From Vice-Chancellor’s Desk

Wealth from Horticulture Waste

The Horticulture sector alone contributes about 30 percent of the total agricultural GDP from mere 8.5 percent of cropped area in our country. Various horticulture-based farming systems and processing industries provide huge quantity of crop residues and processing wastes, which have potential in value-addition. In mango processing industries, about 32-45 per cent of the total weight of mangoes used goes waste in various forms like peels, pulp waste and stones; and in banana, about 65 per cent of biomass goes as field wastes. Among vegetables, the waste index of cauliflowers is 48-58 per cent. Similarly, the crop residues of various crops range from 25 to 50 per cent. Besides processing waste and post-harvest commodity handling wastes and also wastage of dry flowers.

With the launching of the flagship scheme “Swachh Bharat Mission” by the Government of India, the ICAR institutes together with KVKs and SAUs acted on these issues, giving due priority and have come out with the development of a number of technologies in the form of value-added products, processes or processing equipment that can be successfully used to convert valuable Horticultural waste into wealth. Certain available technologies, viz. isolation of antioxidants, pectin and dietary fibres from mango peel, banana fibre from pseudostem sheath, candy, cookies, pickle and juice from banana central core stem, oil palm factory waste and coconut waste for mushroom production, natural fibre from pineapple leaf, pomegranate seed-based mouth fresh, coco peat-based coco husk for soil-less cultivation, cashew apple crunch, enzymes from potato peels, pectin from citrus fruit residues, decoration wall panels, greeting cards, paper weights etc. from dry flowers are golden examples of quality value-added products.

NO WASTE IN NATURE
Andhra Pradesh Formation Day

AP Formation Day was celebrated at Administrative Office, all the colleges, Research Stations and KVKs of Dr.YSRHU on 1 November 2020. Dr T.Janakiram, Vice-Chancellor, Dr.YSRHU paid floral tributes to Shri Potti Sriramulu at Administrative office. All the university officers and staff have participated in the programme.

National Education Day

National Education Day was celebrated at Administrative Office, all the colleges, research stations and KVKs of Dr.YSRHU on 11 November 2020. Dr T.Janakiram, Vice-Chancellor offered floral tributes to “Janab Maulana Abul Kalam Azad”.

Webinar

CoH, Venkataramannagudem organized a National webinar on “Soil borne Plant Pathogens Management with emphasis on biocontrol agents” on 05 November 2020. Dr T. Janakiram, Hon’ble Vice-Chancellor, the chief guest gave keynote address on status and importance of biocontrol as an alternative to chemical control. The programme was started with welcome address by Dr K. Uma Jyothi, Associate Dean, CoH, VR Gudem followed by presidential address Dr B. Srinivasulu, Director of Extension & University Head (Plant Pathology), Dr M. Lakshminarayana Reddy, Dean of Horticulture & Dean of P.G. Studies gave valuable suggestions.

The deliberations by all the eminent speakers, Dr. S. Lingaraju, Emeritus Professor, UAS, Dharwad, Dr Girija Ganeshan, Principal Scientist (Plant Pathology), Retd. IIHR, Bengaluru and Dr R.D Prasad, Principal Scientist (Plant Pathology), IIOR, Hyderabad, were very informative on the soil borne plant pathogens like fungi, bacteria, nematodes and their management on Horticultural crops. All the University Officers, Associate Deans, staff and students of Dr. YSRHU actively participated in the webinar. A total of 831 participants were registered from 24 states, 2 islands and 2 other countries and excellent feedback was received from the participants.

NSS Unit of CoH, Venkataramannagudem has organized online debate competition on “The Panorama of New Educational Policy-2020” as a part of celebration of National Education Day in which Hon’ble Vice-Chancellor & Dr H.P. Singh former DDG (Hort.), ICAR and Independent Director, Jain
Irrigation systems participated as chief guest, chairman & judge, respectively in the programme and addressed the students. In total 20 students have participated actively in the competition and presented their views on National Educational Policy-2020, out of which six participants were selected to award 1st, 2nd, 3rd and consolation prizes. The programme was coordinated by Dr.A.Sujatha, Dean of Student Affairs & NSS Programme Officer.

**RHWEP Activities**

Final year B.Sc (Horticulture) students allotted to HRS, Darsi under RHWEP programme visited HRS, Darsi on 3 November 2020 and they were explained about plant protection measures in horticultural crops in Prakasam district.

Dr YSR Horticultural university RHWEP students visited KVK, Venkataramannagudem on 9 November 2020. In this program students visited to KVK demonstration plots like azolla unit, vermicompost unit, Apiary, organic vegetable demonstration plot and Nursery. Later visited the University Museum, Centre of Excellence. The visit was coordinated by Dr. V. Deepthi, Scientist (Agricultural Extension), KVK, Venkataramannagudem.

The RHWEP students under KVK, Vonipenta conducted the activities like establishment of information corners, group discussion with farmers regarding papaya cultivation practices, information regarding farm holding survey, visit to school, Grameena bank, sachivalayam, visit to the farmer fields and provided suitable and necessary information to the farmers.

