



# Re-evaluation Decision Document

RRD2004-02

## Re-evaluation of Codling Moth Pheromone

The purpose of this document is to communicate the re-evaluation decision for codling moth pheromone in Canada to registrants, pesticide regulatory officials and the Canadian public.

The Pest Management Regulatory Agency (PMRA) is re-evaluating all pesticides, both active ingredients and formulated end-use products, that were registered prior to 31 December 1994 to ensure that their continued acceptability is examined using current scientific approaches. Regulatory Directive DIR2001-03, *PMRA Re-evaluation Program*, presents the details of the re-evaluation activities and program structure.

*(publié aussi en français)*

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## 1.0 Background

Codling moth pheromone was first registered in Canada on a temporary basis in 1993. There is currently one technical grade active ingredient (TGAI) and one end-use product registered; both received full registration status in 1998.

The end-use product, Isomate-C Plus Codling Moth Pheromone, a straight-chained lepidopteran pheromone (SCLP), consists of a blend of three active components: (E,E)-8,10-dodecadien-1-ol, 1-dodecanol, and 1-tetradecanol. This pheromone is a synthetic replica of the naturally occurring sex pheromone that is produced and released by the female codling moth. The product is registered for use in apple and pear orchards in British Columbia, and is applied by attaching flexible polyethylene tube dispensers that contain the pheromone to the tree branches.

Pheromones work in the following manner:

- they act by modifying the behaviour of the pest species rather than killing it;
- they are more target specific than conventional insecticides;
- they are used at concentrations close to those occurring in nature; and
- they dissipate rapidly.

For these reasons, it is expected that most pheromone products will pose low potential risk to human health and the environment compared to conventional pesticides.

The PMRA reviewed the data provided in 1993 by the registrant for their new product submissions, and temporary registration was granted for both the TGAI and end-use product. The conclusions of this assessment were published in Decision Document E94-01, *Isomate-C (Codling Moth Pheromone)*. On 29 September 1997, data requirements were reduced for pheromones relative to conventional pesticides according to Regulatory Directive DIR97-02, *Guidelines for the Research and Registration of Pest Control Products Containing Pheromones and Other Semiochemicals*.<sup>1</sup> The original assessment was revisited in 1998, and it was concluded that in light of DIR97-02, the data for both the TGAI and end-use product were complete, resulting in conversion from temporary to full registration for both products.

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<sup>1</sup> Directive DIR97-02 was recently replaced by Regulatory Proposal PRO2002-02 as a result of international harmonization activities on data requirements for pheromones involving countries in the Organisation for Economic Co-operation and Development (OECD).

## **2.0 Regulatory decision**

The data that were submitted for the registration of both the TGAI and end-use product of codling moth pheromone are considered to meet the current data requirements for SCLPs. Scientific approaches used to assess this data and to draw conclusions on the safety, merit and value of codling moth pheromone are also considered to meet current standards.

Based on this, the PMRA has determined that the codling moth pheromone is expected to pose minimal risk to human health and the environment and is acceptable for continued registration. No further regulatory action or re-evaluation is required at this time, and the re-evaluation of codling moth pheromone is considered complete.