



Protecting the Pollinators

Purchasing Strategies for Protecting Bees and Other Pollinators

July 15, 2015

Welcome

- **Who We Are**
 - **Responsible Purchasing Network**
 - International network of organizations committed to sustainable purchasing
 - We provide a wide range of member services and consulting support to help organizations make every purchase matter
 - **Friends of the Earth**
 - world's largest federation of grassroots environmental groups, with a presence in 74 countries.
 - Friends of the Earth works to defend the environment and champion a more healthy and just world.
- **Who You Are**
 - Over 250 people representing a broad range of public, private and non-profit organizations



Webinar Objectives

- **Share the latest scientific findings about neonicotinoids** and their impact on pollinators.
- **Learn what leading organizations are doing** to make their landscape and pest management efforts **pollinator friendly**.
- **Learn how your organization can use its purchasing policies and practices to protect pollinators.**
- **Highlight resources available to help organizations like yours** adopt pollinator-friendly purchasing policies and practices.

Questions? Comments?

- Submit questions and comments by typing them into the Questions Box in your GoToWebinar control panel on the left side of your screen.
- We will compile them through the webinar and answer as many as time allows during the Q&A portions of the webinar.





What's Happening with Bees and Other Pollinators?

Tiffany Finck-Haynes

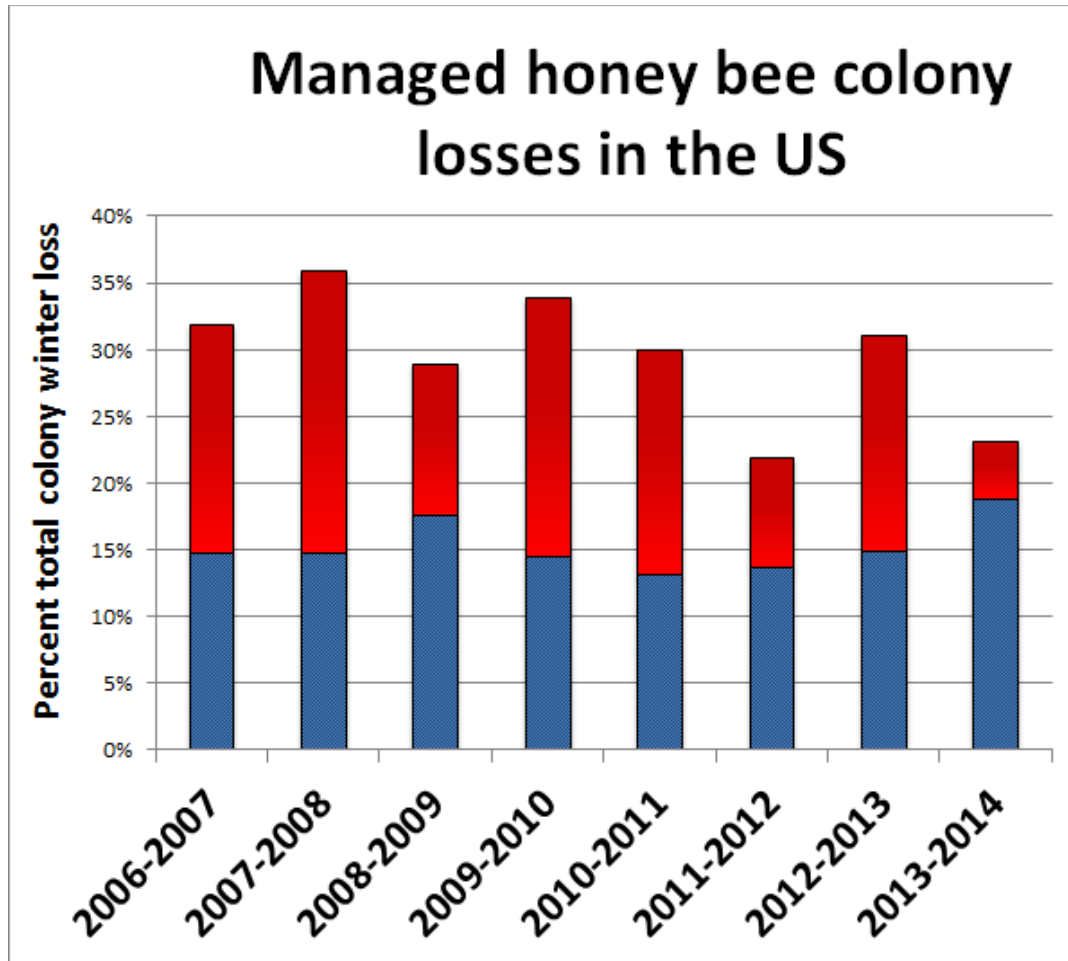
**Food Futures Campaigner
Food and Technology Program**

