

Home-Made Orchid Remedies and Treatments

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One of the major stumbling blocks for beginning orchidists is that they feel that they must use harsh pesticides to be successful. Many of these are very expensive and must be purchased in quantities that would need to be stored over a long period of time. This can cause a potential environmental hazard. Most often, the new orchidists will not have the required personal protection equipment (eye protection, rubberized rain gear, gloves, and respirator), to properly apply these chemicals.

As a hobbyist orchid grower, it is not necessary to use pesticides in a preventative manner, such as a commercial orchid nursery would. Using pesticides in this manner can potentially develop resistant strains of disease organisms and cause harm to your orchids, yourself, and the environment. Since there is no intent to sell or ship the orchids out of state, we can tolerate a few imperfections on the orchids, and still produce high quality flowers. The main goal is to grow and produce beautiful orchid plants and flowers for our own personal enjoyment.

The purpose of this article is to provide easy alternative methods in treating many of the common pests of orchids. To be successful with these methods, it is imperative that they are used in conjunction with good cultural practices. But first, we need to have an understanding of what our responsibilities are as an orchid grower, and we also need to be able to identify some of the common ailments that affect our orchids.

Physiological Disorders

It is important to identify physiological disorders of orchids. These are ailments that are not caused by insects or disease, but are caused by poor culture. Some examples of this are; excessive sunlight (sunburn) or not enough sunlight, improper watering, salt or wind damage, temperature stress, and root die back (from old media). In every case, it is up to the grower to supply the proper environmental conditions for the various orchids we are growing. Spraying of chemicals will not remedy any physiological disorder.

Insects

It is very important that you watch your orchids carefully and take care of problems as they occur. Most insect problems (aphids, thrips, spider mites, and mealy bugs) occur in the warm summer months and will feed on soft new growth and flowers. The best time to spot problems is while you are watering. If you stay on top of things, spot spraying of these home remedies may be all that is needed to rectify the problem.

- a. Try to maintain a spotless growing area. Remove all faded flowers and dead leaves promptly, as they are a major source of infection. Sanitation is the best defense against insects and diseases.

- b. Control weeds and pests in and around your growing area. Weeds and other plants in the collection often harbor insects that can transmit diseases.
- c. Maintain good air circulation. Stake up all orchids and provide adequate spacing between them.

Diseases

For a disease to occur the causal agent or pathogen must be present in an infectious stage and come into contact with the host plant. The environmental conditions must favor the infection and the plant must be susceptible. So our goal is to break the cycle of infection. The most common diseases of orchids are bacteria, fungus and viruses. Here are a few ways to control them.

- a. Water orchids early in the day, allowing them to dry before nightfall. Do not let puddles of water accumulate around your growing area.
- b. Avoid the temptation of watering newly repotted orchids. During repotting, any part of the orchid that is cut or damaged could provide a path of entry for diseases. Water is a great carrier of bacterial and fungal diseases.
- c. Maintain proper sanitation when handling your orchids. It is very important to sterilize all potting implements such as; pruning shears, stakes, pots, table top, and your hands).
- d. Quarantine new orchids for at least two weeks and isolate diseased ones from the rest of the collection.

The answer could be found in your kitchen or bathroom cabinet!

The following, are just a few concoctions that I feel might work well in Hawaii.

Please remember that you are using them at your own risk. I am not making any endorsements, and I take no responsibility for your orchids or for any bodily injury.

There has been no scientific study done on application rates, toxicity levels, or target pests. Use with caution and experiment on a few orchids first. Even though these are homemade remedies, they are still chemicals and personal protection is still important. Use caution when applying. Never apply any of these remedies in the heat of the day as they can potentially burn the sensitive tissue of the new growths and flower buds. Do not apply any chemicals on hirsute (hairy) orchids. Do not store any left over mixtures, doing so in an infraction of federal labeling laws, which require identification and caution statements.

