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Biological Control

Augmentation of pear psylla natural enemies with selective insecticides, habitat modification, and hedgerow monitoring

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Abstract: Field tests were conducted in a 15-year-old Anjou pear block to evaluate summer applications of various insecticides on pear psylla and its natural enemies. Field trials suggest that AgriMek and the chloronicotinyl insecticides Actara, Provado and Assail are more disruptive to Deraeocoris brevis and other hemipteran predators than Mitac and possibly Pyramite. Disruption may last as long or longer than four weeks. Surveys suggest that arboreal natural habitat along orchard borders can serve as an insectary and source for natural enemies. D. brevis was commonly found on native hazelnut, elderberry and, at times, also on conifers. Studies are under way to enhance biological control in orchards with four feet by twenty feet islands of flowering plants (nectar sources for hymenopteran parasitoids) and with hedgerows of elderberry and hazelnuts.