

**NOVEL IDEAS OF SOLVING TOMATO LEAF MINER (*Tuta absoluta*) ISSUES FROM
TOMATO PRODUCTION IN KENYA: THE CASE OF KIRINYAGA COUNTY**

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ABSTRACT

The tomato leaf miner (*Tuta absoluta* (Meyrick) (Lepidoptera: Gelechiidae) is a devastating pest of tomato, which causes 80-100% yield losses both in the greenhouse and outdoor cultivation. Tomato plants can be infested from seedlings to mature plants. Current control of the pest has been by the use of chemicals, and this has been difficult because the pest lives inside the leaves, fruits and stems. Excessive use of pesticides is dangerous because it can cause the pest to develop resistance due to its high reproduction capacity and short generation. The study aimed at determining the level of infestation of *T. absoluta* in tomatoes and measures used by the farmers to control the pest. A study was conducted in Kirinyaga County through the administration of both open and closed-ended questionnaires. Data was collected on pest damage levels, resistant varieties of tomatoes planted and control measures used in the fields. On the damage levels, ten farms were randomly selected, and the total number of fruits in each plant and the number of damaged fruits were counted, and the percentage damage calculated. The data was then analyzed using MS EXCEL and proportion data calculated. From the results obtained, the percentage of infestation ranged between 75-100% in the total number of farms sampled. Kilele F1 tomato variety was mostly grown by the farmers. The farmers used only chemical control method to control *Tuta absoluta*. It was also found that there were eleven different tomato varieties grown by the farmers. From the survey conducted it is, therefore, recommended that farmers should ensure proper field sanitation, cutting and burying any affected debris, practice crop rotation and create awareness on the use of Integrated Pest Management (IPM).