**Research**

Hon'ble Vice Chancellor Dr T.Janakiram and Dr R.V.S.K Reddy, Director of Research, visited HRS, Kovvur on 3 November 2020 and reviewed the progress of work going in Tissue Culture lab and field experiments pertaining to AICRP on Fruits (Banana), AICRP on Tuber Crops, AICRP on Nematodes and Non-plan and given the instructions for improvement of the station activities.

On 10 November 2020, Roving survey was carried out in Chagallu and Kalavalapalli villages of Chagallu Mandal, West Godavari district. At Chagallu village good establishment of *Psuedomallada astur* predator, *Encassia Guadeloupe* parasitoids were observed on Rugouse Spiraling Whitefly was noticed. At Kalavalapalli village, low incidence of Rugouse Spiraling Whitefly and low to medium incidence of Bondar's nesting whitefly was observed.

In parallel to continuous rains prevailed, Scientists of HRS, Anantharajupeta reported mealy bug and snail menace in open field and inside the polyhouse house grown papaya plants and necessary measures were being taken up to control the same.
Dr R. Nagaraju, Principal Scientist (Horticulture) & Head, HRS, Ananthpur visited mango, Papya, and Guava fields Dadireddypalli village, Kamalapuram, YSR Dist. on 9 November 2020 and observed severe mango vegetative malformation in Alphonso plants procured from Ratnagiri, Maharashtra, Papaya leaf curl virus in Taiwan red lady variety. Discussed with the farmers and informed the necessary precautions to be taken to minimize the crop loss.

Dr L. Mukunda Lakshmi, Dr D.Srinivasa Reddy and Dr T. Rajasekharam, Dr V. Gopi, Technical Assistant, CRS, Tirupati visited Malta sweet orange garden of Sri. Mallikarjuna Reddy at Kalavapalli village, Kalyanadurgam Mandal, Ananthpur district on 9 November 2020 and collected scion material.

Webinar
Dr YSRHU conducted online state-level webinar on “Prospects of Horticulture in South India” on 7 November 2020 under the Chairmanship of Dr T Janakiram, Vice-Chancellor. Dr. A.K. Singh, DDG (HS) was the chief guest and delivered a special address on “Prospects of Horticulture in south India” The programme was coordinated by Dr R.V.S.K. Reddy, Director of Research.

Webinar
Dr YSRHU-Plant Protection Advisory Cell conducted online state-level webinar on “Nematodes in Horticulture Crops and their Management” on 9 November 2020. Dr. M.S. Rao, Principal Scientist (Retd.), Division of Entomology & Neatology, ICAR-IIHR, Bengaluru gave a lecture in this webinar. University Officers and faculty of Dr YSRHU participated in the webinar and interacted after the presentations with participants.

Extension Activities
Vice-Chancellor to Village program Activities
Vice-Chancellor to Village program was initiated at Rythu Bharosa Kendra, Jaggannapeta on 12 November 2020. The program was chaired by Hon’ble Vice-Chancellor, Dr T. Janakiram. Dr R.V.S.K. Reddy, Director of Research, Dr B. Srinivasulu, Director of Extension along with the staff of HRS, V.R.Gudem and farmers participated in the meeting. The main objective of this program along with the benefits the farming community will be getting with implementation of this program were explained to the farmers by the staff of HRS, V.R.Gudem.

Dr B. K.M. Lakshmi, Sr.Scientist (Plant Pathology) and Head and Dr G. Sravanthi, Scientist (Entomology), MRS, Nuzvid organised field visit as a part of Vice-Chancellor to Village programme in adopted village, Ravicherla on 10 November 2020 and interacted with the farmers.
On 10 November 2020 under the flag ship program ‘Vice-Chancellor to Village’, KVK, Periyavaram conducted training programme on “Value addition of Fruits and Vegetables for Entrepreneurship Development” to the farmers, farm women and rural youth of the adopted village, C.C.Kandriga at Raithu Bharosa Kendram (RBK), Paravolu. The farmers were trained on the need and importance of value addition in Horticulture crops. Value added products, supply chain management and different entrepreneurship schemes were enlightened to the rural youth. Dr B.Vijayasree, Research Associate (Home Science) co-ordinate the programme.

On 06 November 2020 Dr B.V.K.Bhagavan, Principal Scientist (Horticulture) & Head & Dr N.B.V.Chalapati Rao, Principal Scientist (Entomology), HRS, Ambajipeta participated in the training program at adopted village Avidi and explained about the importance of nutritional management in coconut and cocoa and Rugouse Spiraling Whitefly diagnosis, management and distributed pamphlet entitled “Jeeva Niyantarana padhatula dwara kobbarini asimche Sarpilakara Telladoma niverana” to the farmers.

The team of College of Horticulture, Venkataramannagudem and Dr A.S. Padmavathamma, Controller of Examinations visited the farmers fields of Prakasaraopalem (adopted village) on 13 November 2020. Visited the coconut and cocoa intercrop orchard and discussed about management of rugose spiralling whitefly, aphid control in cocoa and pruning practices in cocoa for higher yield. They also visited coconut, guava and arecanut inter cropping and black gram fields. Further they observed different pests and diseases in organic terrace gardening and recommended management practices and planted seed potatoes in the grow bags.

