

**Commissioner of Industries
Hyderabad
Andhra Pradesh**

Project Title	Tissue Culture Laboratory
Project Description	<p>Tissue culture is the rapid vegetative propagation of a mother plant using plant part or single cell or group of cells. The process is carried out in a nutrient medium under very controlled and aseptic conditions of light, temperature and humidity resulting in plants that are similar to mother plant in every aspect.</p> <p>The proposed facility would provide a platform for the commercial application of the ‘Tissue Culture Technology’ in the mass propagation of banana, pomegranate, mangoes, and a few other selected vegetable crops.</p>
Market Scenario	<p>Globally the tissue culture technique has been commercialized and resulted in significant production of high quality product variety with tremendous export potential. The technology has allowed developing a new type of horticulture products that can be produced year round with a high quality and distributed far more widely than classically propagated fruits and vegetables. The product has also found application in various industries like floriculture, cosmetic, pharmaceutical, research institutes, etc.</p> <p>India has also pioneered a number of discoveries in the field of tissue culture. However most of the research has been confined to academic and research institutions only.</p> <p>The translation and transformation of the results of these institutions into commercially viable propagation systems has been beset with a number of problems that were either technological, or related to marketing. At present only a very limited number of laboratories specialise in the production of horticulture items at a commercial scale. However, the requirement of consistent quality of end product by food, pharmaceutical, cosmetic and other industries would definitely accelerate demand for tissue culture plants and techniques.</p>
Why Andhra Pradesh	<p>Andhra Pradesh suffices the requirement to act as a hub for establishing tissue culture laboratory. The State has abundant horticulture products provided with favourable climatic conditions, which will provide a conducive environment for the setting up of state-of-the-art tissue culture laboratory.</p> <p>In Andhra Pradesh, there are about five such laboratories located in Hyderabad and other places. Most of tissue culture laboratories in Andhra Pradesh are working on banana, sugarcane, neem and herbs. This indicates that there is an immense potential in Andhra Pradesh for the tissue culture of other products, which are not exploited so far.</p>
Suggested	Hyderabad Presently there is no such unit in the state and hence there is a good

Locations	market potential.
Raw Material/ Intermediates	Parent/mother Plants under study (such as banana, sugarcane, etc.) microbiology media, fertilizers, and other chemicals, surgical cotton, etc are the required key raw material which are easily available in Andhra Pradesh.
Estimated Capacity	0.5 million plant multiplication capacity per annum. There is a scope of five such laboratories to come up at different locations in the State.
Estimated Cost	INR 22 million (USD 0.44 million)