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## From Vice-Chancellor's Desk

### Reforms in Research

Dr.Y.S.R.Horticultural University is adopting a multipronged approach on conducting Research in 20 Horticultural Research Stations (HRSs), All India Coordinated Research Projects (AICRPs) on Specific Crops, research in colleges with Post Graduate and Ph.D students, and on-farm Research for validation, refinement, adoption and popularization of new technologies at farmers fields in a participatory mode.

By conducting State Level Technical Programme review meetings discipline and research station wise, given top priority on solving location specific problems need based research mostly useful to the farmers of Andhra Pradesh, and in-turn national level researchable issues through AICRPs and collaborative research programmes with other organizations.

Emphasis has been given on documentation and registration of existing germplasm of horticultural crops being maintained in Horticultural Research Stations of the university. The short-medium and long-term, and time-bound research programmes on precision farming, protected cultivation, intensive cultivation, multi-cropping systems, sensor-based operations, effective management practices on insect and disease surveillance with an aim to fulfill research gaps in horticultural crops, it is decided to give crop-based priority. And, we have declared, year 2020 as “**Dr YSRHU Year of Coconut**”.

**Dr.T.Janakiram**  
Vice-Chancellor

## The Events

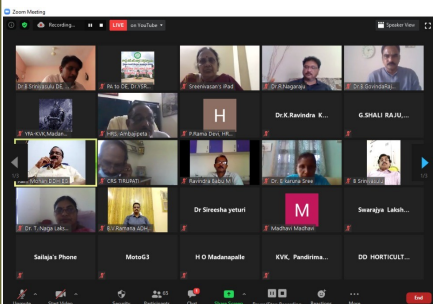
### Hon'ble Vice-Chancellor meeting His Excellency Governor and Hon'ble Chief Minister of Andhra Pradesh



Dr T. Janakiram garu, Hon'ble Vice-Chancellor, Dr YSRHU, had meeting with his Excellency Governor and Hon'ble Chief Minister of Andhra Pradesh on 21 August 2020 along with Dr Poonam Malakondiah garu, IAS, Special Chief Secretary to Department of Agriculture & Co-operation, Government of Andhra Pradesh and briefed about the ongoing R&D activities in the university.

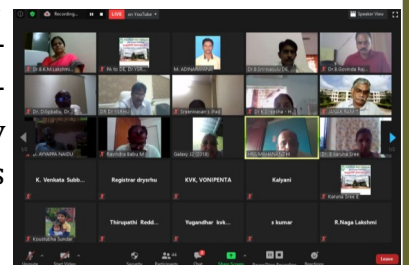
### Webinars

Dr YSRHU-Plant Protection Advisory Cell conducted online state level webinar on "Invasive Insect Pests Threat in Horticultural Crops & Strategies for their Management" on 18 August 2020 under the Chairmanship of Dr T. Janakiram, Vice-Chancellor in coordination with ICAR-IIHR, Bengaluru. Principal Scientist ICAR-IIHR, University Officers and faculty of Dr YSRHU participated in the webinar and interacted after the presentations with participants.



Dr YSRHU-Farmers Advisory Cell conducted online state level webinar on "Advisories for Horticultural Crops Affected due to Heavy Rains in Andhra Pradesh" on 21 August 2020 under the Chairmanship of Dr T. Janakiram, Vice-Chancellor. University Officers and faculty of Dr YSRHU, Officers from Department of Horticulture and Farmers participated in the webinar and interacted with participants.

Dr YSRHU-Farmers Advisory Cell conducted online state level webinar on "Skills and Income Generating Activities for Economic Empowerment of Rural/Tribal Women" on 28 August 2020 under the Chairmanship of Dr T. Janakiram, Vice-Chancellor. University Officers and faculty of Dr YSRHU, Officers from Department of Horticulture and Farmers have participated in the webinar and interacted after presentations.



## Education

### NSS Activities

Dr A.Sujatha, DSA & Programme Coordinator of NSS, organized a Webinar on “Combating the COVID-19 Pandemic and its Reflections by the Student community” to enlighten and equip the students, to face the challenges during COVID-19 pandemic. The webinar was coordinated by the NSS cell, College of Horticulture, Venkataramannagudem, on 20 August 2020. Dr T. Janakiram, Hon’ble Vice-Chancellor, Dr. YSRHU, the chief guest, gave keynote address and released the pamphlets and charts on awareness of COVID-19 prepared by NSS POs and volunteers of the college.

