

# CHAPTER 13

## PROPAGATION OF BANANAS VIA TISSUE CULTURE TECHNIQUES

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### 1. INTRODUCTION

#### 1.1. General information on *Musa spp.*

The edible banana (banana and plantain, *Musa spp.*) is an important perennial herbaceous plant cultivated in tropical and subtropical areas of the world and is noted for its seedless fruits (Simmonds, 1962). It is the fourth most important food crop in many developing countries, after rice, wheat, and maize. The fruit is the main source of nourishment, employment, and income in the regions where bananas are mostly produced (Helslop-Harrison and Schwarzacher, 2007). Although they don't produce edible fruits, the monocarpic herbs of the genus *Ensete* are useful for fiber, starchy meals, cooked vegetables, and ornamental applications (Stover and Simmonds, 1987).

With a yearly generation of over 100 million tons, bananas and plantains are the world's moment biggest cash crops. Banana plants are tall herbs that have a place in the *Musa* class the of

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In the culture chamber, an ultraviolet lamp was turned on overnight. The culture was kept for fewer than 16 hours with light exposure of 1000 lux, depending on the goal of the experiment, in either a dark or light chamber. Using white cool fluorescent lighting, the culture room's temperature was kept at 25.2 degrees Celsius. For the purpose of culture multiplication, we employed basrai explants. Sucrose, dextrose, and sorbitol sugar were added to the medium at different concentrations, including 0 (control), 15, 30, 45, and 60g/l.

## **CONCLUSION**

Every method of banana proliferation has drawbacks. genetic faithfulness, low rates of multiplication, disease eradication and cost-effectiveness of the produced suckers. If doing this is the seed system's main goal, create superior plant materials, and tissue culture approach provides the best quality and quantity of seeds. and is therefore strongly advised. The approach incorporated into the downstream propagation and distribution of syringes that have been cleansed to address the issue amount and quality of seeds.

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