One in Three Bites of Food Dependent On Honey Bees

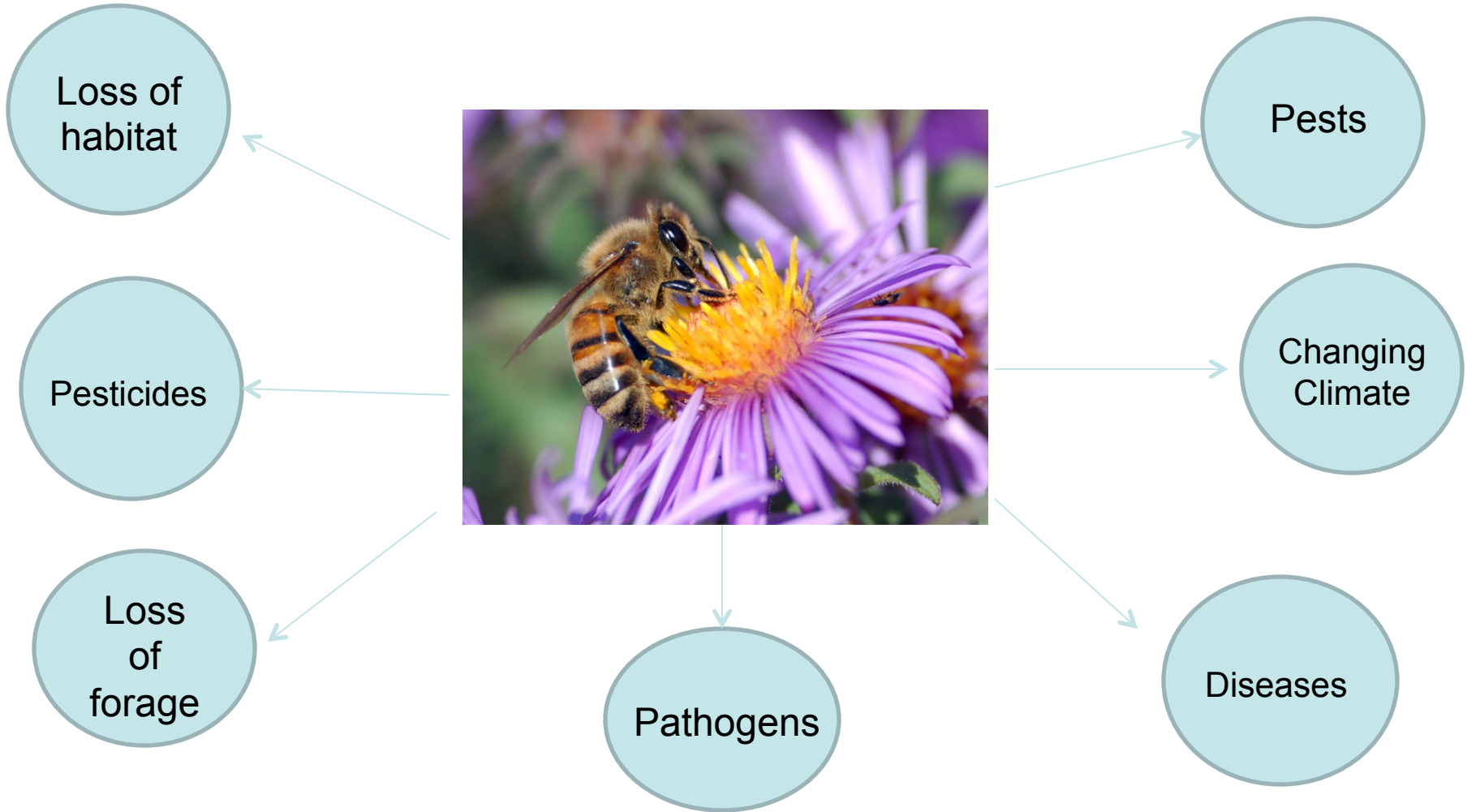
- \$15 billion
U.S. economy
- \$217 world
economy



