

## Understanding Your Codling Moth Area-Wide Control Program - FAQs

### **1. The Program isn't effective – it hasn't done what it was originally supposed to do – eliminate the codling moth.**

The goal of the SIR Program changed in 1998 from area-wide eradication of codling moth to area-wide suppression with the objective of reducing codling moth populations to levels that would not require any control sprays. This goal remains unchanged as the area-wide program moves from population suppression to population management through the cooperative efforts of SIR staff, industry advisors (fieldmen, consultants), growers and participating Regional Districts.

As an example of the results achieved with the program, in 2010, 90%, 88% and 84% of the growers in Zones 1, 2 and 3, respectively, may only have had to apply a maximum of one cover spray because the wild moth numbers were so low in their orchards. This contrasts with 2-4 cover sprays applied on average in the past. Within these groups of growers, 95%, 75% and 85%, respectively, had no infested fruit when the orchards were sampled at harvest.

### **2. Program is too expensive – can't pay the bills, might have to sell some of my land, other orchardists are selling their land or pulling their orchards because they can't afford all of it between spraying and SIR – the return just isn't high enough. Why is it still here?**

For the grower parcel tax of \$139.26 per acre, the SIR staff not only delivers an area-wide control product (sterile moths or mating disruption), but also provides a monitoring service using pheromone traps to track codling moth population levels so that growers know when levels exceed prescribed action thresholds that require supplemental control. The weekly count data is posted on the SIR web site and given directly to growers. The program also issues neighbourhood maps each spring that growers can use to identify all nearby hot spots that threaten their blocks. In addition, the program provides an enforcement service to ensure all host tree owners are doing their part to control codling moth populations that reach action thresholds. The Okanagan Tree Fruit Company also provides information on the stage of development of codling moth so growers know when to apply the newer control products that must be applied at the correct time to maximize control performance.

In 2010 the average cost of one codling moth cover spray was \$116 per acre (average product plus application cost). The cost to the grower to use mating disruption was \$166 per acre. These costs do not include any monitoring service which helps growers make informed decisions about the need for cover sprays, or an enforcement service dedicated to eliminating sources of unmanaged codling moth. The alternative is most growers will have to apply a minimum two cover sprays/season (average \$232/acre) or purchase and apply their own mating disruption (\$166/acre) without the benefit of monitoring unless they



contract the service (more than \$50/acre). Growers would have to rely on the Regional Districts to enforce their local noxious insect bylaws which in the past was lacking or not provided in a timely fashion.

### **3. I heard we're not getting SIT this year in the Central and North Okanagan**

In 2011, the codling moth area-wide management program is planning to use Isomate CM/LR TT® mating disruption (MD) dispensers in all apple and pear blocks as an area-wide treatment throughout Zones 2 and 3 (Peachland to Salmon Arm) of the current SIR Program area. This MD product will keep codling moth (CM) populations below action thresholds in the absence of outside sources of wild codling moths and aid in the control of fruittree, European, obliquebanded and threelined leafrollers (not eyespotted bud moth) by reducing their peak mating and egg laying activity.

Blocks in Zone 1 (Summerland-Osoyoos) will continue to receive once-weekly area-wide releases of sterile moths (SIT). In the Similkameen Valley, blocks not involved in pilot projects will receive the same area-wide treatment.

### **4. Who decided that we're not getting sterile insect release this year?**

Growers and industry groups like BC Fruit Growers' Association, BC Organic Tree Fruit Association and Okanagan Tree Fruit Cooperative have been urging the SIR Board to investigate the use of mating disruption on an area wide basis. Pilot Projects have been conducted since 2009 to determine options to ensure Program affordability while ensuring that the level of control of codling moth is maintained. In 2011 the SIR Program will install mating disruption in orchard blocks in Zone 2 and 3 (Central and North) while it will continue to release sterile moths in Zone 1 (South). This will provide comparative information to aid in future decisions the SIR Board must make on replacement of equipment at the sterile insect rearing facility.

### **5. If Zone 2 and 3 (Central and North) are getting mating disruption and Zone 1 (South) is getting sterile insect release, why is everyone paying the same?**

The SIR Program is funded 37% by growers parcel tax, 51% by regional district tax payers and 12% from senior government grants and own source revenues. The SIR Board has determined that there will not be a tax increase in 2011. Regional Districts will pay the same as 2010. The grower's will also pay the same as the 2010 rate of \$139.26 per acre. The parcel tax rate is not determined based on the elements of the SIR Service that are delivered to a property. It is similar to many other local government taxation models. Property owners pay into a service that benefits the entire community such as school taxes, transit services and in this case, the SIR Program and the area wide reduction in codling moth. Not all property owners have children but pay school taxes just as not all property owners have host trees yet pay tax for the SIR Program service. Growers benefit from an area wide program by receiving a level of control, monitoring and enforcement on an area wide basis to assist in the reduction of wild codling moth pressure overall.

## **6. Wasn't mating disruption tried before?**

Yes. The SIR program has implemented mating disruption. The situation at that time was quite different as the levels of wild codling moth were substantially higher and the mating disruption product was applied at half rate. Also, growers were not adequately informed that they may need to apply a supplemental cover spray if codling moth reached action levels based on trap counts.

Today, with the low levels of wild codling moth populations in 90% of orchards, the Program has been advised that it is feasible to maintain the levels of control below action thresholds using full rate mating disruption.

In 2011, growers will be expected to apply supplemental control sprays when wild codling moth numbers exceed prescribed action thresholds.

## **7. Does this mean I have to spray more? How will I know if I have to spray for CM under MD?**

Neither MD nor SIT will work when wild CM populations are too large. All growers will be expected to apply one or more cover sprays if wild CM populations are too large based on trap catches, damage assessments and/or tree banding by SIR staff.

