

# Cultural Session: 'Help! My Orchid Has Mealybugs And Scale !!!

By Gayle Brodie, Photos from AOS

At the September 11 meeting of COS, Gayle Brodie presented ways to combat mealybugs and scale on orchids.

Identifying them was first on the agenda. These photos show what to look for.



MEALY BUGS

SCALE

Before applying pesticides, strip off all of the old brown, papery bracts and sheaths. Bugs love to hide and breed under there, where you can't see them, and many pesticides can't reach them.



There are two types of pesticides: **Contact** and **Systemic**.

Contact pesticides must actually contact the pest and are typically sprayed since swabbing is not very effective. Clean the plant first. If you can see one bug, you've probably got a lot more somewhere on that plant!

Systemic pesticides make the plant toxic to bugs. Some are sprayed, but many are mixed with water, and then applied by watering the plant. Systemics have to be fully absorbed by the plant to become effective, so you won't have an immediate kill as you do with contact pesticides, But once systemic becomes effective it will usually protect the plant for an extended period of time

My suggestion is to use a contact pesticide to control the bugs you see today, and also use a systemic pesticide to control the bugs you can't find and those that haven't hatched yet. Make repeated applications of the contact pesticide until the systemic becomes effective.

## Using Contact Pesticides

Besides spraying the top of the plant, spray under all of the leaves and into every nook and cranny. There is usually no residual effect.

Rubbing (isopropyl) alcohol, 70%, straight from the drugstore is an easy to use old time

favorite that I use all of the time. A “recipe” of 1/4 alcohol, 1/4 409 and 1/2 water is used by some. Proportions can vary.

Use a spray bottle with a fine mist. Don’t apply when it is really hot, or the sun is really bright, as is the case with all chemicals. In general, don’t apply to flowers.

Mealybugs and most scale will be immediately killed. But, dead, hard scale usually stays on the leaf until you scratch it off. Because the eggs under the scale are not dead, **tilting the** plant while doing this will help to prevent the eggs from falling into the potting medium.

### Other Contact Sprays

Horticultural and neem oils can be used as well as insecticidal soaps, but beware of leaf burn during bright light. Also, they may have a short residual effect. Be careful with soaps on sensitive plants

Sue Bottom, author of the monthly “For the Novice” article in Orchids magazine, also suggests Malathion and Orthene, applied in accordance with label instructions.

Bev Tall, AOS judge and chair of the AOSPacific South Judging Center, uses 1 teaspoon of Neem Oil and 2 teaspoons of Formula 409 and 2 teaspoons of Listerine mixed with 2 cups of water. It also has some anti-fungal and antibacterial properties.

### Using Systemic Pesticides

I use Bayer Advanced Tree and Shrub Protect and feed (liquid, not pellets!). Read the label instructions carefully! Amazon sells it for \$18.77.



### How I apply it to orchids

Let the plants get a little thirsty, to maximize absorption. Be sure to dry out plants that are potted in moss.

I wear long pants, nonabsorbent shoes, long sleeves and heavy nitrile gloves. Mix 1 1/2 tablespoons to one gallon of water.

Water the plants thoroughly with the Bayer mix and *nothing* else. Let them get a little thirsty again before your next normal watering.

Do not use this product on any plants that are visited by bees, hummingbirds or other pollinators – it will kill them!

Orchids generally have very specific pollinators that don’t live in California. Exceptions in my collection are California native orchids (like *Epipactis gigantea*) and also *Bletilla striata*, a wonderful terrestrial orchid that Kathy Boals sells at the library sale.

Other Bayer products have different chemical formulations that may not be effective

or safe for orchids, or may not be safe for container plants. If you use something else, compare the labels very carefully and test it on a few plants first.

If you use this product for years, the bugs will become resistant to it. Rotate your pesticides.

When you see mealybugs or scale on a plant, or when you bring a new plant home, do the following.

1. Thoroughly spray the leaf tops and bottoms and all nooks and crannies of the foliage (not the flowers) with 70% rubbing alcohol or one of the rubbing alcohol “recipes.”
2. Let the plant get a little thirsty, and then thoroughly water with the Bayer Advanced Tree and Shrub mix (and nothing else). Let the plant get a little thirsty before you resume regular watering. If you start noticing more of these bugs on your home collection, maybe it is time to treat your whole collection with the Bayer mix (usually every six to nine months). After a couple of years, rotate to another systemic pesticide.
3. Repeat the rubbing alcohol spray every few days until the Bayer mix has become effective (up to 2 weeks plus).
4. Only apply chemicals when its not too hot or too bright.

## ***[More Information](#)***

### **American Orchid Society**

[“Orchid Pests and Diseases”](#)

[“Mealybugs on Orchids”](#)

[“Scale”](#)

### **AOS Members only webinar**

[Orchids – Pests and Their Management](#)

### **St. Augustine Orchid Society**

[“Orchid Pests and Diseases”](#)

[“Orchid Pests”](#)

### **Protective Clothing**

[Hazmat Suits at Home Depot](#)