Bees Dying at Record Numbers

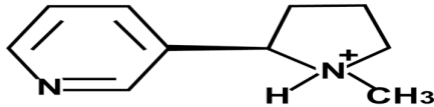


Multiple Factors Contribute

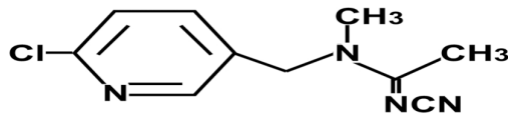


Neonicotinoids

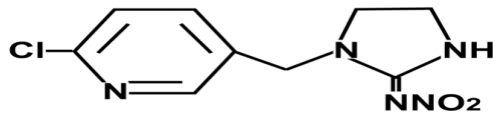
A. Nicotine





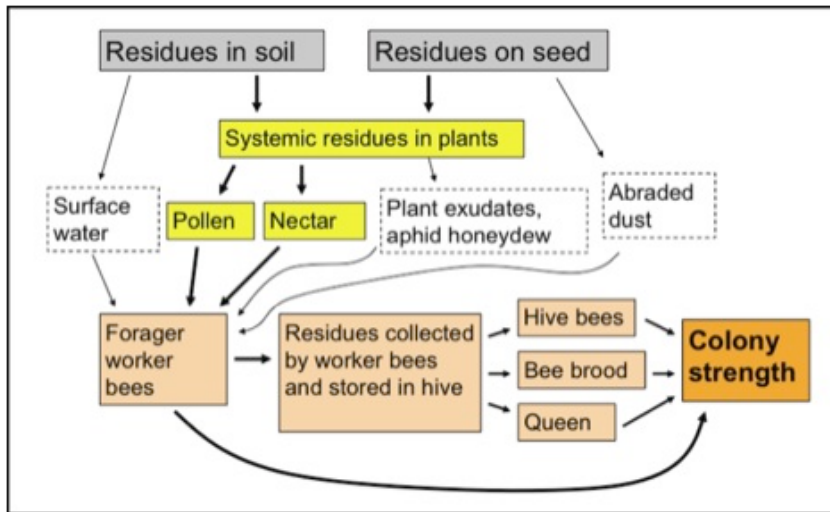
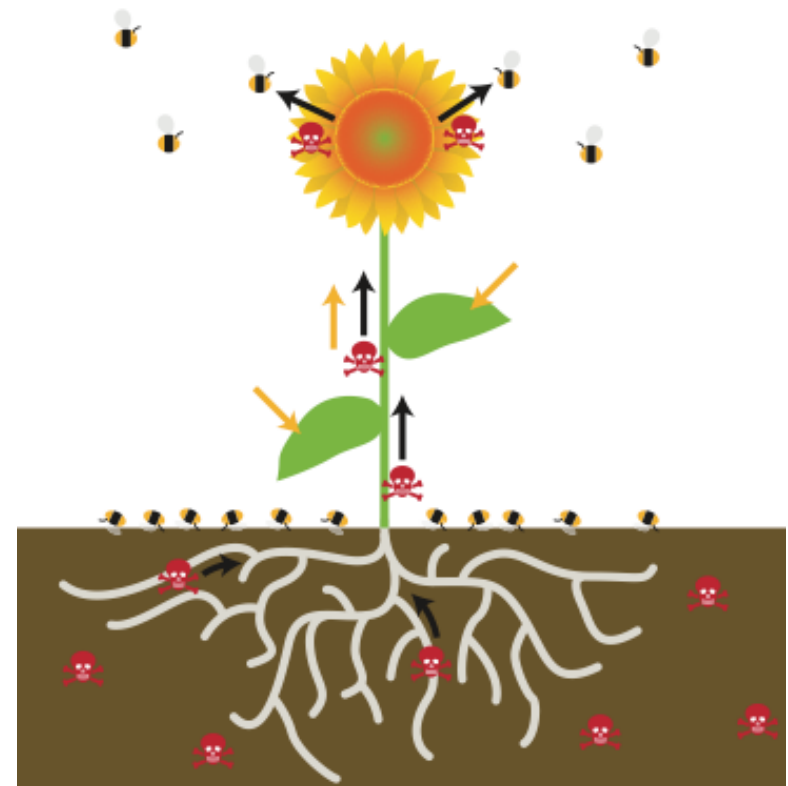
B. Neonicotinoid ACE



C. Neonicotinoid IMI



 Movement of systemic pesticides absorbed by soil
 Movement of pesticide residues from foliar sprays



Where are Neonics Found?



In our backyards



140 crops+ treated with neonics

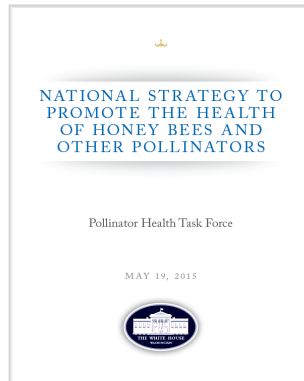
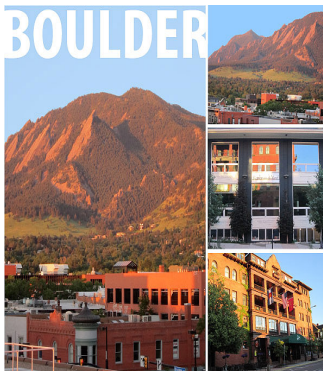
Neonics Don't Only Impact Bees...

“Neonicotinoids are 5,000 times more toxic than DDT.”
Dave Goulson, University of Sussex.

