Health Canada Santé Canada

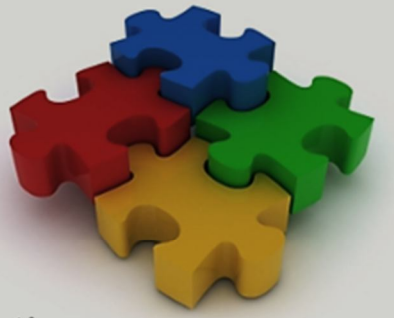
Canada

Pest Management Regulatory Agency (PMRA) Update

Laura Feeny
Regional Pesticide Officer
January 28, 2016
IEPMA

YOUR HEALTH AND SAFETY... OUR PRIORITY.

Overview



- What is the PMRA?
- Imidacloprid publication
- Backyard fruit tree application
- New registrations and label expansions
- Residential turf applications and PPE
- Burger and beer night

PMRA = Pest Management Regulatory Agency

What is the PMRA?

3 levels of government that regulate pesticides

Federal

Provincial

Municipal

PMRA = Pest Management Regulatory Agency

What is the PMRA?

Division of roles & responsibilities

Federal: PMRA

- Regulate importation, sale, distribution, fabrication and use
- Registration and re-evaluation of pest control products
- Scientific evaluation of impacts on health and environment
- Value assessment
- Compliance and enforcement

Provincial: MoE

- Compliance and enforcement
- Transport, sale, use, storage and disposal
- Training, certification and licensing of applicators and vendors
- Spills and accidents

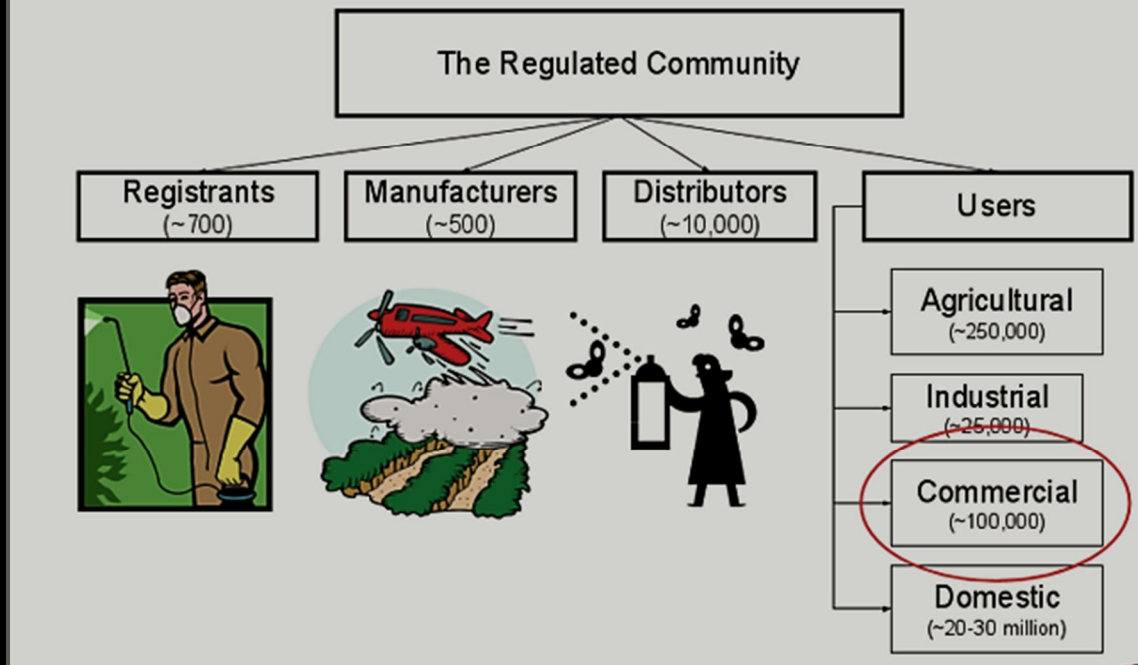
Municipal

- Bylaws: municipalities may have the power to set further conditions on the use of pesticides

