



Springtails

Fact Sheet No. 9

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Introduction

Springtails are small, abundant, wingless insects of the order Collembola that live in a variety of moist habitats. Because of their small size and micro-habitat, they are seldom observed. Most of them live in the soil or in other concealed situations. A cubic meter of soil may contain up to 100,000 springtails. Springtails are generally considered harmless. Feeding is mostly non-destructive but at times large numbers may invade greenhouses, swimming pools, or houses to become a nuisance.

Classification and Identification

Springtails are found throughout the world from the Arctic to the Antarctic regions. In the United States there are about 650 species, divided into 7 families. Springtails are either elongate or globular in shape, under 0.2 inch in length. They vary in color from white, gray, yellow, orange, gold, metallic green, lavender, red or some other color; some are even patterned or mottled. They are wingless, have chewing mouthparts, and undergo an ametabolous type of development. This type of development means there is little difference between the immature and adult forms except size.

Springtails get their name from a small spring-like organ attached to the end of the body. With this spring or furcula, individuals have the ability to propel themselves several inches into the air. Springtails are among the most primitive of insects.

Biology and Habits

Springtails prefer cool, dark, moist habitats of soil, leaf mold, fungi, moss, decaying wood and sometimes ant and termite nests. Some species are found on the surface of water, on vegetation, in caves and on patches of snow (so-called snowfleas). Their food generally consists of decaying vegetable matter, algae, lichens, pollen, and fungal spores.

Upon occasions springtails may become so abundant that they may feed on roots and cause damage to germinating seeds and tender shoots of seedlings in greenhouses and gardens. A few species have been known to cause damage in mushroom cellars. Often they build up tremendous numbers and become a nuisance pest on African violets, potted plants, and in

propagation beds of greenhouses.

Springtails indoors are most commonly found in and around sinks, wash basins, and bathtubs, or very small cracks and crevices in the kitchen and bathroom. Indoors, these insects are merely nuisance pests. They do not transmit diseases or harm humans or pets, but may be found accidentally infesting foods and annoying people by crawling or hopping about on the skin. They can sometimes be troublesome swimming pool pests.

Another source of springtails indoors can be from potted plants with a rich soil mix. While most of their feeding activity is restricted to the organic matter in the soil, they occasionally feed on the tender shoots and root growth of these plants.

Springtails require damp, moist, or very humid environments. If their environment becomes very dry, springtails may invade homes searching for moisture, entering through window screens, open doors, or vent pipes. They can sometimes be introduced indoors on plants or other materials brought into the house.

Control

Springtail control can be achieved by altering the environment in a way that will reduce the humidity in the area or the moisture content of the soil. In naturally-damp indoor areas this can be accomplished by increased ventilation or artificial air movement from fans. Water leaks in the kitchen, bathroom, or other areas should be repaired since springtails are likely to persist as long as a source of moisture is present. Mildew or mold associated with water leaks should be removed. Wood window sills or other areas with water damage may harbor populations of springtails.

Outdoors, reduced watering and removal of accumulations of leaves or other decaying vegetable matter will help reduce numbers of springtails. If springtails are entering from outside, these efforts should be concentrated around the foundation of the house, doors, windows wells, and other potential entry areas.

Springtails in potted plants can be controlled by removal of any algae, fungus, or moss on the soil surface and by reducing watering. Re-potting with clean soil is another option to eliminate insects in the soil. Pressurized aerosols containing permethrin, pyrethrins, or resmethrin can be applied to many types of house plants. Consult the product label for specific plants and directions.

Indoor homeowner-type insecticides labeled for springtail control include certain formulations containing bifenthrin, carbaryl, or diazinon. Many of these are aerosols or ready-to-use formulations. Insecticides for use indoors by commercial applicators include certain formulations containing the above active ingredients, plus some containing chlorpyrifos, cyfluthrin, deltamethrin, or prallethrin.

Outdoor homeowner-type insecticides labeled for springtail control include certain formulations of bifenthrin, carbaryl, chlorpyrifos, deltamethrin, and diazinon. Commercial outdoor insecticides include some formulations of the above, plus some containing fluvalinate, malathion, prallethrin, or pyrethrins.

If large numbers of springtails are noted in garden soil, it is merely an indication that the soil has a good supply of organic matter. Control is rarely recommended or required. Outdoors, springtails can generally be considered beneficial insects since their contribution in breaking down organic matter in the soil far outweighs any damage they cause.

Precautionary Statement

All pesticides have both benefits and risks. Benefits can be maximized and risks minimized by reading and following the labeling. Pay close attention to the directions for use and the precautionary statements. The information on pesticide labels contains both instructions and limitations. Pesticide labels are legal documents, and it is a violation of both federal and state laws to use a pesticide inconsistent with its labeling. The pesticide applicator is legally responsible for proper use. Always read and follow the label.

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