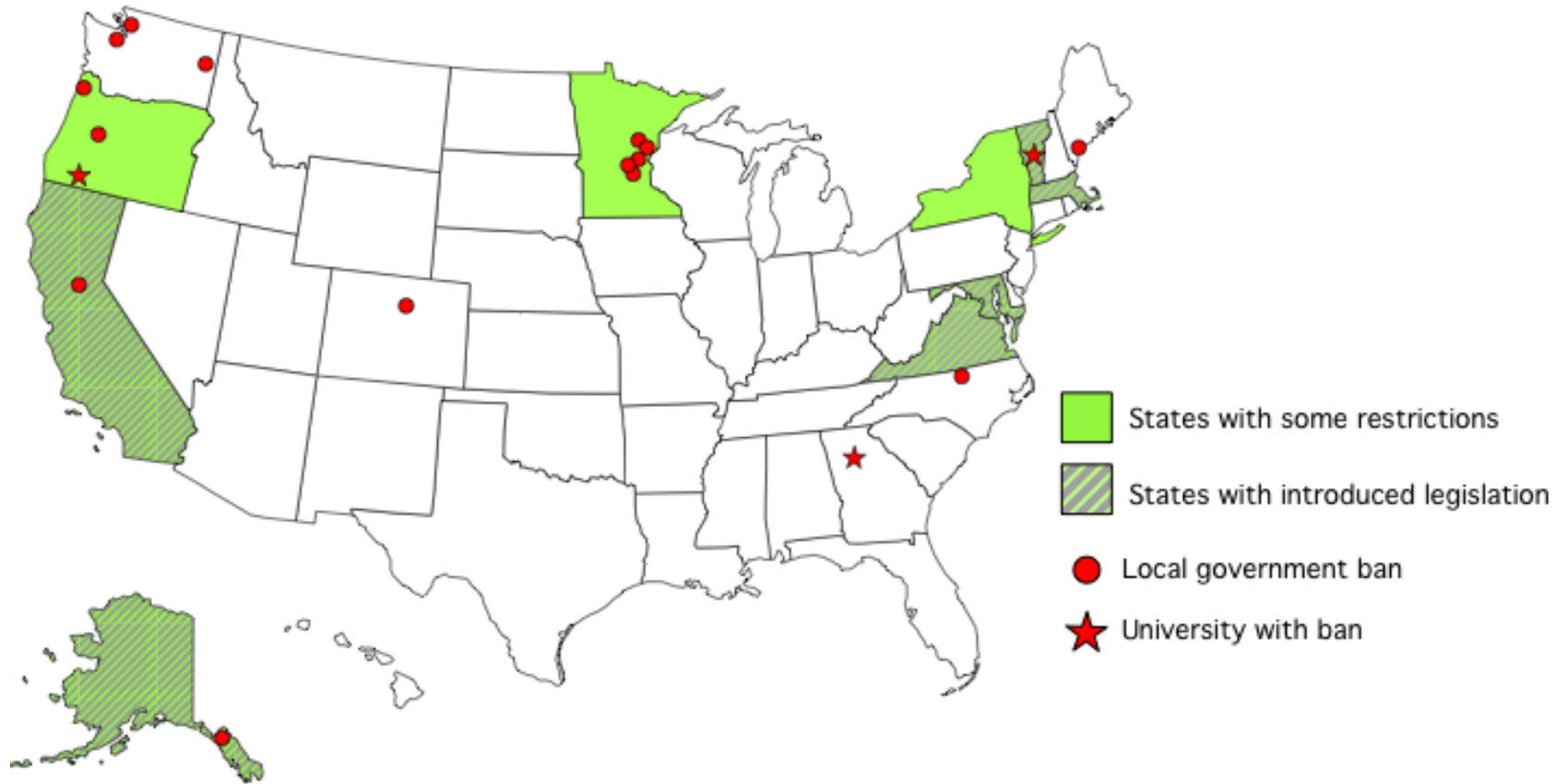


Cities, States, Federal Agencies and Universities Moving Away From Neonics

- **Shifting markets**
 - 20+ garden retailers, wholesale nurseries and garden centers
- **Shifting policy**
 - 20+ local, state and federal policies passed



Neonicotinoid Restrictions In the US



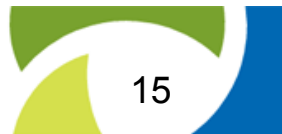
Poll Question #1:

How aware is your organization of the need for pollinator protection?



Purchasing Strategies to Protect Bees and Other Pollinators

Rebecca Calahan Klein
Strategist, RPN



Institutional Purchasers Have a Big Impact...and Can Make Big Change

