

## Codling Moth: Chemical Evaluations

Richard J. Hilton and Philip VanBuskirk  
 Southern Oregon Research & Extension Center  
 569 Hanley Road  
 Medford OR 97501

The results from various chemical evaluations are presented in the tables below. Use of M-96, a hydrophobic particle film gave substantial control of codling moth in a high pressure Bartlett block, control of first generation codling moth was equivalent to Guthion. An unreplicated test in a lower pressure Comice block, where the material was applied six times with a speedsprayer, resulted in a 2% infestation at harvest.

Two tests, handgun and speedsprayer, examined the effect of adding oil or Latron B-1956 to Confirm. With respect to control of codling moth the addition of oil, which has significant activity on codling moth applied by itself, significantly improved the activity of Confirm while the addition of Latron B-1956 did not. Comply with oil also provided a high level of codling moth control.

Agrimek applied once during the first codling moth generation provided a significant degree of codling moth suppression on both pear and apple. In apple no difference was seen between a 5 oz and a 2.5 oz rate per 100 gallons. In both pear and apple no difference was observed between applying the material prior to first oviposition or waiting and applying the Agrimek prior to egg hatch.

## The Effect of M-96 (Hydrophobic Particle Film) Applications on Codling Moth

Handgun application approx. 200 gpa, Bartlett pear

Speedsprayer application 200 gpa, Comice pear

Fruit evaluations done after the completion of the first CM generation (7/2-3) and at harvest, 8/12 for Bartlett and 8/25 for Comice

Material	Rate (form.) Per 100 gal	Dates of Application	Handgun plot		Speedsprayer plot	
			7/2 (n=200)	8/12 (n=400)	7/3 (n=200)	8/25 (n=200)
M-96	25 lb	5/2, 5/18-19, 6/6-7, 6/20-23, 7/17-18 and 8/8 on Comice	0.5 a	16.25 b	2.0	2.0
Guthion 50 W	1.25 lb	5/15, 6/6, 7/22	0.5 a	1.0 a	0	0.5
Check	-----	-----	44.5 b	80.8 c	-----	-----

Handgun treatments were replicated four times, speedsprayer treatments were not replicated. Means within a column followed by the same letter are not significantly different (P=0.05 Fisher's protected LSD). Data were subjected to the arcsine transformation prior to analysis.



## The Effect of First and Second Cover IGR Applications on Codling Moth

Handgun application approx. 200 gpa, fruit evaluated on July 2

Speedsprayer application 200 gpa, fruit evaluated on July 3

Material	Rate (form.) per 100 gal	Dates of Application	Handgun Plot % CM entries on Bartlett pear (n=200)	Speedsprayer Plot % CM entries on Bartlett pear (n=300)
Oil	1 gal	5/14-16, 6/5-6	10.0 b	14.0 c
Confirm	9 oz	5/14-16, 6/5-6	10.0 b	13.0 bc
Confirm and oil	9 oz 1 gal	5/14-16, 6/5-6	3.5 a	4.3 ab
Confirm and Latron B-1956	9 oz 7.7 oz	5/14-16, 6/5-6	11.5 b	12.0 bc
Comply and Oil	2.5 oz 1 gal	5/1-5, 6/5-6	1.0 a	2.3 a
Guthion 50 W	1.25 lb	5/14-16, 6/5-6	0.5 a	0.3 a
Check	-----	-----	44.5 c	-----

Handgun treatments were replicated four times, speedsprayer treatments were replicated twice. Means within a column followed by the same letter are not significantly different ( $P=0.05$  Fisher's protected LSD). Data were subjected to the arcsine transformation prior to analysis.

## The Effect of First Cover Agrimek Applications on Codling Moth

Handgun application approx. 200 gpa

Fruit evaluated on July 2

Material	Rate (form.) Per 100 gal	Date of Application	% CM entries on Bartlett pear (n)	% CM entries on Braeburn apple (n)
Agrimek And oil	5 oz 1 qt	5/1	3.75 b (400)	2.7 a (113)
Agrimek and oil	2.5 oz 1 qt	5/14	-----	3.1 a (163)
Agrimek and oil	5 oz 1 qt	5/14	3.5 b (400)	4.5 a (88)
Guthion	0.625 lb (pears) 1.0 lb (apples)	5/15	0 a (400)	11.2 ab (161)
Check	-----	-----	46.0 c (300)	27.9 b (122)

All treatments were replicated four times, except the Bartlett pear check treatment which was replicated three times. Means within a column followed by the same letter are not significantly different ( $P=0.05$  Fisher's protected LSD). Data were subjected to the arcsine transformation prior to analysis. The replicates in the Braeburn apples which had less than 15 fruit were excluded from the statistical analysis.