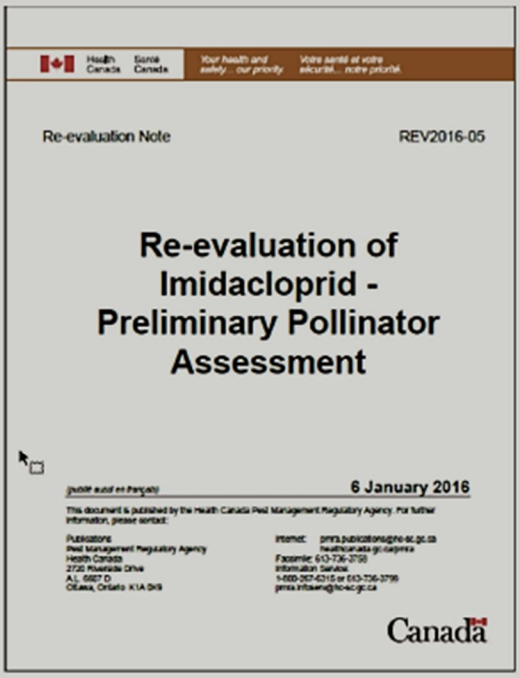
PMRA = Pest Management Regulatory Agency MOE = Ministry Of The Environment

What is the PMRA?

Where do you fall?



Imidacloprid – Preliminary Pollinator Assessment



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Re-evaluation Note REV2016-05

Re-evaluation of Imidacloprid - Preliminary Pollinator Assessment

(publié aussi en français)

6 January 2016

This document is published by the Health Canada Pest Management Regulatory Agency. For further information, please contact:

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Canada

- January 2012, PMRA announced a re-eval of neonics including:
  - → Clothianidin
  - → Thiamethoxam
  - → Imidacloprid
- Collaboration between the PMRA, the US EPA and the California Department of Pesticide Regulation
- Published Jan. 6, 2016
- Contact me for a copy

PMRA = Pest Management Regulatory Agency

Pollinator assessment

Imidacloprid

- Trade names you may recognize
  - → Merit (turf)
  - → Admire (fruit trees)
  - → Alias (fruit trees)
- Broad spectrum systemic insecticide (moves upward in the plant)
- Neonicotinoid, group 4
- Concerns over toxicity to bees

Pollinator assessment

What was considered in the prelim assessment?

- Considers all relevant agricultural and outdoor uses including:
  - → Foliar applications
  - → Soil applications
  - → Seed treatments
  - → Greenhouse
  - → Tree Injection
- Data considered include both registrant submissions and open scientific literature. (Additional data: Dec. 2016)



Pollinator assessment

Tiered approach to data

Tier 3

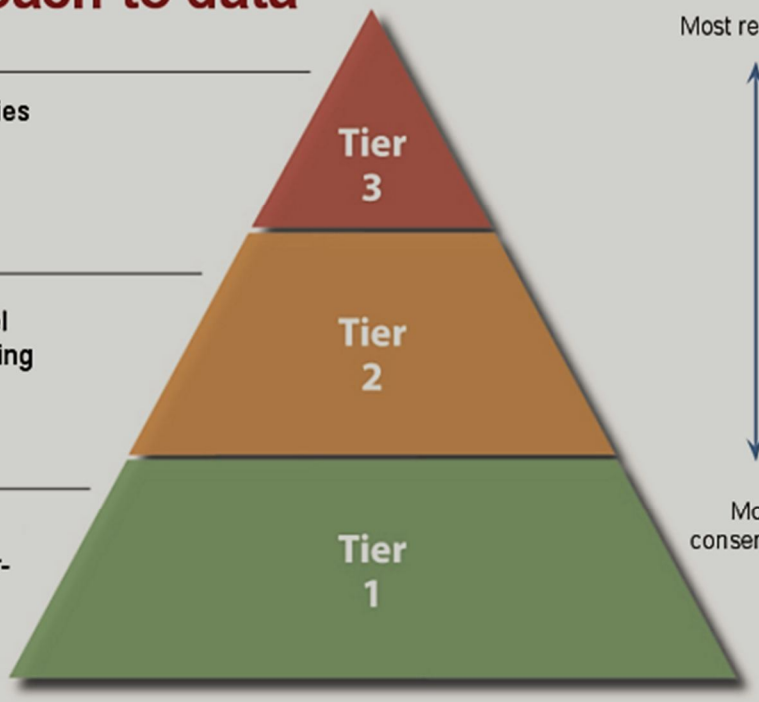
Field study: colony studies conducted under actual pesticide use patterns

