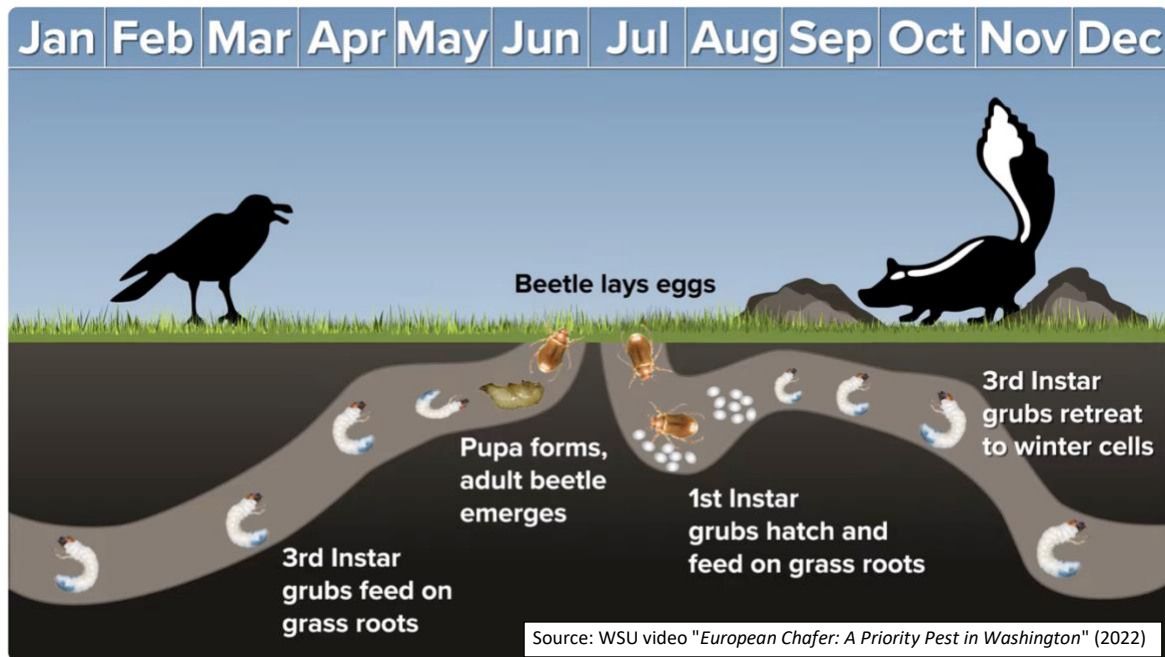


A Supplemental Guide for King County Master Gardeners

European Chafer

The European chafer has become a significant pest of lawns in King County. Damage to the lawn is made more significant by crows and other animals feeding on the grubs. This writing was prepared for King County Master Gardeners to assist them in providing advice to home gardeners during the 2025 clinic season. Once [WSU Hortsense](#) is updated to include the European chafer, this document is superseded.

This writing is a supplement to [WSU Fact Sheet #FS078E, *European Chafer*](#), in the Pest Binder (at tab #12) in the KCMG Clinic Resource Box. The Fact Sheet includes pictures of the adult beetle and larvae (grubs) so that an accurate identification can be made prior to any IPM advice. The Fact Sheet also includes a description of the chafer life cycle, photos of damage caused by the grubs, as well as monitoring guidance for determining the presence of chafer grubs. WSU also produced a 10-minute video in 2022 on the European chafer. It includes identification, damage, cultural control practices and a life-cycle graphic: <https://www.youtube.com/watch?v=bDVpC2Woqx4>



Cultural Controls

The best method for dealing with the European chafer is to maintain a healthy lawn and/or lawn alternatives. See KCMG Tip Sheet #11, *Lawns*, for advice on mowing, fertilization, thatch removal and watering. This Tip Sheet also discusses lawn alternatives which are not generally susceptible to this pest, including beetle resistant grass blends that include micro clover, yarrow and others. Lawns well-watered during European chafer egg-laying periods (**June-July**) are less likely to be seriously damaged by this pest. Though crows and other animals feeding on the grubs results in turf damage, they do reduce the population which will pupate to adult and lay eggs for the next annual generation.

Parasitic nematodes (*Heterorhabditis bacteriophora*) may be somewhat effective at reducing grub populations. Be sure to buy these live organisms from a reliable source and follow application guidance closely, including time-of-day application and watering. These are applied to the lawn when the grubs are small, generally from **mid-July to the end of August**.

Pesticides

Before considering insecticides, evaluate chafer grub populations (see Fact Sheet #FS078E, page 3) to insure they are at high enough populations to make chemical control effective. Follow all pesticide label instructions and precautions. For best results with insecticides, mow the turf and rake out dead grass and thatch before treatment.

Products with active ingredient ***Bacillus thuringiensis subsp. galleriae*** (Btg) are registered to use against the E. chafer. (The is not the common Bt product used to control caterpillars, but rather a very specific strain used to control beetle larvae.) While most Btg products are commercially registered, WSU PICOL indicates that "*Gardens Alive grubHALT! BT FOR LAWN PESTS*" is available for retail purchase. Application is from peak adult flight through peak egg hatch (**June-July**).

There are several insecticides registered for home use which can reduce the chafer population at the larval stage of this pest, including those containing **imidacloprid** (a neonicotinoid) and **chlorantraniliprole** (not considered toxic to bees). These are both systemic chemicals generally applied early in the chafers' life cycle (**July & August**). Examples of pesticides containing these chemicals include *Bonide Annual Insect Control w/Systemaxx Grub Beater* (imidacloprid) and *Scotts Grubex1 Season-Long Grub Killer* (chlorantraniliprole).

There are also curative-type insecticides registered for home use; however, these are toxic to bees and should not be applied to turfgrass adjacent to flowering plants. These chemicals are applied in **September & October**. Examples include *GardenTech Sevin Lawn Insect Granules* (active ingredient **carbaryl**) and *BioAdvanced SBS Complete Brand Insect Killer /Soil & Turf R-T-Spread Granules1* (active ingredient **bifenthrin & carbaryl**).

Application of chemicals in the spring is generally ineffective, as fully mature grubs are more resistant to chemicals and because pupation to the adult stage begins then. Chemicals are not generally recommended for application to the adult stage of the chafer.

The above does not include all products registered for control of the European chafer.

References:

1. WSU Fact Sheet # FS078E, European Chafer, available at WSU publications website: <https://pubs.extension.wsu.edu>
2. WSU King County Master Gardeners Tip Sheet #11, Lawns, available at WSU Extension: <https://extension.wsu.edu/king/mg-home/gardening-resources/tip-sheets/>
3. Pacific Northwest Insect Management Handbook / Horticultural, Landscape & Ornamental Crops / Turfgrass Pests / White Grub, available here: <https://pnwhandbooks.org/insect/hort/turfgrass/turfgrass-white-grub>
4. WSU Pesticide Information Center OnLine (PICOL) was used to research specific chemicals and product names registered for home use: <https://picol.cahnrs.wsu.edu/>
5. An article written by Oregon State University was used to understand timing of pesticide application and only for those chemicals registered for home use in Washington State: https://www.diggermagazine.com/wp-content/uploads/2020/09/Digger_202009-OSU.pdf
6. University Extension publications from other states were reviewed to identify whether more recent research supports additional non-chemical controls, including Michigan State, University of Wisconsin, Cornell and Rutgers. Writings from Canada were also reviewed.