Risky Pesticides

Who do you trust?

Mounting evidence from around the world indicates we are at a critical tipping point in pollinator conservation due to loss of diversity and habitat, weather extremes and over use of pesticides in farm and urban landscapes. Some of these pesticides are systemic and remain active for up to three years.

Research about pesticides by entomologists and plant biologists differs greatly from research and labels provided by chemical manufacturers – making the wrong choice can be risky business.

Risk: Contribute to the tipping, loss of pollinators

Ultimate Risk: Loss of pollinator services essential to our food and health

Healthy pollinators are essential to healthy communities and our ecosystem. Is it really worth the risk to sell or use these products in your community?



What pesticides do the most harm to pollinators?

Current research is focusing on <u>Neonicotinoids</u>, including acetamiprid, clothianidin, imidacloprid, nitenpyram, nithiazine, thiacloprid and thiamethoxam. Neonicotinoids are systemic pesticides, which translocate into a plant's vascular system from point of absorption (leaf or root) to sites of action.

Systemic Pesticides

Neonicotinoids

- Imidacloprid
- Clothiandin
- Thiamethoxam
- Acetamiprid
- Dinotefuran
- Foliar spray for turf and ornamental flowers, trees, and shrubs
- Soil drench for garden fruits and vegetables, and ornamental flowers, trees, and shrubs
- Trunk injection for trees
- Granules for turf and ornamental flowers, shrubs, or trees

Granules for turf and ornamental flowers, shrubs or trees.

Foliar spray for garden fruits and vegetables, and ornamental flowers, trees, and shrubs.

Foliar spray for garden fruits and vegetables; ornamental flowers, trees, and shrubs

- Foliar spray for garden fruits and vegetables, and ornamental flowers, trees, and shrubs
- Granules for turf and ornamental flowers, shrubs or trees
- Soil drench for ornamental flowers, trees, and shrubs

(Product used in Target parking lot bee kill, Wilsonville, Oregon, June, 2013)

Other Systemic Pesticides:

FIPRONIL

- Used as a foundation spray to protect structures from insects.
- Misuse of this product destroyed three Minneapolis bee hives in September, 2013.

Contact Pesticides

Sprayed on plants or directly on insect pests. More info to follow on contact pesticides and their toxicity to pollinators.

A Chemical Reaction: The Story of a True Green Revolution

"In 1984, Dr. June Irwin, a dermatologist, noticed a connection between her patients'

health conditions and their exposure to chemical pesticides and herbicides. With relentless persistence she brought her concerns to town meetings to warn her fellow citizens that the chemicals they were putting on their lawns posed severe health risks and had unknown side effects on the environment.

Dr. Irwin's persuasive arguments and data to back her findings eventually led the town of Hudson (Quebec, Canada) to enact a bylaw that banned the use of all chemical pesticides and herbicides."

Conflicting articles and research:

 $\frac{http://pesticidetruths.com/2013/07/18/exposedjenniferdomoulinhudsonque becenvironmental agent provides proof of law nesticided angers/$

 $\underline{http://www.scribd.com/doc/213870545/OntarioBee Health Working Group Final Report March-2014}$

http://www.scribd.com/doc/213870541/ObaBee Health Report 2014 Comments Press Release bhwgreport fin

 $\underline{http://www.scribd.com/doc/212654546/BeePesticideImidaclopridFriendsOfEarthGardenersBewareReport}$