

## Pest Patrol

### Slugs, Snails and Earwigs

The worst flea beetle damage is over, though some adults are still emerging and chewing on cabbage, broccoli, Brussels sprouts and kale. Plants that are at the six-leaf stage should be able to survive. The next wave of destruction usually comes from slugs and earwigs, which rapidly strip the green tissue from leafy vegetables, carrot seedlings and the stems of squash and celery. Earwigs even strip the usually toxic marigolds planted to ward off other insects. Later, adult slugs will live in the moist areas under maturing lettuce, cabbage, celery and bean plants, and will eat holes in them. (Snails have the same effects as slugs, but are more common in areas with permanent vertical vegetation.)

We have several kinds of native slugs and snails, and one species of earwig imported from Europe. The good news is that earwig and slug populations seem to be way down this spring, so we may have an easier year. Recent heavy rains will cause slug eggs in the soil to hatch, however. Take advantage of the head start provided by nature, and make sure you have a bumper crop without the usual blemishes.

#### Slug and snail control:

- Remove objects that provide hiding places (boards, deep mulches, weeds)
- Remove dead plant material from cropping and weeding, and take off lower leaves of lettuce, cabbage if they touch the ground.
- Allow the soil surface to dry out before watering again and allow air flow through crops.
- Hand pick slugs and snails. Kill them by dropping them in salty water or physically crushing them
- Bait slugs with attractive foods, then remove them. A shallow tin of beer at ground level or peels from squeezed oranges will draw them in. Commercial iron phosphate baits will kill slugs organically (and promote root growth).
- Create a barrier they won't cross. Crushed eggshells or sand are rough on their soft bodies. They will totally avoid copper foil wrapped around the bottom of a valuable plant, but this a costly and labour-intensive method of control.
- Spread diatomaceous earth around vulnerable crops. This consists of the microscopic glass shells produced by ocean algae called diatoms. Its tiny glass particles penetrate the soft parts of slugs and kill them. Small quantities may be purchased at nurseries, and larger, cheaper amounts at pool shops. Avoid breathing the dust when applying. Reapply after rain.
- Encourage predators like frogs, toads, red-bellied snakes, garter snakes, ground beetles, fireflies.



#### Earwig control:

- Remove objects that provide hiding places (as above)
- Set earwig traps – objects with narrow dead end tunnels entice earwigs to enter, but they cannot back up. Plastic drinking straws with one end sealed work well.
- Periodically till soil between crops to a few inches down. Earwigs are one of the few insects with complex family lives, rearing their broods in underground nests. Disturbing these will limit reproduction.
- Some reports suggest that diatomaceous earth, when ingested by earwigs, will disrupt their digestion and kill them.

