Pineapple Research Station, Vazhakulam – 2012

1. Name of Station : Pineapple Research Station (PRS)

Contact details: Vazhakulam, Muvattupuzha, Ernakulam District, Kerala, PIN-686 670, Tel. & Fax: 0485-2260832 Cell: +919446010905, E-mail: prsvkm@kau.in, prsvkm@gmail.com, Web: www.kau.edu/prsvkm http://prsvkm.tripod.com

2. Preamble (History and Location of Station)

The Pineapple Research Station at Vazhakulam was established on 2nd January 1995 to give research and development support to pineapple farmers. Since then, this research centre of the Kerala Agricultural University has been steadily growing and serving as a subvention to the pineapple growers of the state and the country as well. The centre had a humble beginning on 2.1.1995 as "Pineapple Research Station & Pest and disease Surveillance Unit" under Kerala Horticulture Development Programme (KHDP). For the construction of the office-cum-laboratory building of the station, 15 cents of land was transferred from the Revenue Department to Kerala Agricultural University on 24.6.1996. It was delinked from KHDP and became a constituent research centre of Kerala Agricultural University under central zone on 1.7.1997. The present building was occupied on 27.6.1998.

The centre is located close to the pineapple market at Vazhakulam, 10 km east of Muvattupuzha on the Muvattupuzha - Thodupuzha road in Ernakulam District, Kerala. It is about 40 km from Cochin International Air port, Nedumbassery; 50 km from Aluva railway station and 80 km from the Cochin harbour.

3. Mandate of the Station

The mandate of the research centre is to give research and development support to the pineapple growers, provide quality technology, products and services to the pineapple sector and undertake basic and applied research in pineapple and other fruit crops of Kerala.

4. Strength of Station

Manpower

Dr. P. P. Joy, Associate Professor & Head, +919446010905, joyppkau@gmail.com Dr. Ancy Joseph, Visiting Assoc. Prof. (Hort.), +919446276443, ancy24@rediffmail.com Sri. Justin T. Jose, Senior Grade Assistant, +919744469876 Daily wage contract skilled assistants and labourers

Physical facilities

The centre has established good laboratory facilities. The Plant Tissue culture, biochemistry and pathology labs are equipped with Gel documentation, ELISA Reader and washer, PCR, Colourimeter, UV- Transilluminator, Flame photometer, Centrifuge, Microscopes, Electrophoresis, Shakers, ovens, Precision Weighing balances, Deep freezer, BOD, Laminar Air Flow, still, etc. It has a leased farm of two hectares at NAPCL. The library has adequate specialised books and periodicals relevant to the sector. It has a sales counter for the public sale of Tissue Culture Plants, Seedlings, Rooted cuttings, Publications, etc.

5. Salient achievements

The centre undertakes basic and applied research and development activities in pineapple and other fruit crops of Kerala. The research and development projects are mainly in Participatory technology development (PTD) mode and funded by various agencies as KAU, State and central governments, ICAR, SHM, NHM, KSCSTE, etc. The station has taken up research in pineapple on various aspects like intercropping in rubber and coconut, plant spacing and density, organic and chemical fertilizer requirement etc. besides experiments on development of new varieties. The centre has developed scientific technology for the commercial cultivation of Kew and Mauritius varieties of pineapple, including pure cropping, intercropping in rubber and coconut plantations and in reclaimed paddy lands. Technology is also developed for organic production. Based on continuous surveillance and laboratory studies the station has identified the presence of pineapple mealy bug wilt associated (PMWA) virus in Vazhakulam area. Based on all the findings, this station has formulated the Package of Practices Recommendations for the popular varieties Mauritius and Kew and included in the KAU POP and all the technology developed are being delivered to the pineapple growers extensively. Tissue culture protocols for various varieties of pineapple, passion fruit and banana are available. Vazhakulam pineapple has been registered in the Geographical Indication Registry to boost the export of pineapple. The station is pursuing its User Registration. Participatory technology process and product development in association with sister institutions, Nadukkara Agro Processing Co.Ltd. and Pineapple Farmers' Association for the stake holders is a steady and continuing process at the centre. The station has already produced and sold more than 60000 Tissue Culture pineapple plants and 25000 passion fruit seedlings. Large scale tissue culture production of banana has been started. Pineapple Research Station launched its own website (www.kau.edu/prsvkm) as a subsite under the Kerala Agricultural University main site in June 2010. The website of the station is regularly updated with more relevant and useful information for the public.