Under “Vice-Chancellor to Village” - “మన గ్రామం - మన విశ్వవిద్యాలయం” Program, Hon’ble Vice Chancellor, Dr T.Janakiram, Dr RVSK Reddy, Director of Research, Dr. B. Srinivasulu, Director of Extension interacted with the farmers, Villagers and Students virtually in a Gramasabha organized by Dr R. Nagaraju, Principal Scientist (Horticulture) & Head, Dr T. Naga Lakshmi, Scientist (Plant Pathology) and Dr. Y.Sharat Kumar Reddy, Scientist (Plant Physiology), HRS, Anantharajupet in adopted village “VPR Kandriga, Rly. Kodur, Mandal, YSR Kadapa – District” on 12 November 2020. Department officials, ADH, HO and MPDO and progressive farmers, Self Help Group members (30 women) and school children have participated in the program. Dr. T. Naga Lakshmi, Scientist (Pl.Path) demonstrated the preparation of Low cost Methyl Eugenol fruit fly trap for the management of fruit flies in fruit crops.

On 02 November 2020, KVK, Pandirimamidi has provided inputs i.e. hose pipes, hedge shear to farmers of P.M Kota village of Maredumilli mandal as a part of Vice chancellor to Village programme, to develop nutria gardening and also maintenance of ornamental plants.
The scientists of Horticultural research station visited the adopted village Ravurupadu of Tallapudi Mandal on 4.11.2020 and conducted the Grama Sabha under VC to Village (Mana Gramam – Mana Visvavidhyalam) programme where in 20 farmers have participated and were briefed about the importance of the programme and the activities to be taken up in due course. Horticultural Officer, Kovvur, Panchayat Secretary and Horticulture Assistant form RBK have attended the meeting.

**Dr.YSRHU Year of Coconut Activities**

Hon’ble Vice Chancellor Dr T.Janakiram and Dr R.V.S.K Reddy, Director of Research planted coconut seedlings in the office premises of HRS, Kovvur on 3 November 2020 as a part of “Dr.YSRHU Year of Coconut 2020-2021” celebrations.

Planted coconut seedlings on 12 November 2020 in MPP school compound at Jagannapeta which is an adopted village by HRS, V.R.Gudem for the year 2020 – 21 as a part of “Vice Chancellor to Village” program. Hon’ble Vice-Chancellor, Director of Research and Director of Extension Dr. YSRHU along with all the staff members of HRS, VR Gudem participated in the programme.

As a part of Dr YSRHU, Year of Coconut celebrations, all the staff members of HRS, V.R.Gudem along with Hon’ble Vice-Chancellor and University officers, planted coconut seedlings in HRS office premises on 04 November 2020.

As a part of Dr.YSRHU Year of Coconut 2020-21, Scientists, MPDO, Department of Horticulture officers, Farmers, VHA’s, Village volunteers, and School children have participated in the coconut saplings planting programme at VPR Kandriga (adopted village under VC to Village programme), Rly Kodur mandal on 12 November 2020 on the eve of Dr YSRHU Year of Coconut 2020-21 celebrations.

On 7 November 2020 Dr.B.Govinda Rajulu, Principal Scientist (Plant Pathology) & Head, KVK, Periyavaram planted coconut seedlings and created awareness on coconut cultivation and explained about the nutritional qualities of coconut.

**Survey**

On 10 November 2020 Ms.K.Sravani, Research Associate (Agricultural Extension), KVK, Periyavaram conducted household survey and collected details of the individual families in adopted village (C.C.Kandriga) as a part of Vice-Chancellor To Village programme.
Training Programmes

As a part of Implementation of Scheduled caste SubPlan (SCSP) programme under AICRP on fruits, 11 farmers were selected for demonstration of AICRP technologies on citrus, (Tirupati Centre) at Chiyyedu village, Ananthapur Rural Mandal. A farmers awareness meeting was organized on 9 and 10 November 2020 and inputs like manures, fertilizers, pesticides, fungicides and sprayers (20 litres Capacity) were distributed to the growers. The programme was attended by Dr L. Mukundalakshmi, Senior Scientist (Horticulture), Dr. D.Srinivasa Reddy, Senior Scientist (Ento) and Dr T. Rajasekharam, Scientist (Plant Pathology), Dr. V. Gopi, Technical Assistant, HO, Anantapur Rural and VHA, Chiyyedu Village.

Dr M. Mutyla Naidu, Principal Scientist (Horticulture) & Head, HRS, Darsi attended training programmes as resource person organized by KVK, Darsi on 1, 8, & 15 November 2020 on “Improved management practices in mango & chillies”, “Improved management practices in guava, pomegranate and amla” and “Improved management practices in Cole crops & Cucurbits” respectively under DESI programme.

