The MATIS®:
A LARGE TEMPORARY IMMERSION BIOREACTOR SYSTEM

Developed under industrial conditions in collaboration with CIRAD Montpellier in France

The MATIS® is an innovative, industrial micro-propagation system. It is used in the production of in-vitro plants, at low cost, and ensures a high biological efficiency.

TECHNICAL SPECIFICATIONS

- Useful volume for plants: 3.2 l
- Minimum air flow (required for immersion): 2 to 5 l/mn
- Plantlets optimal capacity/MATIS®: 600 - 1000
- Autoclaving: Extremely resistant

PRODUCT

- Material: POLYCARBONATE (PC) transparent
- Dimensions (diameter x height): Ø290 mm x 180 mm
- Empty weight: 1.1 kg

* Standard aerulic handrail for MATIS® soon be available

MATIS® benefits:

- High transparency for optimal light scattering
- Horizontal design favoring a homogeneous development through better spreading of the plants and excellent light transmission
- Monobloc device for an excellent impact resistance, an easy handling, and a large culture volume
- Easy access to the plant material produced, through a large opening on top of the bioreactor and an innovative locking system with quick clamping
- Tested on many species in micro-propagation
- Result of 25 years experience in bioreactors from a group leader in the temporary immersion technology, including 10 years at industrial level
- Tested under industrial conditions in Mexico, Nicaragua and Costa Rica

Example: Industrial laboratory results on somatic embryogenesis of coffee tree:

- After 6 weeks in MATIS®, 66% of mature somatic embryos are converted into plantlets
- Ex vitro, the rooting rate of plantlets is 99%
- After transfer to greenhouse, the final embryo-to-plant conversion rate is over 85%
- The resulting plantlets are well developed and show a synchronous development
- The obtained plant material is of very good horticultural quality and meets commercial requirements

For any questions please contact Mr Guillaume BONNAFOUX at the following address: etudes@cid-plastiques.fr