Dr D. Jamuna, Hon’ble Vice-Chancellor, Sri Padmavati Mahila Viswavidyalayam, Tirupati, Dr. Y. Veerabadram, Civil Assistant Surgeon Specialist, Medical and Health Department, Government of Telangana, Prof. A. Jyothi, Professor and Dean, Sri Padmavati Mahila Viswavidyalayam, Tirupati, and Dr. K. Ramesh Reddy, State NSS Officer, AP Secretariat, Department of Higher Education, Andhra Pradesh, were the resource persons. The deliberations were very useful and excellent feedback was received from the students.

Principals, NSS officers, staff and students from all Degree and Polytechnic colleges of Dr. YSRHU attended the webinar. A total of 689 registrations were received. The programme was convened by the NSS Programme Officers Dr D. R. Salomi Suneetha, Professor (Biochemistry), Dr R.V. Sujatha, Associate Professor (Agricultural Economics) and Dr A. Harsha Vardhan, Assistant Professor (Horticulture) under the guidance of Dr K. Umajyothi, Associate Dean, College of Horticulture, Venkataramannagudem.

## Research

### Promising Cashew Hybrid :H-218

Pre-released cashew F<sub>1</sub> hybrid H-218 (Priyanaka x T.No.30/1) is late flowering (Sept-Oct) with intensive branching and compact canopy, cluster bearing, bold nut type (10g.) with good shelling percentage (27.96%). It is accepted by the farmers which escapes Tea mosquito bug infestation due to late flowering and also by the processors for its export grade of kernels (180 W). Average yield : 18.0 kg nuts/tree/year at 10<sup>th</sup> harvest.



### Promising Chilli Genotypes under Mini-Kit Testing

#### LCA-657

Plants are growing with upright branching, open centre, stem very sturdy and strong, leaves are thick, slightly erect orientation, dark green in colour, leathery and no axil pigmentation, fruits are medium long with dark green colour and dark red on ripening and attain attractive shiny pericap on drying. Highly pungent. It is resistant to chilli lead curl virus with tolerance drought. Average yield : 24-28 q/ac of dry chilli.



### LCA-680

Plants are semi erect with good branching and more number of leaves, which protect fruits from sun scorching. Fruits are medium long and bold with green colour and dark red on ripening with shiny and attractive dry pod appearance, medium pungent. Tolerant to chilli leaf curl virus. Average yield : 20-25 q/ac of dry chilli.

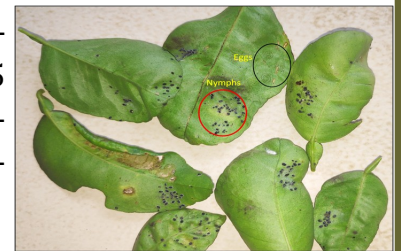


### LCA-684

Plants are semi spreading with profuse branching. Fruits are medium long, slender and green in colour, typical maroon coloured pods at colour turning stage and turn bright dark red upon ripening. Dry pod is having slight wrinkles with very high pungency and colour. Tolerant to chilli leaf curl virus. Average yield : 20-25 q/ac of dry chilli.



Incidence of Citrus Blackfly (*Aleurocanthus woglumi*) Ashby was observed during 2<sup>nd</sup> fortnight of August wherein a population of 0.75 adults/leaf, 9.0 nymphs/leaf and egg spirals of 1.25/ 5 leaves was recorded in acid lime during the fixed plot survey at Citrus Research Station, Petlur.



June

July

August

Severe fruit drop was observed in date palm variety Barhi, maintained at HRS, Anantharajupeta. The fruit retention is very poor with a TSS content of 14.0°Brix.

## Extension

### Training Programmes

On 27 August 2020, KVK, Venkataramannagudem conducted, on-line virtual training programme on “Management of Rugose Spiralling Whitefly (RSW) in Horticultural Crops”. This programme was addressed by Dr B. Srinivasulu, Director of Extension, Dr YSRHU, and Dr E. Karuna Sree, Principal Scientist and Head, KVK, Venkataramamannagudem. Dr B.V.K. Bhagwan, Zonal Research Head, Coastal Zone-1, Dr YSRHU, briefly explained about Impact of INM on Rugose Spiralling Whitefly and Dr N.B.V. Chaapathi Rao, PS (Entomology) explained about Biocontrol based management strategies of RSW and Sri G. Shali raju, Scientist (Entomology) explained about on farm production of *Isaria fumosorosea*. This programme was coordinated by Sri G. Shali Raju, Scientist (Entomology) , KVK, Venkataramannagudem. A total of 30 farmers participated in the programme.

