
Bioclone, a Brazilian Company Cloning Fruit Trees

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Have you ever considered the possibility of buying pineapples, bananas and sugarcane produced in a laboratory? Or decorating your home with cloned flowers? This is not science fiction. The technology is already in Brazil and in the hands of small companies. This is the case with Bioclone, a company that is incubated in the Technological Teaching Institute Center (Centec), in Fortaleza, capital of the state of Ceará.

Bioclone works with technology developed by the Brazilian Agricultural Research Corporation (Embrapa).

Incubated for seven months, the Bioclone objective is to develop saplings 'in vitro' through cloning. The company's production director, Roberto Caracas, explains that cells from adult plants are placed in a sterile environment for cultivation. From there, the group of cells starts changing and multiplying, and new buds materialize.

"From one plant it is possible to generate around 60 saplings. In the case of sugarcane and pineapple, the ratio is one to one thousand," he pointed out.

It is necessary to wait from six to eight months for a cloned sapling to be at its final stages. After that, the sapling must stay in a greenhouse for acclimatization. After this process, which takes from 30 to 40 days, the sapling may be planted outside.

The production of saplings in laboratory brings many advantages. "The way the plant is produced, it is 100% free of pests and diseases. Apart from that, it is possible to guarantee that there is no mixing of species that are undesirable to the producer," says Roberto.

Another gain is the standardization in the development of the saplings. This allows for uniform plantation, synchronization of the crops and the generation of plants with characteristics that are identical to the original one.

"The cloned saplings also survive more outside and grow faster in the first stages of development than do conventional saplings," stated Roberto.

He explained that conventional banana saplings take around ten months to develop, while cloned saplings take around eight. In the case of other species, cloned saplings may flower up to four months before conventional ones.

In productivity, plants of 'in vitro' origin also end up winning. They produce around 30% more than conventional ones. For the development of cloned saplings, there is one more advantage: they occupy less space than conventional ones.

Cloned saplings add value to the product. While conventional banana saplings are sold for 0.50 Brazilian reais (US\$ 0,31), the cloned variety goes for 1 real (US\$ 0,62), for example. Roberto explained that there is great market for Bioclone.

"Fruit farming is growing very much in Ceará and large companies are still buying cloned plants abroad, at greater cost and running risks during transportation. This is a market we hope to win in time," he said.

The saplings from abroad cost on average US\$ 1.50. "The Brazilian variety, apart from cheaper, is already acclimatized," pointed out Roberto.

According to him, other companies are already showing interest in Bioclone saplings. "We have the demand of an anchor producer in Ceará. The order is for 30,000 banana saplings. We are going to deliver them in February," he explained.

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