

Dr YSRHU Year of Banana 2022-23

L. Naram Naidu¹, T Janakiram² and J Omprasad³

Dr YSRHU, Venkataramannagudem, Andhra Pradesh

Received: 31 March 2022; Accepted: 13 August 2022

Dr YSR Horticultural University, Venkataramannagudem, Andhra Pradesh, is taking up many new initiatives focusing over all development of able horticultural in crops Andhra Pradesh. With the initiative of Dr T Janakiram, Vice-Chancellor, Sri Kakani Govardhan Reddy garu, Hon'ble Minister for Agriculture, Cooperation, Marketing & Food Processing, Government of Andhra Pradesh announced the year 2022-23 as 'Dr YSRHU Year of Banana 2022-23' with the released of the Logo on 20 October 2022. Under this, the university proposes to take up following activities targeting all the stakeholders in Andhra Pradesh.

Action Plan

- Planting of ten (10) banana seedlings in block or border rows in all Colleges, Polytechnics, Research Stations and KVKs including Private Affiliated Colleges and Polytechnics.
- Conducting training programmes on banana production/protection/value-added products to Village Horticultural Assistants/Village Agricultural Assistants of Rythu Bharosa Kendras, Farmers and field/level extension personnel.
- Awareness programmes on banana technologies, especially in adopted villages under 'Vice-Chancellor to Village Programme'.
- Every Monday Phone-in-programmes and "Udyana Vani" programmes (community radio) on banana.
- Programmes on banana under "Udyana Mitra"- a supportive e-extension to RBK channel.
- Phone-in-live on banana at Doordarshan.
- Webinars on banana technologies.
- Student READY programme on banana.
- Technological backstopping for banana FPOs in Andhra Pradesh.
- Documentation of success stories of banana farmers

/ entrepreneurs marketing personnel.

- International level seminars on banana in collaboration with ICAR-NRCB, Trichi.
- Organization of 'Banana Kisan Mela'.
- Student rallies by displaying placards on banana technologies.
- Encouraging students/staff to write songs/poems on banana.
- Honouring progressive successful banana farmers and eminent scientists.
- Identification of Innovative farmers.
- Commercialization of banana technologies
- Supply of quality planting material to farmers.
- Posters on banana technologies for display at Rythu Bharosa Kendras.
- Articles on banana technologies
- Release of souvenir on banana.

In Andhra Pradesh, banana is cultivated in both the Rayalaseema (Kadapa, Ananthapur, Kurnool districts) and Coastal (West Godavari, East Godavari, Krishna, Guntur and Vizianagaram districts) regions. Grand Naine variety occupying more than 90% area in Rayalaseema region is being exported to other countries while in coastal regions, polyclonal banana cultivation is prevalent with traditional varieties like Tella Chekkara Keli, Karpura Chekkara Keli, Martman, Red banana and Kovvur bontha (Culinary). Banana cultivation has been transformed due to introduction of Cavendish banana variety Grand Naine, tissue culture plant material production, crop management through drip and fertigation system etc. Though productivity of banana is much higher than the national average, scope still exists for area expansion and to increase the productivity.

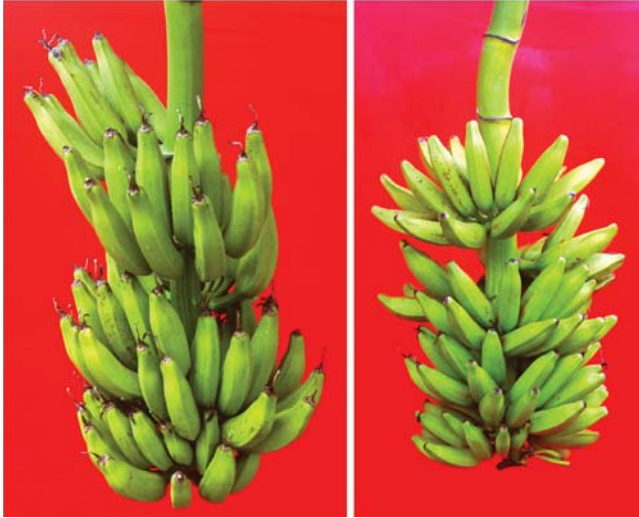
The area expansion has been accompanied by rampant spread of pests and diseases, the most important among which are sigatoka leaf spot, panama wilt caused by *Fusarium oxysporum* f. sp. *cubense* (Foc Race 1), bacterial rhizome rot and viral diseases like BBrMV (*Banana bract mosaic virus*), CMV (*Cucumber mosaic virus*) and BBTv (*Banana bunchy top virus*). Farmers also facing challenges from abiotic factors like

*Corresponding author : vc@drysrhu.edu.in

¹ Director of Research

² Vice-Chancellor

³ Technical Officer



higher temperatures, cyclones, droughts, gales and accumulation of salts in the soils. All these biotic and abiotic challenges are continuously addressed by Dr. Y S R Horticultural University by extensively conducting research work for the last 50 years at Dr YSRHU - Horticultural Research Station, Kovvuru. Further, to strengthen research and to address the needs of stakeholders of Rayalaseema region, a new Banana research station under the aegis of Dr YSRHU has been established at Pulivendula of YSR Kadapa district.

Technologies developed

- Identified promising banana cultivars, viz. Godavari bontha, Yangambi km 5, FHIA 3, Popoulu, Kavery Kalki through MLT and recommended for cultivation in Andhra Pradesh.
- Standardized package of practices for all commercial banana cultivars of the state.
- Standardized tissue culture protocols for Grand naine, Dwarf Cavendish and also the traditional varieties of Andhra Pradesh viz. Tella Chakker Keli, Red Banana, Karpura Chakker Keli and Kovvur bontha by using apical meristem as explant.
- Standardized in vitro protocols for mass multiplication of banana cv. Karpura Chakker Keli by using immature male flower buds as explants.
- Standardized macro-propagation technology in Grand naine and Tella Chakker Keli and evaluated the field performance of the macro-propagated plants.
- Standardized integrated nutrient and weed management practices in banana
- Standardized drip irrigation and fertigation schedules for banana
- Standardization of stage wise water requirement of banana in different seasons
- Standardization of organic nutrient management of banana in Grand naine and other native banana genotypes of Andhra Pradesh.
- Developed banana based cropping systems
- Standardized bunch management practices in banana cv. Karpura Chakker Keli.
- Standardized the technologies for improving the shelf-life of banana cultivars Grand Naine and Tella Chakker Keli.
- Developed disease maps and calendar for banana in Andhra Pradesh
- Documented geographical distribution and time of occurrence of diseases in different banana growing areas of Andhra Pradesh.
- Correlations between weather and major banana diseases were worked out.
- Banana accessions of different genomes and sub groups were screened for their reaction to diseases such as Fusarium wilt (Race-1), Sigatoka leaf spot and viral diseases.
- ELISA protocols for serodiagnosis of banana bract mosaic virus and cucumber mosaic virus (causes infectious chlorosis) were developed.
- Developed package for management of viral diseases in Banana
- Standardized prophylactic and curative fungicide management measures for Sigatoka and other foliar diseases.
- Identified parasitic nematode genera associated with banana namely, *Pratylenchus*, *Radopholus*, *Meloidogyne*, *Hoplolaimus* and *Helicotylenchus*.