

Insecticides Keep Worms and Their Excrement Out of Cucumbers and Pickles

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The most troublesome insect pest on cucumbers in Florida and the southeast is the pickleworm [1]. The moth that produces the pickleworm has been known since 1782, but the pickleworm as a pest appears to have escaped attention until 1869 when it was described in processed pickles [2]. Pickleworm is a tropical insect which survives the winter only in south Florida and south Texas. Pickleworm is highly dispersive and invades much of the southeast each summer. They migrate north when environmental conditions become favorable. North Carolina and South Carolina regularly experience crop damage by pickleworm, but often this does not occur until August or September [3]. In contrast, northern Florida is flooded with moths each year in June.



Pickleworm moth

Egg production is estimated to be 300 to 400 eggs per female [3]. When about half grown, the pickleworm bores into the side of a fruit and feeds there until it has eaten out a cavity. The larva's entrance is marked by a small hole, through which frass is extruded. Fruits that are entered by the pickleworm are made unfit for human consumption because of the tunneling and excrement of the insect [4].



Pickleworm moth damage

Natural enemies are of no significant benefit in suppressing pickleworm populations; consequently, populations usually increase rapidly and often destroy the crop if insecticides are not applied [5]. Frequent foliar sprays are needed to prevent the pickleworm from entering and contaminating pickles [6]. Pickleworms can pass unnoticed inside fruit and may not be found until after the fruit is processed. Fear of product contamination precludes acceptance of any pickleworm infestation. Lack of treatment may result in condemnation of an entire crop [7]. Pickle processors will refuse to accept a truckload of cucumbers if they notice even one with a pickleworm hole [8].

References

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Spraying cucumbers