- In aggregate, government agencies, educational institutions, and businesses spend billions on landscaping and pest management each year.
- These activities use significant amounts of chemicals, including neonicotinoids.
- Many options exist to make your organization's purchasing policies and practices pollinator friendly.



Becoming More Bee Friendly

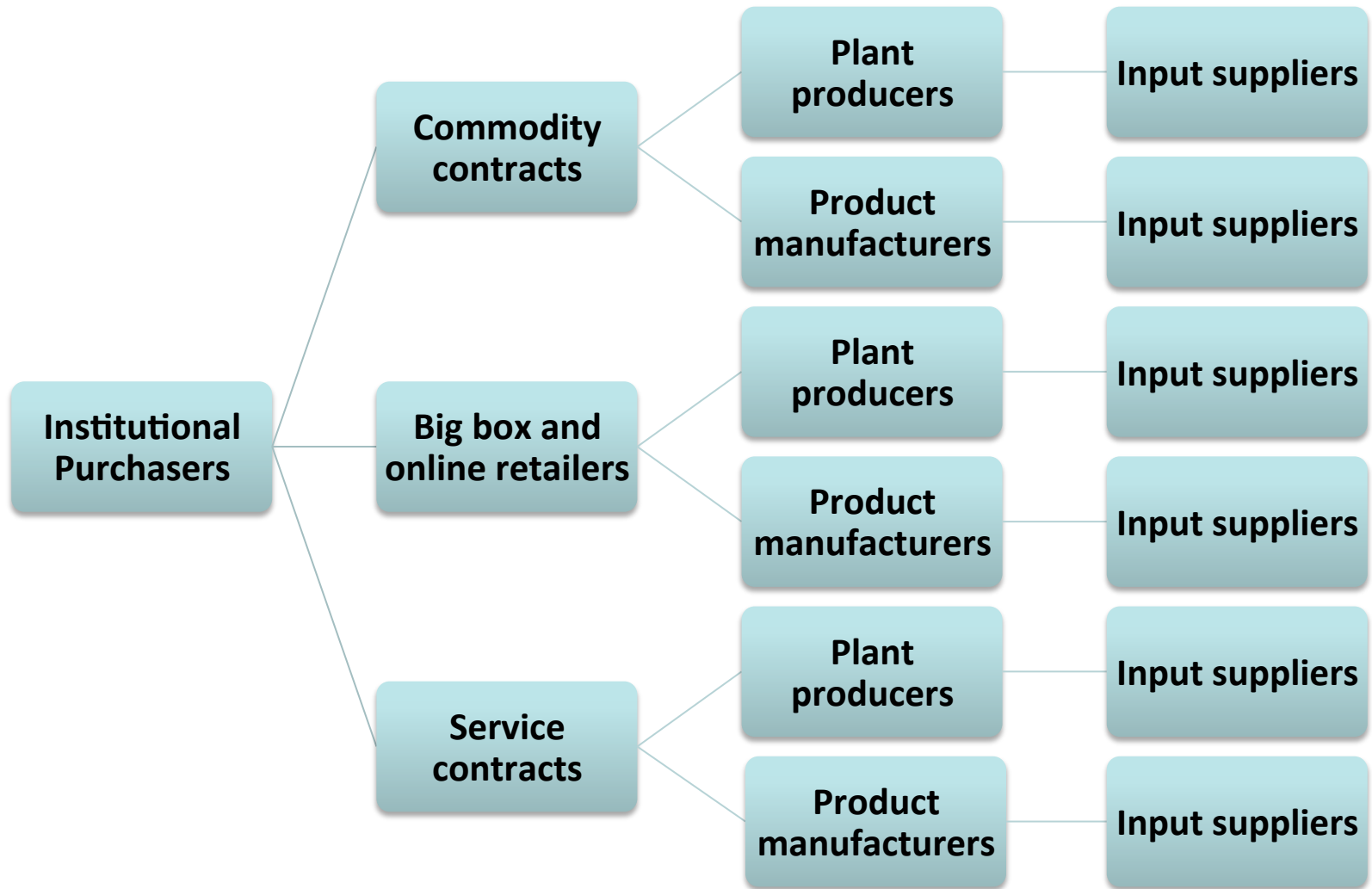
- Know what pesticides are used in your operations and supply chain
- Articulate a vision for pollinator protection
- Put policies in place
- Educate your employees and suppliers
- Green your contracts and your spot purchases
- Measure and report results



