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Artifitial rearing of *Anastrepha fraterculus* (Wiedemann 1830) (Diptera: Tephritidae): Egg-viability and models of cages

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The South American fruit fly, *Anastrepha fraterculus* (Wiedeman 1830), is one of the most important agriculture pests in Peru. The Sterile Insect Technique (SIT) is a powerful no-pollutant method for its direct control. There has been reported the efficacious control of a parental species *Ceratitis capitata* in Peru (Wiedeman 1829). The present work aims to contribute to the improvement of the SIT against *A. fraterculus*. Selection of the period of egg collection was based on viability percentage and volume of collected eggs during 21 days. Moreover, three models of cages called "big", "medium" and "mission" were compared to evaluate the number of eggs/female/day in order to improve mass rearing and SIT. The results showed a positive correlation between % viability and egg volume (R^2=0.83), The suitable collection period was 10 days with viability (67.4%) and total egg produced (22.4 ml). Furthermore, when the eggs produced and the number of eggs/female/day was evaluated among the three models of cages, the "medium" showed the highest values (11.4 eggs/female/day) while the "big" one produced 8.6 eggs/female/day. However, there was no significance difference between the models. These values are very important in mass rearing. The "missions" showed an average value (4.6 eggs/female/day) and exhibited significant difference compared to the other two models. Thus, the best model of cage to improve the mass rearing of *A. fraterculus* is the "medium".

Key words: Anastrepha fraterculus, SIT, egg viability, Number of eggs/female/day, cages.