

Insecticidal Effect of Sulfuryl Fluoride to *Lasioderma serricorne*, Fabricius (Coleoptera: Anobiidae)

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Insecticidal effect of sulfuryl fluoride (SO_2F_2) to cigarette beetle, *Lasioderma serricorne* (F.), was studied in two different containers, one was 1-m^3 (without cardboard block) and another was 0.3-m^3 (with cardboard block). Adults and larvae were put into a small metal can before placed in the containers. Each can was held for 8, 24, 48, 72, and 96 hours after SO_2F_2 (10, 20, 30, and 40 g/l) treatment. All adults were killed in an 1-m^3 container. Larval mortality was 99 to 100% when the dosage of SO_2F_2 was 10 and 20 g/l.

Cardboard was attached between two 0.3-m^3 containers; one was fumigation area and another was insect area. SO_2F_2 could penetrate cardboard within 24 hours in most. SO_2F_2 could affect all adults and larvae regardless of their susceptibility. All adults were killed at 8 hours in a 0.3-m^3 container. But low mortality of larvae was recorded at 8 hours when small dosage was treated (30% in 10 g/l, 87.2% in 20 g/l). The mortality was increased as SO_2F_2 dosage increased.

Six different metals (stainless, copper, brass, aluminum, iron, and zinc) were also tested to study metal corrosion and discoloration. Metals placed in an 1-m^3 container were exposed to 1- 4 times of SO_2F_2 . No corrosion and discoloration was observed in all metals.