Organic Insecticides for Diamondback Moth Control on Broccoli, Fall 2017

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Trial location: Yuma Ag Center

Crop: Broccoli, 'Emerald Crown'

Wet date: Sep 7, 2017

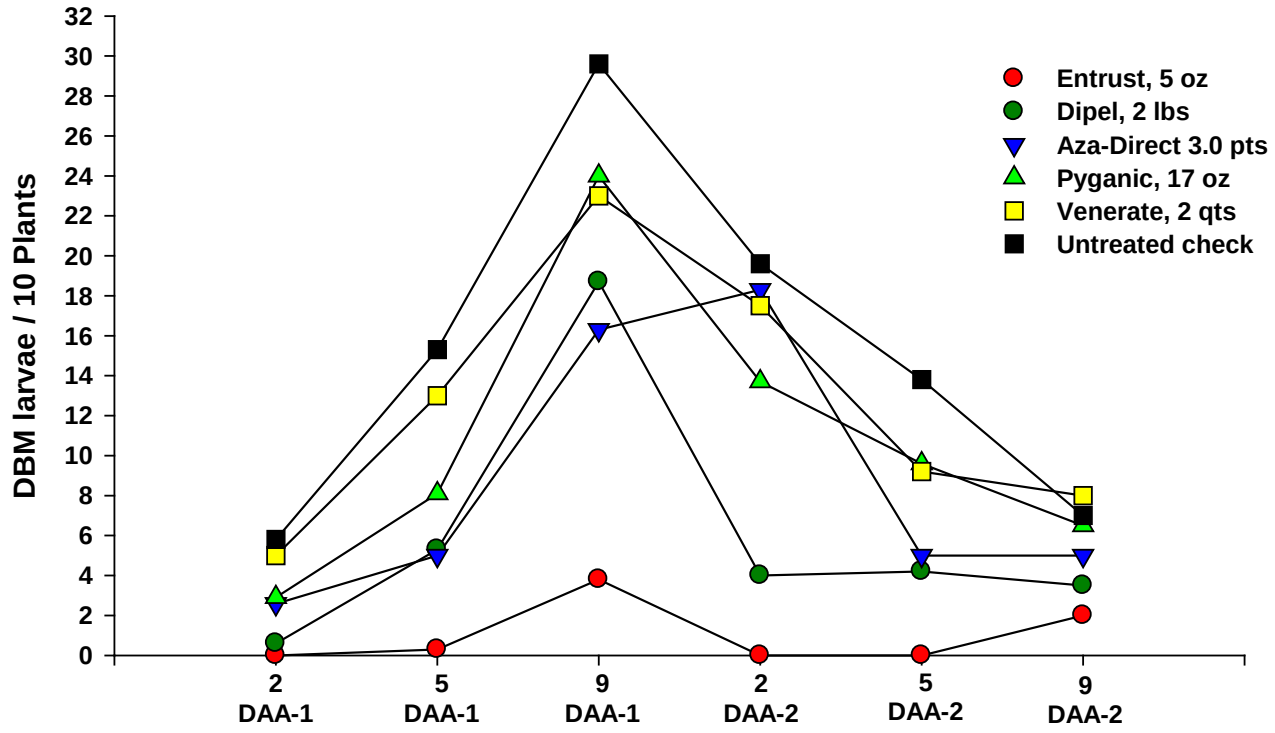
Exp. Design: Randomized complete block design with 4 replicates

