

Mealybugs November 2000

by Dr. Courtney Hackney, hackneau@comcast.net Orchid Growing Tips

Over the years I have had numerous questions about getting rid of Mealybugs on Phals and Paphs. Until this year I never appreciated the difficulty of getting rid of this pest because they had never been a significant problem for me. Suddenly this Fall I found them on many plants. Why had they not been a problem before? They occasionally were found on new plants and quickly disappeared after one or two treatments with a light oil spray. This time around the light oil just seemed to slow them down, but did not eliminate them. What else changed this year? This is always a good question when a new problem appears. In my case, brown scale had all but disappeared and there had been no need to treat Phals. While never a serious problem, twice a summer treatment of Enstar (1/2 teaspoon/gal) with a light oil provided great control for Soft Brown Scale. It apparently also worked well on Mealybugs.

How do you recognize these small white cotton-like pests? Usually you see either the symptoms or a byproduct of these pests before you notice them hiding under leaves or in a leaf axil. These sucking pests can cause slow growth and/or reduced leaves. Another sure sign is the presence of ants that consume the sugar released from both the plant and insect. Ants help move these creatures around and assist is spreading the infestation. It is surprising how many plants I have purchased that had either Soft Brown Scale or Mealybugs. They are usually not found until after you get them home and look carefully around the base of the plant where each leaf connects to the stem. There they can hide and avoid most pesticides. If you have only a few plants adults are easy to eliminate with a soft tissue. However, you are unlikely to find every juvenile as they are very small and hide well. Insecticidal soap and light oil are effective, but you must directly spray each individual and repeat treatment several times every 7-10 days to be sure you have gotten them all.

Growers with large collections will find elimination of these pests more difficult. As noted earlier, Enstar provides effective control, but is very expensive and not readily available. Because Enstar is a hormone that controls insects' ability to molt, it has little effect on the other critters in your growing space that do no harm, such as lizards and frogs. Many other pesticides have toxic effects on non-target organisms and some of these will be taken off the market at the end of the year. Orthene and Cygon 2E are two such pesticides that are very effective against scale insects because they are systemic, that is, they are taken up by the plant and kill sucking insects that feed on the plant. Most pesticides kill by contact and will miss those that are not directly sprayed.

It is not correct to assume that because a product is approved for application to plants that it does not have an effect on the plant. Many have some level of toxicity even if they do not kill the plant. Orthene often causes flowers to abort or be malformed if sprayed when buds are developing in the sheath of Cattleyas. Use pesticides, bactericides, and fungicides only when you have a recognizable problem and use it only on affected plants.

It is time to begin lowering the amount you water for most genera. Most Cattleya species like a dormant period in winter and their hybrids tend to also like it drier. Remember



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also that there is less light and heat and so plants need less water. When roots of most tropical Orchids are below 68 degrees F, they also stop growing making them more vulnerable to infection and rotting if the media is kept too moist. If you grow in plastic pot a few plants in clear pots and place these in different parts of your growing area. Clear pots provide an ideal indicator of how dry the media is below the surface. This is especially important if you grow in ProMix or other peat based mixes, as they can look very dry on the surface and still be very wet below. The longer the plant has been in a pot, the longer the media takes to dry. If you have only a few plants try picking up a few plants each morning to tell when to water. You will easily recognize a light pot as being dry.