

# ONION THRIPS CONTROL

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## Objectives

Onion thrips (*Thrips tabaci*) are a common pest of onions in the Treasure Valley area of eastern Oregon and southwestern Idaho. This project was designed to evaluate the effectiveness of different insecticides in controlling onion thrips.

## Material and Methods

The trial was conducted on Skeen Farms near Nyssa, Oregon. Each plot was 25 ft long and two beds wide. The trial was a randomized complete block design with six replications. The onion variety used in the trial was Vaquero.

Table 1. Conditions of application of insecticide treatments on onion, Skeen Farms, Nyssa, OR, 1998.

	1 <sup>st</sup> Treatment	2 <sup>nd</sup> Treatment
Date	June 18	July 1
Time	9:30-11:30 a.m.	3:00-5:00 p.m.
Air Temperature	73 °F	92 °F
Wind	3-5 mph	4-6 mph
Carrier	water @ 22 gal/acre	water @ 22 gal/acre

Pre counts were made just before the first application, and treatment counts were made 3, 7, and 14 days after the first treatment and 10 days after the second treatment. Treatment counts were made by counting the total number of thrips on ten plants in each plot. Activity of thrips was also evaluated during morning and evening to determine when thrips were more actively feeding on the exposed foliage of the plant.

## Results and Discussion

There were more thrips actively feeding on the onion foliage during the warm evening hours than during the cooler morning hours.

Table 2. Effect of time of day on visible thrips activity, Skeen Farms, Nyssa, OR. 1998.

Time	8:00 a.m.	5:30
Number of actively feeding thrips/plant	1.25	8.1

12 plants evaluated

Understanding when onion thrips are actively feeding and exposed to insecticides can help growers time their applications more effectively.

Materials and formulations evaluated for effectiveness in controlling thrips are listed in Table 3.

Table 3. Insecticides evaluated for onion thrips control, Skeen Farms, Nyssa, OR, 1998.

Product	Formulation
Warrior	1.0 EC
Warrior T	1.0 CS
EXP 61685 A	0.83 EC
Agenda	1.67 SC
Alert	2.0 SC
Orthene	75 WSP
Guthion	2.0 EC
Lannate LV	2.4 WSL

Lannate treatments had the lowest average thrips populations of any insecticide, followed by Orthene combinations (Table 4). Agenda, when tank mixed with Warrior or Orthene had good results. EXP61685A and Warrior T were not effective when applied alone.

### Conclusions

Lannate is currently registered for use on onions and has shown good activity on onion thrips. Orthene and Agenda are not currently registered for onions, but have enough activity to be worth pursuing a registration.

### Acknowledgments

Thanks to the Idaho-Eastern Oregon Onion Research Committee for their support in funding this project.

Table 4. Insecticide treatments to control onion thrips in dry bulb onions, Skeen Farms, Nyssa, OR. 1998.

Treatment	lb. ai/acre	1 <sup>st</sup> Treatment			2 <sup>nd</sup> Treatment		Average
		Pre-count	3 DAT	7 DAT	14 DAT	10 DAT	
-----Average number of thrips per plant-----							
Warrior + Lannate	0.003 + 0.9	3.5	0.6	1.0	2.6	14.6	4.7
Lannate	0.9	3.3	1.1	1.1	3.5	13.9	4.9
Orthene + Lannate	1.0 + 0.9	3.4	1.5	0.9	2.9	14.5	5.0
Agenda + Orthene	0.068 + 1.0	3.6	1.3	2.4	2.8	13.6	5.0
Agenda + Warrior	0.068 + 0.003	3.0	1.3	1.0	3.1	14.8	5.1
Orthene + Warrior	1.0 + 0.003	2.4	1.0	1.4	2.8	15.1	5.1
Orthene	1.0	3.9	1.7	2.4	3.3	15.9	5.8
Alert + Warrior	0.2 + 0.003	5.2	1.6	0.9	3.5	19.9	6.5
Alert + Agenda	0.2 + 0.068	3.5	2.5	3.2	4.9	15.2	6.5
Agenda	0.068	4.5	2.3	2.3	4.0	19.6	7.1
EXP61685A	0.2	4.2	2.1	1.3	4.0	21.3	7.2
Warrior + Guthion	0.003 + 0.5	4.0	2.1	1.1	4.7	21.5	7.4
Warrior T	0.003	2.8	1.3	1.3	4.6	23.1	7.6
Untreated Check	—	2.6	3.8	2.5	6.4	19.9	8.2
EXP61685A	0.1	5.4	3.3	3.1	4.0	24.1	8.6
Alert	0.2	2.1	3.0	2.4	7.9	24.3	9.4
Warrior	0.003	2.6	2.3	1.6	5.8	28.3	9.5
LSD (.05)		NS†	1.1	NS	1.9	NS	

† NS: not significant.