

Effectiveness of Baits Incorporated with Carbamates or Pyrethroids Against the Melon Fly¹

Hsin-Shun Lai² Ta-Chi Yang³

Abstract

Studies were conducted to evaluate the mortality of melon fly (*Bactrocera cucurbitae* Coquillett) on adding carbamates or pyrethroids to baits in five ratios. Higher ratios of insecticides resulted in increased melon fly mortality. In the non-choice test, the mortality resulting from addition of 40% methomyl WP to baits by a ratios of 1:1000, 1:500, 1:200, or 1:100 and 48.34% carbosulfan EC to baits by a ratios of 1:200 or 1:100 were significantly higher than other carbamates and pyrethroids. In the choice test, baits incorporated with 40% methomyl WP in 100:1 or 48.34% carbosulfan EC in the same ratio could also make the mortality higher over 80% for melon fly. In the residual effects, 40% methomyl WP mixing with baits in 1:100 after seven days could make the mortality higher over 70%. It was concluded that the 40% methomyl WP or 48.34% carbosulfan EC adding in baits could manage the population of melon fly effectively. This technique could be applied in the integrated pest management of melon fly.

Key words: *Bactrocera cucurbitae*, carbamates, pyrethroids, baits.

1. Research article No.234 of Hualien District Agricultural Research and Extension Station.

2. Assistant researcher, Division of Crop Environment, Hualien DARES.

3. Associate researcher, Division of Crop Environment, Hualien DARES.