

**SURVIVAL OF BENEFICIAL ARTHROPODS  
FOLLOWING THE APPLICATION  
OF VARIOUS INSECTICIDES**

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**Abstract**

The survival of major predaceous arthropods (bigeyed bug, Heteroptera:Lygaeidae; damsel bug, Heteroptera:Nabidae; lady beetle, Coleoptera:Coccinellidae; and spiders) was observed after 1 and 2 applications of insecticides were applied to B.t. cotton and soybean in 1996. Insecticides included recommended rates of Confirm, Match, Provado, Larvin, Curacron, Gemstar, Dimilin, Tracer, Karate, Pirate, methyl parathion, Ovasyn, Lannate, Vydate, Orthene, Karate + methyl parathion, and Karate + Pirate. Overall results indicated these materials have a wide range of effect on beneficial species. With bigeyed bugs on cotton, Confirm, Tracer, Gemstar, Match, Provado and Pirate had the least effect after one application. Karate and Karate + Pirate had the greatest effect. After a second application, Curacron, Pirate, methyl parathion, Karate and Karate + Pirate significantly reduced this species compared to the untreated check. Confirm and Gemstar had the least effect.

With lady beetles on cotton, Larvin, Karate, Karate + Pirate, Curacron, Provado, and Pirate significantly reduced numbers after one application. Match was comparable to the untreated check. After two applications, Larvin, Curacron, Provado, and Pirate reduced numbers. Tracer, methyl parathion, and Karate were similar to the control. These increased numbers with methyl parathion and Karate were probably due to increased aphid populations.

Following two applications on soybean, Orthene, Larvin, Curacron, Karate and Karate + methyl parathion lowered damsel bugs significantly. With spiders, Orthene, Karate and Karate + methyl parathion significantly reduced numbers compared to the control plots.