



## Integrated Pest Management Program

Department of Plant Science and Landscape Architecture  
UConn Extension

### Some selected insecticides and miticides for use on herb bedding plants

*If any information is inconsistent with the label, then follow the label.*

Insecticide	Target Pests	Comments
azadirachtin (Aza-Direct) (AzaGuard) (Azatin O) (Molt-X) 4 hr. REI OMRI-certified products Ornazin 3% EC 12 hr. REI	Aphids, beetles, caterpillars, fungus gnat larvae, leafminers, mealybugs, scales, thrips, whiteflies, and others (see labels)	Contact insecticides. Insect growth regulator for immature stages of insects. Repeat applications needed.
azadirachtin & pyrethrins (Azera Pro) 12 hr. REI OMRI-certified product Unknown and Group 3A	Aphids, beetles, caterpillars, fungus gnats, leafhoppers, leafminers, plant bugs, mealybugs, scales, shore flies, spider mites, thrips, whiteflies	Insect growth regulator and contact insecticide combined.
<i>Bacillus thuringiensis</i> subsp. <i>aizawai</i> (XenTari) 4 hr. REI Group 11A OMRI-certified product	Armyworms, loopers, saltmarsh caterpillars	Stomach poison that must be ingested to be active. Most effective against small newly hatched larvae. Insects stop feeding and die 1 to 5 days later. Thorough spray coverage needed.
<i>Bacillus thuringiensis</i> subsp. <i>kurstaki</i> , (DiPel Pro DF), (BT Now) 4 hr. REI Group 11A OMRI-certified products	Caterpillars	Stomach poison that must be ingested to be active. Most effective against small, newly hatched larvae. Insects stop feeding and die 1 to 5 days later. Thorough spray coverage needed.
<i>Beauveria bassiana</i> ANT-03 (BioCeres WP) 4 hr. REI OMRI-certified product	Whiteflies, aphids, thrips, mealybugs	Contact insecticide. Active ingredient is an insect-killing fungus.

<i>Beauveria bassiana</i> GHA (BotaniGard ES, WP) (Mycotrol ESO, WPO) 4 hr. REI OMRI approved products	Aphids, beetles, caterpillars, leafhoppers, mealybugs, plant bugs, spider mites, thrips, whiteflies	Contact insecticides. Active ingredient is an insect- killing fungus.
<i>Beauveria bassiana</i> PPRI 5539 (Velifer) 12 hr. REI	Aphids, mealybugs, mites, thrips, and whiteflies	Contact insecticide. Active ingredient is an insect-killing fungus.
<i>Burkholderia</i> A396 (Venerate XC) 4 hr. REI OMRI-certified product	Armyworms, loopers, saltmarsh caterpillars, Suppression of aphids, mites, thrips, whiteflies	Contact bioinsecticide & stomach poison that disrupts insect exoskeleton interfering with molting.
canola oil & pyrethrins (Pycana) 12 hr. REI OMRI-certified product	Aphids, beetles, caterpillars, fungus gnats (adults), leafhoppers, leafminers, mealybugs, spider mites, plant bugs, scales, thrips, whiteflies	Combination of a botanical oil and pyrethrins. See label for plant safety information.
<i>Chromobacterium subtsugae</i> PRAA4-1 (Grandevo GC) 4 hr. REI OMRI-certified product	Armyworms, loopers, saltmarsh caterpillars, aphids, mites, thrips, whiteflies	Contact biological insecticide for young immature stages of pests. See label for plant safety information.
insecticidal Soap (potassium salts of fatty acids) (Kopa Insecticidal Soap) (M-Pede) 12 hr. REI OMRI-certified products	Kopa Insecticidal Soap: Aphids, mites, plant bugs, whiteflies M-Pede: Aphids, broad mites, leafhoppers, spider mites, thrips, whiteflies	Contact insecticide/miticides. Short residual activity. See label for plant safety information.
Iron phosphate & spinosad (Bug-N-Sluggo) 4 hr. REI OMRI-certified product	Cutworms, sowbugs, pill bugs, slugs, snails	Bait.
<i>Isaria fumosorosea</i> Apopka strain 97 (Ancora) 4 hr. REI OMRI-certified product	Foliar spray: Whiteflies, aphids, thrips, spider mites, leafminers, ( <i>Liriomyza</i> spp.), mealybugs, plant bugs Drench: Black vine weevil, thrips pupae, Lepidoptera larvae	Contact microbial insecticide. Apply when the relative humidity is >75% with moderate temperatures. See technical sheet and label for application directions.

