



## Integrated Pest Management Program

Department of Plant Science and Landscape Architecture  
UConn Extension

### Selected Organic Insecticides & Miticides Labeled for Vegetable Bedding Plants/Transplants

Insecticide	Target Pests	Labeled Crops	Comments
Azadirachtin (Aza-Direct) 4 hr. REI OMRI-certified product	Aphids, beetles, caterpillars, fungus gnat larvae, plant bugs, leafminers, leafhoppers, thrips, whiteflies	Bulb, cucurbit, fruiting, leafy and miscellaneous vegetable transplants.	Contact insecticide. Insect growth regulator for immature stages of insects. Repeat applications needed.
Azadirachtin (AzaGuard) 4 hr. REI OMRI-certified product	Aphids, beetles, caterpillars, fungus gnat larvae, leafminers, leafhoppers, shore fly larvae, thrips, whiteflies	Cole crops, cucurbit, eggplant, pepper, tomato and miscellaneous vegetable crops.	Contact insecticide. Insect growth regulator for immature stages of insects. Repeat applications needed.
Azadirachtin (Azatin O) 4 hr. REI OMRI-certified product	Aphids, beetles, caterpillars, fungus gnat larvae, plant bugs, leafminers, leafhoppers, shore fly larvae, thrips, whiteflies	Bulb, Cole crops, cucurbit, fruiting and leafy vegetable transplants.	Contact insecticide. Insect growth regulator for immature stages of insects. Repeat applications needed.
Azadirachtin (Molt X) 4 hr. REI OMRI-certified product	Aphids, beetles, caterpillars, fungus gnat larvae, leafminers, shore fly larvae, thrips, whiteflies	Cole crops, cucurbit, eggplant, pepper, tomato and other miscellaneous crops	Contact insecticide. Insect growth regulator for immature stages of insects. Repeat applications needed.
Azadirachtin (Neemix 4.5) 4 hr. REI OMRI-certified product	Aphids, beetles, caterpillars, fungus gnat larvae, leafhoppers, leafminers, whiteflies	Many vegetables	Contact insecticide. Insect growth regulator for immature stages of insects. Repeat applications needed.
Azadirachtin & pyrethrins (Azera Pro) 12 hr. REI Group unknown and 3A OMRI-certified products	Aphids, beetles, caterpillars, fungus gnats, leafhoppers, leafminers, shore flies, thrips, whiteflies	Bulb, leafy, Brassica leafy, fruiting, and cucurbit vegetable transplants.	Insect growth regulator and contact insecticide combined.
<i>Bacillus thuringiensis subsp. aizawai</i> (XenTari) 4 hr. REI Group 11A OMRI-certified product	Caterpillars	Leafy, Cole leafy, and fruiting vegetables.	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.

<p><i>Bacillus thuringiensis subsp. kurstaki</i> (BT Now) (Dipel Pro DF) (Javelin WG) (Thuricide N/G) 4 hr. REI Group 11A OMRI-certified products</p>	Caterpillars	Many vegetables	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.
<p><i>Bacillus thuringiensis subsp. israelensis</i> (Gnatrol WDG) 4 hr. REI Group 11A OMRI-certified product</p>	Fungus gnat larvae	Leafy and Cole crops, cucumber, pepper, tomato, and eggplant transplants.	Stomach poison that must be ingested to be active. Most effective against first instar larvae. Apply as a drench.
<p><i>Beauveria bassiana</i> ANT-O3 (BioCeres WP) 4 hr. REI OMRI-certified product</p>	Aphids, plant bugs, thrips, whiteflies	Brassica leafy, bulb, cucurbit, fruiting and leafy vegetables.	Contact insecticide. Active ingredient is an insect-killing fungus.
<p><i>Beauveria bassiana</i> GHA (Mycotrol WPO, ESO) 4 hr. REI OMRI-certified products</p>	Aphids, leafhoppers, plant bugs, thrips, whiteflies	Many vegetables	Contact insecticides. Active ingredient is an insect-killing fungus.
<p><i>Burkholderia ssp.</i> A396 (Venerate XC) 4 hr. REI OMRI-certified product</p>	Aphids, caterpillars, mites, thrips, whiteflies	Cole crops, cucurbits, and fruiting vegetable transplants.	Contact insecticide & stomach poison that disrupts insect exoskeleton interfering with molting.
<p>Canola oil &amp; pyrethrins (Pycana) 12 hr. REI OMRI-certified product</p>	Aphids, beetles, caterpillars, fungus gnats, leafhoppers, leafminers, plant bugs, spider mites, thrips, whiteflies	Bulb, leafy, fruiting, cucurbit, Brassica leafy vegetable transplants.	Combination of a botanical oil and pyrethrins. See label for plant safety information.
<p><i>Chromobacterium subtsugae</i> (Grandevo GC) 4 hr. REI</p>	Aphids, beetles, caterpillars, leafhoppers, plant bugs, mites, thrips, whiteflies	Cole leafy, bulb, cucurbit, fruiting, and leafy vegetable transplants.	Contact biological fungicide for young immature stages. See label for plant safety information.

