

Gardens face invasion of the spittlebugs



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Question: I've been noticing these globs of foam on some of my landscape plants and strawberry leaves. It looks like someone spit on my plants! What in the world?

Answer: Looks like you have spittlebugs (now, that's a good name for them!) These masses of sticky, frothy bubbles are prevalent this time of year in the spring and are produced by the immature spittlebugs.

These tiny insects are related to aphids and other true bugs in the order of Hemiptera, one of the common species being *Philaenus spumarius*, or Meadow spittlebug.

The nymphs create those frothy bubbles by mixing air with fluid excretions. The nymph feeds face down on the plant stem, and as excess sap is excreted, it's mixed with epidermal gland secretions. These secretions stabilize the foam and increase surface viscosity so the foam will last longer. This mixture is forced out of the abdomen under pressure and is mixed with air to form bubbles.

As it does this, the spittlebug nymph reaches back with its legs, pulling the bubbles forward over

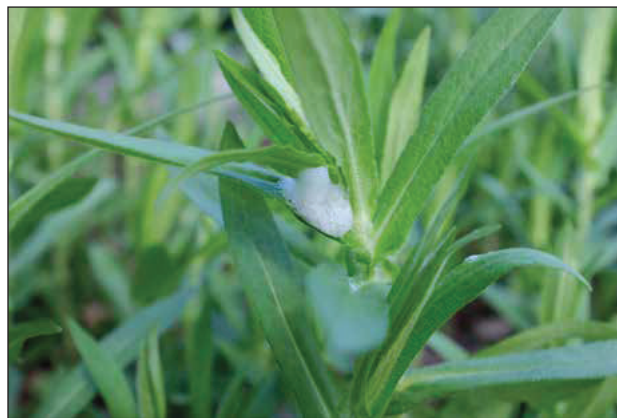


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Spittlebugs cover themselves in foamy bubbles to protect themselves.

its back, thus offering protection from predators and providing insulation from high temperatures which would tend to desiccate the tender nymph.

Spittlebug nymphs, hiding inside the foam masses, have soft, elongated bodies up to 1/4 inch in length. They have large red eyes, and their bodies change from orange to yellow to green as they mature. Adult spittlebugs, colored tan, brown or gray, are 1/4 inch long, but are seldom observed.

Also called "froghoppers" because of their enlarged hind legs that enable them to jump, the spittlebug adults are similar to leafhoppers, but appear fatter.

Spittlebugs overwinter as tiny white eggs on plant stems, hatching in early to mid-spring. For the next few months, these nymphs feed on the plant, hiding in it's spittle, and molting two to four times. In late spring or early summer they molt into their adult stage and continue

to feed throughout the summer, hopping to new hosts as their host foliage dries out. Come late summer or fall, the females start laying their eggs in plant debris or in leaves and stems. The eggs overwinter and start the cycle all over again.

Both the adult and nymph forms for the spittlebug feed on plant sap, but only on the water-carrying xylem of the plant which is much less nutritious than the phloem. In order to get the amino acids required for growth, these bugs have to process large quantities of sap. This causes them to favor legumes and other nitrogen-fixing plants which have higher amino acid levels.

Spittlebugs are commonly seen on roses, chrysanthemums, Shasta daisies, asters, strawberries, alfalfa, clover and many garden plants and grasses. Since they are found in small numbers usually, and are on plants for a short time, they cause very little damage



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on ornamental plants. If too many are present, their feeding can cause leaves to be distorted in shape. Shooting them off plants using a strong stream of water washes the bubbles away, but won't eliminate the spittlebugs as they quickly resume their frothing on another plant.

Remove weeds in and near your garden to eliminate one of their food sources. If you find them on strawberries when numerous, especially during dry weather, you may want to control them as their feeding will reduce strawberry yield and cause stunted fruit. Pesticides are not effective as their spittle masses protect them from sprays. Try physically removing them by hand or using a strong blast of water regularly to dislodge and discourage them.

Spittlebugs are amazing

examples of how insects adapt for survival with their unique balls of bubbles.

Do you have a gardening question? Contact

the Douglas County Master Gardeners at ask.extension.org/ask. Presently, the plant clinic is closed until further notice due to public safety orders.