DEVELOPMENTAL ACTIVITIES IN
Dr.Y.S.R. HORTICULTURAL UNIVERSITY, VENKATARAMANNAGUDEM
WEST GODAVARI DISTRICT, ANDHRA PRADESH

INTRODUCTION:

Andhra Pradesh Horticultural University was established on 26thJune, 2007 by Act 30 of 2007 by Government of Andhra Pradeshfor the benefit ofall the stake holders dealing with horticulture and allied sectors like processing industries, landscape designing etc. in the state of Andhra Pradesh and renamed as Dr.Y.S.R. Horticultural University w.e.f. 18thApril, 2011 by Act 13 of 2011 of Government of Andhra Pradesh. This University is second of its kind in India. The university runs on Land Grant Pattern followed in the USA, with emphasis on Education, Research and Extension of Horticulture and allied subjects. The university has the mandate for education, research and extension related to horticulture and allied subjects. The University at present has four Colleges of Horticulture, five Horticulture Polytechnics, 25 Research Stations and three Krishi Vigyan Kendras spread in 9 agro-climatic zones in the state.

EDUCATION:

The university offers B.Sc (Hons.) inHorticulture, M.Sc. (Horticulture) with specialization in (i) Fruit Science (ii) Vegetable Science (iii) Floriculture & Landscape Architecture and (iv) Spices, Plantation, Medicinal & Aromatic Crops and Ph. D. (Horticulture). The course curriculum prescribedby the IV Deans' Committee of Indian Council of Agricultural Research is being followed for the degree programme. Two batches of B.Sc. (Hons.) Horticulture, four batches in M.Sc. Horticulture, two batches in Ph.D. Horticulture and four batches in Diploma in Horticulture completed from this newly formed Horticultural University.

RESEARCH:

The Horticultural University is conducting basic, applied, location/region specific and anticipatory research for theoverall development of horticultural crops in the state at 25 Research Stations located in 9 agro-climatic regions of the state. The research programmes are covered under 3 categories namely, Non Plan Projects/ University Projects, ICAR Plan Projects under All India Coordinated Research projects and Externally funded projects such as SHM, DBT, NAIP and RKVY Projects.

SALIENT ACHIEVEMENTS:

A. Varieties released

Mango	Manjeera, KMH-1, Neeleshan, Neeluddin, Neelgoa, Swarna Jehangir, AU Rumani
Acild lime	Balaji
Banana	KovvurBontha (cooking type)
Guava	Safed Jam, KohirSafeda
Elephant foot yam	Gajendra
Colocasia	Satamukhi, Bhavapuri
Sweet potato	Samrat, Kiran, RNSP-1
Coconut	Godavari Ganga, Double Century, Gouthami Ganga, Kera Bastar, Kalpa Pratibha
Cashew	BPP -1, BPP-2, BPP -3, BPP -4,BPP -5, BPP -6, BPP -8, BPP -9
Brinjal	Bhagyamati, Gulabi, Shyamala
Okra	Janardhan
Ash gourd	Shakti
Snake gourd	Swetha
Dolichos bean	RND -1
Cooking melon	RNSM – 1, RNSM – 2, RNSM – 3
Amaranthus	RNA – 1
Pumpkin	APR – 1
Tomato	RNTH – 1
Chillies	G1, G2, G3, G4 (Bhagyalakshmi),G5 (Andhra Jyothi), CA–960 (Sindhur), LCA-200(Kiran),LCA-1068(Aparna). LCA–235 (Bhaskar), LCA-206 (Prakash), LCA-305 (Lam305) LCA-334 (Lam 334), LCA-353
Coriander	Sindhu, Sadhana, Swathi, Sudha, APHU-Dhaniya-1
Fennel	Lam Selection-1, Lam Selection-2
Fenugreek	Lam Selection 1
Ajowan	Lam Selection 1
Turmeric	KTS-3 (CV 21A)