On 12 November 2020, On-campus training programme was conducted on Scientific methods of Fodder cultivation and Management for practicing farmers, farm women and extention functionaries. Dr B.Govinda Rajulu, Principal Scientist and Head, KVK, Periyavaram addressed the farmers and explained regarding the importance of fodder cultivation and its importance in animal feed. Dr K.Giridhar, Principal Scientist, Agronomy, ICAR-NIANP, Bangalore participated through Online mode and delivered presentation on “Improved varieties of fodder and various preservation techniques like silage making and hay preparation”. Dr P.Manjari, Scientist, Veterinary Science, KVK -Periyavaram explained in detail regarding the cultivation practices of Super napier and fodder sorgum Co31 variety. A pamphlet on “Pashuvulaku pacchigaddiga jonna pashugrasamu (CO-31) melu” was released and distributed to the farmers. Field visit to fodder demonstration plots in instructional farm of KVK was conducted for the participants and distributed super napier fodder slips and CO-31 fodder seed to the dairy farmers.

On 6 November 2020, Sri K.C.Bhanumurthy, Scientist (Horticulture), KVK, Pandirimamidi has attended as a resource person to phone-in training program to farmers on improved cultivation practices of cashew at Routhalapudi village of Routhalapudi mandal organized by Reliance foundation, E.G. District. Addressed the farmers about the seasonal practices to be followed in cashew to get more yields.
On 04.11.2020, KVK, Venkataramannagudem conducted Assessment test for the participants who attended “Mushroom Grower” skill training programme from 28.02.2020 to 23.03.2020 under Agricultural Skill Council of India (ASCI).

On 05 November 2020, Dr K.Venkata Subbaiah, Scientist (Horticulture), Shri G. ShaliRaju, Scientist (Entomology), Dr T.Vijaya Nirmala, Scientist (Veterinary Science), Dr U.Shiva Kumar, RA (Soil Science), KVK, V.R.Gudem visited RBK center at Pandugudem village and explained about activities of KVK to the RBK staff. Later distributed literature on ameliorative measures to be taken in horticultural crops during heavy rains.

On 5 November 2020, KVK, Venkataramannagudem conducted off-campus training program on “Importance and preparation of concentrate feed mixture in livestock” to tribal farmers of K.Nagampalem village, Polavaram mandal and distributed concentrate feed mixture to livestock rearers. The program was co-ordinated by Dr T. Vijaya Nirmala, Scientist (Veterinary Science). Dr K.Venkata Subbaiah, Scientist (Horticulture), Shri G. Shali Raju, Scientist (Entomology) and Dr K.Shiva Kumar, RA (SSAC) have participated in the program.

On 6 November 2020, P Raja Sekhar, Scientist (SS&AC), KVK, Pandirimamidi attended as a resource person through Audio conference to the training programme on Improved Management Practices in Cashew organized by Department of Horticulture and Reliance Foundation at Rowthulapudi mandal of East Godavari District and explained about seasonal practices to be followed in cashew and also clarified the doubts of farmers.


On 9 November 2020, KVK, Vonipenta conducted an on campus training to the farmers on Vermicompost production technology as a part of Swachhata hi Seva programme at KVK, Vonipenta. G. Sandeep Naik Scientist (Pl Path) & Head and Dr V. Nagarjuna, Research Associate (Soil Science) explained the bed preparation, production technology, uses of vermicompost application, cost of production, Vermi-wash and fortification of vermicompost.
On 5 November 2020, KVK, Vonipenta conducted Extension functionaries training programme at Badvel and Porumamilla divisions in collaboration with DRC, Kadapa and Dept of Agriculture. Shri G. Sandeep Naik, Scientist & Head and Dr V. Nagarjuna, Research Associate (Soil Science) explained about Fertilizer management, weed management, Pest and disease management in bajra, sunflower and mango.

On 5 November 2020, KVK, Vonipenta conducted off campus training program on “Pests and Disease Management in Groundnut” at Gudipadu village of Duvvuru mandal. Explained the importance of seed treatment with tebuconazole @ 1 gm/kg followed by imidacloprid@ 1 ml/kg seed for managing root rot, collar rot and stem rot diseases, sucking pest complex in groundnut and also explained the IPM practices and diseases management in groundnut. Sri.G.Sandeep Naik, Scientist (Plant Pathology) & Head and Dr V. Nagarjuna, Research Associate (Soil Science) explained about the cultivation practices viz., suitable varieties, weed, water, fertilizer management in groundnut.

On 6 November 2020, KVK, Vonipenta conducted off-campus training programme on “Design and development of high nutri-dense foods for adolescent children”. Smt. Suneetha Runjala, Research Associate (Home Science) explained about adolescent nutritional requirements, deficiencies and food sources to recover from deficiencies. Also explained about nutri-dense mixtures like combination of cereal, pulse and oilseed, mixture of fruit and milk combination, millet, oil seed (Nuts) and milk mixtures, and green leafy vegetables.

