Research Note

EFFECTS OF CaC_2 ON THE OVIPOSITION OF CARPOPHILUS HUMERALIS *F. (COLEOPTERA: NITIDULIDAE)*

The increase in the population levels of the sap beetle, *Carpophilus humeralis* F., in pineapple fields in Puerto Rico represents a serious problem to the canning factory, since the insects entering the processing area contaminate the juices and other products. Several experiments were conducted to determine the factors that were contributing to this sap beetle increase. One of the factors studied was the flowering inductor CaC_2.

A preliminary experiment was conducted to determine the effect of CaC_2 in the oviposition of *C. humeralis* in a green pineapple leaf. A solution was prepared of 2.82 g of CaC_2 in 1000 ml of water. One ml of this solution was added to a plastic container with a piece of pineapple leaf and a male and female nitidulid. Five replications of each of these containers and a check without CaC_2 were included. A similar experiment was conducted with dry leaf pieces. A third test was conducted with petri dishes in which the insects and the solution were placed without the leaf pieces. Data on oviposition were collected 12 and 24 hours after adding the CaC_2 solution to the containers.

In the three tests, eggs of the insect were present 12 and 24 hours after the additions of CaC_2, but not in the check containers. These results indicate that the use of CaC_2 in the field may stimulate the oviposition of *C. humeralis* by inducing a physiological stimulation through ethylene production.

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