

**INSECTICIDE EFFICACY AGAINST LYGUS ON ALFALFA GROWN FOR SEED
IN WASHINGTON STATE**

Timothy D. Waters

Washington State University Extension
Benton Franklin Area
1016 N. 4th Ave.
Pasco, WA 99301
Phone: (509) 545-3511
Fax: (509) 545-2130
E-mail: twaters@wsu.edu

Ronald P. Wight

Holly J. Ferguson

Douglas B. Walsh

Washington State University
Irrigated Agricultural Research and Extension Center
24106 N. Bunn Rd.
Prosser, WA 99350
Phone: (509) 786-9287
Fax: (509) 786-9370

Insecticides were screened for their ability to control Lygus nymphs *Lygus hesperus* Knight (Heteroptera: Miridae) in alfalfa seed fields. In early spring, field plots were established at Prosser and Othello Washington State. At each location, plots were 18 ft. wide and 20 ft. in length and treatments were replicated 4 times in a complete random block design. Insecticides were applied to mimic grower timing at a pre-bloom and bloom period of the alfalfa. Treatments were applied using a CO₂ powered back pack sprayer equipped with a four nozzle boom using 25 gallons of water per acre as carrier. Five 180° sweeps per plot were used as a means to sample Lygus nymph abundance and efficacy of the insecticides post application.

At the Prosser location during the pre-bloom period, the Baythroid and Capture treatments provided significantly better Lygus control than did the untreated check. Moderate levels of control were achieved with the Rimon, Beleaf, and Venom treatments. At the Othello location during the pre-bloom period, Rimon, Assail, Baythroid, Dimethoate, Capture, Beleaf, and Venom treatments provided significantly better Lygus control than did the untreated check.

During the bloom period at the Prosser location, the Rimon and Assail treatments provided better control than the untreated check. The Beleaf and Dibrom treatments were also effective, but the variability in the untreated check made the treatments not significantly different from the untreated check. At the Othello location during the bloom period, the Rimon and Beleaf treatments controlled Lygus nymphs significantly better than the untreated check.

Pre-Bloom Treatments:

Mean Lygus Nymphs/5 Sweeps ± Std. Error

| Product | Rate/Acre | Prosser, WA | Othello, WA |
|-----------------|-----------|-------------|-------------|
| Rimon 0.83 EC | 12 oz. | 4.75±1.18 | 2.00±0.70* |
| Assail 70 WP | 0.05 lb | 7.50±0.87 | 2.25±0.48* |
| Baythroid | 2.8 oz. | 1.00±0.71* | 1.50±1.19* |
| Dimethoate 4 EC | 1 pt | 6.00±0.24 | 2.75±0.63* |
| Capture 2 EC | 6.4 oz. | 0.25±0.25* | 0.25±0.25* |
| Beleaf | 3 oz. | 3.25±1.88 | 4.75±2.25* |
| Venom | 3 oz. | 4.75±1.37 | 2.50±0.50* |
| Untreated check | NA | 8.25±1.62 | 21.75±6.93 |

Means followed by a * are significantly different than the untreated check.

Bloom Treatments:

Mean Lygus Nymphs/5 Sweeps ± Std. Error

| Product | Rate/Acre | Prosser, WA | Othello, WA |
|-----------------|-----------|-------------|-------------|
| Rimon 0.83 EC | 12 oz. | 0.25±0.25* | 6.00±0.91* |
| Assail 70 WP | 0.05 lb | 0.25±0.25* | 9.00±3.03 |
| Beleaf | 3 oz. | 0.75±0.75 | 5.00±2.20* |
| Dibrom | 1 pint | 1.00±0.57 | 13.00±4.06 |
| Untreated check | NA | 5.00±4.36 | 11.25±3.06 |

Means followed by a * are significantly different than the untreated check.