Insecticides

Soft bodied insects, such as mealy bugs, aphids, and thrips

1. Straight 70% isopropyl rubbing alcohol – touch insects with a soaked cotton swab or spray entire affected area of plant. Repeat every two to three days. Apply in the early

- morning or late afternoon, when cool. A typical sprayer top can be put on to the alcohol bottle.
2. Garlic/Pepper Spray – liquefy 2 bulbs of garlic and 2 hot peppers in a blender $\frac{1}{2}$ to $\frac{2}{3}$ full of water. Strain and add water to make 1 gallon of concentrate. Use $\frac{1}{4}$ cup concentrate per gallon of water.

Hard shell insects such as scale, also for spider mites

1. Mix 1 to 3 teaspoons of cooking oil and 1 teaspoon of liquid dishwashing soap into a quart of water. Shake well and spray plant thoroughly wetting the affected surfaces. Repeat every 2 to 3 days. The soap will breakdown the waterproof coating of the insects' shell and the oil will smother them. Apply only when cool.

General purpose sprays

1. Water – When watering use high pressure to water heavily, wet all parts of the orchid, especially under the leaves. Water will disrupt the feeding and egg laying of white flies, mealy bugs and spider mites. When repotting if you find a scale infestation, use high pressure to remove scales off of pseudobulbs.
2. Neem Oil – acts as an insect repellent, as well as a fungicide, nematocide, and even molluscicide!
2. Fantastik or Formula 409 – Add 1 cup of the household cleaner/degreaser, with 1 cup of rubbing alcohol, and mix with 2 cups of water. This solution can be sprayed directly on all affected areas.
4. Orange Plus household cleaner – can be sprayed undiluted.

Ant eliminator

1. Melt $\frac{1}{4}$ pound of candle wax, then slowly stir $\frac{1}{4}$ cup sugar and 4 ounces of Boric Acid Powder. When thoroughly mixed, pour into a pan, creating a $\frac{1}{4}$ to $\frac{1}{2}$ ” slab. Cut into chunks and distribute around the greenhouse. Keep away from children and pets.

Fungicides

Cinnamon Powder – has many medicinal uses and is a known natural fungicide.

1. Powder – can be applied directly onto the affected part of the plant by dusting heavily.
2. Paste – mix powder with cooking oil to form a thick paste that can be put directly onto the cut parts of the orchid.

3. Spray – combine 2 tablespoons of cinnamon powder into a pint of isopropyl alcohol, shake well and let stand overnight. Filter solution through a coffee filter and use the brown liquid as an all purpose fungicide spray. It is even good for damping off of deflasked seedlings. For a combination fungicide/insecticide – put 1 cup of the cinnamon/alcohol extract into a pint bottle, add 2 tablespoons of dishwashing detergent and top off with water. Use as a spray.

All Purpose Disinfectants

1. Listerine or Hydrogen Peroxide – For crown rot or other infected areas, pour directly onto the infected area and let stand for 5 minutes. Tilt the plant to remove the excess liquid.
2. Chlorine Bleach – add 1 ounce of household bleach into a gallon of water. Spray the solution directly onto cutting tools, benches, walkways, and even onto the plants. Bleach will help to control fungus, bacteria, and algae.
 - A. Sterilize used pots with a 10-15% bleach solution, let stand overnight. Make sure that all white roots are removed with a scouring pad, as they may contain viruses.

Slug and Snail Treatments

1. Traps – put a plate or saucer full of fresh beer on the floor, snails and slugs will be attracted to it, fall into it and drown.
2. Spray – Mix left over coffee 50/50 with water or stronger and spray. It seems to work well on the tiny bush snails.
3. Baits – put slices of raw potatoes near the plants. Slugs and snail can be collected in the morning.
4. Barriers – create barriers in your growing areas to prevent slugs and snail from crawling onto the benches. You can put sandpaper, copper foil, Tree Tanglefoot, or even Diatomaceous Earth, onto the legs and tops of benches.

Weed Herbicide

1. Spray full strength household vinegar on weeds, repeat daily as needed. This is not to be used for weeds growing in the pots of the orchids. Use only on the greenhouse floor, surrounding areas, walkways, driveways, etc.