Asparagus Pest Management

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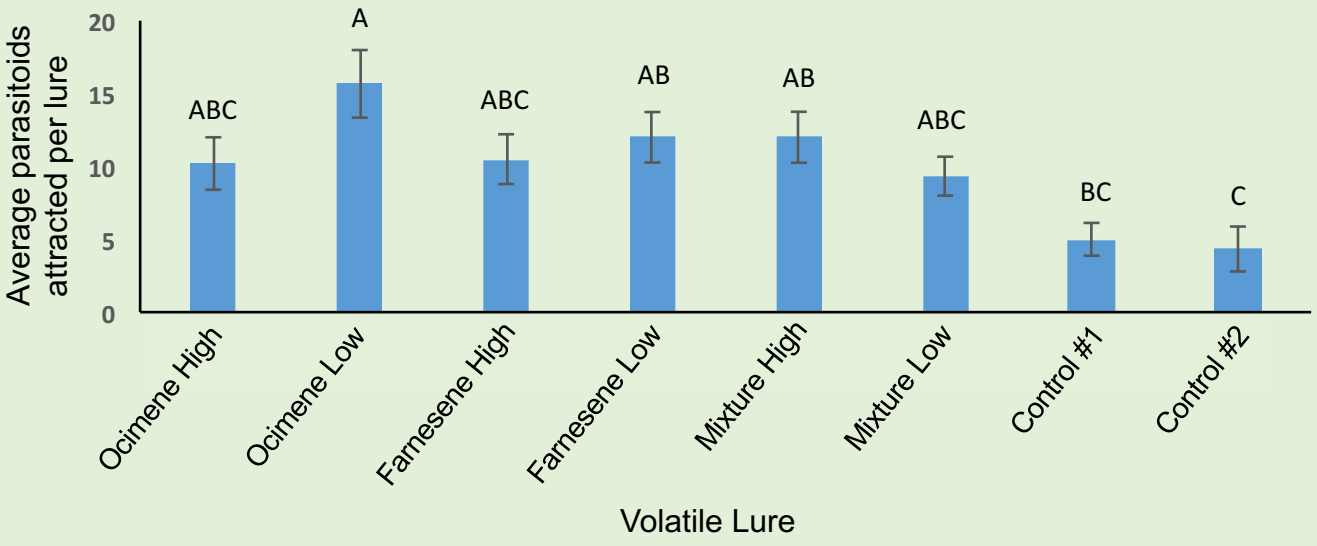
Since 2013, we have been investigating the volatile chemical cues of asparagus and the role they are playing in the control of the asparagus miner and the common asparagus beetle. This year, we deployed volatile lures in commercial fields to determine if parasitoid and/or predator insects were attracted by volatile compounds found in asparagus.

Lures were deployed on field edges.

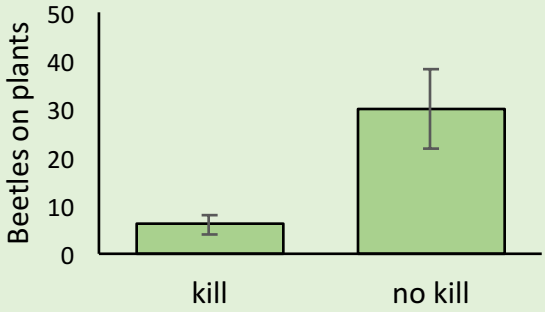
Sticky cards were used to trap attracted insects.

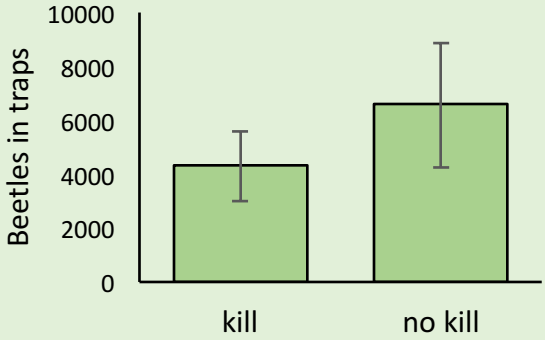
Eulophid Braconid Pteromalid

Parasitoids were significantly attracted to ocimene lures at the low release rate. Parasitoids attracted to the lure include known asparagus miner parasitoids from the Eulophid, Braconid, and Pteromalid families. Predators were not attracted or deterred by the lures.



We have been investigating attract-and-kill technology to prevent penetration by Japanese beetles into asparagus fields. Attract-and-kill devices use pheromone lures inside a pouch infused with contact insecticide (deltamethrin). Devices at the field edge reduce Japanese beetle abundance within the field.





Contact insecticides don't effectively control asparagus miners. Application of thiamethoxam (Platinum®) to the soil reduces asparagus miner damage, and numbers of common asparagus beetle eggs, larvae, and adults. However, Japanese beetles were more abundant after insecticide application.