**SRI KONDA LAXMAN TELANGANA STATE HORTICULTURAL UNIVERSITY**

**ADMINISTRATIVE OFFICE: MULUGU (V&M) :: SIDDIPET DISTRICT-502279**

30-5-2023

After formation of Telangana State, as envisaged in 13th Schedule of A.P. Reorganization Act-2014, the Government of Telangana vide G.O. Ms. No. 31 &32, dt: 22-12-2014 of Agriculture & Cooperation Department duly adapting the Act and Statutes of Dr. YSR Horticultural University with few modification established Sri Konda Laxman Telangana State Horticultural University with headquarters at Rajendranagar Campus, Hyderabad.The SKLTSHU came into existence w.e.f. 23.12.2014 with a mandate of Teaching, Research and Extension. The University has shifted its Administrative Office from Rajendranagar Campus to Mulugu (V&M), Siddipet District w.e.f. 01-11-2019.

The University comprises of two (2) Colleges of Horticulture, two (2) Horticultural Polytechnics, eleven (11) Research Stations and one (1) Krishi Vigyan Kendra and is in the process of providing the valuable inputs to the farmers and stakeholders of the state through the dedicated faculty, and supporting administrative staff.

**SIGNIFICANT ACHIEVEMENTS:**

**RESEARCH:**

**FRUITS**

* **Dashehari-35**, a superior clone of Dashehari was released for commercial cultivation in Telangana**.**
* **Guava -SRD-4,** (Red fleshed X Safed jam) a pink fleshed hybrid suitable for processing has been released for commercial cultivation in Telangan
* **ARI 516 (H 516/MACS 516)**is a promising juice variety for processing industry and released for commercial cultivation in Telangana. The hybrid variety ARI-516 has been developed by interbreeding of two species from the same genus — Catawba variety of *Vitis labrusca* and Beauty seedless variety of *Vitis vinifera.*
* **Manjari Shyama** (Black Champa X Thompson Seedless) variety of grape for table purpose has been released under AICRP (Fruit) which is suitable for cultivation in Telangana.
* **Manjari Medika** (PusaNavrang X Flame Seedless) coloured variety of grape for juicy purpose has been released under AICRP (Fruit) which is suitable for cultivation in Telangana.
* A new **Jamun clone SRD JC-3** was found to be superior in terms of yield and quality when compared to the Konkan Bahadoli variety and found suitable for cultivation in Telangana.
* The National Bureau of Plant Genetic Resources (NBPGR), New Delhi has allotted Indigenous Collection (I.C) number to the **Seven Jack fruit germplasm** conserved at JVR HRS, Malyal.
* **Rejuvenation of mango** was standardized for restoring the yield of old and senile orchards of mango.
* **Nekkare**, a polyembryonic rootstock of mango was standardized for higher productivity and yield of Mango cv Banganpalli under Telangana conditions.
* **Stage wise fertigation scheduling** was standardized in mango cv Banganapalli under Telangana conditions.
* Standardized **IPNM in guava for higher yield and quality**.
* Standardized training methods on high density plantation of guava cv Arka Mrudula for higher yield and quality.
* Standardized the **package of practice for organic production of mango and guava** for higher yield and quality.
* Standardized the mulching and fertigation in banana for higher yield and quality
* Standardized of training system for Passion fruit under Aswaraopet conditions for higher yield.
* Standardization and **commercialization of** inflorescence sap (Neera) **extraction**.
* Standardization of organic farming in **sathgudiSweet orange using biopesticides** and *Trichoderma viridae.*
* Standardized the **mulching for conservation of moisture** and weed management in sweet orange orchards.
* Standardized the best pruning time (February) in **apple ber** for higher yields.
* Cabbage and cauliflower as **intercropping** were found to have highest benefit cost ratio in **rejuvenated mango orchard.**
* Standardized the **fertigation technology in grape cv Thompson seedless** for higher yield and quality.
* **Developed deficit irrigation schedule** -A novel technology to economise water in grape cv Thompson seedless.
* **Standardized Bio-efficacy of growth stage** specific fungicides and chemicals schedule for the management of Downy mildew and Powdery mildew diseases in grapes.
* **Effective management of trips and Mealy bugs** in grape cultivar Thompson Seedless was standardized
* Standardized the **management of mango hopper and thrips** by oil based formulation of *Metarhizium anisopliae*
* Standardized different **botanical formulations** (Pongamia soap and Neem soap) for effective management of sucking pest complex in mango.
* **Integrated management of pre and post-harvest diseases** of mango (anthracnose, shoulder browning, stem end rot and aspergillus rot) with pre harvest spry of difenoconazole and post-harvest hot water treatment was standardized.

