

ESTABLISHMENT OF A PROTOCOL FOR FLORAL DIPPING IN LYCOPERSICON ESCULENTUM

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The northeast region is one center in Brazil for tomato production. However, the environmental conditions reduce its production. A bank of mutant with T-DNA can be a source of genetic variability. The aim of this work is to set up the conditions for flower infiltration of *Lycopersicon esculentum* using the *Agrobacterium*. In order to do this, the *A. tumefaciens* was grown overnight, centrifuged and resuspended in MS medium. The *L. esculentum* plants were transformed when the flower size was 5mm. The first transformation was done using 250 µl L⁻¹ of Silwet (detergent). It was observed that almost all flowers transformed died. This effect may be because of the detergent. For the second assay, it was changed the Silwet and sucrose concentrations. Ninety-five plants have been transformed using 250 µl L⁻¹ of Silwet. From that, 65 were transformed using 50 g L⁻¹ of sucrose; and 30 were transformed using 30 g L⁻¹ of sucrose. Eighty plants were transformed using the 200 µl L⁻¹ of Silwet. From these, 50 were used the concentration of 50g L⁻¹ of sucrose and 30 were used the concentration of 30 g L⁻¹. It was observed no alteration in the flowers transformed. The potential transformed fruits are developing well; seeds will be collect and tested for BASTA resistance (sequence that was transferred to the plants). This result will give transformation efficiency for *L.esculentum*.

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Key words: *Lycopersicon esculentum*, *Agrobacterium tumefaciens*, bank of mutants.