On 7 November 2020 Dr V. Yugandhar, Research Associate (Horticulture), KVK, Vonipenta conducted Extension functionaries training programme at Mydukur mandal by KVK, Vonipenta in collaboration with DRC, Kadapa and Dept of Agriculture. Scientist explained about Fertilizer management, weed management, Pest and disease management in tomato, chilli, papaya, banana and turmeric.

On 10 November 2020, KVK, Vonipenta conducted off campus training programme on “Integrated Crop Management in Tomato” under Vice-Chancellor to Village programme at Sunkulagariipalli village of Mydukur mandal. Dr V. Yugandhar, Research Associate (Horticulture) explained about varieties, cultivation practices, soil test-based fertilizer management through fertigation, pests and disease management in Tomato.

On 11 November 2020, Srividya Rani.N, Scientist (Extension) and Dr V. Nagarjuna, Research Associate (Soil Science), KVK, Vonipenta conducted Extension functionaries training programme at Badvel and Porumamilla by KVK, Vonipenta in collaboration with DRC, Kadapa and Dept of Agriculture. During the programme, Scientists explained about Fertilizer management, weed management, Pest and disease management in Bajra, Sunflower and Mango and biological methods in pest control. In this programme ADA, FTC, Kadapa and 24 members from Badvel and 58 members from Porumamilla division had participated.

**Diagnostic Visits**

On 3 November 2020 Dr Ch. Ruth, Smt. G. Sarada and Dr Arunodayam, CoH, Anantharajupeta have visited mango gardens in Anantharajupeta village of Koduru mandal. Observed the severe gummosis infection on mango trees and suggested remedial measures viz., removal of dried branches and spraying with Bordeaux mixture or Cabendazim and also suggested remedies for various nutritional deficiencies in mango.

Dr M.Kavitha, Senior Scientist (Plant Pathology), CRS, Petlur on 10 November 2020 conducted diagnostic field visits of acid lime gardens in Dakkili and Rapur mandals and recorded the low to medium severity of canker and greasy spot diseases and suggested to spray copper oxy chloride 3g/l with streptocycline 2g/10litre of water.

Dr L. Mukunda Lakshmi, Senior Scientist (Horticulture), Dr. D.Srinivasa Reddy, Senior Scientist (Entomology) and Dr T. Rajasekharan, Scientist (Plant Pathology) and Dr V. Gopi, Technical Assistant CRS, Tirupati surveyed sweet orange and acid lime orchards in Ananthapur region on 10 November 2020.

On 4 November 2020, Dr T.Vijaya Nirmala, Scientist (Veterinary Science) and Dr A.Devivaraprasad Reddy, Scientist (Fishery Science), KVK, Venkataramannagudem visited buffalo dairy unit of farmer from Telikicherla village, Nallajerla mandal and observed mastitis condition in buffalo which showing symptoms such as reddish discoloured milk, swelling and enlargement of right rear teat and treated with inj.Dicrysticine – 2.5g, I/M, inj, Melonex – 15 ml I/M, inj.Avil – 10 ml I/M and intramammary administration of Pendistrin SH ointment for 5 days.

Dr A.Devivaraprasad Reddy, Scientist, and Dr T.Vijaya Nirmala, Scientist KVK VRGudem has taken up visited follow up visit to the fish farm on 4 November 2020. Identified argulus fish lice in the ponds and suggested the treatment along with precautions to be taken during winter season to avoid diseases.
On 5 November 2020, Sri.G.Shali Raju, Scientist (Entomology), KVK, V.R.Gudem visited guava fields in Tadimalla village and observed infestation of Root knot nematodes and suggested application of enriched FYM (with 2kg *T.viride* or *T.harzianum* + *P.lilacinum* + *P.fluorescens* multiplied in one tone of FYM with sufficient moisture for 10 – 15 days) @ 2 kg/plant for every 3 months. Later supplied the above said critical inputs to the farmer.

On 05 November 2020, Dr K.Venkata Subbaiah, Scientist (Horticulture), Shri G.Shali Raju, Scientist (Entomology), Dr T.Vijaya Nirmala, Scientist (Veterinary Science), Dr U.Shiva Kumar, RA (Soil Science), KVK, V.R.Gudem conducted regular follow up visit to the brinjal, bhendi and ridge guard fields in K.Nagampalem Village, Polavaram Mandal and suggested suitable remedial measures against pests and diseases.

On 5 November 2020, Dr T.Vijaya Nirmala, Scientist (Veterinary Science), KVK, Venkataramannagudem visited poultry unit of farmer at K.Nagampalem village, Polavaram mandal and observed mite infestation in shank region of Aseel cock and suggested spraying of ectoparasiticides such as permethrin or deltamethrin@ 2ml in 1 liter of water on birds and also inside and outside premises of the shed and repeat at 7 days interval.

On 5 November 2020, P Raja Sekhar, Scientist (SS&AC), KVK, Pandirimamidi has visited banana gardens at Thimmapuram village of Addateegala mandal. More number of suckers around the plant was observed and suggested the farmer to allow only one sucker per plant followed by removal of remaining ones before bunch formation for proper utilization of fertilizers being applied and also observed healthy growth of colocasia as an intercrop in banana.

