

**PEAR:** *Pyrus communis* L. 'Bartlett'  
Comstock mealybug (CMB); *Pseudococcus comstocki* (Kuwana)

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**PEAR, EVALUATION OF FOLIAR INSECTICIDES TO CONTROL COMSTOCK MEALYBUG, 2000:** Tests were set up to compare the effectiveness of different treatments using Actara, Provado, and Diazinon in the control of Comstock mealybug (CMB) in a commercial orchard in Wayne Co. Treatments were arranged randomly and applied in single-tree plots that were replicated 4 times. Treatments were applied using a hand-held gun from a truck-mounted nursery sprayer (Rears Nifty-Pul-Tank) operating at 300 psi, and delivering 5 gal per tree in a mature (>20 yr-old) planting of 'Bartlett' pears at the Young orchard in Williamson, N.Y. Treatments and rates applied were: Actara 25WG at 5.5 oz and 4.5 oz formulation per acre, Provado 1.6F at 20 fl oz per acre, and Diazinon 50WP at 3 lb per acre, plus an untreated control.

All treatments were applied against crawlers of both the first brood at the 1-inch fruit stage (June 2) and the second brood on August 8. (To monitor the developmental progress of the second brood crawlers, pheromone traps were hung in the Young orchard as well as in a nearby orchard — Peters — having a history of mealybug infestations; Fig. 1) on June 29 and checked every 2-3 days for adult males, and double-sided carpet tape traps were placed on scaffold limbs in each control tree on July 24 and checked every 2-3 days for crawlers.)

Fruit infestation counts were taken on August 28 by sampling 100 random fruits from each tree and inspecting the calyx and stem ends for CMB crawlers and adult females. The data were transformed using arc-sine square root and analyzed using ANOVA; treatment means were separated with Fisher's Protected LSD at the  $P = 0.05$  level. Results are given in Table 1.

Table 1. Comstock mealybug fruit infestation and obliquebanded leafroller feeding damage in pears after handgun treatments on June 2 (1-inch fruit stage) and August 8. Williamson, NY 2000

Treatment	Rate of product/A	Mean (SEM) % CMB Infestation <sup>a</sup>
<b>Young</b>		
Actara 25WG	5.5 oz	0.0 (0.0) a
Actara 25WG	4.5 oz	0.0 (0.0) a
Provado 1.6F	20 fl oz	0.0 (0.0) a
Diazinon 50WP	3 lb	1.0 (0.4) b
Control	—	6.1 (1.5) b

<sup>a</sup> Values followed by the same letter are not significantly different ( $P = 0.05$ ; lsd test).

CMB infestation pressure was relatively light in this trial, probably as a direct result of the cool and wet summer weather this season. The plots treated with both rates of Actara and the Provado standard showed no infestation of the fruit, and the Diazinon-treated fruits, although statistically different, were still only minimally infested. Taken with the previous year's trials of these same treatments, these results lead us to conclude that, in many cases, proper timing of the pesticide applications may be the most important factor in the control of CMB pear infestations, regardless of the material used.

Fig. 1. Pheromone trap catches of Comstock mealybug adult males in two infested pear orchards. Williamson, NY 2000

