

Mating Disruption/SIR

USE OF SUCCESS* NATURALYTE* INSECT CONTROL TO CONTROL CODLING MOTH IN MATING DISRUPTION PROGRAMS IN APPLES

Vanelle Carrithers, Lyla Lampson, Steve Cockfield, and Ken Jenkins
Dow AgroSciences, Mulino, OR

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Introduction

Guthion 50WP has been the standard product targeted against codling moth for many years in Pacific Northwest apple orchards. Success has good efficacy against codling moth when population densities are low to moderate. Therefore, Success may have a good fit in codling moth mating disruption programs since populations are kept low. In spray programs incorporating codling moth mating disruption an initial cover spray is often applied to ensure adequately low codling moth populations for mating disruption to be effective. If trap counts are high, additional applications are often applied as needed. The objective of this study was to evaluate the fit of Success as a first cover or as a rescue treatment in codling moth mating disruption programs.

Material and Methods

Four commercial orchards in codling moth mating disruption programs were chosen for this study. Three orchards (Table 1) had enough pressure of codling moth early in the season to use them for first cover comparisons. The fourth orchard did not have insect pressure until later in the season and was used for the rescue treatment comparison. This orchard was located in Brewster, WA. Treatments of either Success at 8 oz product/acre + 1% v/v summer oil or Guthion 50WP at 1.5 lb/acre were applied as second cover sprays to 5 acres each. Individual growers made decisions on timing of the applications of these sprays with input from trap counts and field consultants. All orchards had low to moderate codling moth pressure.

Table 1. Locations and treatments for codling moth mating disruption programs

	Site 1	Site 2	Site 3
Location	Milton-Freewater, OR	Chelan, WA	Brewster, WA
Block size	7 acres each	5 acres each	5 acres each
Treatments (per acre)	Success 8 fl oz + 1% oil Guthion 2 lb	Success 8 fl oz + 1% oil Guthion 1.5 lb	Success 8 fl oz + 1% oil Guthion 1.5 lb
First cover	Both products	Both products	Both products
Second cover	Guthion full cover Success S border only	Both products	NONE

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Fruit damage assessments were conducted by visual observation for first generation injury prior to thinning and later in the season for second generation injury. Two thousand to 2,500 fruit were evaluated for stings at each assessment period.

Results and Discussion

Success gave the same control of codling moth as Guthion when used as first cover sprays. No fruit stings were observed in any treatment area at the rating prior to thinning. Fruit evaluations in August and September showed that in 2 of the 3 sites Success provided comparable control to Guthion when used as first cover spray. Site 2 had a tree row removed next to the Success treatment area that may have increased the codling moth pressure on this side of the orchard and in the tree row evaluated. The field person recommended that the grower treat this border area again but the grower decided against an additional spray.

Both Guthion and Success gave the same degree of control when used as rescue treatments in codling moth mating disruption programs.

Table 2. Percent fruit injury in August/September

	First cover			Rescue
	Site 1	Site 2	Site 3	Site 4
Success	0	0.56	0	0
Guthion	0	0	0.25	0.05