On 7 November 2020, Sri Bhanumurthy K.C, Scientist (Horticulture), KVK, Pandirimamidi visited ITDA – HNTC Farm at Rampachodavaram village of Rampachodavaram mandal to give technical advice regarding the cashew nursery and its maintenance to Project Horticulture Officer, ITDA-Rampachodavaram. The cashew nursery is at 20 days old after grafting. Observed collar rot infection, sucking pest infestation on young leaves and suggested foliar application of copper oxy chloride @ 3g/l and Imidacloprid @ 0.3 ml/l.

On 12. November 2020, Sri Bhanumurthy K.C, Scientist (Horticulture), KVK, Pandirimamidi visited BPP-8 cashew orchards at Seetharamapuram (Korukonda mandal) and Mallisala village (Gokavaram mandal) as a follow up visit. These cashew orchards were developed with planting material (BPP-8 cashew grafts) from KVK, Pandirimamidi during 2017-18. The orchards are at 3 years old stage with good frame work and started giving yields. And farmers are happy with performance of BPP-8 variety and hoping for good yields this year.
On 2 November 2020, Shri G. Sandeep Naik, Scientist and Head and Dr V. Yugandhar, Research Associate (Horticulture), KVK, Vonipenta visited banana fields for diagnosis of pests and diseases at Mudireddipalli Thanda village of Mydukur mandal. Observed the sigatoka leaf spot and suggested to spray Chlorothalonil @ 0.2% or Propiconazole @0.1% + mineral oil @ 1%.

On 3 November 2020, Dr V. Yugandhar, Research Associate (Horticulture), KVK, Vonipenta visited Papaya field for diagnosis of pests and diseases at Settivaripalli village of Mydukur mandal. Observed the Papaya mosaic virus disease and suggested to spray Imidachloprid @ 0.3 ml/litre or Fipronil @2 ml/litre for controlling the vector transmitting viruses.

On 5 November 2020, Dr V. Yugandhar, Research Associate (Horticulture), KVK, Vonipenta visited marigold field for diagnosis of pests and diseases at Papannapalli village of Mydukur mandal. Observed the leaf spot disease and suggested to spray carbendazim @ 0.1% or mancozeb @0.2% to manage the disease.

On 6 November 2020, Dr V. Nagarjuna, Research Associate (Soil Science) and Dr V. Yugandhar, Research Associate (Horticulture), KVK, Vonipenta visited tomato fields for diagnosis of pest and disease incidence at Sunkulagaripalli village of Mydukur mandal. Observed flower drop in tomato and suggested application of boron @ 0.1% twice in 15 days for correcting the nutrient deficiency.

On 7 November 2020, Dr V. Nagarjuna, Research Associate (Soil Science), KVK, Vonipenta visited papaya fields for diagnosis of pest and disease incidence at Aravetipalli village of Muddanuru mandal. Observed the virus diseases in papaya and suggested for removal and destruction of infected plant followed by spraying of Acephate @ 2.5 gm/litre for control of insect vector.

On 10 November 2020, Dr V. Yugandhar, Research Associate (Horticulture), KVK, Vonipenta visited tomato fields for diagnosis of pest and disease incidence at Papannapalli village of Mydukur mandal. Observed root rot in tomato and suggested soil drenching with Ridomil @ 0.25% to the disease infested and surrounding plants to control the spread of root rot disease.

**Front Line Demonstrations**

On 5 November 2020, Sri Bhanumurthy K.C, Scientist (Horticulture), KVK, Pandiripamidi provided vegetable seed kits under FLD i.e. Promotion of Nutri gardening in agency area to SHG women of Folkspeta, Munichinagadda villages of Rampachodavaram mandal.
On 5 November 2020, Dr K. Venkata Subbaiah, Scientist (Horticulture), Shri G. ShaliRaju, Scientist (Entomology), Dr T.Vijaya Nirmala, Scientist (Veterinary Science), Dr U.Shiva Kumar, RA (Soil Science) visited K. Nagampalem for monitoring ongoing kharif technical programs i.e. introduction of ridge gourd var. Arka prasan and introduction of okra F1 hybrid Arka nikita. The farmers who are cultivating these two varieties expressing their happiness at field levels when compared to other private hybrids.

On 5 November 2020, P Raja Sekhar, Scientist (SS&AC), KVK, Pandiririmamidi has visited cotton fields under FLD on ‘Exogenous application of plant nutrients and growth promoter for yield enhancement in rainfed cotton’ at Thimmapuram village of Addateegala mandal. Due to scheduled sprayings of plant nutrients, it is observed that flower and boll drop was less and also significant correction of magnesium deficiency as compared to fields under farmers practice. Provided gibberellic acid @30 ppm to the beneficiary farmer for spraying at boll development stage in cotton.

On 3 November 2020, Dr V. Yugandhar, Research Associate (Horticulture), KVK, Vonipenta visited turmeric fields for follow up under FLD at Settivaripalli village of Mydukur mandal. During the visit scientist explained about fertilizer management and disease management during the rhizome development stage.

