RESEARCH LABORATORY TECHNICAL REPORT

BARTLETT TREE EXPERTS
SCIENTIFIC TREE CARE SINCE 1907

Slug and Snail Management

Glynn Percival, PhD, Plant Physiology

Identification, Biology & Management

Slugs and snails belong to a large class of invertebrates called gastropods which are single-shelled, soft-bodied animals in the mollusc group. Gastropods can be found in saltwater, freshwater and land environments. Many thousands of species of snails and slugs exist. Slugs and snails eat 30 to 40 times their own body weight every day, destroying flowers, fruit, and foliage of susceptible plants.

Symptoms

Slugs and snails use their rasping tongue to create/chew irregular holes that are similar to insect feeding. However, damage by both slugs and snails can be identified by the trails of mucous around damaged plants. Higher feeding damage is usually found in plants growing in shaded, damp areas and on foliage nearer to the ground. Most feeding is done at night.

Management

Slug Bait

The most common form of slug and snail control is through the use of bait i.e. slug pellets. The recommended slug bait used by BTE is SLUGGO. SLUGGO contains the active ingredient ferric phosphate (10g/Kg) which naturally occurs in the environment. Ferric phosphate is transformed in the soil by micro-organisms into iron and phosphate to become part of the soil. SLUGGO is effective against all plant damaging slugs. The pellets attract slugs away from plants and/or after eating the bait slugs cease to continue feeding.

Rates of Use

Broadcast SLUGGO at a rate of 500g to 1kg per 100 sq metres evenly around and over the plants to be protected. The rate applied depends on the following:

1. The density of the plants to be protected
2. The susceptibility of the crop to slug damage, e.g. some plats are more susceptible than others.
3. The population of the slugs present

Use the higher rate where one or more of the above situations is high.

Timing of Application

Apply as soon as damage is first seen; usually in early Spring (April onwards). Apply preferably in the early evening hours when slugs are most active. Repeated treatment every 5-6 weeks may be necessary to maintain control.

Slugs prefer moist and soaked pellets which quickly breakdown into granules so watering the ground after application will increase effectiveness.

Broadcast the pellets as a soil treatment near damaged plants. Also apply to the borders of beds and near damp hiding places. Do not

apply SLUGGO in mounds or clumps. SLUGGO should be effective for 5 - 6 weeks.

Bio-Control

Nemaslug is a bio-control option specific for slugs and snails with no known adverse effect on other types of animal or the environment. Nemaslug is available in the form of a microscopic nematode that is watered into the soil. The nematodes (*Phasmarhabditis hermaphrodita*) enter the slugs bodies multiply and infect them with a bacteria, both processes eventually kill the slug.

Rates of Use

Nemaslug is purchased in specific pack sizes i.e. 40 or 100 sq metres. Application is via a watering can with a fine "rose" attachment. Add the pack contents to the recommended volume of water and apply at 1 litre per sq metre around the plants to be protected. Apply Nemaslug within 1 hour of mixing.

Timing of Application

A moist warm soil (5-20ºC) is required, therefore control is most effective during spring to early autumn. Best results are achieved by applying in the evening to moist but well-drained soils; control may be less successful in heavy soils, such as clay. Nemaslug is effective for 5 - 6 weeks.

Cultural Control

Slugs and snails require shaded, damp sites during the day. Remove boards, wood piles, flat stones and other debris. Apply weed killer to control weeds. Irrigation should be done in the morning so that understory plants are dry by evening.