On 28 August 2020, KVK, Venkataramannagudem, conducted on-line virtual training programme on “Improved Cultivation Practices in Acid lime”. This programme was addressed by Dr B. Srinivasulu, Director of Extension, Dr YSRHU, Sri T.V. Subbarao, DDH, Eluru and Dr E. Karuna Sree, Principal Scientist and Head, KVK, Venkataramamannagudem. Later Dr K. Venkata Subbaiah, Scientist (Horticulture), Sri G. Shali raju, Scientist (Entomology), KVK, Venkataramannagudem explained about cultivation practices in aid lime and pest management in acid lime respectively and Sri. B. Sandeep Naik, Scientist and Head, KVK, Vonipenta explained on disease management in acid lime.

This programme was coordinated by Dr K. Venkata Subbaiah, Scientist (Horticulture), KVK, Venkataramannagudem. In this programme, 14 VHAs, one Horticultural officer, 8 acid lime farmers participated.

On 31 August 2020, KVK, Periyavaram, conducted a training programme on “Importance and Scientific Production of Millets” at KVK, Periyavaram to acknowledge the farmers about different management aspects in millets. Dr.B.Govinda Rajulu, Principal Scientist & Head, KVK, Periyavaram, explained about the Importance of Ragulu (Vakula, Vegavathi), Sajjalu (ICTP – 8203), Jonnalalu (NJJ-4), Udhalu (CO<sub>2</sub>), Korralu (Surya Nadhi), Samalu (DLM-203), Arikalu (GPVK-3). Dr. P. Venkateswarlu, Principal Scientist, ARS, Podhalakur explained about suitable varieties for dry land areas and their production practices. G. Sivannarayana, Deputy Director, Agriculture, FTC Nellore mentioned that processed millets fetch high price and also explained in detail about the millet processing unit. Dr V. Surekha Devi, Scientist, ARS, Podhalakur narrated the importance of natural enemies in organic farming on millets. Ms. Y. Swarupa, RA (Entomology) explained about organic farming of millets. Staff of KVK, TVS trust, farmers and women farmers from Bussapalem and also rural youth participated in this programme.



On 19 August 2020, Sri G.Sandeep Naik, Scientist & Head, KVK, Vonipenta, attended the DRC meeting at Adireddypalli village of Mydukur mandal and interacted with farmers regarding ‘Integrated Crop Management in Banana, Turmeric and Tomato’. Followed by field visit along with district officials PD, ATMA, DPD, ATMA, Kadapa and Agricultural Officer, Mydukur. Leaf spot and micronutrient deficiency were observed in turmeric. Recommended to spray Chlorothalonil @2g/litre for leaf spot and micro-nutrient mixture @ 2 g/litre for correcting nutrient deficiency.

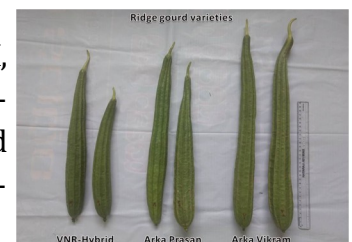


On 27 August 2020, Sri G.Sandeep Naik, Scientist & Head and Srividya Rani.N, Scientist (Extension), KVK, Vonipenta, attended DRC meeting at Gopavaram village of Gopavaram mandal organized by District Resource Centre, Kadapa. In this programme, Scientist and Head interacted with farmers regarding crop management practices to be followed in bajra, paddy and also regarding Integrated Farming System to be practised by farmers which helps in fetching higher returns under KKA-III. Sri. Chandra Naik PD, ATMA, Kadapa, addressed the farmers on drum seeder technology and SRI rice cultivation in paddy. Also conducted field visit of paddy and observed leaf folder and recommended the farmers to pull and push with the rope followed by spraying with chlorpyrifos @ 2.5 ml/litre. The DPD, ATMA, AO, Badvel, VHA, Gopavaram and 27 farmers attended the programme.

