

# Pesticides Labeled for Greenhouse Vegetables

These tables give a list of the insecticides, fungicides and herbicides that are labeled for use on greenhouse vegetables. Also included are the targeted pests, crops labeled for use and various important comments about the use of these chemicals. These products have been tested and formulated for greenhouse use. Some products, however, while not prohibited from use in the greenhouse lack information on application and use in the greenhouse environment. If any information in these tables is inconsistent with the label, follow the label. Check the label before applying any pesticide.

## Selected Insecticides Labeled for Greenhouse Vegetables

<b>Insecticide</b> (product name) (IRAC classification)	<b>Target Pests</b>	<b>Labeled Crops</b>	<b>Days to Harvest</b> (REI-hrs)	<b>Comments</b>
<b>Abamectin</b> (Avid) (6)	Mites – TSSM, tomato russet mites	Tomato, cucurbits, pepper	7 (12)	Do not make more than 2 sequential applications
<b>Azadirachtin</b> 1.2% Neem and neem oil (Azatin XL, Azatrol EC, Trilogy) (18b)	Aphids, small worms, whitefly, thrips, fungus, gnats (when soil applied)	Most vegetables	0 (4)	Plant derived product, OMRI approved. Acts as an insect growth regulator. Can be applied via drip irrigation
<b><i>Bacillus thuringiensis</i></b> , var <i>aizawai</i> (XenTari) (11)	Lepidopteron pests, tomato fruit worm, armyworm, striped AW, beet AW	Most vegetables- including tomato, cucumber, melons, etc.	0 (4)	Lepidopteran (Lept) larvae or Caterpillars only – best when applied to small larva.
<b><i>Beauveria bassiana</i></b> strain <i>GHA</i> (Mycotrol O and Botanigard) strain <i>ATCC</i> (Naturalis) (NA)	Aphids, mites, thrips, small worms	All Vegetables	0 (12)	Slow acting, fungus infects insects. Must make at least 3 applications at 7-10 day intervals. Do not use Botanigard ES on tomatoes
<b>Bifenazate</b> (Floramite SC) (25)	Two-spotted spider mite European red mite	Tomato, and maybe other fruiting vegetables Check with state agency for 24c label	3 (12)	No more than 2 applications/ crop/season. For tomatoes that are greater than 1 inch in diameter at maturity. <b>Do not</b> use adjuvants in solutions applied to tomatoes.
<b><i>Bt israelensis</i></b> (Gnatrol) (11)	Fungus gnats only	Vegetables including tomatoes, cucumbers, etc.	0 (4)	Fungus gnat larval control only.
<b><i>Bt var. kurstaki</i></b> (Dipel, Crymax, Biobit) (11)	Lepidopteran pests, tomato fruit worm, armyworm, cabbage, looper, etc.	All vegetables - including tomatoes, brassicas, cucurbits	0 (4)	Controls small caterpillars. No fungus gnat control.
<b>Buprofezin</b> (Talus 40 SC) (16)	Whitefly, mealy bugs, leaf hoppers	Tomatoes	1 (12)	Insect growth regulator. Works best if applied to small immature insects. Do not apply more than 2 applications/season. Allow

				5 days between applications
<b>Chlorfenapyr</b> (Pylon) (13)	Spider mites, tomato russet mites, thrips, Lepidopteran larva, TFW, Beet AW, Hornworms, loopers, yellow striped AW	Tomato, tomatillo, ground cherry, peppers, egg plants	0  (12)	<b>Do not</b> use on tomato varieties with mature fruit less than 1 inch in diameter. Allow 5-7 days between applications. No more than 3 applications per crop.
<b>Endosulfan</b> (Thionex, Thiodan, Phaser) (2)	Aphids, Lept larvae, leaf hoppers, thrips	Tomatoes	2 (24)	Does best on aphids and small Lept larvae
<b>Iron phosphate</b> (Sluggo) (NA)	Slugs	Tomatoes	NA  NA	OMRI approved. Do not apply directly to plants.
<b>Malathion 8</b> Flowable or Malathion 8 (1)	Aphids, cucumber beetles, mites, thrips, whiteflies	Cucumber, egg plant head lettuce, endive leaf lettuce peppers tomatoes onions; bulb and green	3 7 14 3 1 3 (12)	Be sure to check label as PHI differs for certain crops depending on formulation type.
<b>Metaldehyde</b> 2%, 0.13 bait (Ortho slug killer and No escape slug and snail killer) (NA)	Slugs	All “vegetables”	NA  (12)	DO NOT apply directly to plants. Place beneath GH benches or tables.
<b>Neonicotinoids</b> (4) Imidacloprid (Admire)  Dinotofuran (Safari)	Aphids, whiteflies  Aphids, whiteflies, true bugs, leaf miners, cutworms	Tomato and cucumber only  <b>Vegetable transplants ONLY,</b> cucurbits, Fruiting vegetables	0  (12)	Do not apply to plants growing hydroponically or in rock wool, perlite or other soil-less mix. Use only 1 application per season to <u>mature</u> plants. Can be applied via drip irrigation.
<b>Paraffinic Oil</b> (refined oil, Summer oils) (NA)	Mites, aphids, thrips, whitefly	All vegetables	1  (4)	No more than 4 applications per season. Must contact the pest. Oils can cause foliar injury if very hot and humid.
<b>Potassium Salts</b> of Fatty Acids, Insecticidal soaps, (M-Pede) (NA)	Aphids, mites, thrips, whiteflies, plant bugs	All vegetables	1  (12)	Works well on whiteflies and aphids if applied frequently. However, do not apply more than 3 applications over a 2 week period.
<b>Pyrethrum + Piperonyl Butoxide</b> (Pyrenone crop spray, pyronyl crop spray) (3A)	Aphids, army worms, loopers, flea beetles, spider mites, whiteflies	All vegetables	0  (12; see label)	Piperonyl butoxide is used to increase effectiveness of Pyrethrin, but is not OMRI approved.
<b>Pyriproxyfen</b> (Distance) (7C)	Whiteflies, aphids, fungus gnats, shoreflies	Tomatoes	14  (12)	No more than 2 applications per season. Use on tomatoes that are 1 inch in diameter (or greater) at maturity.

<b>Spinosad</b> (Conserve, SpinTor 2SC, Entrust 80W) (5)	Thrips, Lepidopteran larvae, leafminers, pinworms	Tomatoes	2 (4)	Excellent product for thrips and worm control. <b>Not for use on GH transplant tomatoes.</b>
<b>Sulfur</b> (microfin Sulfur) (8)	Tomato russet mites	Tomatoes	0 (12)	Do not mix with oil or apply within 2 weeks of an oil spray application.

Note: Spiromesifen (Oberon) cannot be used on greenhouse vegetables in California, Arizona and Florida, but its use is NOT specifically restricted in other states. Spiromesifen controls spider mites, broad mites and whiteflies, can be used on tomatoes, fruiting vegetables, cucurbits, leafy greens, and brassicas; it has a 7-day PHI; active on all immature mite and whitefly developmental stages-but not on the adults.