

Tissue Culture Project

**Vasantrao Naik Marathwada Krishi Vidyapeeth,
Parbhani (MS)**



Background:

This project has been sanctioned by Govt. of Maharashtra State, through Marathwada Statutory Development Board, Aurangabad, in the year 2000-01.

Objectives :

The main objective of the project is to supply large quantity of tissue culture plantlets of elite clones of Banana and Sugarcane for increasing productivity of the farmers of Marathwada region.

Education and Extension:

1. Provided 30 lakhs plantlets of Banana & Sugarcane to farmers and generated receipt of Rs. 2.50 crores through sale of tissue cultured plantlets.

2. Providing practical/Hands on Training facilities to UG students (Agriculture, Horticulture, Biotechnology) related to Tissue culture and Molecular Biology. This unit is also facilitates PG, PhD research in the area of Tissue culture and Molecular Breeding.
3. Successfully organized I) Winter School on “Micropropagation/ Tissue Culture Techniques in Crop Plants” from 19th Sept. to 10th Oct. 2005 sponsored by ICAR, New Delhi. II) Winter School on “Plant Tissue Culture and Molecular Approaches for the Crop Improvement” from 27th December to 9th January 2017 funded by DBT, Government of India.

Impact:

This project has provided high quality, disease free and uniform Tissue Culture (TC) raised planting material of banana and sugarcane since its inception to the farmers of Marathwada region.

The farmers who adopted TC banana technology were fully convinced of the superiority of TC banana in several ways including: (a) the availability of large quantities of clean and superior planting material enabling them to reclaim their old banana orchards; (b) substantial reduction in losses from pests and diseases; (c) increased productivity; (d) a shorter maturing period; and (e) uniformity of bunch sizes resulting in easy coordination of marketing. The estimates of costs and returns from non-TC and TC banana plantations show that the gross income from TC banana considerably exceeds that of non-TC banana, resulting in a higher net income from TC banana.

Banana is an important crop and source of income for farmers in Marathwada region. However, the production of this crop is hampered by various constrains, including pests and diseases. Tissue Culture Project provided tissue cultured planting material to farmers, through right approach, to improve productivity and income of the farmers. This has resulted in significant positive socio-economic impacts on farmers. This technology is being seen as a boon to the majority of the adopted farmers of this region.

Hardened Tissue Culture Banana plantlets (*Cv. Grandnaine*) available for sale



Routine observation of the growth of plants in laboratory



Contact:

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