Home Remedies

By Susan Jones

Hand Picking The first line of defense, if a plant is not heavily affected by pests, is to pick bugs, slugs and snails from the plant and squash them. Pests have yet to develop a resistance to this type of control.

Waterr Pests like mites are usually most severe on plants in heated homes during the winter, when the air is dry and there are no natural enemies to keep them under control. Raising the ambient humidity through humidity trays, saucers of damp pebbles placed under each plant or even a room humidifier can help.

For mites, aphids, mealybugs and other insects, a gentle brush or jet of water can kill and dislodge them from plants. Regularly washing the foliage thoroughly with soapy water, wiping every leaf and rinsing with a sink sprayer is one way to bring populations down.

Soaking is a third way water can be used to combat insects. Completely immerse the pot and potting medium of the affected plant in a bucket of water overnight to evict ants, roaches, sow bugs and pill bugs from the medium.

Rubbing Alcohol Soak a cotton swab in 70 percent isopropyl (rubbing) alcohol and dab scale, mealybugs, mites and aphids off orchids. The alcohol dissolves the insect’s waxy covering, and is a good tool to reach the pests hidden down in the sheaths and leaf crevices. Pay particular attention to the midrib, other veins and leaf edges. Repeat the treatment at seven to 10 day intervals to remove successive generations.

Another method is to spray alcohol, mixed with a few drops of mild liquid soap, from a misting bottle or small pump sprayer. Avoid strong or excessive amounts of detergent, as this may damage your plants, particularly buds and flowers.

Alcohol can be combined with insecticidal soaps, but not with oil, and should never be used near fire. Among the advantages to using alcohol is that insects do not develop resistance to the treatments.

Because mealybugs' waxy coating repels water-based insecticides, it is necceary to mix a wetting agent in with the insecticide when spraying

---

Oils, Soaps and Sterilants Horticultural, neem and mineral oils, and insecticidal soaps are generally considered safer for humans, pets and plants than insecticides, and do not generate a resistance in pests. None provide absolute pest control, but frequent applications reduce insect populations to below self-sustainable levels in small orchid collections. They are more effective as early treatment — before a few pests have become an infestation. Environmentally gentle, these solutions are only effective while they are still wet, and must contact pests.

Horticultural oil solutions (such as SunSpray and neem) smother insects’ breathing pores and eggs, so complete coverage of all sprayed plants is essential. These oils are mixed with water and a plant-safe detergent for enhancing spreading and sticking, and can be used to control mites, scale, aphids, mealybugs, sow bugs and pill bugs.

Insecticidal soaps (Safer) smother pests and dissolve their cuticle (outer covering). For a heavy infestation, the affected plant(s) must be completely covered. They are most effective against soft-bodied pests such as aphids and mealybugs. While considered safe, these soaps may still damage some plants, particularly tender new tissues, especially when mixed with hard water. They can also cause allergies and respiratory problems for users.

Growth regulators and chitin inhibitors offer other options. Growth regulators, such as Enstar, kill eggs and prevent insect maturation in scale, mealybugs, aphids and whitefly. It needs a spreader-sticker (silicon works best) to be effective.

Yet another choice is Orange Guard, a 100-percent biodegradable and water-soluble insecticide made from orange peel extract that is considered safe for use around humans, pets and food. Orange Guard kills and repels ants and roaches.

Baits Organic mollusk baits such as Sluggo, EscarGo and Worry Free are biodegradable and safe to use around pets and people. Once the baits are eaten, snails and slugs stop feeding and die within a few days.

Pill bugs and sow bugs may be trapped using a half of a cantaloupe or a hollowed-out potato placed upside down as close as possible to where the bugs have been spotted.

When dealing with ants, remember they are attracted to the sugary honeydew excretion of other pest insects, commercially prepared sugar-based ant baits, or a homemade syrup of boric acid powder, sugar and water placed throughout the growing area will draw ants. They will eat the poison and take it back to the queen. This should remove the ant colony within a few days. This option is not safe for use in an area accessible to children or pets.

Repotting Replacing the potting medium can eliminate pests' eggs and crawlers. Mollusks, ants, sow and pill bugs and even roaches hide in pots, and media that is breaking down not only attracts pests like sow and pill bugs, but is a danger to the overall health of the plant's root system as well.