Know What Is Used In Your Operations and Supply Chain



Map Use Through Your Supply Chain



Put Policies in Place to Guide Action

- IPM policy with restricted chemicals list
- Neonicotinoid use policy
- Bee-friendly habitat creation and restoration policy



Make Your Purchases Pollinator Friendly

- Encourage your employees to make P-card purchases at bee-friendly retailers
- Develop and incorporate bee-friendly specifications for landscaping and pest management contracts including
 - No neonicotinoid use
 - No treated seeds, starts or plugs
 - Neonic-free plants, shrubs and trees
 - No products containing neonics
 - Or highly restrictive use and labeling
 - Strong IPM practices in both instances
- Do ongoing training of employees and suppliers
- Monitor and report performance results



Poll Question #2:

Is your organization considering or taking action on pollinator protection?



Taking Action

Lessons Learned

From Innovators in the Field



SF Environment

Our home. Our city. Our planet.

A Department of the City and County of San Francisco

Pollinators, Pesticides, and Precaution in San Francisco

Chris Geiger, Ph.D

City and County of San Francisco





San Francisco Reduced-Risk Pesticide List for City Properties

How to Use this List

The following list includes pesticide products approved for use under the SF Integrated Pest Management (IPM) Ordinance (adopted 10/96, Chapter 3, SF Environment Code).

This pesticide list should not be used in place of an IPM program. Pesticides should be the last resort, when all other tactics have failed (i.e., sanitation improvements, pest prevention, non-chemical management measures).

This list is for institutions, not for homes. Many pesticides on the list were added for specialized purposes not found in residential settings. To find out how homeowners can use few or no pesticides to manage common pest problems, visit: SFApproved.org/420-Pest-Management.

City Dept. staff or contractors: Apply for exemption to use a pesticide that is:

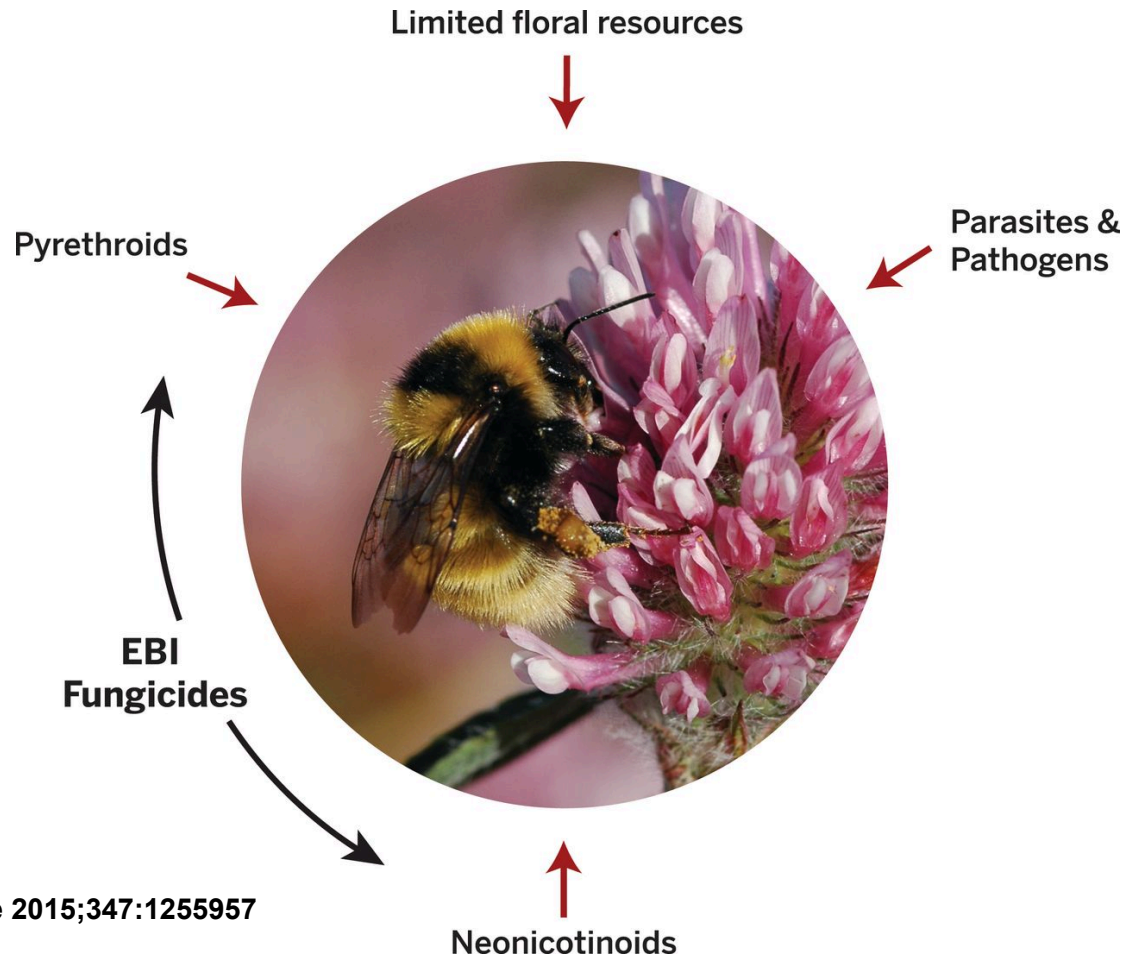
- ✓ **Not** in the SF Reduced-Risk Pesticide List –OR–
- ✓ **In** the SF Reduced-Risk Pesticide List **but used differently than described** in the *Pesticide Limitations* column.

