OKSIR

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The Okanagan-Kootenay Sterile Insect Release Program:

20+ Years of successful area-wide control for codling moth in pome fruit orchards.

Cara Nelson[1], Melissa Tesche[1], Hugh Philip[2]

[1]Okanagan-Kootenay Sterile Insect Release Program, Kelowna, BC, [2]IPM2GO Consulting, Kelowna, BC

Good for the environment, good for the community, and good for the economy.

The OKSIR Program operates on the mandate of keeping codling moth below economic levels through the delivery of an efficient, effective, and sustainable area-wide IPM program.

The OKSIR Program provides codling moth control for 3,416 hectares of pomes in the fruit growing region of south-central British Columbia, Canada (~600 km^2). Orchards and residents share the neighbourhoods, with high potential for conflicts over chemical sprays. Additionally, thousands of urban host trees dot the area's ditches and backyards, with potential to harbour source populations that, if uncontrolled, could continually re-infest nearby orchards.

First established in 1991, the Program is now a partnership of four Regional District governments with its authority rooted in provincial legislation.

The provincial legislation is one of the keys to the success of the Program, as it sets out the method of cost-sharing for the Program and gives the Program authority to enter properties for control efforts. The Program funding is split, with 60% of the revenues from property taxes paid by general taxpayers, and 40% generated by a parcel tax levied on a planted acreage basis. The program operates with an annual budget of ~$3.2 million CDN.

The Program is governed by a Board of Directors with elected representatives from each of the Regional District local governments as well as three grower representatives nominated by the BC Fruit Grower's Association. Technical support comes from an Operational Advisory Committee.

The OKSIR Program owns and operates a state-of-the-art mass rearing facility with the capacity to produce 780 million sterile moths each year.

Our comprehensive IPM services include:

Mandatory Area-wide Control

Sterile insect release is the primary method of control, with additional tactics used if needed.

Monitoring

Population monitoring is done for all commercial orchards in the region, as well as all urban host trees in the 200m buffer zone around orchards.

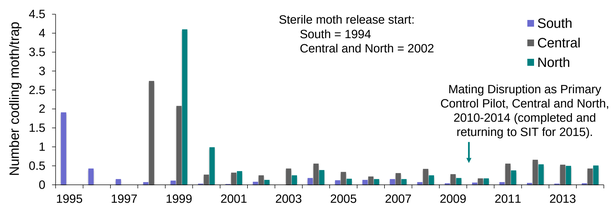
Enforcement

When efforts to work with tree owners fail, the Program is authorized to issue and enforce orders for tree clean up.

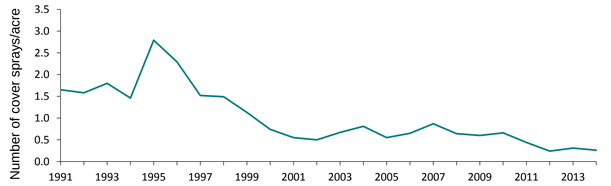
Education

Field staff work tirelessly with tree owners and growers to help them understand and control for codling moth.

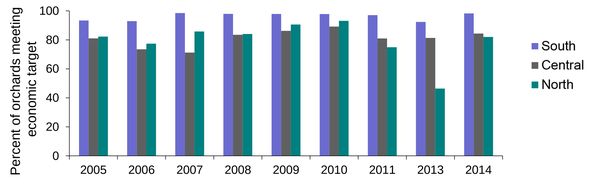
Averaged across all regions of the Program, wild codling moth populations have decreased by 94%.



The amount of pesticides used in the valleys for codling moth control has been reduced by 96%.



Where the program has been operating longest (south region), 98% of the orchards meet the economic target of <0.2% fruit damage from codling moth.



With area-wide sterile insect control, the benefits to the grower, and to society as a whole, ($2.50) are more than double the cost ($1.00)[1].

A 2014 benefit-cost analysis showed that under our funding structure, the producer pays 65% less than they would for codling moth control if the Program were not in place[1], and the level of control obtained under the Program would be very difficult to achieve without the area-wide structure that keeps source populations in check.

Our pome growers and other regional commodity groups recognize the value of the Program. Industry groups have been calling for OKSIR to expand to control additional pome pests and use the area-wide structure to provide IPM for other crops.

[1]Cartier, L. 2014. A Benefit-cost Analysis of the Okanagan Kootenay Sterile Insect Release Program. Okanagan School of Business, Okanagan College. Kelowna, BC, Canada.

OKSIR is looking to partner with other regions looking to adopt area-wide and/or sterile insect IPM programs. Connect with us!

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