



J&L Garden Center

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Houseplant Pests

It's no secret that most indoor gardeners eventually have to deal with houseplant pests and that winter is frequently the season when these problems grow 'out of control'. Insects and diseases aren't necessarily the primary cause of most indoor plant problems - poor plant culture is usually the biggest problem. If a plant seems listless, the cause usually boils down to insufficient lighting, too much or not enough water, air that is too dry, or a combination of all three of these factors. Unfortunately, it is often impossible to control all of the environmental factors, and plants do fall victim to pests, especially insect pests. The secret to controlling insect pests is to know the enemy. The more you know about your invader the better your chances of conquering it.



Aphids are pudgy green (or brown, black, yellow, red, or gray) insects that colonize on plants, usually on the bottom side of the leaves or on the new growth. Aphids are usually wingless, although winged individuals occasionally appear. Aphids multiply quickly, but they do not spread to surrounding plants very fast. These insects are not selective, they attack just about anything that's green. Infested plant parts often turn pale-green or yellowish-green and often twist and curl under, sometimes completely covering the invading pests. Aphids can also produce honeydew that can lead to a disease called *sooty mold*. *Sooty mold* makes a black, sooty dust on the plants that is unsightly.



Treatment: Often, simply spraying infected plants with water, directed at the undersides of the leaves, is enough to knock the aphids off the plant and wash away the honeydew. For faster results spray them with **Safer's Insecticidal Soap**, **Bonide Hot Pepper Wax**, **Fertilome Time Release Indoor-Outdoor Insect Control**, or some other houseplant insecticide. Repeat this treatment weekly or as often as necessary until the signs of re-infestation are gone. Aphids are one of the easiest of all the houseplant pests to control, if you know when and where to look.



Fungus Gnats look much like fruit flies except that they're black and they are much smaller. Adults are quite harmless but they are a big nuisance inside the house. The larvae, tiny white grubs with dark-colored heads, are not as harmless as the adults and may chew on the plant's roots. Their favorite food is the fungus produced from decomposing organic matter (the mulch in potting



soil) but they will eat plant roots occasionally. Fungus gnat larvae also enjoy the fungus found on the bottom of the plant's pots and in plant saucers. Fungus gnats do little harm to adult plants but they can harm young seedlings with small root systems.

Adult Fungus gnats are a big nuisance pest because they just lay eggs and die; they do not feed on the plants. Before they die, fungus gnats seem to find people to bother, no matter where the plants are located in the house. Adult fungus gnats are attracted to carbon dioxide and are attracted to your face because of the carbon dioxide in your breath.

Treatment: To prevent fungus gnats try to use fresh potting soil that has not been exposed to fungus gnats. Leaving an open bag of potting soil near other plants or outside is an open invitation for fungus gnats. If necessary, you can sterilize your potting soil by baking it at 200 degrees for 1 hour. Wash the outside of your plant's pots and saucers regularly. Use a solution of 10% chlorox and water as you wash your pots and saucers.



If you control the larvae stage of fungus gnats the adult population will diminish on their own. Sometimes you can control fungus gnat larvae just by letting the soil dry out between waterings. The larvae needs moisture to survive. Another method of control is to cover the soil with 1/2" layer of coarse sand or fine gravel to smother the eggs and young larvae. This covering also prevents adults from laying more eggs in the soil.

Another effective way to control fungus gnat larvae is to apply an insecticide to the soil that will kill the larvae, such as **Fertilome Houseplant Systemic Granules**. Some gardeners will dust the soil with Sevin or Malathion or drench the soil



with an insecticide. Be careful using outdoor insecticides inside the house because they can have very unpleasant odors. Be sure to use an insecticide that is labeled for houseplant use because even houseplant insecticides may emit an unpleasant odor that can last for a few days. You may want to move your plants to a different location during treatment because of the odor.

Getting rid of the adult fungus gnats is a little more difficult than killing the eggs and larvae. You will have to be patient because even after you have killed the larvae the adults may hang around for another week or two before they die. It is not very effective trying to spray insecticides to kill the adults because the adult fungus gnats are not feeding on the plants. You would have to blanket spray the entire room to kill all the adults that may be present. Instead of spraying, try hanging a yellow Sticky Whitefly Trap in the room with your houseplants. Place this trap as close to the infected plants as possible. This trap attracts and catches many different types of insects, including the pesky fungus gnats.

