عنوان مقاله:

Interactions between Orius albidipennis and Aphidius colemani (Hymenoptera: Braconidae) for the control of Aphis gossypii on greenhouse cucumber

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خلاصه مقاله:

Aphis gossypii Glover (Hemiptera: Aphididae) is an important cucumber pest especially in greenhouse. The efficacy of simultaneous release of generalist predator, Orius albidipennis Reuter (Hemiptera: Anthocoridae) and a specialist parasitic wasp, Aphidius colemani Viereck (Hymenoptera: Braconidae), was evaluated in laboratory conditions against the pest. For this purpose, investigations were carried out on preference of the predator between parasitized and non-parasitized aphids. In addition, production of volatile infochemicals between the natural enemies (NEs) was studied by olfactometry trials. In another part of this research, systemic production of volatile synomone by the infested cucumber plants for attraction of each NE was examined by the olfactometry tests. Results revealed that O. albidipennis had no obvious preference to either the parasitized or non-parasitized aphids, while both NEs were significantly attracted to volatiles emitted from infested host plants. Our findings revealed that each of the NEs avoided odors which indicated the presence of another intraguild competitor. The documented facts from the entire study reveal that the NEs are good biocontrol agents against A. gossypii on cucumber, but their avoidance from each other makes simultaneous release of the predator and parasitic wasps unsuitable for biological control of this aphid.

کلمات کلیدی:

predatory bug, parasitoid wasp, simultaneous release, infochemicals, aphid biocontrol

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