**Title:** Callus induction from floral explants of Theobroma grandiflorum Schum.

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**Abstract of the paper:** The cupuassu (T. grandiflorum) is a fruit from the tree of the same name, belonging to the Sterculiaceas family and typically found in the Amazon region. The most highly prized component of the cupuassu is its white, yellowish pulp that is found adhered to its large seeds with an acidic flavor and pleasant characteristic aroma, that is used is cosmetics, liqueurs, juices and various edible conserves. There are few studies related to the Theobroma genus species and no micropropagation protocols that obtain viable plantules. A protocol , in order to obtain in vitro somatic embryos from floral explants of cupuassu was evaluated. Experiments were conducted in the Plant Tissue Culture Laboratory of EMBRAPA, Porto Velho, Rondônia, Brazil. Floral parts from unopened immature flower buds taken from seedless cupuassu trees were sterilized and employed as a source of explants. These explants were then cultivated in Petri dishes in an induction medium consisting of MS salts supplemented with glycine (3 mg.L-1), lysine (0,4 mg.L-1), leucine (0,4 mg.L-1), arginine (0,4 mg.L-1), tryptophan (0,2 mg.L-1), 2,4-D (1 mg.L-1), kinetin (0,25 mg.L-1), coconut water (50 ml.L-1), sucrose (40 g.L-1), Gelrite (2,2 g.L-1) and pH adjusted to 5,8. Cultures were maintained in the dark for 3 weeks at 27°C and after transferred to a hormone free expression medium supplemented with glycine (1 mg.L-1), lysine (0,2 mg.L-1), leucine (0,2 mg.L-1), arginine (0,2 mg.L-1), tryptophan (0,1 mg.L-1), coconut water (100 ml.L-1), sucrose (40 g.L-1), Gelrite (2,2 g.L-1) and pH 5,8, maintained for 6 weeks. The results were evaluated considering a completely randomized design with 10 replications with 5 explants per dish and four different explant sources: staminode, petal, ligule and ovary. The results indicated higher callus formation using ovaries as an explant source in the induction medium. However, no somatic embryo development was observed on expression medium and more studies are being conducted.

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