Mealybugs attack all houseplants with equal enthusiasm as fungus gnats, but they are among the easiest of all insects to prevent because the females don't fly and can't get indoors unless they come in on an infected plant or on a tool. Once your plants have mealybugs, you can control them fairly well, but they may crop up again from time to time, when and where you least expect them.



Mealybugs are small oval insects, usually pink or gray, but they are so heavily overlaid with a waxy substance that they look like little tufts of cotton batting. They seem immobile but they will move slowly if you disturb them. Their egg masses are cottony also. They're especially common in leaf axils (the place where the leaf meets the stem) and on the underside of leaves, as well as on stems. Like aphids, they can also produce honeydew that can lead to *sooty mold*. Infected plant parts weaken, wither, and turn yellow.

Treatment: To control mealybugs, dab them individually with a cotton swab dipped in rubbing alcohol, spray the plant with **Safer's Insecticidal Soap**, **Schultz Houseplant Insecticide**, or with some other houseplant insecticide. Be sure to inspect nearby pots, shelves, and other fixtures for insect egg masses. Wipe away any you see. You may also want to put some **Fertilome Houseplant Systemic Granules** in the soil to help prevent future infestations of mealy bugs.



Scale are close relatives of mealybugs, and much of what's true about mealybugs also applies to these insects. Some scale produce a cottony covering, however, most have a protective outer covering called a carapace. Adults are immobile, but nymphs, which are invisible to the naked eye, can move to new plants before they settle down,

produce their carapace, and mature.

Some scale insects may attack almost any plant, but many species of scale only attack specific ones. For instance, bromeliads, orchids, and citrus have specific species of scale that will not infect any other varieties of plants.



Scale insects pose a particular problem for ferns because the insects often appear like fern spore cases. If in doubt, give the case a flick with your fingernail. Spore cases will stick to the leaf, whereas scale insects may move. Infected leaves turn yellowish, and *sooty mold* may form. Scale insects suck the sap from plants causing the leaves to turn pale-green and infected parts of the plants die if scale are present in sufficient numbers.

Treatment: Start by scrubbing off the adult scales with a toothbrush dipped in soapy water. Insecticidal soap works well on young crawlers, but not on the adults. Spray adults with horticultural oil (Dormant Oil) that is approved for indoor use, such as **Bonide All Seasons Spray Oil**. The carapace prevents most insecticides from reaching the adult insect and larvae that it might harbor, but the horticultural oil smothers them. Scrape off old carapaces so you don't confuse them with any new, living scale. You may also want to put some **Fertilome Houseplant Systemic Granules** in the soil to help prevent future infestations of scale.



Spider Mites are not actually insects. They are tiny spider-like creatures that are small enough to walk indoors through a screen. They are usually found on the undersides of leaves. Spider mites are the most common of all indoor pests. They thrive in most home environments and especially in hot, dry air.



The first sign of their arrival is a yellowish tinge on leaves that turns out, upon close inspection, to be pale yellow spots. As the mites' numbers increase, the leaves turn yellow-brown and appear dusty. To test whether you have spider mites, hold a sheet of white paper under a leaf and tap on it. If tiny particles of moving "dust" fall onto the paper, you have spider mites. In large numbers, spidermites produce silky webbing much like a spider's web. Infested leaves eventually dry up and fall off. Most plants are susceptible to spider mites especially if they are under hot, dry conditions. Spider mites most often attack croton, fuchsias, hibiscus, impatiens, english ivy, miniature roses, palms, scheffleras, and many other outdoor plants; they love alberta spruce, boxwood and junipers.

Treatment: Create an unappealing environment by increasing the humidity around your plants. Place the plant on a pebble tray filled with water. Spraying the plant, especially the undersides of its leaves, with water may also



be a possible treatment. For severely affected plants, prune back heavily infested parts and then rinse the entire plant with water. Treat the infected plants every 3 to 5 days with **Safer's Insecticidal Soap, Fertlome Time Release Insecticide**, or some other houseplant insecticide, until no more mites are found. You may also want to put some **Fertlome Houseplant Systemic Granules** in the soil to help prevent future infestations of spidermites.