All pheromone traps will be checked at least once a week and catches will be recorded on the trap bottoms and posted on the SIR Program web site ([www.oksir.org](http://www.oksir.org)) along with maps showing trap locations and counts. Growers and/or advisors who provide their email address to the Program will receive weekly trap counts for their orchards. The SIR trap monitor will also provide a trap count sheet if requested by a grower.

Members of the Okanagan Tree Fruit Company (OTFC) and independent growers with contracted pest management consultants can seek advice from their respective fieldman or consultants on if and when to apply a cover spray for CM control. Independent growers lacking contracted advisory services can seek similar guidance from SIR staff.

## **8. Who will be hanging the mating disruption in my orchard? When and who will apply mating disruption dispensers and pheromone traps?**

Program staff will apply a single full-rate application of 750 Isomate CM/LR TT dispensers/hectare to all pome fruit blocks in April and early May before emergence of CM adults, beginning in Peachland and Oyama and moving northward. Every treated block will be inspected to ensure the dispensers have been applied at the correct rate and height in the trees. At the same time, SIR staff will hold tail-gate meetings



at various locations to answer questions growers may have about MD and codling moth control in general (see schedule below).

In some cases, growers may still be pruning trees when dispensers are scheduled for application. Applicators will try to place dispensers on limbs least likely to be removed. Growers are asked to avoid removing limbs with dispensers. If treated limbs must be removed, please place the dispenser on a nearby limb in order to maintain the proper dispenser density and protect the block from any CM.

Pheromone traps will be set out right after application of MD in the same places as 2010 to monitor wild codling moths. The traps will be baited with the Pherocon CM-DA Combo lure (Trécé Inc.) which has proven to be very attractive to both male and female CM under MD.

**If your orchard is located in Zone 2 - Central** (Peachland to Kelowna) and **Zone 3 – North** (Lake Country to Salmon Arm) Program staff will apply Isomate CM/LR TT mating disruption dispensers to all apple and pear blocks during the weeks indicated below (weather permitting). Growers are invited to any of the neighbourhood tail-gate meetings scheduled below to learn more about mating disruption and codling moth control.

AREA	WEEK OF APPLICATION	TAILGATE MEETING DATES, TIMES, AND LOCATIONS
Peachland, West Kelowna	March 21	<b>March 25 – 9:00 AM</b> 2745 Hebert Rd, West Kelowna
South Kelowna, OK Mission	March 28	<b>April 1 – 9:00 AM</b> Spiers Rd, parking area behind South Kelowna Elementary - across from 4102 Spiers Rd
Winfield	March 28	<b>April 1 – 1:30 PM</b> 12133 Okanagan Centre Rd E, Winfield, BC (Gambell's Fruit Stand) Pearce & Penny Gambell
Benvoulin East Kelowna	March 28 April 4	<b>April 8 – 9:00 AM</b> Orchard Greens Golf parking lot – 2777 K.L.O. Road
Carrs Landing Oyama	April 4 April 11	April 8 – 1:30 PM 13615 Oyama Rd, Ken & Janet Gyorfi Orchard
Bella Vista, Vernon	April 11	April 19 – 1:30 PM 6996 Pinto PL (off Bella Vista Rd) Tom Ouchi Orchard
Rutland Belgo	April 18 April 25	April 19 – 9:00 AM 1250 Belgo Rd - Glen Cross Orchard
Coldstream, Vernon BX, Vernon	April 18 April 25	April 29 – 1:30 PM 7699 McClounie Rd (across from Kalamalka Secondary School) Bob Neville Orchard
Glenmore Ellison	April 25 May 2	April 29 – 9:00 AM 4411 Old Vernon Rd - Ellison Community Hall parking lot
Armstrong, Salmon Arm	May 2	May 2 – 10:00 AM 3181- 11 Ave NE, Salmon Arm (Hanna & Hanna Farm Market)



## **9. Is Sterile Insect Release or Mating Disruption being used elsewhere in the world, or only here?**

Both control technologies are being used on a wide spread basis all over the world. In addition to the use of Sterile Insect Technology, for control of codling moth, there are programs in South Africa for false codling moth, California for Pink Bollworm Moth and Light Brown Apple Moth, not to mention the multitude of countries that have sterile insect release programs for various fruit flies. Mating Disruption is used all over the world for many different pests in many different commodities including orchards and vineyards. It is estimated over 80% of Washington apple and pear blocks are treated with mating disruption annually.

## **10. There's other pests orchardists have to control too besides codling moth, like drosophila, etc.**

At the present time the mandate of the current program is the area-wide management of codling moth. The program Board of Directors is investigating the feasibility of expanding the mandate to provide all or some of the services to manage other pests using the latest technologies. However future changes are dependent on maintaining low codling moth levels and keeping the area-wide program affordable for growers. No changes will be made without a thorough investigation of the costs and benefits, and the consent of all partners.

## **11. How can I contact the SIR Program?**

Visit the SIR Program web site at [www.oksir.org](http://www.oksir.org), or call toll free **1-800-363-6684**.

Kelowna Office:  
1450 KLO Road  
Kelowna, BC V1W 3Z4  
Tel: (250) 469-6187  
Fax: (250) 762-7011  
Toll Free: 1-800-363-6684

Osoyoos Office/Facility:  
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Osoyoos, BC V0H 1V5  
Tel: (250) 495-2555  
Fax: (250) 495-6439

Penticton Office:  
272 Dawson Ave  
Penticton, BC V2A 3N6  
Tel: (250) 490-3572  
Fax: (250) 492-3588

Vernon Office:  
8B, 100 Kalamalka Lake Rd  
Vernon, BC V1T 9G1  
Tel: (250) 558-1170  
Fax: (250) 558-1143