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Nurturing tech-enabled agricultural research

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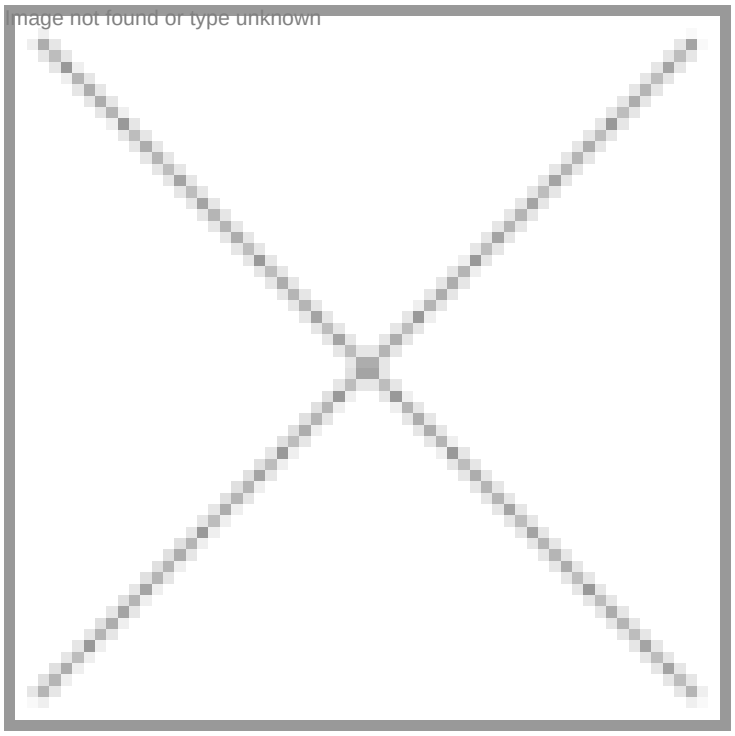

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Tamil Nadu Agricultural University

Name of the Department: Center for Plant Molecular Biology
Courses: BTech in biotechnology and bioinformatics, MSc in biotechnology and PhD in

biotechnology
Coordinator: Dr R Samiyappan (Director)
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As a symbol of excellence in the field of plant molecular biology, TNAU's scientists have 2009, for the first time in the world

The Center for Plant Molecular Biology is located at the main campus of Tamil Nadu Agricultural University, Coimbatore. It all started when the Department of Biotechnology, Government of India, has extended the financial support to begin the manpower logy.

Many programs of this center are carried out in collaboration with other disciplines such as plant breeding and genetics, crop physiology, plant pathology, agricultural entomology and microbiology. This center has three different departments such as the Department of Plant Molecular Biology and Biotechnology; the Department of Biochemistry; and the epartment of Microbiology was started in 2003.

The center has the state-of-the art laboratory facilities covering 15,000 sq.ft. and houses a modern tissue culture laboratory, a transformation laboratory, a molecular marker technology laboratory, central instrumentation facility, bioinformatics unit and a transgenic green house. A library with latest books on plant biotechnology is available in this center. The field facilities available at the Center for Plant Breeding and Genetics are

The staff at TNAU are actively involved in the development and release of drought tolerant rice varieties such as PMK3 and RMD1 (already released) and PMK4 (approved for release) through farmers' participatory mode of varietal selection. Similarly, the staff worked on the elite open pollinated brinjal varieties, CO2, MDU 1, KKM1 and PLR1 that were converted into Bt versions with a view to effectively control brinjal fruit and shoot borer. These Bt brinjal varieties, carrying Cry1Ac gene were developed in collaboration with Mahyco under ABSP II program. The center is also working on sheath blight resistant GM rice, which is now in field evaluation trials, based on the guidelines issued by the Government of India. The team of scientists cloned a new cry gene, Cry2Ai, in

The department has 25 highly-qualified and experienced faculty members with 26 PhD holders, with overall 60 national publications and 61 international scientific publications. The Center of Plant Molecular Biology has filed one Indian patent and has developed two products between 2007 and 2010. The center has 35.05 lakh worth industry-sponsored projects and 5.21 crore worth government-funded projects.