Whiteflies are among the easiest of all insect pests to spot but are among the hardest to control. These tiny white insects rise off their host plant at the slightest touch, which makes them look like flying dandruff. They lay their eggs on the undersides of leaves, where both adults and the scale-like larvae suck out sap. Both larvae and adults produce sticky honeydew that can lead to *sooty mold*. They're extremely mobile and can spread rapidly. They can also carry plant viruses.



Although whiteflies attack most plants, they particularly love many herbs, tomatoes, poinsettias, geraniums, and fuchsias. Infected leaves turn yellow and wither.

Treatment: Always treat whiteflies at night because they tend to fly away when disturbed during the day. Start by vacuuming the plants. Then spray infected plants with **Safer's Insecticidal Soap, Schultz Houseplant Insecticide, Hot Pepper Wax**, or some other houseplant insecticide. Concentrate on the undersides of the leaves. Vacuum the plants first, otherwise, these insects will scatter before the insecticide kills them. Repeat the process weekly until all signs of whiteflies are gone. Check your plants regularly after that because you may have missed just one of them.



Another possible solution to your whitefly problem is to place a **Surefire Sticky Whitefly Trap** (it is a bright yellow-colored trap) near your plants. White flies are color sensitive and are very attracted to yellow. It will also attract and trap many other color sensitive insects (including aphids, fruit flies, and fungus gnats).



If your plants have a whitefly problem during the winter, and if the temperature outside is below freezing, you can trick them into following you outside to their deaths. Wear a bright yellow outfit and wander among your plants for a few minutes, giving each plant a good shake along the way. The whiteflies will find your yellow garb more attractive than the plants and they will flock to you. Now head outside for a 20-minute walk. The poor whiteflies that followed you will catch their death of cold.

Winter Care Of Houseplants - some TLC

Just because winter is here doesn't mean you have to stop gardening. Now's the time to give your houseplants a little extra attention, some TLC.



Sunlight - Light patterns change with each season. Leaves falling from the trees and the natural shift of the earth can affect the way the sun fills up a room. So, as the season change, you need to make sure your houseplants continue to receive a sufficient amount of sunlight.

If you have a plant placed on a windowsill that was shady in the summer but is now sunny since the leaves fell, you may have to move it. Watch for bleached areas on the leaves - that means your plant is getting too much light. On the other hand, if you see thin, leggy growth, that means your plant isn't getting enough light.

Temperature - Avoid placing plants near direct sources of hot or cold drafts. A sudden change of temperature from doors, windows, heat ducts, fireplaces or even TV's can hurt houseplants. If your plants have wilting or brown-tipped leaves, there may be a temperature problem.

Watering - Over watering is a common problem with houseplants. Be sure to water each plant according to its needs rather than according to your schedule. Too much water encourages root rot which can cause lower leaves to turn yellow then die, among other problems. More houseplants die from too much water than from all the other problems put together.

Fertilizing - While a plant is most active during the growing season, monthly fertilizing is necessary. As houseplant growth slows in winter, cut fertilizing down to every other month.

Some people talk to their plants. Other people sing to their plants. Some people even think their plants will cringe if they are scolded. While there is no evidence that house plants actually respond to these types of stimulations, houseplants will try to communicate with you and tell you if they are not feeling well. The leaves may droop, spots may appear, growth may stop. One symptom may mean the plant is not getting enough light. Another symptom may mean the plant is getting too much water. A third symptom may mean an insect or disease is bothering the plant.



A quick, accurate diagnosis is half the battle in controlling the problem, before it gets out of hand.

Symptom: Stems grow abnormally long, leaves are pale, new leaves are undersized.

Possible Cause: Not enough light or too much fertilizer or water.

Symptom: Stems are mushy, dark in color, possibly rotten. Lower leaves wilt and curl. Soil may have sour odor. Roots are brown or nonexistent.

Possible Cause: Too much water: This is the most common houseplant killer.

Symptom: Tips of leaves are brown and leaves wilt. Lower leaves turn yellow and fall off.

