

April 2007 - Controlling Orchid Pests: Scales, Thrips, Mites, Snails, and Slugs

A monthly growers advice column by Courtney Hackney.

This is the second in a multi-part series and deals with pests. There are five general types of pests that cause problems for orchid growers, scales, thrips, mites, snails, and slugs. In nature, these pests seldom kill orchids. However, without natural predators and in crowded conditions, greenhouse or windowsill culture provides the ideal environment for diseases and pests to spread from plant to plant.

While many hobbyists and a few commercial growers have attempted to use natural controls, e.g. ladybugs, few if any report control. Thus, pesticides are a part of just about every orchid grower's routine. What is the most effective control? What is the safest product?

The answers are not simple, but there are some guidelines. First, remember that every product is potentially dangerous if used improperly and/or without proper precautions. Products on the market have been tested for safety under very specific conditions and on specific types of plants. My opinion is that just about every product I have used has damaged my orchids if only to a small degree. Thus, application of a pesticide should not occur unless there is a problem.

Hobbyists with a small collection may never need to use any highly toxic product. A hose can be used to generate a fine jet of water that jets insects from under leaves or rhizomes. It works especially well for scale, which are a serious pest for many types of orchids. For cattleyas, this can be done every time the plant is repotted even if no scale is noted. Be sure to clean below the rhizome as well and remove any dead tissues attached to rhizomes or pseudo bulbs as scales love to hide in such places. If scales are noted on a cattleya that does not need repotting, this can also be done while the orchid is in the pot. There is the risk that scales hiding below the rhizome will miss the treatment. The process of using fine jets of water works well on just about all types of orchids. Care must be exercised on thin leaved orchids or if there are new leaves. Some windowsill growers find this method is all they need and treat each new plant before adding it to their collection.

Other hobbyists add a spray of light or ultra oil after jet cleaning their plants. This is a relatively safe product for you and your plant and leaves a beautiful sheen on leaves

and bulbs. It is sold under a variety of trade names such as sun oil or ultra-light oil. **The label must specify that this product can be used year round.** It works by coating the pest and clogging its ability to get oxygen and is effective against both insects and mites. Avoid placing orchids sprayed with light oil in direct, bright sunshine until the oil has dried. Unless your orchids are packed too tightly into a small space, or you have no time to devote to regular pest control, this should be all that is required to maintain your collection.

Some hobbyists have reported success with insecticidal soap that is available in ready-to-spray bottles. This product has not worked well for me. Also, I seem to have an allergic response to this and many soap products. The lesson here is to treat all products as if they were toxic, just in case they later turn out to be.

Generally, your collection should be checked at least twice a year to be sure pests have not gained a foothold. Light oil can be applied as often as you like to maintain beautiful leaves. Inside homes in the winter, low humidity can lead to water loss and/or mite infestation and light oil helps with both of these conditions.

While there are dozens of pesticides and miticides on the market, there are very few that I will use on my orchids because I believe that orchids are potentially damaged by all pest control products. Thus, I try not to use any. There are two types that are used when pests are found. For large collections, hand treating each plant is not possible and this is when and where these more toxic products are appropriate. Even so, special plants or those recovering from a rot are protected from any pesticide effects and cleaned with a water jet and sprayed with oil as noted above.

Next month we will discuss treating large collections and some products that work well.

Jacksonville Orchid Society member Dr. Courtney Hackney, Retired Emeritus Professor of Biology at the University of North Florida, is a noted author and acknowledged "orchid expert." He published a column of orchid advice that ran for many years, and we are presenting select articles with his permission.

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