

## **Use of Bioreactors for Mass Micropropagation of Sugar and Energy Cane.**

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Conventional planting methods of sugarcane and energy cane related species require to vegetatively multiply the plants in designated plots to serve as source of seed. Because a single plant can produce a limited amount of seedcane, when a new variety has been produced, it takes several growing seasons to increase the number of plants needed to establish commercial plantings. Plant micropropagation through tissue culture is a system that allows the mass propagation of clonally propagated species in a laboratory and in a shorter period of time. At the Sugarcane breeding program at Texas A&M AgriLife Research in Weslaco, Texas, we have put in place a plant micropropagation facility and we have mass propagated several species of *Sacharum* sp, *Miscanthus*, and sorghum-sugarcane hybrids. We implemented the use of temporary immersion bioreactors, which allowed to simplify the system, reduce labor, increase production, and generate better quality seedlings.