Possible Cause: Lack of water. When you water, the water may just pass through the pot and not soak into the soil. If the soil becomes too dry you may need to soak the pot in the sink to help re-wet the soil. The plant may also need to be re-potted into a larger container.

Symptom: Leaf edges turn brown and crinkle.

Possible Cause: Lack of humidity: not necessarily lack of water in the soil. A furnace vent may be blowing directly on your plants, or an open door or window may cause a draft.

Symptom: Lower leaves turn pale green or yellow and drop off. New leaves undersized; stems seem stunted.

Possible Cause: Lack of fertilizer.

Symptom: Plants stop blooming. Unusual amount of new leaves or long stems.

Possible Cause: Too much fertilizer or lack of light.

Symptom: Leaves turn yellow, or curl, or wilt.

Possible Cause: Too much heat from either a window or furnace vent.

Symptom: Yellow or brown spots appear on leaves.

Possible Cause: Sun scorch, cold water on leaves, or a disease problem.

Symptom: White crust appears on soil surface. Edges of leaves turn brown. Leaves touching soil die and fall off.

Possible Cause: Too much salt (mineral) build up in the soil. This can be caused by using soft water, extremely hard water, by fertilizing too frequently, or by not watering plants enough to flush away extra minerals.

Symptom: Little black gnats flying around your face, food, or plants.

Possible Cause: Fungus gnats.

Symptom: Excessive dust buildup on leaves.

Possible Cause: Overuse of leaf polish. Leaf polish is a wax that makes leaves shine. Do not use leaf polish more than once a month unless you wipe off the leaf first, to remove any previous buildup.

Sometimes: Once a plant reaches a certain point it is often better, cheaper, and easier to discard the plant and replace it with a new one. Be sure to isolate new plants for a week or two when you first bring them inside, either from your own yard or from a store, to make sure they are not bringing in some unwanted friends.



Houseplants that Clean the Air

Do you remember what you learned about plants in your high school biology class? The part where you learned that all plants absorb carbon dioxide and produce oxygen?

Besides absorbing carbon dioxide many



houseplants can also absorb other chemicals that are common inside houses. **Formaldehyde, Benzene, and Trichloroethylene** are three of the most common chemicals found inside our houses. These chemicals, if present, are usually only found in very small quantities. They may not even be detectable in most homes, especially during the summer months when all the windows and doors are open. Winter, when the doors and windows are kept closed, is the most likely time these chemicals may build up in the air. Many houseplants can absorb these chemicals and eliminate them.

Formaldehyde may be found in particle board, plywood, insulation, paper products (paper bags, paper towels, tissue paper), and in permanent press fabrics.

Benzene may be found in inks, paints, oils, plastics, rubber products, dyes, pesticides, detergents, pharmaceutical products, and in gasoline.

Trichloroethylene may be found in inks, paints, lacquers, varnishes, and in adhesives.

Some of the most popular houseplants are excellent air fresheners. Poinsettias can help remove formaldehyde. Chrysanthemums can remove benzene. Spider plants, Philodendrons, Aloe Vera, and Dieffenbachia can all remove formaldehyde. English Ivy, Pothos, and Dracena can remove Trichloroethylene.

It's hard to imagine that something as simple as a houseplant can keep your home a little healthier; but it can. Of course, houseplants by themselves can't make your home completely chemical free, but they can make a difference. The more plants you have in the home the cleaner the air will be. The longer you keep your plants inside your house the more effective they will become. No matter where you live you can breathe a little easier when you surround yourself with **Mother Nature's Natural Air Fresheners - Houseplants.**



Hot Pepper Wax -

An alternative way to control insects on houseplants and in the gardens is to use Cayenne Pepper. Cayenne pepper can be used to repel insects from houseplants, ornamental plants, and from fruit and vegetable plants. **Hot Pepper Wax** is available in a "ready to use" sprayer or in a concentrate that you can mix and spray yourself. Be careful spraying and using **Hot Pepper Wax** because it is a hot pepper extract and you will not like the material either! **Hot Pepper Wax** effectively repels aphids, spidermites, the hard-to-control white flies and even fungus gnats from your houseplants. It can be used on most houseplants and even on poinsettias. Hot pepper wax is also very effective in repelling insects on most outdoor plants; including flowers and vegetables.