B. Agro Techniques Developed.

- Mango cultivar Manjeera suggested for high density planting.
- Detached scion techniques were standardized for rapid multiplication of mango varieties.
- Embedded pot layering technique was standardized for commercial multiplication of guava.
- In acid lime irrigation at 50% CPE through drip is recommended.
- Vertical storing of cassava planting materials enhanced sprouting.
- In mango technologies for regulation of flowering and tree vigour, rejuvenation of senile and over crowded orchards and for off-season fruiting were developed.
- In banana, high density planting, cropping systems, drip irrigation and fertigation standardized.
- Tissue cultured banana commercialized.
- Organic cultivation of banana standardized.
- Agro techniques standardized for medicinal plants such as Coleus, Aswagandha and Gloriosa.
- Fertigation schedules standardized for crops like Papaya, Turmeric, Betelvine etc.
- Top working and grafting with elite lines for rejuvenation of old/senile cashew trees was standardized.
- Technologies for increasing the vase life of cut flowers standardized.
- Location specific technologies for increasing the production and productivity of various horticultural crops were developed.
- Rangpur lime identified as disease resistant rootstock for commercial multiplication of sweet orange.
- Fertilizer schedules for sathgudi sweet orange standardized.
- Agro techniques for rainfed as well as irrigated chilli standardized.
- Agro techniques for production of grain spices standardized.

C. Plant Protection

- Banana dual purpose tetraploid hybrid, FHIA and Yangambi Km-5 are identified resistant to panama wilt.
- Balaji variety of acid lime is identified canker tolerant selection
- Sweet orange accessions RGPL Brazil and RGPL Texas are tolerant to dry root rot and can be profitable used as rootstocks.
- Standardized ELISA based diagnostic protocols for banana bract virus and Ganoderma disease in coconut.
- Developed IPM technologies for the management of coconut black headed caterpillar, rhinoceros beetle, red palm weevil, eriyophid mites.
- Developed IDM technologies for the management of basal stem rot, stem bleeding, bud rot, tatipaka disease.
- Use of light trapes identified as an effective mechanical method for control of coconut slug caterpillar and mango fruit borer.
- IDM technologies standardized for the control of bacterial blight of pomegranate.
- IDM technologies including use of bioagents standardized to reduce disease incidence in Elephant Foot Yam.

- New protocol for isolation of DNA of citrus yellow mosaic and citrus greening bacterium developed.
- DAC–Elisa, DAS-Elisa and Dot blot Elisa techniques are developed for large scale indexing of bud wood.
- Plant protection measures for the management of citrus diseases like bacterial canker of acid lime, leaf minor citrus and pre harvest stem end rot are standardized.
- Plant protection measures for the management of pests and diseases chilli standardized.

D. Post Harvest Technology

- Standardized a simple technique for preparation of coconut chips.
- Technology developed for bioconversion of tender coconut waste and coconut coir pith in to high quality organic manure.
- Polyhouse solar dryer was developed in collaboration with ITC for drying ripe chilli pods.
- Standardized technology to store Banganpalli mangoes upto 35 days after harvest.
- Irradiation doses standardized for improving self life of mango cv. Banganpalli, Suwarnarekha, Totapuri and Dashahari.

COLLABORATIVE RESEARCH

The university takes up collaborative research programmes with other organizations like ICAR Institutes, State Horticultural Mission, National Horticultural Board on important national problems of horticultural crops.

EXTENSION

Education of rural youth in horticulture and allied areas is the main function of the horticultural extension. This University has established 3 Krishi Vigyan Kendras at Pandirimamidi (East Godavari Dist.), Venkataramannagudem (West Godavari Dist.) and Ramagirikhilla (Karimnagar Dist.). The extension activitiesof the University includes the following.

- Technology assessment and refinement
- Training master trainees and farmers.
- Organizing Kisanmelas, Exhibitions, Rythusadassulu etc.
- Horticultural information centers for single window delivery.
- Dissemination of information through electronic media.
- Conducting on-farm research, demonstration of technologies in the farmer's fields.
- Supply of disease free quality seeds and planting materials to the farmers

INFRASTRUCTURE FACILITIES

Dr.YSRHU has created the following Infrastructure facilities from 2008-09 to till today.

- Administrative block, Academic block, Girls and Boys hostels, Staffquarters and International hostel at University headquarters, Venkataramannagudem.
- Academic block, Girls and Boys hostels at College of Horticulture, Rajendranagar, Hyderabad.
- Academic block, Girls and Boys hostels at College of Horticulture, Mojerla.
- Academic block, Girls and Boys hostels at College of Horticulture and Staff quarters, Anantharajupet.
- Horticultural Polytechnic, Madakasira, Ramagirikhila: College buildings, Boys & Girls Hostels.
- Horticultural Polytechnic, Ramachandrapuram: Boys & Girls Hostels.
- Krishi Vignan Kendras, V.R.Gudem: Administrative Block
- Krishi Vignan Kendras, Ramagirikhila: Administrative block and Formers Hostel.