GROWERTALKS

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How to Manage Western Flower Thrips in Peak Season

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Many growers enter each season with swords drawn, anticipating another fight to the finish with Western flower thrips (WFT). Rampaging thrips can blaze a devastating trail of scarred blooms and deformed leaves, as well as spread tospoviruses.

GGSPro remains strong proponents of biological control for insect and mite pests, including thrips. However, this time of year is no time to begin a biological control program: Thrips are already active and reproductive rates are very high.

For that reason, our focus today is on pesticides for thrips control. Long before you plan for your next spring crop, you can consult with your supplier about an integrated pest management program that includes scouting, exclusion, sanitation, rotating pesticides and BCAs.

Thrips have a well-earned reputation for developing resistance to pesticides. Practicing a sound rotation strategy is key to slowing the progression of pesticide resistance. We work closely with many growers regarding pest control programs, gaining continuous and valuable insight into which products are working well and how best to utilize them. The products and application strategies outlined in Tables 1 and 2 are currently among the most successful for thrips control.

In addition to efficacy, many factors may influence product selection, including rotational planning, bee safety, compatibility with BCAs, plant and bloom safety, label requirements for edible crops, and more. Contact your supplier for recommendations tailored to your unique situation and needs.

It is the applicator's responsibility to read and follow all pesticide label instructions. Labels can and do change without notice. Not all of the products mentioned in this article are registered for use in all states. Some pesticides are restricted-use in some states or regions and not others. Contact your supplier or your state's Department of Agriculture to verify registration status. Pesticides other than those mentioned may be safe and effective. **GT**

Table 1: The following products control WFT effectively from a soil drench.

Product	MOA	Rate	Comments
Kontos	23	1.7 to 3.4 oz./1,000 6-in. pots	Requires 2 to 3 weeks to take full effect, provides 4 weeks or more of control. No geranium, dracaena, cordyline, palm, fern, hoya, phlox. Some reports of discolored verbena flowers. Zero-hour REI from a drench if conditions are met.
Mainspring GNL	28	8 to 12 oz./100 gal. or 0.5 to 0.75 tsp./gal.	Takes 1 week or less for full effect, provides 4 weeks or more of control. Restricted-use pesticide in NY. Zero-hour REI from a drench if conditions are met. See label for drench volume per pot.

Table 2: The following products control WFT effectively from a foliar spray.

Product	MOA	Rate	Comments
Mainspring GNL	28	4 to 8 oz./100 gal. or 0.25 to 0.5 tsp./gal.	Restricted-use pesticide in NY. 4-hour REI.
Mesurol 75 WP	1A	1 lb./100 gal. or 1 tbsp./gal.	Leaves residue; safe on most open blooms. Maximum of 2 applications at least 10 days apart. Restricted-use pesticide. 24-hour REI.
Overture 35 WSP	UN	2 oz./25 gal. Cannot open packets	Takes up to 6 to 7 days to evaluate control. Up to 2 weeks of control. Greenhouse use only. 12-hour REI.
Pedestal SC	15	8 oz./100 gal. or 0.5 tsp./gal.	Insect growth regulator. Max of one application in 30 days and 2 treatments per crop/year. Must rotate two alternative products between applications. 12-hour REI.
Pylon	13	5.2 oz./100 gal. or 0.33 tsp./gal.	Make 2 applications at 5- to 7-day intervals. Maximum 3 times per crop. No dianthus, kalanchoe, poinsettia, rose, salvia, zinnia. May burn tender blooms, test prior to use. Greenhouse use only. Restricted-use pesticide in NY. 12-hour REI.
Pylon TR	13	1 can treats 3,000 sq. ft.	Total release aerosol. See Pylon above for crop restrictions. Greenhouse application only. Restricted-use pesticide in NY. 12-hour REI.

Tank mixes can sometimes be used to successfully control WFT (Table 3). Some examples include:

1. Avid plus azadirachtin (neem)-based insect growth regulators such as Azatin O, AzaGuard or Molt-X. Two sprays, seven days apart before rotating to another MOA.
2. *Beauveria bassiana*-based insecticides such as Bioceres, Botanigard ES, WP plus azadirachtin (neem)-based insect growth regulators (see above), or horticultural oils such as Suffoil-X or Ultra-Pure oil. Ancora is a microbial insecticide/miticide-based on *Isaria fumosorosea* Apopka Strain 97 and it can be used in place of one of the *Beauveria bassiana* products. We recommend a series of three sprays, three to five days apart. The first and third sprays in the series are a tank-mix of the microbial insecticide and either one the azadirachtin (neem)-based insect growth regulators or the horticultural oil. The second treatment in the series is just the microbial insecticide. These sprays have the advantage of being approved for many edible crops. Certain combinations are OMRI-listed, too.

Table 3: The following insecticides can be used to make the tank mixes.

Product	MOA	Rate	Comments
Ancora	UN	28 oz./100 gal. or 1 tbsp./gal.	Use the decant procedure found on the Ancora technical bulletin to avoid clogging application equipment. 4-hour REI, OMRI-listed.
Avid	6	8 oz./100 gal. or 0.5 tsp./gal.	Do not use on Shasta daisy, ferns. 12-hour REI.
Azatin O	UN	10.66 oz./100 gal. or 0.66 tsp./gal.	4-hour REI, OMRI-listed.
AzaGuard EC	UN	8 oz./100 gal. or 0.75 tsp./gal.	4-hour REI, OMRI-listed.
BioCeres WP	UN	30 oz./100 gal. or 2 tsp./gal.	4-hour REI, OMRI-listed.
BotaniGard ES	UN	2 qt./100 gal. or 4 tsp./gal.	Do not use on tomatoes. 4-hour REI.
BotaniGard 22WP	UN	2 lb./100 gal. or4 tsp./gal.	Improved BCA safety compared to the ES formulation. Safe for tomatoes. 4-hour REI.
Molt-X	UN	10 oz./100 gal. or 0.66 tsp./gal.	4-hour REI, OMRI-listed.
SuffOil-X	UN	1 gal./100 gal. or 1.25 oz./gal.	Thorough coverage needed. Apply when rapid drying will occur for plant safety. May burn open blooms. 4-hour REI, OMRI-listed.
Ultra-Pure Oil	UN	1 gal./100 gal. or 1.25 oz./gal.	Thorough coverage needed. For plant safety, apply when rapid drying will occur. May burn open blooms. 4-hour REI.

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