Tier 2

Semi-field: colony tunnel studies and colony feeding studies

Tier 1

Laboratory studies with conservative (likely over-estimated) exposure estimates



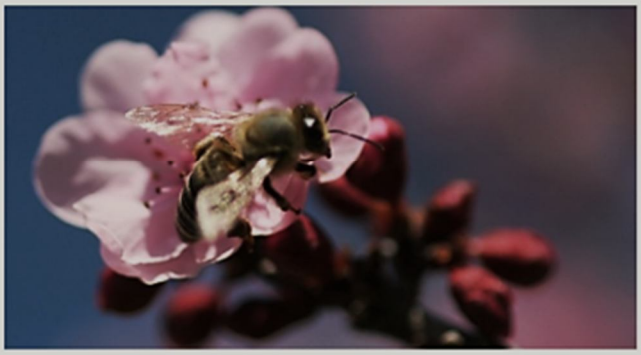
Most realistic

Most conservative

Pollinator assessment

Considerations

- When is the crop harvested?
- Does the crop produce pollen/nectar?
- Are the crops attractive to bees?
  - If not, there is minimal risk
- If attractive, when does the application occur?
  - Pre-bloom
  - During-bloom
  - After bloom



Pollinator assessment

Overall Conclusions – FOLIAR APPLICATIONS

- Data suggests minimal risk to bees when considering crops that:
  - → Are harvested prior to bloom
  - → Do not have pollen or nectar sources
  - → Are unattractive to bees
- For foliar applications to turf, label mitigation (watering-in requirement) adequately minimizes risk
- Applications during-bloom to bee-attractive crops are expected to pose a risk to bees, however label restrictions prohibiting or reducing applications to bee-attractive crops adequately minimize risk
- Pre-bloom application may pose a risk - there is some uncertainty (cotton/citrus data)
- Data suggests minimal colony-level risk for post-bloom applications to tree fruit when applied early
- Data suggests minimal risk to bees when applied to post-bloom to seasonal crops

Pollinator assessment

Overall Conclusions – SOIL APPLICATIONS

- Label requirements (watering-in) adequately minimizes risk to bees associated with use on turf soil application

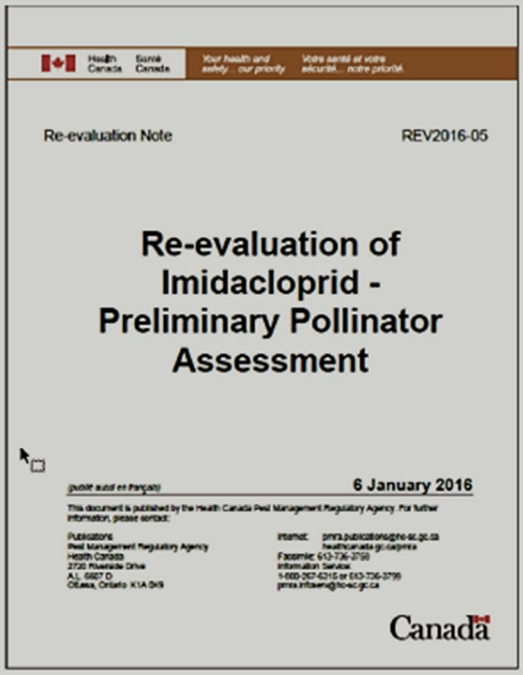
Overall Conclusions – SEED TREATMENTS

- Potential risk to bees is not indicated
- Dust concerns have been addressed by new lubricants and label restrictions required as of 2014

Overall Conclusions – NON-*Apis* BEES

- Information available for bumble bees, mason bees, leafcutting bees and stingless bees
- Available information suggests effects are similar to honey bees
- Typically no notable effect for Canadian relevant use patterns

Imidacloprid – Preliminary Pollinator Assessment



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Canada

Backyard Fruit Tree Applications

Common issue – Communication

1. No notification or information given after application
2. Information given to property owner but not tenant
3. Incorrect or no information given regarding PHI
4. Confusion around varieties with varying ripening times

Backyard fruit tree applications

Leave information about:

- What was sprayed
- For which pest
- When it is safe to harvest (PHI)

PHI = Pre-Harvest Interval

Backyard fruit tree applications

Leave information about:

- What was sprayed
- For which pest
- When it is safe to harvest (PHI)

Please Note: PHI is different than the REI

The PHI is the amount of time that must pass between the pesticide application and harvest of the fruit.

PHI = Pre-Harvest Interval REI = Re-Entry Interval

Where do I find the PHI?

