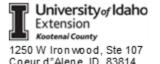
Landscape pests – Earwigs



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Landscape pests-Earwig

Primarily European earwig (Forficula auricularia)

Pest description and damage: This introduced, nocturnal insect can devastate seedlings, flowers, leaves and fruit. Easily recognized by the hind pinchers, they are reviled by gardeners. However, earwigs also can be beneficial by feeding on aphids and other small insects. They also scavenge dead bugs and plant debris, or feed on live tissue. Earwigs chew irregular variable-sized holes in leaves. Earwigs are often worse in dry eastern climates or in dry years.

Biology and life cycle: Females carefully tend 30 or so eggs, in small nests under rocks in the soil in winter. They clean fungi from the eggs and guard and protect eggs and young. In spring, the earwig "family" moves out to gardens to feed together; as the young mature, they tend to go their separate ways. There is one generation a year. Earwigs are nocturnal and seek moist, dark places, under stones, debris and even flowers and damaged fruit.

Pest Monitoring: Search with flashlight at night. Earwigs are omnivorous and easily attracted to fish oils and cat food in traps. (See UIC website). "Whap" flowers over with a pizza box to knock earwigs off plants.

Management-cultural control

Remove debris and hiding places in gardens. Commercial earwig traps are available.

Management-biological control

Frogs, toads, predator beetles and duff-scratching birds are listed among predators. Fungi may attack eggs in winter nests.

Management-chemical: HOME USE

- bifenthrin
- carbaryl-Do not use during bloom: toxic to bees.
- cyfluthrin
- iron phosphate-Some formulations are OMRI-listed for organic use.



European earwig Forficula auricularia Linnaeus Female adult

© Ken Gray Insect Image Collection



European earwig Forficula auricularia Linnaeus Showing damage on leaves © Ken Gray Insect Image Collection



European earwig Forficula auricularia Linnaeus **Immature**



European earwig Forficula auricularia Linnaeus Egg(s) immature female adult (C) Ken Gray Insect Image Collection

- metaldehyde
- permethrin
- pyrethrins-Some formulations are OMRI-listed for organic use.
- spinosad-Some formulations are OMRI-listed for organic use.

Management-chemical: COMMERCIAL USE

- acephate
- bifenthrin
- carbaryl-Do not use during bloom: toxic to bees.
- cyfluthrin
- imidacloprid
- lambda-cyhalothrin
- permethrin
- pyrethrins-Some formulations are OMRI-listed for organic use.
- resmethrin
- spinosad A&D-Some formulations are OMRI-listed for organic use.
- tau-fluvalinate
- zeta-cypermethrin

For more information

Flint, M.L and B. Ohlendorf. 2002. "*Earwigs*." UC ANR Publication 74102.http://www.ipm.ucdavis.edu/PMG/PESTNOTES/pn74102.html

Hollingsworth, C.S. (Ed.). 2014. Pacific Northwest Insect Management Handbook. © Oregon State University.

Use pesticides safely!

- Wear protective clothing and safety devices as recommended on the label. Bathe or shower after each use.
- Read the pesticide label—even if you've used the pesticide before. Follow closely the instructions on the label (and any other directions you have).
- Be cautious when you apply pesticides. Know your legal responsibility as a pesticide applicator. You may be liable for injury or damage resulting from pesticide use.

Trade-name products and services are mentioned as illustrations only. This does not mean that the participating Extension Services endorse these products and services or that they intend to discriminate against products and services not mentioned.

Earwigs

The European earwig is a much maligned character because of the ancient and false notion that it will crawl into your ear to lay eggs.

Earwigs are actually harmless to people and only mildly damaging to your plants. In fact, earwigs are considered somewhat beneficial because they feed on aphids.

Problems start when their population grows to a large number. Earwigs will eat entire seedlings and leave behind unsightly holes on mature plants. This same damage is caused by other pests as well, so it's a good idea to try and catch them in the act. As you know from your nocturnal trip to the basil patch, the best time to do this is at night when they are feeding.

They are small, about ¾ of an inch and reddish brown. Their most distinguishing characteristic is the set of pinchers at the back end of their bodies. They also have a set of relatively large hind wings that they keep folded up so small they are practically invisible. If you ever come across a dead earwig, these are worth checking out.

You clearly have too many earwigs in your garden. You've seen them at work so you know they are the guilty party. Now you need an earth friendly way to control them.

Here are three options:

- Mulch Earwigs feed on a variety of things including plants, small insects, fungi, nematodes
 and mites. A complex soil environment will provide them with enough choices that they
 will be less likely to attack your plants. A layer of mulch around your plants will create a
 more attractive "buffet" for the earwigs.
- Traps To help reduce the population set out traps. They will congregate in rolled up newspaper (Dampened rolled up newspaper laid at the base of plants in the evening and collected and placed in plastic bags the following morning. Put in trash or otherwise dispose of.) or tuna tins partially filled with vegetable oil. You can collect the traps in the morning and drop the bugs in a bucket of soapy water.
- Insecticidal Soap Insecticidal soap is an earth friendly insecticide that is safe to use on plants we eat. Of course, you'll have to spray at night when the earwigs are out unless you can find their daytime hiding place. Try <u>Garden Safe's Insecticidal Soap.</u>

Carbaryl dust (Sevin) – Apply dust to soil surface when earwigs are first noticed. Repeat in three weeks if necessary. Consult label. This product is highly toxic to our pollinators. Do not apply to blooming plants.