OMRI-certified product			
Insecticidal Soap (Kopa Insecticidal Soap) 12 hr. REI OMRI-certified product	Aphids, mites, plant bugs, whiteflies	Bulb, Cole crop, cucurbit, fruiting, leafy and other vegetable transplants.	Contact insecticide. Short residual activity. See label for plant safety information.
Insecticidal Soap (M-Pede) 12 hr. REI OMRI-certified product	Aphids (suppression), broad mites, leafhoppers, leafminers, plant bugs, spider mites, thrips, whiteflies	Bulb, Cole crop, cucurbit, fruiting, leafy and other vegetable transplants.	Contact insecticide. Short residual activity. See label for plant safety information.
Iron phosphate (Sluggo) 0 hr. REI OMRI-certified product	Slugs, snails	Cole crops, lettuce, onion, eggplant, pepper, tomato and other vegetable transplants.	Bait. Best applied in the evening. Can be used around pets and wildlife.
Iron phosphate & spinosad (Brandt Antixx Plus Insect, Slug and Snail Bait) 4 hr. REI OMRI-certified product	Cutworms, slugs, snails	Bulb, Cole crop, cucurbit, leafy and fruiting vegetables.	Bait.
Iron phosphate & spinosad (Bug- N- Sluggo) 4 hr. REI OMRI-certified product	Cutworms, slugs, snails	Bulb, leafy, Cole crop, cucurbit, and fruiting vegetables.	Bait.
<i>Isaria fumosorosea</i> Apopka 97 (Ancora) (PFR 97 20% WDG) 4 hr. REI OMRI-certified products	Aphids, leafminers, plant bugs, spider mites, thrips, whiteflies. Drench applications to thrips pupae.	Vegetables	Contact microbial insecticides. Apply when relative humidity is > 75%. See technical sheet & label.
Mineral Oil (Organic JMS Stylet Oil) 4 hr. REI OMRI-certified product	Leafhopper, leafminers, mites, whiteflies	Cole crops, cucurbit, fruiting, and leafy vegetable transplants.	Contact insecticide/miticide. Foliar injury may occur if applied during humid conditions. See label for plant safety information.
Mineral Oil (SuffOil- X) 4 hr. REI	Aphids, leafhoppers, leafminers, mites, thrips, whiteflies	Cucumber, eggplant, melon, pepper, pumpkin, squash and tomato transplants.	Contact insecticide/miticide. Foliar injury may occur if applied during humid conditions. See

OMRI-certified product			label for plant safety information.
Mineral oil (Ultra Pure Oil) 4 hr. REI OMRI-certified product	Aphids, leafhoppers, leafminers, mites, thrips and whiteflies	Cole crops, cucurbit, and fruiting vegetable transplants.	Contact insecticide/miticide. Foliar injury may occur if applied during humid conditions. See label for plant safety information.
Neem oil (Triact 70) 4 hr. REI OMRI-certified product	Aphids, broad mites, leafhoppers, spider mites, thrips suppression, whiteflies	Bulb, Cole crop, cucurbit, fruiting and leafy vegetable transplants.	Contact insecticide. See label for plant safety information.
Parasitic Nematodes ( <i>Steinernema carpocapsae</i> ) (Koppert Capsanem) Exempt from REI OMRI certified product	Shore fly larvae	Greenhouse Crops	Apply to moist growing media (57-86° F) during cloudy, overcast conditions. Remove screens and filters from injectors, sprayers.
Parasitic Nematodes ( <i>Steinernema feltiae</i> ) (Koppert Entonem) Exempt from REI OMRI certified product	Fungus gnat larvae, thrips pupae in growing media	Greenhouse vegetables	Apply to moist growing media (50-86° F) during cloudy, overcast conditions. Remove screens and filters from injectors, sprayers.
Pyrethrins (PyGanic EC 1.4 11) (PyGanic EC 5.0 11) (PyGanic Specialty) 12 hr. REI Group 3A OMRI-certified products	Aphids, caterpillars, fungus gnat adults, leafhoppers, thrips, whiteflies	Bulb, Cole crops, cucurbit, fruiting and leafy vegetable transplants.	Contact insecticides. Provides rapid knockdown of pests.
Sulfur (Microthiol Disperss) 24 hr. REI OMRI-certified product	Broad mites (pepper), spider mites	Many vegetables	Contact miticide/fungicide.

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

OMRI-certified product: determined by the Organic Materials Review Institute (OMRI) to be suitable for use in certified organic production. Resistance Groups (number and letter) indicate products with a common mode of action based on the Insecticide Resistance Action Committee (IRAC) guidelines at <http://www.irac-online.org/>. For multiple applications to one crop, select products from different resistant groups.

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