On 27 August 2020, Sri Bhanumurthy K.C, Scientist (Hort.), KVK, Pandirimimidi, visited ridge gourd field at Irlapalli village of Rampachodavaram mandal under on-farm trail. Crop is at flowering, fruiting stage and both the varieties of ridge gourd from IIHR, i.e. Arka Prasan and Arka Vikram, are performing well.

**On-Farm Trial**

On 27 August 2020, Sri Bhanumurthy K.C, Scientist (Hort.), KVK, Pandirimimidi, visited ridge gourd field at Irlapalli village of Rampachodavaram mandal under on-farm trail. Crop is at flowering, fruiting stage and both the varieties of ridge gourd from IIHR, i.e. Arka Prasan and Arka Vikram, are performing well.



## Frontline Demonstrations



On 26 August 2020, Sri P.Raja Sekhar, Scientist (SS&AC), KVK, Pandirimamidi 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. He observed stunted growth of cotton with initial symptoms of magnesium deficiency due to water inundation in fields and monitored the spraying of urea @ 2% to boost up crop growth and advised foliar application of magnesium sulphate @ 0.1 % at 45 and 75 days after sowing as a part of demonstration.

On 19 August 2020, Dr P. Avani, Research associate (Horticulture), KVK, Periyavaram, visited to acid lime orchard at Chevireddy pally village, Venkatagiri mandal as a part of FLD programme on flower regulation in acid lime and created awareness on importance of cycocel in acid lime flower regulation and distributed cycocel .



On 21.08.2020, Ms. Y. Swarupa, Research Associate (Entomology), KVK, Periyavaram, visited acid lime orchard at Chevireddy pally village as a part of FLD on dry root rot management in acid lime and did drenching with Carben-dazim(1g/litre/m<sup>2</sup> area) and also recommended to apply 10kg of *T. viride* mixture/plant (1 kg of *T.viride* + 100 kg FYM + neem cake 10kg) for an effective management of dry

root rot.

On 28 August 2020, Sri.G.Sandeep Naik, Scientist & Head and Srividya Rani.N, Scientist (Extension), KVK, Vonipenta, initiated FLD on "IPDM in Onion" at Madirepalli village of Duvvuru mandal. Conducted method demonstration on seed treatment with *Trichoderma viride* @ 5g/kg and *Pseudomonas* @ 5g/ kg. Provided inputs like *Trichoderma viride*, *Pseudomonas*, VAM, Azospirillum and PSB to beneficiary farmers.



## Diagnostic Visits

On 26 August 2020, Sri P.Raja Sekhar, Scientist (SS&AC) and Dr N. Chiranjeevi, Research Associate (Plant Pathology), KVK, Pandirimamidi visited paddy and maize fields at Chinna-beerampalli village of Devipatnam mandal. Observed severe infestation of broad leaf and grass weeds and recommended foliar application of bispyribac-sodium (10% SC) @ 120 ml/ acre @ 8-10 days after transplanting. Also observed stunted growth of maize due to deficiency of nitrogen and phosphorus and recommended foliar application of 19:19:19@ 0.5% and urea @ 1%, followed by soil application of fertilizers after cessation of continuous rains.



Dr R. Nagaraju, Principal Scientist (Horticulture) & Head, HRS, Ananatharajupeta visited “ Manas Psychiatric Rehabilitation center , Pachikapalem (Village), Tirupathi and recommended the precautions to be taken to ornamentals and other horticultural crops maintained under open field and protected structures and observed bearing of mango hybrid” RATNA” as off-season crop on 23 August 2020.



On 17 August 2020, Ms. Y. Swarupa, Research associate (Entomology), KVK, Periyavaram, visited okra field at Maratapalli village of Venkatagiri mandal and observed shoot and fruit borer and recommended to spray Emamectin benzoate 3g /litre of water.

On 25 August 2020, Dr T.Vijaya Nirmala, Scientist (Veterinary Science) KVK, V.R.Gudem visited aseel poultry farm of Sri G.Srinivas, poultry farmer at Tadepalligudem and attended a case of mixed infection of Infectious coryza and *E.coli* in aseel birds and suggested treatment with inj.Enrocine – 0.5 ml, I/M, broton liquid – 5 ml/10 liters of water, Lixen powder@ 2g/ litre of water orally. Dr.A.Devivaraprasad Reddy, Scientist (Fishery Science) KVK, VR gudem explained about different species of fish cultivation in under utilized small ponds for income generation.