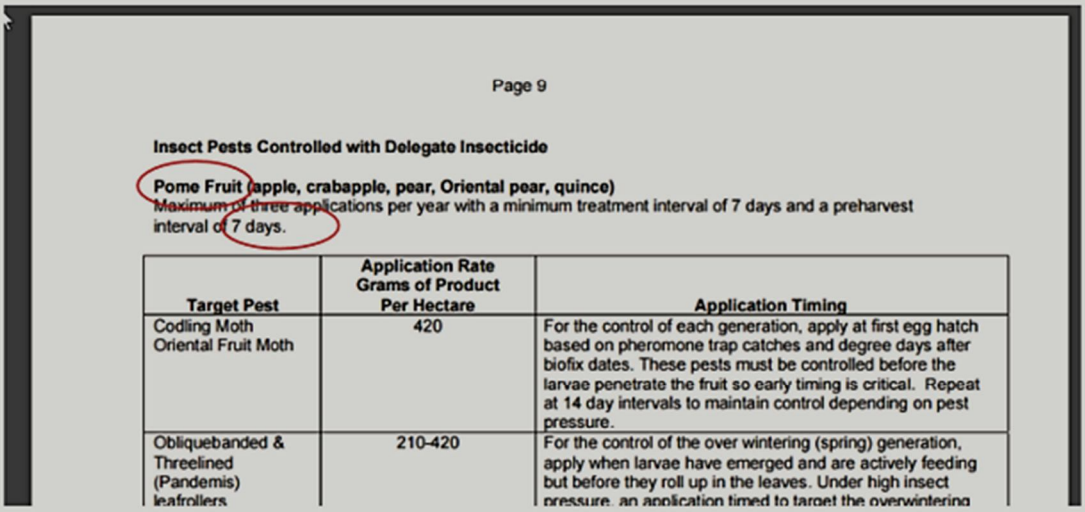
On the label.

PHI = Pre-Harvest Interval

Backyard fruit tree applications

Where do I find the PHI?

1. **Correct crop**
2. **Preharvest interval**



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Insect Pests Controlled with Delegate Insecticide

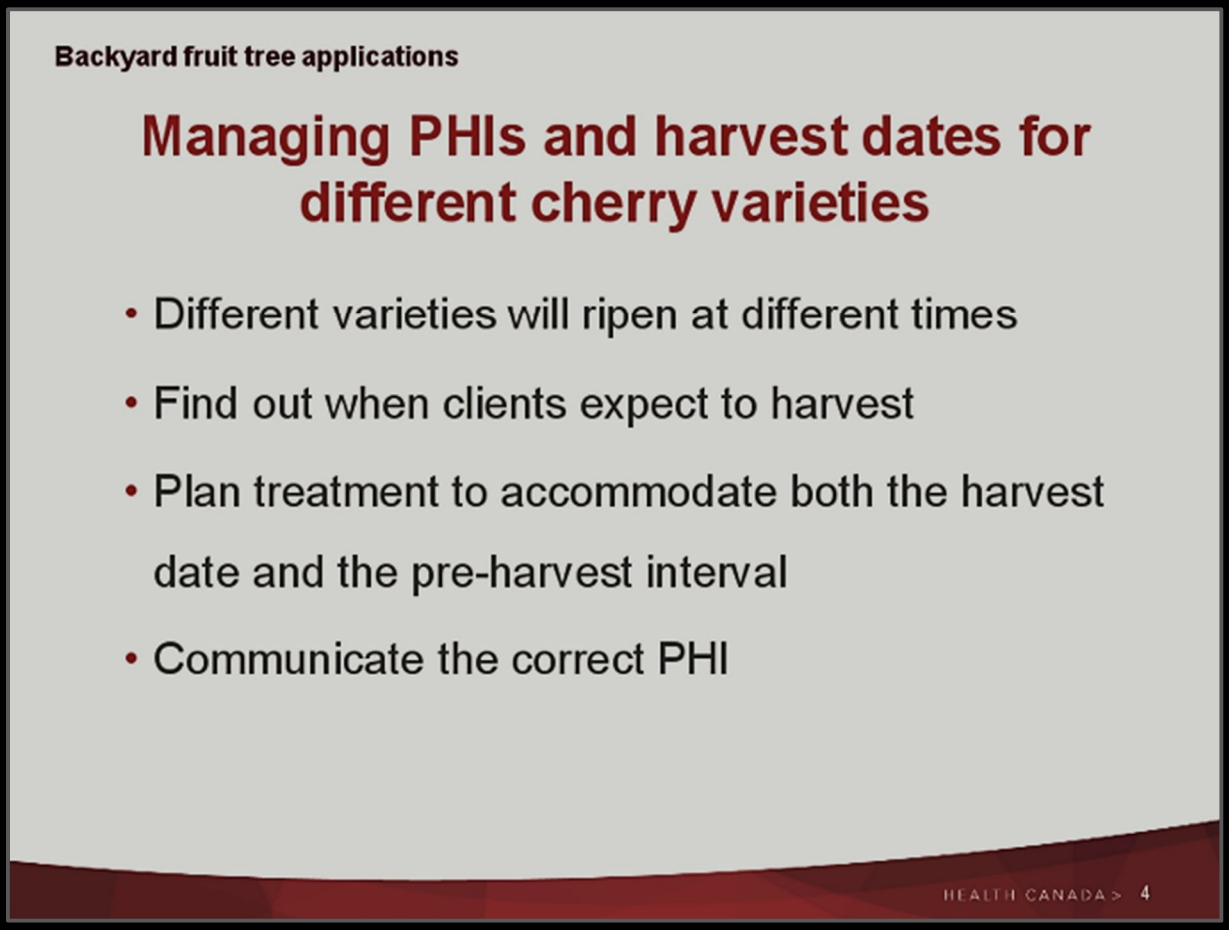
Pome Fruit (apple, crabapple, pear, Oriental pear, quince)
Maximum of three applications per year with a minimum treatment interval of 7 days and a preharvest interval of 7 days.

