



**Consortium for
Improving
Agriculture-based
Livelihoods in
Central Africa**

Banana technical sheets



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This document contains a series of technical handouts on bananas in general and East African Highland banana systems in particular

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The handouts are available in English, French, Swahili, and Kinyarwanda and can be downloaded from www.cialca.org

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BANANA TISSUE CULTURE

Get PEST AND DISEASE-FREE plantlets



Tissue culture (TC) is one way of producing thousands of new banana plantlets rapidly (in 4 to 6 months) that are:

- pest and disease-free
- uniform
- more vigorous than suckers
- easily transportable, which means easily marketable.

Farmers can obtain TC plants directly from the laboratory, but also from a TC nursery in their neighborhood. TC plant generally costs 1 \$ or less.

Start in the LABORATORY, harden LOCALLY



TC plants are made in a sterile environment in specialized laboratories.

1. Banana plant pieces are taken from healthy mother plants to the laboratory, where they are disinfected, and
2. multiplied on multiplication medium (4 weeks), and
3. rooted on rooting medium (4 weeks)

Then, the small plantlets are moved to a nursery for hardening, in two steps:

1. in a humidity chamber in small pots (3-6 weeks)



2. in potting bags in the shade (<2 months)



These two steps of hardening can be organised by the TC company, by an independent privately run nursery or by farmers through community-managed nurseries.

IMPORTANT TO FARMERS: good management !

Both plantlets from macro propagation and tissue culture are more fragile than suckers. They need extra care, especially during establishment: watering, good husbandry, manure...

"Without the extra care, the benefits will be lost."



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