

Abstract

Carbofuran, methoxychlor, Mobile MCA-600 (benzo [b]thien-4-yl methylcarbamate), leptophos, methidathion, and dialifor were evaluated for control of *Acyrtosiphon pisum* (Harris) on the alfalfa varieties 'Cody', 'Dawson', 'Team', and 'Vernal' in the greenhouse. Dawson and Team are resistant to pea aphids; Cody and Vernal are susceptible. Use of leptophos significantly increased pea aphid numbers on the resistant variety Team but only slight increases resulted from its use on resistant Dawson, with slight decreases in pea aphid numbers following its use on susceptible Vernal. The other insecticides, with the exception of methoxychlor, effectively reduced pea aphid numbers. There were indications that carbofuran, Mobil MCA 600, leptophos, and dialifor increased growth rate of some of the alfalfa varieties, possibly because of aphid control. However, the height of Team was reduced by carbofuran, methoxychlor, and methidathion. In an outdoor cage, leptophos, as the only treatment, also significantly increased pea aphid numbers on Cody, Team, and Vernal but not on Dawson. In a field study with carbofuran, leptophos, and methidathion, the leptophos treatment increased pea aphid numbers (but not to the point of significance) on Dawson and Vernal but not on Team. It was not determined whether the increase in pea aphid numbers was due to change in physiology of the aphid or its host or both.