On 29 August 2020, Dr. T.Vijaya Nirmala, Scientist (Veterinary Science), KVK, V.R.Gudem, explained about the cultivation of Azolla and its importance as feed to livestock and poultry to the dairy farmers.

Dr A. Devivaraprasad Reddy, Scientist (Fishery Science), KVK, V.R.Gudem, visited the Enfibre coir industry for establishing coir based mat in the pond dykes with stylo and deenanath fodder at IFS, KVK, V.R.Gudem as innovative approach to reduce the weed problem and to prevent soil erosion.



On 26 August 2020, Sri.G.Sandeep Naik, Scientist & Head and Srividya Rani.N, Scientist (Extension), KVK, Vonipenta, visited vegetable fields at Parlapadu village of Rajupalem mandal. Observed upward curling in chilli and spotted wilt virus in tomato and suggested to spray difenthiuron @ 1.5 g/litre and erection of yellow sticky traps in chilli and for tomato spotted wilt virus, removal and destruction of infected plants, followed by spraying with imidacloprid @ 0.3 ml/litre or fipronil @ 2 ml/litre was recommended. Also interacted with farmers on management practices to be carried out in chilli and other vegetable crops.

On 27 August 2020, Sri.G.Sandeep Naik, Scientist & Head and Srividya Rani.N, Scientist (Extension) Krishi Vigyan Kendra, Vonipenta conducted diagnostic visit in banana at Musalinayanipalli village of Mydukur mandal. Scientists observed leaf streak virus and heart rot diseases. Suggested the farmers for removal and destruction of infected plants followed by spraying with dimethoate or methyl demeton @ 2 ml/litre for leaf streak virus and to cut the rotten portion followed by spraying with copper oxychloride @ 30g +Streptocyclin @ 1 g/ 10 litres of water for control of heart rot .



On 27.8.2020, Dr. V. Yugandhar, Research Associate (Hort.), KVK, Vonipenta had conducted follow up visit to banana, papaya and tomato fields at Mudireddipalli Thanda and Thippireddipalli villages of Mydukur mandal. Observed leaf eating caterpillar damage in banana and recommended to spray chlorpyrifos @ 2.5ml/litre. To collar rot in papaya, soil drenching with Aliette or Ridomil MZ @ 2g/litre at collar region of the plant was recommended. Also observed serpentine leaf miner damage in tomato and suggested to spray Chlorpyrifos @ 2.5 ml/litre.

On 28 August 2020, Dr. V. Yugandhar, Research Associate (Hort.), KVK, Vonipenta visited turmeric and banana fields for diagnosis of pests and diseases at Settivaripalli and Thimmayapalli villages of Mydukur mandal. Observed the leaf spot disease in turmeric fields and suggested to spray mancozeb @ 2.5 g/litre. Also observed Sigatoka leaf spot disease in banana fields and suggested to spray Chlorothalonil @ 0.2% or Propiconazole @0.1%.



On 20 August 2020, Dr. P. Lalitha Kameswari, Senior Scientist & Head and P Raja Sekhar, Scientist (SS&AC), KVK, Pandirimamidi along with village Agriculture Assistants visited brinjal, ridge gourd and tapioca fields at Pedabheempalli village of Devipatnam mandal. Incidence of little leaf and shoot and fruit borer in brinjal was diagnosed and recommended control measures like complete removal of little leaf affected plants, followed by foliar spray of dimethoate@ 2 ml/litre at weekly interval and also clipping of affected shoots followed by spraying of emamectin benzoate@ 0.4 g/litre.

On 26 August 2020, Dr N. Chiranjeevi, Research Associate (Plant Pathology) and Sri P.Raja Sekhar, Scientist (SS&AC), KVK, Pandirimamidi visited cotton fields at Chinnabeerampalli village of Devipatnam mandal. The scientists observed the leaf hoppers infestation and hopper burn symptoms and recommended spraying of 5% NSKE or difenthiuron @ 1.25 g/litre for control.





