Cnidoscolus aconitifolius, Azadirachta indica, Moringa oleífera and Mentha spicata as an Natural Plaguicide for the Prevention of Premature Crops

Llano, Laina

Nieves, Tyrone

This investigation tried to determine if the organic infusion of the plants Azadirachta índica, Cnidoscolus aconitifolius, Moringa oleífera and Mentha spicata, is effective to eradicate the Drosophila melanogaster fly, that affects several crops, causing premature fruit maturation. The hypothesis exposed that the application of the individual infusion and also the mixture of these plants' infusions are effective to eradicate the Drosophila Melanogaster fly larvae, that affects growing fruits. A control and five experimental groups were set up. The control group consisted of larvae that were not exposed to any solution. The experimental groups 1-4 consisted of larvae that were exposed to infusions of individual plants. Finally, experimental group 5 were larvae exposed to a homogenous mixture of all the plants' infusions. Plants' infusions were prepared individually and also the mixture of them. Flies' larvae were bred. One hundred larvae were chosen for each group and 1 ml of infusion was sprayed to each one. Observations were recorded for each group every 12 hours during 48 hours. Each infusion had effects on the larvae by either eradicating or driving them away. It was found that the infusion of A. indica and that of M. spicata were highly effective against the flies' larvae, but the mixture of the four plants' infusion was the most effective one. It was proved that these plants have insecticide properties that could help diminish the loss of fruits due to premature maturation because of the fruit flies, without affecting the fruits' quality. Therefore, the hypothesis was accepted.

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