The IPM Coordinator for your City Dept. must:

1. **Fill out this [Pesticide Exemption Request](#).** Allow at least 2 days for your request to be processed. SF Dept. of Environment will only grant exemptions in cases of:
 - a. Well-documented need for the pesticide and when all other alternatives have been tried or deemed impractical –OR–
 - b. For trial use of new reduced risk products
 - c. More questions? Contact Chris.Gejaer@sfgov.org and call 415-355-3759.
2. **Justify your use of a pesticide at an annual public hearing,** if you used a pesticide:
 - a. That SF Dept. of Environment approved for exemption
 - b. That is higher risk and listed as *Most Limited Use* in the SF Reduced-Risk Pesticide List

Multiple interacting stressors drive bee declines.

Both wild and managed bees are subject to a number of important and interacting stressors.



Dave Goulson et al. Science 2015;347:1255957

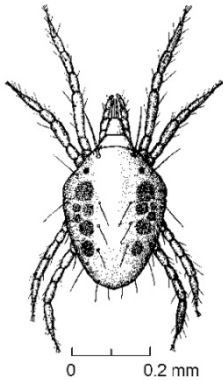




**Treat with
pesticides**

Repeat

**Choose
pesticide
labeled for this
pest**



**Best guess
on pest i.d.**



**Reduced-risk
chemical controls
(last resort)**



**Mechanical, cultural
controls**

Monitor pest

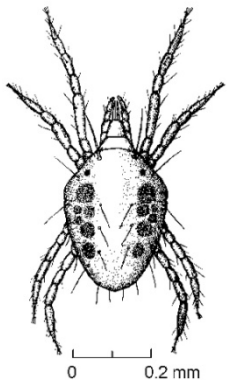
**Decide on
threshold**

**Educate
public**

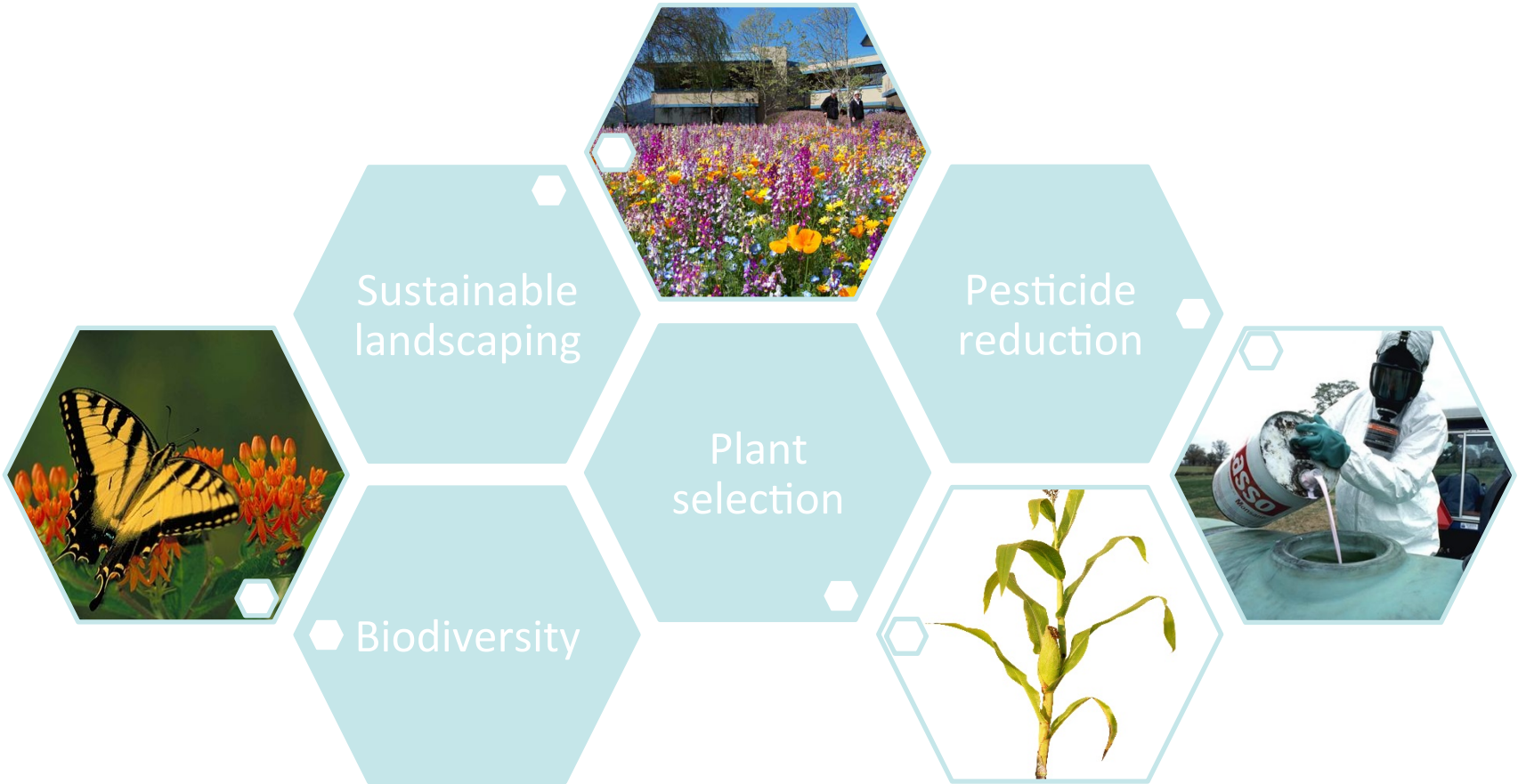
**Prevent pest
(design, remove food,
plug holes etc.)**

