

## MEALYBUGS AND THEIR CONTROL

by

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Mealybugs feed by inserting their long, slender mouthparts into the stems and leaves of their host plants and sucking out the sap. Heavily infested plants soon become unthrifty in appearance. If not treated, these plants become so disfigured by honeydew, sooty mold and premature leaf dropping that the plants must be discarded.

Mealybugs get their common name from the soft, waxy bloom which covers these insects soon after they begin to feed. They appear to have been rolled in meal (Fig. 1).

Female mealybugs have no wings and must be transported directly to or near the next host plant. They can travel short distances by crawling or the immatures may be blown by the wind. Light infestations are easily overlooked as the mealybugs tend to cram themselves into crevices on the plants. Mealybugs are usually found at the bases of the stems of plants with long petioles such as African violets. After the first eggs have hatched, the infestation becomes very noticeable. As their numbers increase, mealybugs of all sizes will be found crawling around or feeding on all exposed surfaces of the plants.

Each female usually lays from 200 to 600 eggs in a thick, cottony mass (Fig. 2). Because the eggs are enmeshed in the waxy filaments, they may escape contact with pesticides applied for control. Some species give birth to live young. Newly-hatched nymphs are pale yellow and naked. Their color becomes darker as they mature, they become darker in color, and they secrete a waxy bloom and look like the adults except for size (Figs. 3-5).

Male mealybugs are tiny, fly-like insects with two wings and long filaments which protrude from the abdomen (Fig. 6). After emerging from loose, flocculent cocoons, males fly about and mate with the females.

### CONTROL

Mealybugs are not easy to control. If a small number of plants are infested, eliminate the infestation by discarding the plants. If a large number of plants are infested, dip or spray the plants thoroughly with the pesticide mixture listed below or use one of the aerosols and treat the entire greenhouse. It is best to retreat two or more times at weekly intervals. Retreatment will control mealybugs or eggs which were missed by earlier control efforts.

malathion (50-57%) emulsifiable concentrate - 2 teaspoonsful per gallon of water (plus a wetting agent if necessary).

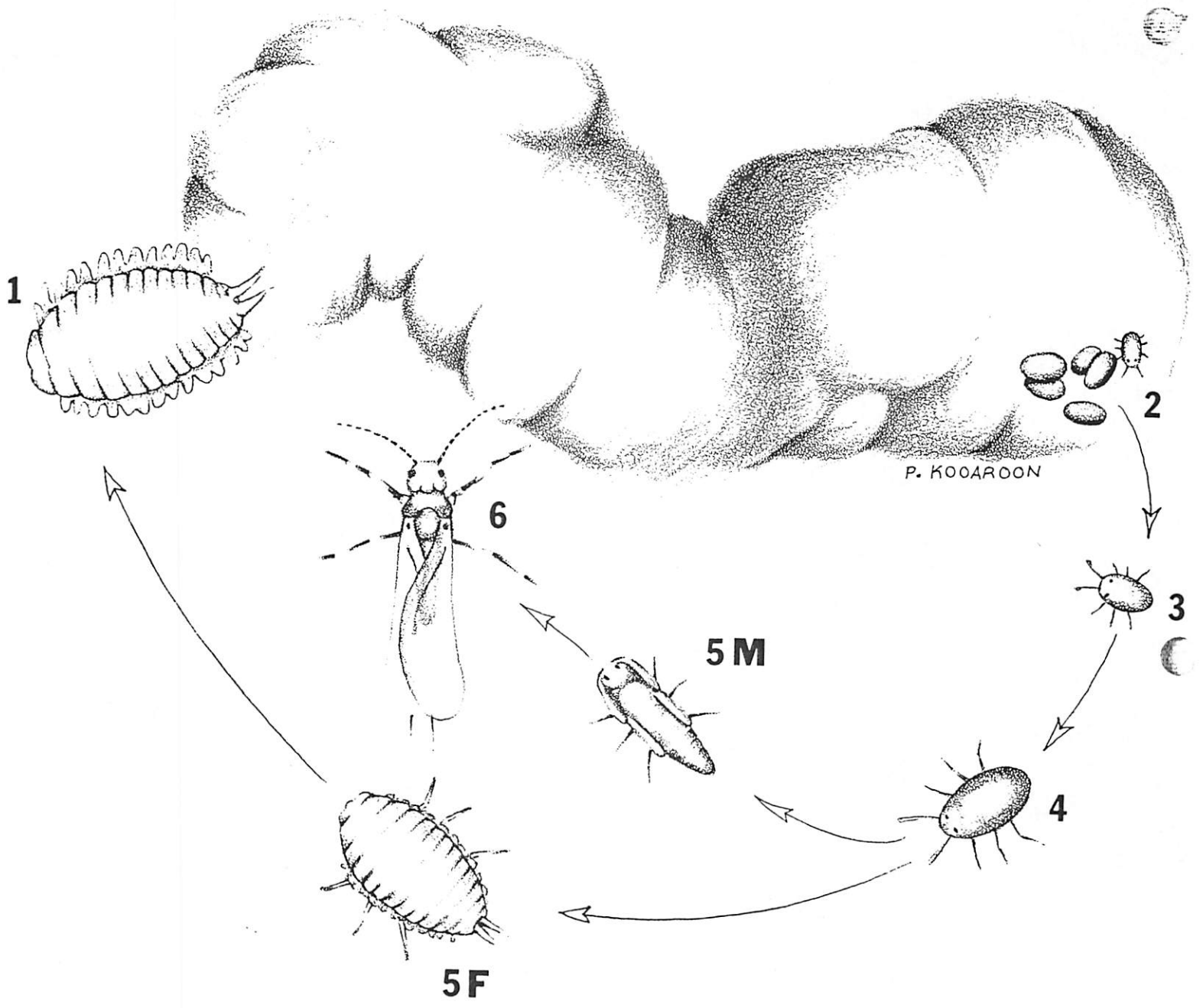
dichlorvos (Vapona) 10% aerosol - 1 lb. per 50,000 cubic feet.

parathion 10% aerosol - 1 lb. per 50,000 cubic feet.

propyl thiopyrophosphate (Dithiono) 5% aerosol - 1 lb. per 50,000 cubic feet.

naled (Dibrom) 60% emulsifiable concentrate - Apply on steam pipes at rate of 1 oz. per 10,000 cubic feet. Have pipes at 160°F. Will corrode pipes with continued use.

THE USE OF TRADE NAMES IN THIS INSECT NOTE DOES NOT CONSTITUTE ENDORSEMENT OF ONE PRODUCT TO THE EXCLUSION OF OTHER SIMILARLY LABELED PRODUCTS.



Figures 1 - 6. Various stages of mealybug development. 1, Adult female. 2, Eggs in the cottony mass. 3, First nymph. 4, Second nymph. 5F, Female third nymph. 5M, Male third nymph. 6, Male.