On 3 November 2020, Smt. Suneetha Runjala, Research Associate (Home Science), KVK, Vonipenta had initiated the FLD on Demonstration of lime and Sweet orange harvester in acidlime orchards at Gandikota village of Jammalamadugu mandal. Harvesting of acidlime is more laborious and more pricks on hands and shoulders while collecting the fruits. It reduced the drudgery as well as fruit damage.

On 6 November 2020, Dr V. Nagarjuna, Research Associate (Soil Science) and Dr V. Yugandhar, Research Associate (Horticulture), KVK, Vonipenta initiated the FLD on Micronutrient management in tomato for getting higher yields at Sunkulagaripalli village of Mydukur mandal. Suggested application of Zinc Sulphate @ 2gm/lit, boron @ 1g/litre along with Urea @ 20 g/litre at the time of flowering for reducing the flower and fruit drop and increasing the yield.

On 9 November 2020, Sri.G.Sandeep Naik, Scientist & Head, KVK, Vonipenta provided inputs under FLD on Demonstration of MYMV resistant Blackgram var. TBG-104 at Koravani-palli village of Thondur mandal. Scientist explained about seed treatment, cultivation practices, pest and disease management to the beneficiary farmers.
On 7 November 2020, Dr V. Nagarjuna, Research Associate (Soil Science), KVK, Vonipenta conducted a follow up visit for FLD on Soil Test based fertilizer application in Papaya at Aravetipalli village of Muddanuru mandal. Scientist recommended the fertilizer requirement based on soil test-based results and distributed the micronutrient mixture to the beneficiary farmers.

On 7 and 8 November 2020, Smt. Suneetha Runjala, Research Associate (Home Science), Dr V. Yugandhar Research Associate (Horticulture), KVK, Vonipenta initiated the FLD on Demonstration of banana comb cutter to reduce drudgery in banana harvesting at Vonipenta and Sunkulugaripalli villages of Mydukur mandal. Demonstrated Comb cutter separating combs from the bunch without any fruit damage and it reduced the drudgery while comparing with local practice.

On 10 November 2020, Dr V. Yugandhar, Research Associate (Horticulture), KVK, Vonipenta provided Vegetable special to the beneficiary farmers for conducting FLD on Effect of Vegetable special on yield and quality of Tomato. Scientist explained about the importance of micronutrients in tomato for getting of higher yields and quality fruits and suggested spraying of Vegetable special @ 5g/l of water at 45,60,75 DAT on tomato plants.

**Exposure Visits**

On 12 November 2020 Dr V. Nagarjuna, Research Associate (Soil Science), KVK, Vonipenta conducted exposure visit to farmers under PKVY programme at G.Venkatapuram and Chinnaorampadu villages of Obulvaripalli mandal. The scientist along with farmers visited banana fields under organic cultivation and the farmers shared their experience and explained the cultivation practices which they followed.

**OFTs**

On 2 November 2020 Smt. Suneetha Runjala, Research Associate (Home Science) Dr V. Nagarjuna, Research Associate (Soil Science), KVK, Vonipenta had initiated OFT on Nutri-gardens at Anganwadi centers at Mydukur, Prodduturu and Kasinayana mandals of Kadapa district. Vegetable and green leafy vegetable seeds were sown and planted mango grafts, papaya seedlings to promote organic foods to children and pregnant women.

On 4 November 2020, Dr V. Yugandhar, Research Associate (Horticulture), KVK, Vonipenta has provided Onion seeds of var. NHRDF Red-3 (L-652) and Agrifound Light Red under OFT “Introduction of Onion variety “NHRDF Red-3 (L-652)” at Madirepalli village of Duvvur mandal.
Meetings
Dr A.Sujatha, Dean of Student Affairs has given a class on “Pest Management in Coconut” on 6 November 2020 through online under “coconut Graduate Readiness Programme for Agri./Hort. UG students”. Totally 586 no.of viewers viewed this programme from all over India organized by College of Horticulture, Venkataramannagudem.

Dr A.Sujatha, Dean of Student Affairs has participated in the webinar conducted by “AP Entomologists Group” on 8 November 2020. In this webinar she has given a presentation on “Current status of insect pests of Horticultural crops in Andhra Pradesh”.

Dr V.Sudha Vani, Associate Professor, CoH, Venkataramanagudem has participated in the AICTE-ATAL Sponsored Faculty Development Programme on "Emerging Technologies in Postharvest Management and Valude Addition in Horticultural Commodities" held on line from 2 to 6 November 2020. The FDP is being organized by Department of Agriculture and Environmental Sciences, NIFTEM.

Dr V.Sudha Vani, Associate Professor, CoH, Venkataramanagudem has participated in the AICTE-ATAL Sponsored Faculty Development Programme on "Emerging Technologies in Postharvest Management and Valude Addition in Horticultural Commodities" held on line from 2 to 6 November 2020. The FDP is being organized by Department of Agriculture and Environmental Sciences, NIFTEM.