### Meetings

Dr P. Ashok, Senior Scientist (Hort), HRS, Venkataramannagudem participated in webinar on “Genetic Improvement of Peppers for Fruit Quality Traits” organized by Department of Genetics and Plant Breeding, Annamalai University, Tamil Nadu on 27 August 2020.

Dr. T.Vijaya Nirmala, Scientist (Veterinary Science) and Dr.V.Deepthi, Scientist (Agricultural Extension), KVK, V.R.Gudem participated and presented a paper on “Adoption of scientific Management Practices in Backyard Poultry Farming in West Godavari district of Andhra Pradesh” and “Strategies and opportunities to attract youth in agricultural sector” respectively in national conference on “Transformation of Agricultural Extension – Strategies for effective Reformation (TAESER 2020)” from 20 to 21 August 2020 organized by Department of Agricultural Extension, College of Agriculture, ANGRAU, Bapatla.

On 19.08.2020, Dr.P.Lalitha Kameswari, Senior Scientist & Head, KVK, Pandirimamidi, participated in Zoom conference on “Crop Advisories on event of heavy rains & flood situations with District JDA’S, officers of District Resource Center (DRC) and scientists of KVK’s in the state.

On 23 August 2020, Dr.P.Lalitha Kameswari, Senior Scientist & Head, KVK, Pandirimamidi, participated in webinar on “Conversion of Fresh Flowers to Dry Flowers for Export” organised by Birju Flower App, Delhi and delivered a lecture.

### Parthenium Awareness Week

On 21 August 2020, Srividya Rani.N, Scientist (Extension) and Dr.V.Yugandhar, Research Associate (Horticulture) and KVK staff from KVK, Vonipenta have conducted Parthenium awareness week in Office premises. Scientists and staff removed the parthenium plants on the premises and explained the farmers regarding the problems occurring through this plant and also composting method of parthenium.



### Publications

Sushmitha.S, Sujatha.A and Emmanuel.N. 2020. Impact of Biochemical Constituents of host plants on the Rugose Spiraling Whitefly, *Aleurodicus rugioperculatus* MARTIN infestation levels in Andhra Pradesh. Journal of Applied Zoological Research. Vol.31(1):62-70.

Damodar Reddy.P, Sujatha.P, Viji.C.P and Uma Jyothi.K. 2020. Seasonal Dynamics of Different Insect Pests of Potato Crop in Andhra Pradesh. Journal of Applied Zoological Research. Vol.31(1):71-80.

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

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

Date	Activities
17.08.2020	Suggestions and Advisories for Cultivation of Vine Vegetables Sri K.C.Bhanu Murthy, Scientist (Horticulture), KVK, Pandirimamidi.
18.08.2020	Turmeric Crop Management in Rainy Season Dr V. Yugandhar, Research Associate (Horticulture), KVK, Vonipenta.
19.08.2020	Pest and Disease Management in Coconut Sri G.Shaliraju, Scientist (Entomology), KVK, V.R.Gudem.
20.08.2020	Poultry Management in Rainy Season Dr P.Manjari, Scientist (Veterinary Science), KVK, Periyavaram.
21.08.2020	Cultivation Practices of Medicinal and Aromatic Crops Dr D.Aparna, Scientist (Horticulture), HRS, V.R.Gudem
24.08.2020	Integrated Crop Management in Chilli, Preparation of Main Field, Transplantation and Nutrient Management Dr C. Venkataramana, Senior Scientist (Horticulture), HRS, Lam.
25.08.2020	Improved Cultivation Practices in Vine Vegetables Dr K.Radharani, Principal, Horticultural Polytechnic, Nuzvid.
26.08.2020	Disease Management in Citrus Dr T.Rajasekharam, Scientist (Plant Pathology), CRS, Tirupati.
27.08.2020	Disease Management in Vegetables Dr N.Chinrajivi, Research Associate, KVK, Pandirimamidi.
28.08.2020	Fertilizer Management in Oilpalm Dr P. Madhavi Latha, Scientist (Agronomy), HRS, Vijayarai.
29.08.2020	Millets Use in Daily Diet Dr E.Karuna Sree, Principal Scientist & Head, KVK, V.R.Gudem
31.08.2020	Cultivation Practices of Kharif Vegetables Sri K.C.Bhanu Murthy, Scientist (Horticulture), KVK, Pandirimamidi.

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