



Greenhouse Newsletter

Control of Thrips

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Adapted by

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There are several species of thrips which occur in New England greenhouses. The eastern flower thrips is a migratory species, but is normally introduced and distributed locally on infested plant material. It has a broad host range. The greenhouse thrips can infest virtually any greenhouse plant. The most important species in the United States at this time is the western flower thrips which apparently has developed resistance to many insecticides. High populations have been reported damaging gloxinia, chrysanthemum, African violets, and some bedding plants.

CONTROL. Satisfactory control of thrips in general and the Western flower thrips in particular is extremely difficult with the pesticides which are available. Several cultural techniques should be incorporated into any control effort to enhance the effectiveness of any insecticide.

EARLY DETECTION AND DIAGNOSIS OF THE PROBLEM is critical for minimizing injury. Adults normally are winged and can fly readily, so infestations can spread rapidly. Therefore, maintain a steady surveillance of the growing area and **INSPECT NEW PLANT MATERIAL** carefully.

According to Mark Ascerno, Univ. of Minnesota, early detection of thrips can be aided by hanging yellow cards coated with Tanglefoot R or Stickum Special R in the greenhouse. It goes without saying that these cards should be checked daily. Symptoms of Thrips feeding include: 1) silver discoloration of foliage as well as necrotic spots and blotches, 2) distortion of buds and puckering of leaves, and/or 3) tiny fecal pellets attached to leaf surfaces (need a 10X hand lens at least to see these, reports Louis Vasary, Rutgers University.)

Avoid growing particularly attractive plants (onions, gladioli) in neighboring fields. Be aware that chrysanthemums and other composites are very attractive to thrips, and so should be grown with an extra measure of care. Also concentrate on controlling weeds in and around the greenhouse. Inspect new plant material very carefully and keep checking that material for any thrips' feeding activity.

Use a variety of insecticides, including systemics, contacts, and fumigants. If the thrips population happens to be the western flower thrips, recognize that the best control that can be expected is in the 80 to 90% range.



Normally several insecticide applications will be needed to reduce a thrips population. Thrips tend to remain in protected parts of the plant (in leaf or bud axils, inside flowers) and so thorough coverage is essential to each application. The first application will not affect eggs or pupae which are present and will not kill 100% of the immature or adult thrips, so additional applications should be made at approximately 2 week intervals until the infestation is brought under control.

Last year this Extension Agent observed more thrips damage to greenhouse crops than at any time during his 25+ year career.

Be vigilant this year and avoid needless thrips damage.

Table 1. A list of materials which are labelled for use on some floricultural crops for thrips control.**

GENERIC NAME	TRADE NAME	FORMULATION	AMOUNT PER GAL.	AMOUNT PER 100 GAL.
acephate	Orthene*	75 SP	2 tsp.	10 oz.
aldicarb	Temik*	10 G	(28 to 37 oz.	per 1,000 sq. ft.)
bendiocarb	Dycarb	76 WP		12 - 20 oz.
bifenthrin	Talstar*	10 WP	0.06 oz.	6 oz.
chlorpyrifos	Dursban*	50 WP	0.08 oz.	0.5 - 1 lb.
dichlorvos	DDVP*	41.4 EC	(vaporize 1 fl. oz. per 10,000 cu. ft.)	
endosulfan	Thiodan*	50 WP	1 Tbsp.	1 lb.
fluvalinate	Mavrik*	33.7 EC	1 1/3 tsp.	2/3 qt.
oxamyl	Oxamyl	2 F	1/3 tsp.	5 oz.
		10 G	(follow label instructions)	
oxamyl	Vydate*	24 SL	2 to 4 tsp.	2 to 4 pt.
oxydemeton-methyl	Meta-Systox R*	25 EC	1 1/2 tsp.	1 1/2 pt.
sulfotepp	Dithio*	5% aerosol	(follow label instructions)	
		15% smoke	(follow label instructions)	

* Trade Name

** Check for phytotoxicity

References

- Ascerno, M. E. 1987. Thrips - Major new problem from an old pest. BPI News Vol. XVIII, No. 2: 7.
- Vittum, P. 1986. Control of Thrips. Floralert, Coop. Ext. Univ. of Mass. pgs. 5-6.