When repotting, a close inspection, and if necessary, a very gentle cleaning and spraying of the roots is essential to remove pests such as scale and mealy bugs that can hide on and among roots. To control a severe infestation, it may be necessary to decant the plant, clean the pests from all roots, treat with an appropriate insecticide and repot using a clean pot and mix.

Fiberglass window screening placed over drainage holes inside orchid pots will not only help keep pill bugs, sow bugs and roaches out, but also keeps potting material in the pot. Roots can grow through it without difficulty, it's nontoxic and it does not affect drainage

Spider mites are so small they may go unnoticed until their numbers have reached infestation level. Regular inspection of your orchids can catch such probmels when they are still easily controlled.

Insecticides If you decide you must use an insecticide, always check to see that the product has been approved for use on orchids, and strictly adhere to label directions for dosage and safe use. Orchids are tough, but sensitive to many chemicals — advance testing is advised.

Move the plants outdoors for pesticide application whenever possible. Growers who must apply insecticides during inclement weather need special care for applications. If outdoor spraying is not an option, spray plant(s) inside a large plastic bag, remove the bag after the spray has settled, and let the plant(s) ventilate where fumes will not travel around the home or work area.

To prepare a homemade insecticide, mix one pint of 409 household cleaner and a pint of rubbing alcohol with water to make 1 gallon of spray. It is especially effective as a preventative or to control light infestations of mites, mealybugs and aphids.

Pyrethrum, an ingredient in many commercial insect sprays, is a natural insecticide derived from plant sources that attacks insects' nervous systems. Although it is labeled for use against many orchid pests, it is especially effective against ants when used in conjunction with baits.

When faced with serious infestations, commercial insecticides may be necessary. Among those recommended are malathion or Sevin. Be sure to read the label carefully and follow the manufacturer's instructions. If the plants are growing in the home, move them to an area where they can be sprayed without harming pets or family members.

Pest Control Prevention is better than cure; good cultural practices and purchasing healthy plants reduce the chance of disease. The most common way of acquiring pests is purchasing an infested plant. Quarantining any new plant or cutting to enter the growing area for a minimum of two weeks can help curtail the introduction of new pests and diseases.

Meeting the plants' cultural needs is the best line of defense. Healthy plants are more resistant to pest and disease than their weaker cousins. Maintain a healthy collection by attending to the basic cultural needs of your orchids —

water, temperature, light, fertilizer and humidity; keep the bark media fresh or use an inorganic potting mix, and get to know the specific cultural requirements of the orchids in your collection.

A clean greenhouse or growing area will help minimize any potential insect pest problem. Remove all damaged, molding or dropped buds, faded flowers, dead leaves and leaf sheaths from plants, and plant debris, old orchid medium, weeds and any debris that could provide shelter for pests from their surrounding area.

Orchidists tend to be acquisitive in nature, but overcrowded plants allow pests and disease to spread through a collection much more quickly than those given adequate growing space.

Check each plant (for smaller collections) or spot-check plants or groups of plants (in larger collections) and the growing area at least once a week for signs of pests and disease. This way, an invading insect can be detected and treated before it becomes an infestation. Inspect around growing leads, check leaf edges, undersides and crevices, and examine visible roots and root tips. If pests are found, immediately isolate the affected plant or plants to prevent spread.

To minimize risks of developing a treatment-resistant pest population, change methods and chemicals occasionally; do not use the same chemical mix more than three to four times sequentially. For example, if an insecticide was used for previous treatments, switch to an oil, soap or different insecticide. Regardless of the method or chemical used, remain vigilant and expect to make three to four applications at seven- to 10-day intervals to kill successive generations.

When using any new pest control product, try it on a small area of the plant first, to make sure that there will be no harmful side effects, and test any treatment on a small population of plants before widespread use.

To prevent burning of tissues, never apply any liquid pest-treatment in direct sunlight or high heat (over 85 F [29 C]), and always shade plants until the solution dries.

Noninsecticidal treatments may not be highly effective for eliminating pests, and should be used as controls, not eradicators. Also, many common home chemicals are extremely toxic to humans, pets, and plants even in diluted forms, some more so than insecticides.

For a plant showing signs of serious decline from pest or disease, consider whether the low likelihood of rejuvenating the plant justifies the expense and effort of continued treatments. Destruction of a sick plant can be used to justify the purchase of a new and healthier one.

Susan Jones was the editor of Awards Quarterly and assistant editor of Orchids. American Orchid Society, 16700 AOS Lane, Delray Beach, Florida 33446