



## **Pest Corner**

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Information was extracted from articles by Don Tapio, GH Extension Agent (submitted by ckk).

### **Cabbage Maggot (*Delia brassicae*)**

Causes damage and/or destroy root systems of all cole crops, riddling roots with tunnels. Other diseases like blackleg and bacterial soft rot may follow. The larvae are white maggots usually less than one fourth inch long. Their head is pointed and the rear is blunt with a dozen short, fleshy processes arranged around two brown, button-like spiracles. Adults are dark gray flies about half the size of a housefly. Healthy larger plants can tolerate moderate infestations. Cabbage maggots overwinter as pupae in the soil. Adults emerge in the spring, mate, and females lay eggs at the base of host plants or in cracks in the soil. The eggs hatch in 4 to 10 days into tiny maggots, which immediately work down the stem. They mature in about 3 weeks, leave the stems, and pupate in the soil. Flies emerge in about 2 weeks to start a new generation. As the plants grow, watch for signs of wilting. Pull up affected plants and check the soil for presence of maggots. If roots are tunneled but empty, larvae have left the roots to pupate.

**Management—biological and cultural control:** Rove beetles prey on maggot eggs and young larvae. The parasitic wasp *Trybliographa rapae* lays its eggs on the maggot larvae if they are close to the soil surface. Biological controls may not provide adequate control. Rotate crops—do not replant in areas infested the previous year. Plant older seedlings which may tolerate damage better. Cover crops with floating row covers or screen cages before the emergence of adult flies to prevent egg laying. Do not put row covers in areas previously infested. Remove plant debris at season's end.

**Management—chemical control:** None registered for home gardens.

### **Horsetail: aka "Scouring Rushes"**

This weed grows throughout Western WA and is hard to control for most home gardeners. It is poisonous to animals, particularly horses, when eaten in large quantities. For horsetail growing among shrubs with woody roots like rhododendrons and azaleas, apply Casoron during winter month (November-February) to achieve some

control for a year. Do not apply Casoron now and never apply it to those garden areas with herbaceous perennials and bulbs. Follow label directions carefully.

Horsetails reproduce by spores that produce new plants that send branches downward into the soil. They establish successive, horizontal rootstock (rhizome) systems at about 12 inch intervals as growth continues downward. This profuse and deep root system can extend the borders of patches or lead to new infestations from root segments.

Lasting control of is difficult because of the high level of food reserves stored in the rhizome. To control, one must deplete the food reserves in the rhizomes. Complete removal of the tops about 2 weeks after emergence for 3 or 4 years should give good control.

Horsetail stems are effectively blocked by most of the porous mulching fabrics (geotextiles). Layers of bark mulch, sawdust, or other plant material will not control horsetails.

### **Bolting**

Several kinds of stress lead to bolting (the premature flowering and seeding) before harvest time. Once bolting happens, the plants put most of the energy into seed production, instead of producing the desired crop. After seed production, the plants die. Biennial vegetables (spinach, lettuce, chard, cabbage) normally produce seeds in their second year of growth. Given certain conditions, biennials produce seeds in their first year of growth. With changes in weather (a week of hot weather, then a week or two of cold, and back to hot weather), the biennial plants may be fooled into believing that one entire season has passed and another, second season begun. The plants respond by bolting and begin to produce seeds. Shock of transplanting seedlings that are more than five weeks old is also stressful to biennial plants. Avoid bolting by planting seeds directly into the soil. If bolting occurs, harvest the vegetable and put new seeds or young transplants instead. Plant crops which will mature before the end of the growing season for the area.