Mauritius

Kew

Amrutha

MD-2



Pineapple pure cropping



Pineapple intercropping in coconut plantation



Pineapple intercropping in rubber plantation

Pineapple in reclaimed paddy lands



PMWA virus infected pineapple

Pineapple TC plants

Passion fruit seedlings

Banana TC plants

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6. Major ongoing programmes

Research

Presently the following four plan projects are operational at the station.

- 321- 31- 3370 Research on pineapple
- 321- 31- 3500 Research in passion fruit
- 321- 31- 4449 Breading for yield and quality of pineapple
- 321-31-8841 Selection of high yielding superior quality pineapple for the central zone of Kerala in PTD mode

A project proposal to identify a high yielding superior quality passion fruit variety for commercial cultivation in Kerala so as to harness the full potentials of the growing situation giving maximum benefit to the growers in terms of more employment, higher incomes and better standard of living at a total cost of Rs.16.00 lakh was submitted to Kerala State Council for Science, Technology and Environment for Grant of Science Research Schemes (SRS) for approval. The project was approved in the 18th meeting of the Research Council for Science and Engineering of KSCSTE held on 15th and 16th November 2011 at Sasthra Bhavan, Thiruvananthapuram. Another project proposal to establish a fruit processing laboratory at PRS, Vazhakulam for the efficient conversion of leftover fruits to value added products like squash, jam, syrup, etc at a total cost of Rs.19.90 lakh was submitted for approval under RKVY 2011-12.

Earnest efforts are also being taken to acquire 7.855 Acres of free government land in the nearby Muvattupuzha village under survey Nos. 71/2 (4.35500 Acre), 72/3 (1.23500 Acre) and 73/1A (2.26500 Acre) for the station as a permanent farm for raising various fruit plants, conserving germplasm and conducting field research, besides establishing adequate infrastructure for further development and diversification, renaming the station as Tropical Fruit Crops Research Station (TFCRS).

Seed & Nursery

The station undertakes large scale production of Tissue Culture Plants of different varieties of Pineapple, Passion fruit and Banana and Seedlings and Rooted cuttings of Passion fruit. They are available for sale at the centre. Booking for the planting materials can be made with advance payment as Demand Draft in favour of Associate Professor & Head, PRS, Vazhakulam payable at State Bank of India, Vazhakulam-686670, Muvattupuzha, Ernakulam, Kerala (Code No: 7844). Priority is always given to firm orders with advance payment and delivery will be on first-come-first-serve basis.

Extension

Technology transfer is effectively carried out through personal discussions, field visits, phones, emails, website, posts, radio, TVs, news papers, periodicals, publications, pineapple fests, seminars. trainings, etc. Publications such as leaflets, palmlets, books, CDs, DVDs, etc covering various aspects of cultivation and utilization of the mandatory crops of the station are also being undertaken. The centre produces and sells Tissue Culture Plants, Seedlings, Rooted cuttings and Publications and renders services such as Agriclinic & advisory, Training, Consultancy, Quality testing and Project work of P.G. students. The website (www.kau.edu/prsvkm) of the station is regularly updated with more relevant and useful information for the public facilitating free download of the publications of the centre.

7. Future Strategy

Besides pineapple, since Vazhakulam and neighbouring areas are well-known for other fruit crops like banana, mango, jack, papaya, rambutan, mangosteen, etc, and there is no research station in the district catering to the needs of these farmers, Pineapple Research Station, Vazhakulam visualizes to be Tropical Fruit Crops Research Station (TFCRS) in the near future. This advanced research centre of excellence dreams to be the ultimate authority and provider of excellent quality technology, products and services in tropical fruit crops through concerted research and development efforts sustained by best human resource and infrastructure development in line with Our Motto 'Quality People & Infrastructure for Quality Technology, Products & Services and Merit alone counts for Quality suitable for the purpose'.

The TFCRS comprises the following

Technology division

- Crop Improvement (Agricultural Botany, Plant Breeding and Biotechnology)
- > Crop Production (Agronomy, Horticulture, Agricultural Chemistry and Agricultural Economics)
- > Crop Protection (Agricultural Entomology, Plant Pathology, Microbiology and Nematology)

Products division

- > Crop Processing and Product Development (Food Processing and Home Science)
- Quality Assurance (Quality Control)

Services division

> Transfer of Technology, Other Services (Agricultural Extension, ICT)

You are welcome to this R & D centre of KAU any time and your constructive comments, suggestions and criticisms are gratefully appreciated as they help us advance in the right direction. Let's together strive for a better morrow.

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