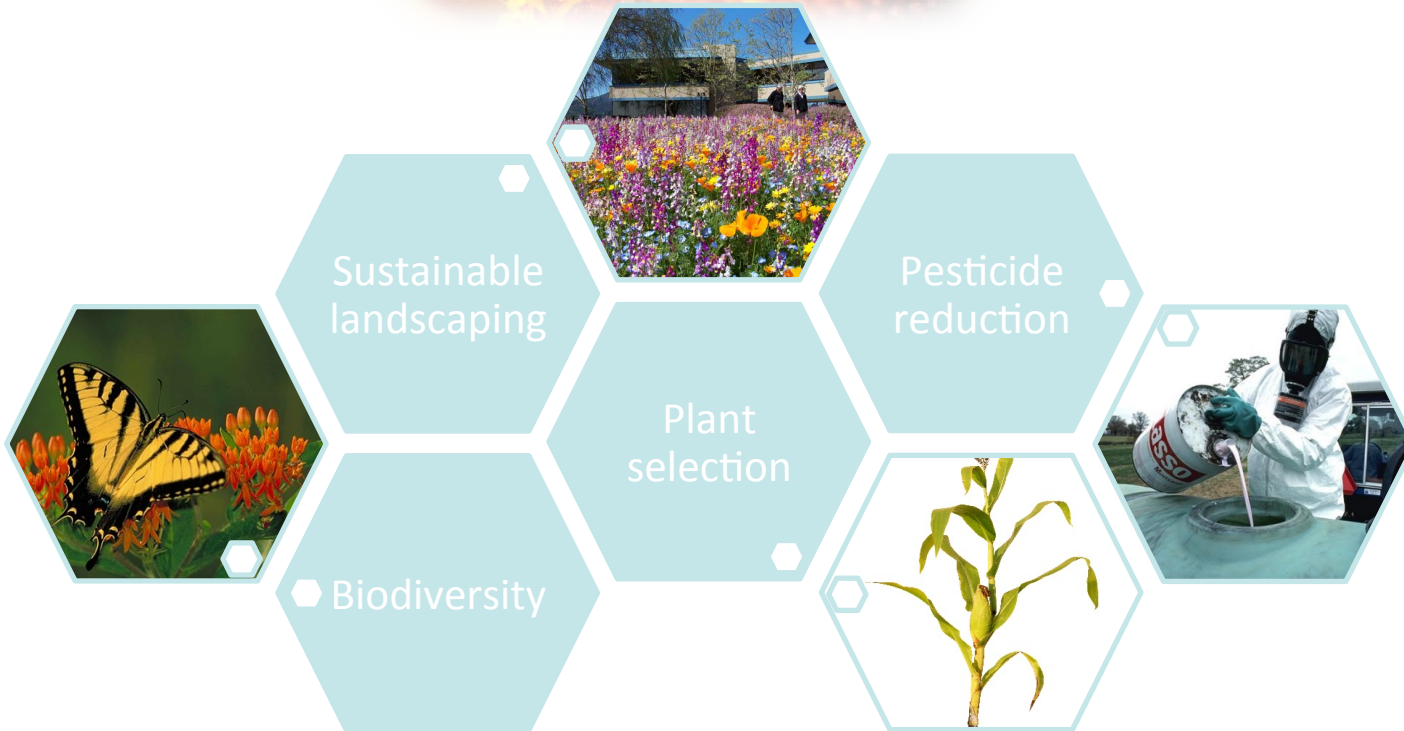
**Learn pest
biology**

ID pest











Protecting Pollinators Through IPM, Neonic Bans and Habitat Creation

Rella Abernathy

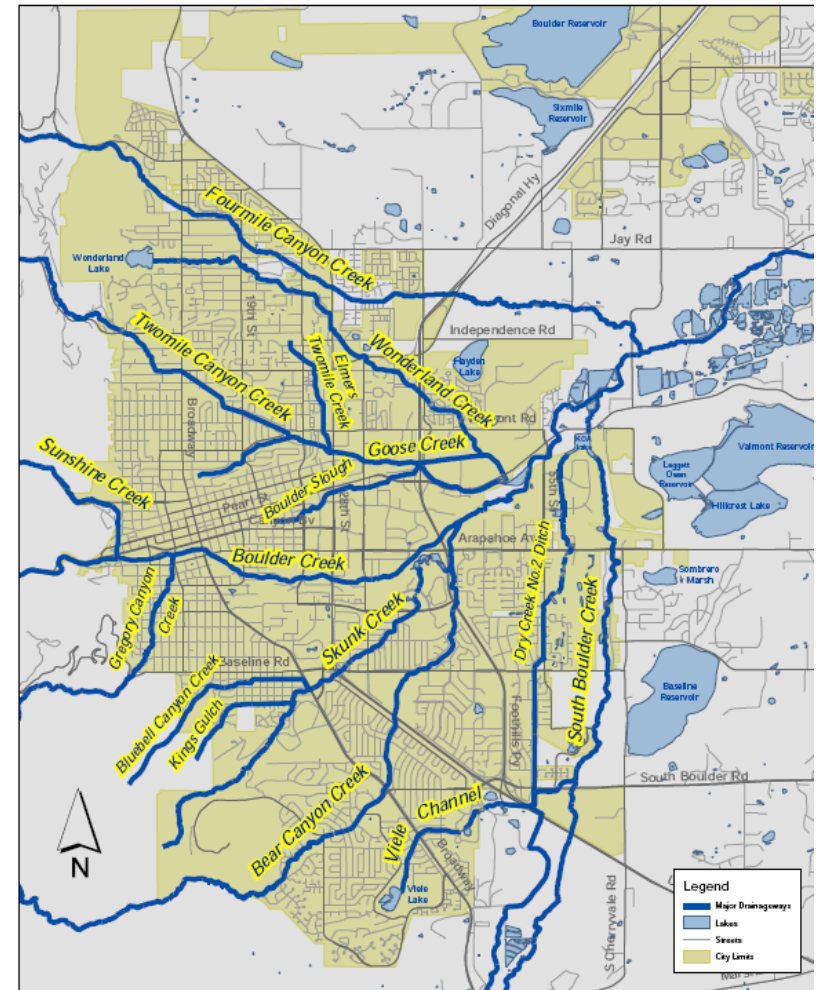
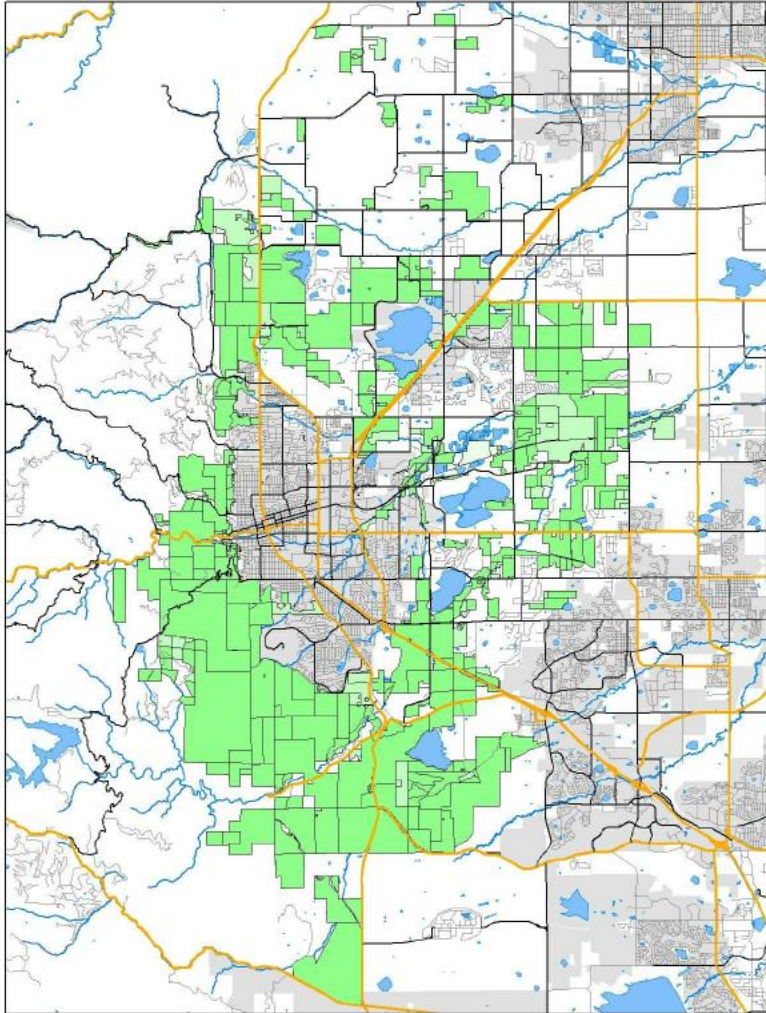
Integrated Pest Management Program

Boulder, