancellor, PJTSAU Dr. V. Praveen Raogaru was the Chief Guest, and Smt. Salilaja Ramaiyer, IAS, Director Textiles & Handlooms was the Guest of Honour.



Seven designer lines were showcased and judged by jury from Apparel & Textile fields. Three Weavers and one Kalamkari artisans were felicitated on the day.



ECO Ganesh production and sale

Students of B.Sc.(Hons.) Home Science from the Department of APTX, and EECM department were placed in the production unit as part of skill training in the ELP course for enterprise development. They were involved in all stages of production and brought out print and electronic material on the production process. Painted around 500 idols of different sizes and marketed at Natural Dye Incubation Centre, PJTSAU, Rajendranagar and College of Home Science, PJTSAU, Hyderabad.



Training programmes /Work shops/ Conferences

One day workshop on 'Citation Index, NAAS Ranking e-Resources and Publishing Quality Research Paper' was organized by University Librarian Dr. Veeranjanyullu and Dr. M. KoteswaraRao, Retd. Librarian, UoH, on 7.4.2018 training at College of Home Science, Siafabad, Hyderabad.

Inception Workshop on Demonstration Project For Value-addition and Market linkages for climate Resilient crops

Dr.T.V.Hymavathi attended a Inception Workshop on Demonstration Project For Value-addition and Market linkages for climate Resilient crops on 29th June, 2018 at EPTRI. This work shop is a part of the ongoing project Resilient Agriculture Household through Adaptation to Climate Change in Mahabunagar District, Telangana



DBT project on "Nutraceutical properties of underutilized fruits and vegetables in North Eastern Hill Region of India"

A project under DBT's Twinning programme for NER was extended on request till 11th June 2018. MOU for technology transfer and commercialization of value added products is under process to interested entrepreneurs of Manipur state as a part of DBT project.



Technology Transfer training to the entrepreneurs of Manipur state

All India Coordinated Research Project – Home Science (AICRP-H.Sc)

Foods and Nutrition: Dr. T. Kamalaja, Senior Scientist and K. Rajeshwari, SRF

Health camps were organized in adopted villages to screen and select pre-diabetic (70) and dual malnourished (over and under weight) farm women (70 each). The mean HDL cholesterol of selected pre diabetic, were found at high risk stage, whereas not at desirable levels for overweight and underweight subjects. The selected overweight women were found at pre-hypertensive category as per blood pressure and higher risk for CVD diseases as per waist to hip ratio. Several products like extruded snacks, biscuits, muruku, namakpara, pakodi, tikka, pan cake, jawa, kheer, laddo etc developed with the mixes.



Child Development: Ms. V. Kavitha Kiran, Scientist and Dr. K. Yashoda, SRF

Based on the bench mark issues, Educational Posters were prepared; Videos were documented in DVDs for selected themes under the Project on 'Promoting Reproductive Health care among Agrarian women'. Awareness programmes (25) were conducted.

Family Resource Management: Dr. V. Vijaya Lakshmi, Principal Scientist and Ms. J. Deepika, SRF

Under project 1 i.e. Drudgery Reducing Farm Technologies for Gender Equity component research work, method demonstrations and awareness campaigns for suitable technologies for maize crop were conducted. Pre and post training evaluation was done.

Clothing and Textiles: Dr. A. Padma, Principal Scientist and Ms. Shaik Khateerja Sulthana, SRF

Identified Castor fiber was analyzed for compositional and fiber properties and later it was dyed with *Eclipta Prostrata*, whose color strength parameters were assessed. *Nepeta Cataria* and *Lantana camara* leaf extracts was tested for Minimum Inhibitory Concentrations (MICs), which were utilized for finishing the cotton material. The treated fabrics were assessed for Antimicrobial activity, performance characteristics and Mosquito repellent efficiency.

Extension Education: Dr. Sarah Kamala, Principal Scientist and Ms. Y. Uma Jyothi, SRF

Situational analysis of ICT for agriculture and allied activities for farm women (100) was completed and formed 3 Farm Women Knowledge Groups. Data was collected on 'extent of awareness of farmwomen (100 respondents) regarding climate change'. Developed linkages with line departments, agencies, etc working under climate change and conducted two Capacity Building Training Programmes on IFS and Climate Change.



Student

Foods and Nutrition

In vitro carbohydrate and protein digestibility of common recipes made of different millets

Jane Bridget Kandeh, IDNo.HHD 2013-06 Major Advisor:- Dr.K.Uma Devi

The study on "In vitro carbohydrate and protein digestibility of common recipes made of different millets" had the objectives of developing breakfast and meal items and estimate the in vitro protein and carbohydrate digestibility of the products. The protein content of millets was on par with cereal grains and it is increased with the addition of pulses in preparations like idly, dosa, and pongal. In all preparations fermentation improved the protein content. The in vitro carbohydrate digestibility was highest in fermented products like idly and dosa followed by pongal and it was comparatively less in millet bath, upma and millet roti. The protein and carbohydrate digestibility was low in millet meal foods compared to cereal products by a margin of 8-10%, but the nutritional benefits from millets outweigh the difference and millet foods are suggestible to population at large.



Development and Evaluation of Value Added Products with Germinated Buck wheat (GBW) (*Fagopyrum Esculentum Moench*)

K.Shreeja HHM/2016-03

Major Advisor: Dr.S.Sucharitha Devi

Buckwheat seeds were germinated at three temperatures such as 20, 25, 30°C for 6, 12, 18, 24, 30 and 36 hrs until rootlets appeared with constant soaking time that was 12 hrs.

