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Fungus Gnats on or Near Houseplants

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Identification of household insects is one of my roles in Extension, along with answering garden and landscape questions. During winter, fungus gnats is one insect encountered in homes.

While I am a horticulturist, when I have questions outside my area of expertise I turn to University specialists. Nebraska Extension is the front door to the University of Nebraska at Lincoln, our land grant university. For insects, I consult with entomologists as needed.

Fungus gnats are fairly harmless and considered a nuisance pest. Adults are delicate, one-eighth inch long black flies seen flying around houseplants or lights and windows near houseplants.

Adults do not bite pets or people and do not harm plants. Females can lay up to 200 eggs in their short lifetime of three to four weeks. They are attracted to moist soil and lay eggs on the potting mix of plants.

Larvae are wormlike and translucent with black heads. They live in the potting mix and feed on algae and fungus that grows in too wet growing mediums. They may feed on plant roots but are considered a minor houseplant insect.

High organic matter potting mixes, fertilizers and overwatering, especially during fall and winter when indoor plants are not actively growing, encourages population growth.

To reduce fungus gnat numbers, avoid overwatering plants and allow the mix to dry between watering. Larvae tend to remain in the upper two inches of soil, so allow at least this much of the mix to become dry before watering again.

Ensure good drainage by using containers with holes and a well-drained potting mix. After watering, pour excess water out catch basins. If a plant has not been repotted recently, the mix may have broken down, becoming compacted and having more organic matter making repotting helpful.

To trap fungus gnat adults, place yellow sticky traps near the soil surface or on the container edge. Such traps are available at garden stores. Trapping helps monitor for insects and reduce numbers when females are trapped prior to egg laying.

To monitor for larvae, place a one-fourth inch thick slice of potato on the surface of the potting media. Look at the underside of the slice for signs of larvae and discard these to help reduce larvae.

If fungus gnats persist after repotting and reducing watering, insecticides labeled for indoor use on houseplants may be needed. Do not apply insecticides to leaves. Apply them to the surface of the potting mix to kill adults as they emerge.

According to Colorado State University, the most effective insecticides are those that persist. They list a number of pyrethroid-based insecticides that contain the active ingredients bifenthrin, cyfluthrin, permethrin, and lambda-cyhalothrin.

Short-persisting contact insecticides like those containing pyrethrins, insecticidal soaps, oils, and neem, do not provide sufficient long-term control and require repeat applications every couple of days.

The systemic insecticide imidacloprid will kill fungus gnat larvae if applied to the growing medium. This active ingredient is available in a number of houseplant insecticide formulations as granules, slow-release spikes, and in combination sprays. Read and follow all label directions.

Source: Colorado State University

21 January 4 PSAs

There's a plant myth that says water should be withheld from plants in fall to induce dormancy and help plants better survive winter. This is a myth and is not true. Withholding water from plants in fall, especially a dry fall following a dry summer like we just experienced, can do more harm than good to plants. If you happen to follow this myth and withheld water last fall; winter watering may be even more important. If we continue to have little precipitation, look into watering evergreens and newly planted trees and shrubs. Not only will plants benefit from the moisture; but moist soils are a better insulation barrier than dry soils. Plant roots are not as cold hardy as above ground parts, and dry soils along with little snow cover can lead to root loss. When possible, lightly water when temperatures are above 40 degrees Fahrenheit and soils are not frozen. The water needs to soak in and not freeze on the surface.

Each winter, Nebraska Extension puts on lawn, tree and garden classes. We won't be holding face to face sessions this year, but we will offer them via zoom; allowing you to watch on your computer from the comfort of your home and still be able to ask your questions. Our landscape and garden classes will be held in the evenings during February and March, starting February 2. Most classes begin at 6:30 PM and end about 8:30. Some of the topics to be covered are Solution Gardening or Plants to Solve Problems, Efficient Turf Watering, Doctoring Your Soil, Growing and Using Herbs, Evergreen Disease and Insect Pests, and a series on Tree Care. If you are interested in learning more about sustainable care of lawns, trees, flowers or vegetables, call me at the Extension office at 563-4901 or e-mail kfeehan2@unl.edu. We will send you the list of lawn and garden classes being offered and registration information.

While it is best to hold off on pruning trees until late winter, now is a good time to remind people not to use tree wound dressings, pruning paint, or any product sold that says it will "promote healing of tree wounds". When a tree branch is pruned, human instinct is to put a band-aid on the wound; but this is one of the worst things we can do. Tree wounds do not ever heal and so no product will promote healing. When a tree is wounded, it sends defense chemicals to the wound to seal it off; then, during the growing season, the tree develops wound wood to close the wound. In place of healing, trees seal wound and this is one reason lumber had darker colored knots. Research shows any type of tree wound dressing interferes with the trees natural sealing process and should not be used. Wound dressings seal in moisture and decay and prevent wound wood from forming. Leave these products on the store shelf and off of your trees.

De-icing agents are sometimes needed for safety but can be harmful to plants. Read and follow label directions when buying and using de-icers. Keep sand, sawdust, or cat litter on hand. These also improve footing on slick surfaces and can be blended with de-icing product to improve traction and reduce the amount of deicer used. A newer organic option are deicers derived from beet juice. They contain only 12% sodium chloride, which is much less than traditional sodium chloride. Beet juice products are fully biodegradable; however some research has shown potential problems with aquatic insects. So ideally these should not be applied where melt runoff will move to aquatic areas. And again, organic or not, always read label directions before use. Beet juice de-icers available to homeowners are Green Gobbler Pet Safe Ice Melt, Snow Joe Beet It Snow & Ice Melter and Organic Melt Premium Granular Ice Melter.

We need tall shade trees to have climate resilient landscapes and communities, not to mention nicer places to live and energy conservation. We also need structurally sound trees to be weather ready. The majority of shade trees are structurally sound; but winter is a great time to assess trees for potential hazards. Branch structure and areas of damage are easier to see when trees are not in leaf. To help homeowners know what to look for in a tree, Nebraska Extension has the free publication "Tree Hazard Awareness". It can be found on our extensionpubs.unl.edu website. Some things of concern to look for in a tree include co-dominant leaders, cracks, decay, fungal conks, girdling roots and trunk lean. The tree hazard awareness publication talks about others and has pictures to help in identifying issues. If a hazard concern is identified in a tree, contact a professional arborist to further evaluate any tree defects.