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Dr P. Ramadevi, Senior Scientist (Plant Pathology), Dr D. Aparna, Scientist (Horticulture) and Smt. P. Sunitha, Scientist (Entomology) participated in online XXVIII group meeting of AICRP on Medicinal & Aromatic Plants and Betelvine from 2 to 5 November 2020.

Dr G.Ramanandam, Principal Scientist (Horticulture) & Head Dr R Nagalakshmi, Senior Scientist (Horticulture) and Dr K Ravindra Kumar, Scientist (Horticulture) attended the Zoom meet on Banana Export policy in AP organized by JDH(Fruits), O/o Commissioner of Horticulture, Govt. Of AP on 5 November 2020.

Visits
On 03 November 2020, Shri.M V S Nagi Reddy garu, Hon’ble Vice chairman, Andhra Pradesh State Agriculture Mission, visited the Banana Research Station, Pulivendula along with Shri Anil Kumar Reddy, OSD, Pulivendula Area Development Authority and other divisional officers of allied departments. Shri V.Govardhan Rao, Scientist (Plant Pathology) & Head interacted with the officials and conveyed the progress in establishment of Banana Research Station, Pulivendula.

Dr R. Nagaraju, Principal Scientist (Hort) & Head, HRS, Anantharjupeta inspected the works taken up by APG & BC, Vijayawada @ Tirupati zone as Third party Inspection officer and inspected the soft land scape works taken up at VENKATESWARA COLONY PARK, 9th Ward, CHITTOOR and submitted the report.

Vol.VI, Issue–19 Dr YSRHU e-Newsletter 1-15 November 2020
Dr G. Ramanandam Principal Scientist (Horticulture)& Head, HRS, Kovvur visited inundated fields of banana, Coccinia and other vegetable crops in Kamsalipalem village of Nidadavolu mandal, West Godavari District along with Central Flood relief team and Horticulture Department officials on 10 November 2020.

**HRD**

Dr. T.Vijaya Nirmala, Scientist (Veterinary Science), KVK, Venkataramannagudem participated in virtual national webinar on "Entrepreneurial opportunities in Poultry" from 3 to 6 November 2020 organized by ICAR-Directorate of Poultry Research, Rajendra nagar, Hyderabad.

**Publications**


**Phone-in-Live Programme**

Dr. G. Ramanandam, Principal Scientist (Hort.) & Head, HRS, Ambajipeta attended Phone-in-Live Programme on “Integrated Nutrient Management for Tissue culture Banana Cultivation” at Doordarshan Kendra, Vijayawada which was telecasted on 11 November 2020.

**Phone-in-Programs under Farmers Advisory Cell of Dr YSRHU**

Dr YSRHU-Farmers Advisory Cell organized following Phone-in-Programs during first fortnight of November (3-4 PM).

<table>
<thead>
<tr>
<th>Date</th>
<th>Activities</th>
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<tbody>
<tr>
<td>02.11.2020</td>
<td>Coconut Seed Nut Selection and Raising Nursery</td>
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<tr>
<td></td>
<td>Dr. L. Naram Naidu, Professor, CoH, Venkataramannagudem</td>
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<tr>
<td>03.10.2020</td>
<td>Plant Protection in Banana</td>
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<tr>
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<td>Dr. A. Snehalatarni, Scientist, HRs, Kovvur</td>
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<tr>
<td>04.11.2020</td>
<td>Methods of Cost Effective Vermi Composting</td>
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<td>Shri P. Rajashekar, Scientist, KVK, Pandirrimamidi</td>
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<td>Date</td>
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<tr>
<td>05.11.2020</td>
<td>Plant Protection in Betelvine Cultivation &lt;br&gt;Dr.P.Ramadevi, Senior Scientist &amp; Head, HRS, Venkataramannagudem</td>
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<td>06.11.2020</td>
<td>Plant Protection in Turmeric &lt;br&gt;Dr.K.Giridhar, Senior Scientist, HRS, Lam</td>
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<td>07.11.2020</td>
<td>Disease Management in Sheep and Goat &lt;br&gt;Dr.T.Vijaya Nirmala, Scientist, KVK, Venkataramannagudem</td>
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<td>09.11.2020</td>
<td>Integrated Nutrient Management in Coconut &lt;br&gt;Dr.M.Madhavi, Professor, CoH, Venkataramannagudem</td>
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<td>10.11.2020</td>
<td>Sweet Potato Varieties—Scientific Management Practices &lt;br&gt;Dr.M.Janaki, Scientist &amp; Head, HRS, Peddapuram</td>
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<tr>
<td>11.11.2020</td>
<td>Disease Control in Onion, Turmeric, Chilli and other Horticultural Crops &lt;br&gt;Dr.Ch.Ruth, Professor, CoH, Anantharajupeta</td>
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<td>12.11.2020</td>
<td>Precautions to be taken in Fertilizer Application &lt;br&gt;Shri P.Rajashekar, Scientist, KVK, Pandirimamidi</td>
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<tr>
<td>13.11.2020</td>
<td>Management practices before flowering in mango &lt;br&gt;Dr.M.Ramesh Babu, Senior Scientist, HRS, Venkataramannagudem</td>
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