**VEGETABLES**

* **Colocasia-RNCA-1** variety, which is short duration and moderately resistant to flood and adverse environmental conditions was released for commercial cultivation in Telangana.
* **Cluster bean-RNCB-01** with high pod yield was released for commercial cultivation in Telangana.
* **Yard long bean-RNCB-01** with, with high yield was released for commercial cultivation in Telangana.
* Standardized the fertigation schedules for good plant growth and high yield of **Brocolli.**
* Standardized the fertigation schedules for plant growth and yield of **Lettuce and red cabbage under protected cultivation.**
* Standardized the **fertigation schedule** and different mulches on Plant growth and yield attributes of Tomato.
* Standardized the **micronutrient sprays** for correcting micronutrient deficiency and higher yields in bitter gourd.
* Standardized the **integrated nutrient management in French bean** for higher yields
* In Okra effective **management of weeds** can be achieved by using pre-emergence herbicides like Pendimethalin.
* Standardized the **foliar sprays of micronutrients** and secondary nutrient mixture on seed yield and quality of **Okra**
* Standardized the **fertigation in Okra** for higher yields.
* Technologies for the production and profitability of summer leafy vegetable were standardized.
* **Cassava based bio pesticide (Namna)** was standardized for management of insect pest management in brinjal.
* Pest management modules utilizing ***Verticillium lecani*** and Neem oil sprays was standardized for management of sucking pest complex in chilli.
* Pest management modules utilizing Emamectin benzoate, neem oil and Spinosad were standardized for management of pest in cucurbits.
* Evaluated new alternatives to **neo-nicotinoid insecticides likeflupyradifurone** and flonicamid for effective management of sucking pest of Okra.
* Pest management **modules against vectors** and sucking pests management of bitter gourd were developed utilizing neem oil, *Beauveria bassiana and Lecanicilliumlecanii.*
* Pest management **modules for the prevention and control of black trips** were developed utilizing *Metarhizium anisopliae* or *Pseudomonas fluorescen*along with Neem oil sprays and neem cake application.
* Standardized the **barrier of yam and marigold** for effective management of sweet potato weevil.
* Developed integrated disease management module in **elephant foot yam.**
* Standardization of the production of **Red Cabbage** under poly house conditions.
* Kharif onion production was standardized using bulbsetts
* Identification of suitable varieties of **Potato** for Telangana region. Kufri Surya, Kufri Pukh Raj and Kufri Chandra Mukhi were identified for commercial cultivation in Northern Telangana Region as they are identified as high yielding (29.86t/ha, 25t/ha and 22.8 t/ha respectively) while K.Surya being early maturing, heat tolerant and hopper-burn resistant potato variety with white smooth skin and pale yellow flesh, oblong tubers.
* Standardized the **potato cultivation** for **dates of planting, size and method of planting,** tuber size for higher yields.

**FLORICULTURE**

* **Gladiolus variety -ACC-7**, a short duration and high yielding variety was released for commercial cultivation in Telangana.
* **Tested new genotypes** (Bidhan Madhuri, Punjab Shingar, PusaArunodaya, Bidhan Tarun and Pusa Sona) of for high yielding loose flower and pot culture chrysanthemum.
* **Tested new genotypes** (Arka Shravya and Arka Shreya) for high yielding in Crosandra.
* **Standardized the year round production** of marigold and irrigation schedules and stage wise fertigation in marigold.
* **Standardized the phenophase** based nutrient scheduling high flower yield, bulb production and improving quality in tuberose, Chrysanthemum.
* **Standardized alternate media** for the nursery utilizing cocopeat, bio-char, sand and organic manure for better growth of the flower seedlings.
* **Standardized the holding stock** solution using HQS and BA for increasing the self life of the carnation.
* **Standardized the antioxidant treatment** (Ascorbic acid) and packaging technology for improving the shelf life and transportability of the Tuberose.
* Standardized the **drying technology** for the flowers.
* Standardized the **packaging material** and packaging techniques for **dry flowers**.
* Standardized the **recipe** for the bourbon **rose gulkhand**.

**SPICES (TURMERIC AND CHILLIES)**

* **Developed organic package** for turmeric and ginger using neem cake, vermicompost, sulphate of potash and IISR bio capsules.
* **Developed micronutrient package for turmeric and ginger crop using IISR micronutrient boosters.**
* **Package of PGPR bio-capsules** using Trichoderma for turmeric and ginger for increasing the yield and enhancing the quality.
* **Priming the rhizome** of turmeric and ginger with trichoprime was standardized for controlling the rhizome rot.
* **Standardized the irrigation scheduling** in turmeric for achieving higher yield and enhancing quality.
* **Standardized the mulching (Black polythene mulch) in** turmeric for effective weed control and subsequent increased yields.
* **Effective herbicides package modules** utilizing pre and post emergent herbicide were developed for effective weed management.
* **Suitable mechanical harvester** was developed for turmeric harvesting reducing the labor cost.
* **Effective spray schedule** using chlorantraniprole was developed for control of shoot borer in turmeric.
* Standardized the mulching and **irrigation level in chilli** for higher yield and quality.
* **Standardization of fertigation in chilli (*Capsicum annuum*)**for higher yield and quality.
* **Geographical Indication for Warangal Chapata Chilli (*Capsicum annuum*):** Warangal Chapta chilli is exclusively traditionally grown in the Warangal, Hanumankonda, Bhupallapalli and Khammam district of Telangana. The variety of chilli has high oleoresin content. The Jannareddy Venkatreddy Horticultural Research Station, Malyal of SKLTSHU filed an Geographical Indication application for the Horticultural produce (Warangal Chapata Chilli).

**MEDICINAL AND AROMATIC CROPS**

* Standardized the organic cultivation of **Aloe (*Aloe barbadensis*)**.
* Standardized **stevia** addition to replace sugar in preparation processed products like squash.
* Standardized the harvesting stages for herbage yield and oil in **citronella, lemon grass and palma rosa**