holistic Orchard Network Grow Organic Apples

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Advanced

codling moth super trap

Posted by <u>David Doncaster</u> Forum List <u>Message List New Topic</u> <u>David Doncaster</u> <u>codling moth super trap</u> May 16, 2013 10:28AM

Registered: 11 years ago Posts: 50

We have a regulatory body, Sterile Insect Release (SIR) in British Columbia, who's mandate is to "totally eradicate the codling moth." This was to be done with mating disruption as well as the release of sterile moths. They would also place one trap in my trees to monitor activity. Last year they ceased moth release but increased disruption strips and added a much stronger pheromone strip to the trap, approx. 20 times stronger then in the past. For the year we had 15 moths in the trap and to them this is not acceptable. They do not want to accept that I had zero damage. This year the trap has been placed in the middle of the orchard, the same super strength as last year. Pardon my analogy but would this not like asking an alcoholic to go grocery shopping having to walk past a dozen liquor stores and pubs?

It makes sense to me to have this trap tree on the outer limits of the orchard not in the middle and have moved it . Am I wrong in these thoughts? I'm sure I will have to defend this move .

<u>Hillview Heritage Farm</u> Zone 5*in British Columbia

Edited 1 time(s). Last edit at 05/16/2013 01:53PM by Michael Phillips. <u>Reply Quote</u> <u>Todd Parlo</u> <u>Re: codling moth super trap</u> May 21, 2013 04:47PM

Since codling moth is likely living within the orchard itself (overwintering in bark crevices, etc) and not migrating in, it would be prudent to trap where it is likely to encounter the highest number. This would likely be smack in the middle of the orchard. Trapping on the periphery would make sense for more migratory creatures. What would be interesting is to see if there is a lick of difference at all, as you could test by sticking a monitor trap in both locations and tell us what you find.

Walden Heights Nursery & Orchard

Zone 3 in Vermont <u>Reply Quote</u> <u>Michelle and Chris McColl</u> <u>Re: codling moth super trap</u> May 27, 2013 05:10PM

A couple of comments re positioning of the trap:

1. For 10 years in the orchards around Kalangadoo, we monitored Codling Moth activity using pheromone traps. There were eight orchards, a few adjacent to one another, others two to five kilometres distant from its nearest neighbour. In one of the more distant orchards, we often found low numbers of male Codling moth in the traps, although there was never any damage in the orchard. The males in the trap had picked up the scent and flew in from an infested orchard two or three kilometres away.

2. The scent from the ties/trap is carried by the wind, and if the trap is placed on the orchard perimeter downwind of the prevailing wind, if there was a male Codling Moth in your orchard, he may never pick up the scent coming from the trap. So central or upwind side is better, but the moths might still be coming to your trap from kilometres away.

Kalangadoo Orchard On the "other side" in South Australia

Edited 1 time(s). Last edit at 05/27/2013 05:12PM by Michelle & Chris McColl. <u>Reply Quote</u> <u>David Doncaster</u>

FORUM

Registered: 11 years ago Posts: 50

Registered: 10 years ago Posts: 301

Registered: 11 years ago

Posts: 49

Re: codling moth super trap June 12, 2013 04:27PM

Michelle and Chris, would you happen to know the strength of the pheromone in your traps? In the past the SIR, (sterile insect release) was using 1mg as of last year they went to 10 mg. Last year I had a total of 15 trapped and two confirmed damage for the year, and they were in the trap tree. They've only trapped for a few weeks now and I already have 15 and the push is on to use chemicals. They are also telling me the pheromone is only good for a distance of 30 meters.

 Hillview Heritage Farm

 Zone 5*in British Columbia

 Reply. Quote

 Michelle and Chris McColl

 Re: codling moth super trap

 June 13, 2013 03:42PM

 David, we didn't record the strength of the lures we used in the traps, but we think they were x1 and x10 strength.

Registered: 11 years ago Posts: 49

We're sorry we can't be of more help, because we've realized your situation is quite different from ours. If you have a valley full of pheromone ties, and we have an open plain with no mating disruption, the male moths are going to behave differently. In your situation, 30

metres may well be the limit for the traps to work with a x10 lure. In our situation, the traps work up to 3 kilometres with a x1 lure. We went through our old record book, and summarized the trap catches for an eight year period for five of the orchards. The figures below

We went through our old record book, and summarized the trap catches for an eight year period for five of the orchards. The figures below are total number of Codling Moth caught for the season, and the figure in brackets is the number of traps per orchard. Orchard A is the original orchard in the district, 70 hectares established in 1986. Orchards B, C, D and E are 4 to 8 hectares, planted in July 1992.

Orchards D and E were distant from other Codling Moth host trees, and although male Codling Moth were caught in the traps, there was never any damage in those two orchards.

When mating disruption was used in Orchard B in 1996/97 and 1997/98, and in Orchard A in 1997/98, we used a much stronger cap in the traps, but the males obviously had trouble picking up the scent, because trap catches fell.

(sorry the table is a mess)

Kalangadoo Orchard On the "other side" in South Australia

Edited 1 time(s). Last edit at 06/13/2013 03:46PM by Michelle & Chris McColl.
Reply Quote
Terence Welch
Re: codling moth super trap
July 20, 2013 12:36AM

Registered: 11 years ago Posts: 15

Why not use multiple traps? The first year, I generally put out 2 to 3 traps on the perimeter (especially if bordering with other orchards or abandoned trees), and then reduce the number of traps as I learn the codling moth population patterns in the orchard, and which traps will therefore continue to give me useful information. In a veteran orchard (4 to 5 years of observation), I will locate one trap on the perimeter closest to a codling moth source, and one trap on the interior, perhaps in a codling moth hot spot.

Anecdotal information: a local organic grower with decades of experience suggested that if you have a solid block of trees, with full pheremone disruption, the female codling moth may actually fly to the edge of the orchard to avoid the air that is most densely impregnated with female pheromone. (You lucky folk in B.C. with your S.I.R. don't have to worry so much about edges!) The theory is that the female codling moth is trying to avoid an area that is already "full" of females. IF this is true, it may be possible to drive the females out of your orchard. I work with a couple of organic orchards that border conventional orchards. By putting pheromone disruption in the first few rows of the neighboring conventional orchards, possibly the females would leave my organic orchard, seeking a less dense pheromone atmosphere. They would find their perch at least a few rows into the conventional orchard, where hopefully the conventional pesticides would kill larva and eggs. Has anyone had experience that might back this up? Interesting to ponder. Reply Quote

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