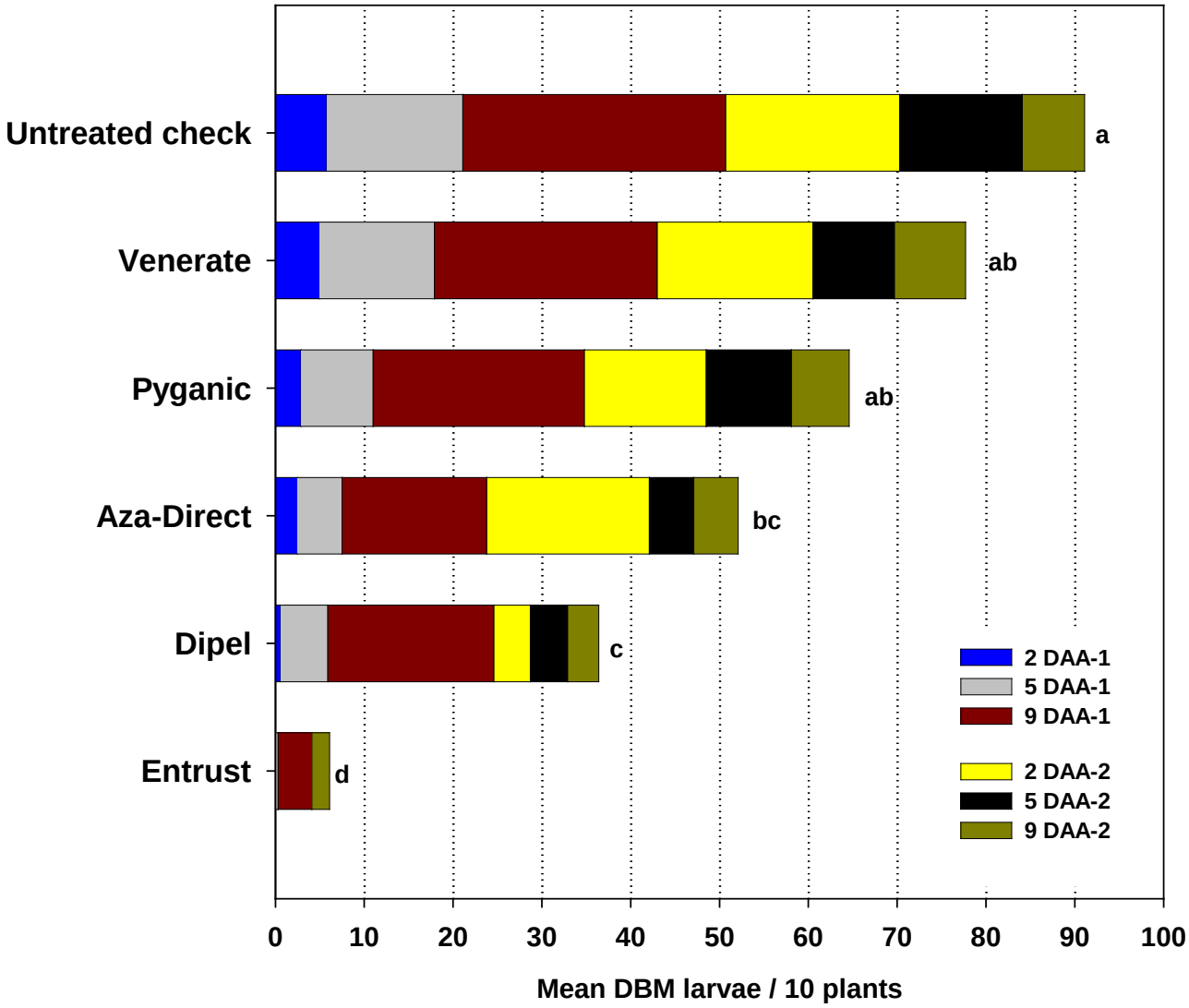
Plot size: Two beds wide by 35 ft long and bordered by one untreated bed.

Applications:
1) Oct-1, 3-4 leaf stage
3) Oct-11, 6-7 leaf stage

Spray Equipment: CO_2 pressurized boom sprayer operated at 40 psi and 23.5 gpa through 2 TXVS-18 ConeJet nozzles per bed. Silwet was applied at 0.125% vol/vol to all treatments.

Assessments: Plants were randomly selected from each replicate at 2, 5 and 9 days after each application (DAA). Whole plants were destructively sampled for the presence of DBM larvae.





Summary: Following each spray application, the Entrust, Aza-Direct and Dipel treatments provided significantly better control of DBM larvae compared to the untreated check. When averaged across all samples, Entrust provided the most consistent control of DBM larvae (see graph above). Although Dipel and Aza-Direct provided a limited level of protection against DBM on small broccoli, they likely offer enough activity where they could be used in rotation with Entrust and Xentari. Venerate and Pyganic did not control DBM larvae relative to the untreated check.