Target Pest	Application Rate Grams of Product Per Hectare	Application Timing
Codling Moth Oriental Fruit Moth	420	For the control of each generation, apply at first egg hatch based on pheromone trap catches and degree days after biofix dates. These pests must be controlled before the larvae penetrate the fruit so early timing is critical. Repeat at 14 day intervals to maintain control depending on pest pressure.
Obliquebanded & Threelined (Pandemis) leafrollers	210-420	For the control of the over wintering (spring) generation, apply when larvae have emerged and are actively feeding but before they roll up in the leaves. Under high insect pressure, an application timed to target the overwintering

PHI = Pre-Harvest Interval

Here's a great example:

"We have just applied _____ to your cherry trees. It is used to control _____ . Do not harvest or eat your cherries for _____ days. Your trees will be sprayed again in _____ days. If your cherries are ripe at the time of the next spray and you do not want this next spray, call the office and cancel the spray or mark the trees in your yard that you do not want sprayed."



PHI = Pre-Harvest Interval

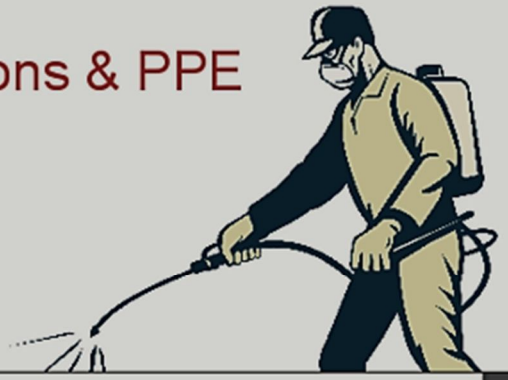
Backyard Fruit Trees – Label expansions

- Delegate label expansion includes:
  - cherry fruit fly (cherries)
  - spotted wing drosophila (peach & nectarine)
- Purespray Green Spray Oil 13E includes:
  - rosy apply aphid (apple)
- Actara 25WG, Clutch 50 WDG, Malathion 85E
  - labels expanded to include brown marmorated stink bug
  - not currently in the region

Backyard Fruit Trees – New registrations

- Sivanto Prime Insecticide (PCP# 31452)
  - flupyradifurone
  - leafhoppers, aphids (not WAA), scale, pear psylla (pome)
  - aphids in nut trees
  - mixing with oil could cause injury to certain pears
- XenTari WG Biological Insecticide (PCP# 31557)
  - *Bacillus thuringiensis*
  - against obliquebanded and fruittree leafrollers on pome fruits
  - some leps in ornamentals

Residential Turf Applications & PPE



Trillion
PPE requirements:

Personal Protective Clothing and Equipment:

When mixing/loading, wear coveralls over a long-sleeved shirt, long pants, chemical-resistant gloves, socks and shoes and protective eye wear (face shield or safety glasses). Rinse gloves before removal.
Coveralls should also be worn when open pouring from containers. When handling more than 1395 L per day of Nufarm Trillion Turf Herbicide, workers must also use a closed system.

When applying the dilute spray solution or during clean-up or repairing equipment, wear coveralls over a long-sleeved shirt, long pants, chemical-resistant gloves, socks and shoes. Rinse gloves before removal. Gloves are not required during application when applicator is in an enclosed tractor.

PPE = Personal Protective Equipment

IPM = Integrated Pest Management

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