more than one lakh planting materials, including tissue come-first-serve basis. The station has already distributed (Fig. 18). culture plants of pineapple, passion fruit and banana



Fig. 18. Nursery and sale

Extension

pineapple fests, seminars, trainings, etc. Publications such advisory, Training, Consultancy, Quality testing and Project and Publications and renders services such as Agriclinic & and sells Tissue Culture Plants, Seedlings, Rooted cuttings the station are also being undertaken. The centre produces aspects of cultivation and utilization of the mandatory crops of as leaflets, palmlets, books, CDs, DVDs, etc covering various posts, radios, TVs, news papers, periodicals, publications personal discussions, field visits, phones, emails, websites, work of U.G. & P.G. students. Technology transfer is effectively carried out through

FPO registration at the centre for the efficient conversion of is also proposed to establish a fruit processing laboratory with station as Tropical Fruit Crops Research Station (TFCRS). It field research, besides establishing adequate infrastructure government land nearby as a permanent farm for raising leftover fruits to value added products like squash, jam, syrup, for further development and diversification, renaming the various fruit plants, conserving germplasm and conducting Earnest efforts are also being taken to acquire free

Station (TFCRS) in the near future. This advanced research Vazhakulam visualizes to be Tropical Fruit Crops Research needs of these farmers, Pineapple Research Station, mango, jack fruit, papaya, rambutan, mangosteen, etc, and ouring areas are well-known for other fruit crops like banana, Besides pineapple, since Vazhakulam and neighbno research station in the district catering to the

> services in tropical fruit crops. This is achieved through with Our Motto 'Quality People & Infrastructure for Quality best human resource and infrastructure development in line provider of excellent quality technology, products and Quality suitable for the purpose' concerted research and development efforts sustained by centre of excellence dreams to be the ultimate authority and Technology, Products & Services and Merit alone counts for

comprises the following The Tropical Fruit Crops Research Station

Technology division

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

Products division

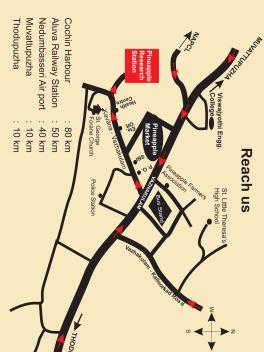
- Crop Processing and Product Development (Food Processing and Home Science)
- Quality Assurance (Quality Control)

Services division

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

You are welcome.....

advance in the right direction. Let's together strive for a better gratefully appreciated and acknowledged as they help us constructive comments, suggestions and criticisms are Agricultural University any time preferably with intimation. But Research Station and call us before you come. please visit our websites http://www.kau.edu/prsvkm and http://prsvkm.tripod.com to know more about Pineapple You are welcome to this research centre of Kerala



Kerala Agricultural University PINEAPPLE RESEARCH STATI Vazhakulam <u>8</u>

Crops

- Pineapple
- Passion fruit
- Banana

Technology

- Protocols for propagation including production by tissue culture mass
- situations Crop production as pure and intercrop in various
- Crop protection
- Processing and value addition
- Quality assessment

Products

- and banana Tissue Culture Plants of pineapple, passion fruit
- Seedlings of passion fruit
- Rooted cuttings of passion fruit
- **Publications**

Services

- Agriclinic & advisory
- Training
- Quality testing Consultancy
- Project work of U.G. & P.G. students of other Universities
- Large scale Tissue Culture production

Contact Us

Associate Professor & Head

Pineapple Research Station (PRS

(Kerala Agricultural University)

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http://prsvkm.tripod.com

INEAPPLE RESEARCH STAT

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History

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 the Kerala Agricultural University on 24.6.1996. It was delinked from KHDP and became a constituent research centre of the Kerala Agricultural University under central zone on 1.7.1997. The present building was occupied on 27.6.1998.

Location

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.

Mandate

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.

Facilities

Laboratory: Plant biotechnology, phytochemistry and microbiology labs equipped with Laminar Air Flow Cabinets, Orbital Shaker, Hot air ovens, Precision Weighing balances, pH meters, Deep freezer, Gel documentation system, Centrifuges, Electrophoresis apparatus, PCR unit, UV-Visible spectrophotometer, UV-Transilluminator, ELISA Reader & washer, Flame Photometer, Hand Refractometer, Microscope with Camera, BOD incubator, Colony Counter, Distillation unit etc (Fig. 1-5).

Farm: 1.2 hectares

Library: Specialised books and periodicals relevant to the sector



Fig. 1. Mircoplate Washer & Reader



Fig. 2. Laminar Air Flow Chamber & Culture room



Fig. 4. Microscope with Camera

Fig. 5. UV-Vis Spectrophotometer

Training Hall: Well furnished training hall with modern audio-visual and projection systems

Sales Centre: For the public sale of Tissue Culture Plants, Seedlings, Rooted cuttings, Publications, etc.

Achievements

The station has taken up research on pineapple in various aspects like intercropping in rubber and coconut, plant spacing and density, organic and chemical fertilizer requirements, 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 fields. 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. All the technologies 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 60,000 tissue culture pineapple plants and 25,000 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 (Fig. 6-17).





Intercropping in rubber

In reclaimed paddy fields



Fig. 10.



Fig. 12.



Mealy bug and Infection of PMWA Virus



Tissue culture pineapple



Fig. 16. Passion fruit

Research

The centre undertakes basic and applied research and development activities in pineapple, passion fruit, banana and other fruit crops of Kerala. The research and development projects are mainly in Participatory technology development (PTD) mode and funded by various agencies like KAU, State and Central governments, ICAR, SHM, NHM, KSCSTE, etc.

Ongoing projects

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

- Research on pineapple
- Research on passion fruit
- Breeding for yield and quality of pineapple
- Selection of high yielding superior quality pineapple for the central zone of Kerala in PTD mode

An externally aided project on 'Evaluation of passion fruit types for commercial cultivation in Kerala' at a total cost of Rs.12.55 lakh for 3 years is sanctioned by Kerala State Council for Science, Technology and Environment 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 enabling better food, health and employment security.

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.

Seed & Nursery

The station undertakes large scale production of tissue culture plants of different varieties of pineapple, passion fruit and banana as well as 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 either in person as cash or through post as Demand Draft in favour of Associate Professor & Head, PRS, Vazhakulam payable at State Bank of India, Vazhakulam-686670, Muvattupuzha, Ernakulam District, Kerala (Code No: 7844). Priority is always given to firm orders with advance payment and delivery will be on first-

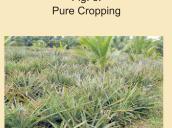


Fig. 8. Intercropping in coconut



Fig. 11.







Tissue culture banana