

Cockchafer

Luke E Hailey, BSc

Identification, Biology & Management

The cockchafer (*Melolontha melolontha*) is a large brown beetle identified by a pointed egg laying posterior and loud “buzzing” flight (Figure 1). Although adult beetles eat the leaves and flowers of many deciduous trees, shrubs and other plants they do not generally cause significant damage to trees in the UK, unless very large populations are present. While adults can be problematic, chafer grubs do the majority of damage by feeding on plant roots. Most of the beetle’s 3-4 year lifecycle is spent in grub form. During this time they feed on live roots, especially those of grass/turf but on occasion those of trees.

Figure 1: Adult cockchafer beetle



Symptoms

Presence of the grubs in lawns is characterized by the presence of unhealthy patches of grass that quickly die off especially in hot weather. Birds and other animals may dig around in the grass sward, searching for the grubs to eat and cause further damage.

Biology

Adult beetles generally emerge from pupation and breed May-June. Eggs are laid into the soil, where grubs emerge and feed on plant roots for 3-4 years.

Chafer grubs are off-white with a reddish brown head (Figure 2). Grubs can grow up to 5cm long and will curl into a characteristic C-shape when touched (Figure 2). When the soil is moist they may be found just under the turf; at this time the grubs can often be removed by hand if turf is lifted.

Figure 2: Chafer grubs



Control

There are no approved synthetic plant protection products for use against chafer larvae.

However, biological controls can be used; these are nematodes, *Heterorhabditis* sp. (Nemasys Chafer Grub Killer) and

Steinernema sp., which are suspended in water and applied to soil using a watering can. Pack sizes are based on the size of area to be treated. It is recommended that nematodes are applied in late August to early October as soils must be moist and above 12°C for the nematodes to survive and find the grubs. Moist soils mean the grubs are higher in the soil. Severe infestations may benefit from a supplementary application in April-May. Use nematodes as soon as practically possible after purchase. Follow the product label carefully, especially regarding storage and application.

Met52, a biocontrol fungus for insect control, has also shown high activity against chafer grubs in lab tests. Nematodes and such fungi have also been successfully applied in combination against other pests.

Affected trees should also be surveyed for any other sources of stress and supported through plant health care practices e.g. mulching, nutrient analysis, irrigation etc. where appropriate



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