There was no significant difference between in vitro protein digestibility in buckwheat and germinated buckwheat ($p \leq 0.05$). In vitro protein digestibility content of buckwheat was 49.02% and germinated buckwheat was 49.41%. The digestibility of protein increased by 0.79%. Germination decreased the phenolic and flavonoid content. The phenolic content of buckwheat was 20.20 µg/ml lowered to 16.39 µg/ml after germination. The flavonoid content before germination was 10.25 and 8.06 after germination.

Germinated buck wheat products



Pyasam, dosa and Idly were developed with germinate buckwheat and evaluated at 25, 50 and 75%. Payasam ,dosa and Idly with 25% incorporation showed the best scores proportions in sensory evaluation.

Assessment of Health Related Quality of Life (HRQoL) in working men and women with Type 2 Diabetes

HHM/2016-011 AnushriBai

Major Advisor:K. Aparna Kuna

A study was undertaken to investigate the differences in the disease demographics and associated co-morbidities in working men and women with Type 2 Diabetes Mellitus (T2DM). The study was carried out in 292 working men and women from Bellary and Davangere districts of Karnataka state of India. The results indicate that sex and gender differences does exist in treatment, management and prevalence of associated co-morbidities among working women and men. Working women had higher prevalence of co-morbidities than men indicating a positive role of T2DM and its effect on dealing with multiple tasks of managing their regular activities, disease associated care and job related activities. The results re-emphasizes inclusion of sex and gender dimension in treatment modalities (pharmacological, dietary and quality of life) of T2DM in working men and women separately.

Effect of Foxtail Millet (*Setariaitalica*) and Quinoa (*Chenopodium quinoa*) food supplementation on glycemia and lipid profile in non-diabetic subjects with impaired glucose tolerance (IGT).

B.Anusha HHM/2015-04

Major Advisor : Dr.T.V.Hymavathi

The present investigation is aimed at to study the effect of foxtail millet(FM) and quinoa(QA) food supplementation on glycemia and lipid profile in non-diabetic subjects with impaired glucose tolerance (IGT) A cross over design was used for this study. Ten subjects were given 65g of either QA or FM for 30 days each and glucose, lipid and C-reactive protein levels were studied.

Supplementation of QA and FM significantly($p < 0.05$) and non-significantly reduced postprandial glucose and fasting glucose respectively. There were significant($P < 0.05$) reductions in all lipid fractions. QA consumption benefited in all fractions of lipids than that of FM. FM consumption resulted in significant reductions in TC and LDL-C but not in other fractions. Though not significant, relatively higher increase in HDL-C was exhibited by FM (1.7 mg/dl) than by QA(0.5mg/dl). During the 60 days consumption of QA and FM was found to have an overall benefit of lowering TC, TG, LDL-C, VLDL-C and HDL-C by 10.77, 6.83, 3.39, 14.63 and 7.71% respectively. Similarly QA and FM reduced the C-reactive protein by 4.2 and 3.9%.

Nutritional profiling and development of value added products with Quinoa (*Chenopodium quinoa*)

M. Priyanka FST/2015 – 007

Major advisor: Dr. Jessie Suneetha W

Quinoa (*Chenopodium quinoa Willd*) is a seed crop in use from times immemorial. The test and commercial sample were tested for colour, physico-chemical, nutritional, phytochemical and antinutritional properties. The Δa , Δb values for test quinoa sample (TQS) decreased by 2.35%, 23.1% where as ΔL value increased by 12.03% than commercial quinoa sample (CQS). The proximate analysis consisting of TQS and CQS showed no significant difference where as total dietary fibre of TQS increased by 41.24% than CQS.

This quinoa variety is categorized as medium GI and high GL food. Three snack and breakfast items each were prepared and all products scored high for colour, texture, taste, flavour and overall acceptability on 9 -point hedonic scale.



Quinoa products

Human Development and Family Studies

Resilience of Caregivers attending to Alzheimer Patients

M.Hemalatha and Dr. Nasreen Banu

Ex-post facto research study was taken up to find out Resilience of caregivers attending to Alzheimer patients taken up to findout Resilience of caregivers attending to Alzheimer patients. High self-efficacy relates to caregiver's perception of positive aspects of the care giving experience. However perceived problem stress, perceived multidimensional social

support and self-efficacy altogether were influencing resilience of caregiver with 15.8%.

Resource Management and Consumer Science

Workload analysis of female basket weavers for Recommending Ergonomic Intervention

AkshataMatapati and Dr. D.RatnaKumari

The findings revealed that more than half of the respondents (52.00%) belonged to the age group of 21 - 30 years with above 20 years of experience. Majority (60.00%) of the respondents worked for more than 8 hours per day (in summer season).

Based on these problems, the recommendations suggested as a part of the study were Development of appropriate and affordable equipment like light weight tools like kathi, hack saw as this may help to reduce the musculoskeletal disorders, enhance the work process and augment their income. The basket weavers also should avoid having long hours of work in a static posture while performing the basket weaving activity.

MFPI – Quality Control Laboratory

MFPI Quality Control laboratory has got the prestigious NABL (National Accreditation Board for Testing and Calibration Laboratories) Accreditation during 2015, for Chemical testing services providing an array of analytical services in raw food grains and their processed products. QC lab has now upgraded the Quality Management System with internationally accepted standards and guidelines i.e., ISO/IEC 17025:2005. The lab provides analytical services at affordable rates for farmers, small scale entrepreneurs, research organizations and research scholars on commercial basis. The lab has developed expertise in rendering services of high standards and traceability with respect to nutritional profiling, vitamin estimation, fatty acid and amino acid profiling, micronutrient and heavy metal analysis and microbiological testing for fungal and bacterial organisms.



PJTSAU vaari Chenukaburlu (PJTSAU's Farm information)

An innovative ICT programme, involving students of Agriculture, Agricultural Engineering and Home Science to disseminate technological information to