<p><i>Isaria fumosoroseus</i> FE 9901 (ISARID) 12 hr. REI OMRI-certified product</p>	<p>Suppression of whiteflies, aphids, thrips, leafhoppers, plant bugs, mites, fungus gnats</p>	<p>Contact microbial insecticide. See label for application and storage directions. Repeated applications needed.</p>
<p>mineral oil (Ultra-Pure Oil) 4 hr. REI</p>	<p>Aphids, beetle larvae, leafhoppers, leafminers, mites, thrips, whiteflies</p>	<p>Contact insecticide/miticide. Foliar injury may occur if applied during humid conditions. See label for plant safety information.</p>
<p>neem oil (clarified hydrophobic extract of neem oil) (Triact 70) 4 hr. REI OMRI-certified product</p>	<p>Aphids, leafhoppers, mealybugs, mites, scales, whiteflies</p>	<p>Contact insecticide/miticide. See label for plant safety information.</p>
<p>nematodes (Entomopathogenic) (<i>Steinernema carpocapsae</i>) (Millenium) Exempt from REI</p>	<p>Shore flies (larvae)(suppression)</p>	<p>Apply to moist growing media at temperatures of 55-86 F. Repeat applications may be needed.</p>
<p>nematodes (Entomopathogenic) (<i>Steinernema feltiae</i>) (NemaShield, Nemasys, ScanMask) Exempt from REI</p>	<p>Fungus gnat larvae, thrips pupae</p>	<p>Apply to moist growing media at temperatures of 50-80 F. Repeat applications may be needed.</p>
<p>peppermint oil, clove oil, sodium lauryl sulfate (EpiShield) No REI</p>	<p>Mites, aphids, thrips (suppression), whitefly (suppression)</p>	<p>Works by contact, suffocation, paralysis, and desiccation.</p>
<p>pyrethrins (PyGanic EC 1.4 11, EC 5.0 11) 12 hr. REI Group 3A OMRI-certified products</p>	<p>Aphids, beetles, caterpillars, fungus gnats (adults), leafminers, leafhoppers, plant bugs, mealybugs, mites, scales, shore flies, thrips, whiteflies</p>	<p>Contact insecticides. Provides rapid knockdown of pests.</p>

pyrethrins & <i>Beauveria bassiana</i> GHA (BotaniGard Maxx) 12 hr. REI Group 3A and unknown	Aphids, mealybugs, thrips, whiteflies, spider mites, fungus gnats, leafhoppers, plant bugs, beetles, caterpillars, (see label)	Contact insecticides. Natural pyrethrum combined with insect killing fungus.
pyrethrins & piperonyl butoxide (PBO) (Pyrethrum TR) 12 hr. REI Group 3A	Aphids, beetles, caterpillars, fungus gnat adults, leafhoppers, mealybugs, spider mites, scales, thrips, whiteflies	Contact insecticide.

**By** L. Pundt (UConn Extension) and T. Smith (UMass Extension), 2005. Updated **2024 by L. Pundt**

Resistance Groups (number and letter) indicate products with a common mode of action based on the [Insecticide Resistance Action Committee \(IRAC\)](#) guidelines. For multiple applications to one crop, select products from different resistant groups. This information is supplied here with the understanding that no discrimination is intended, and no endorsement supplied. Due to constantly changing regulations, we assume no liability for suggestions. Additional products may be available for certain herbs grown in the field. Growers should always read and follow label instructions. To avoid any phytotoxicity problems, spot test first before widespread use.

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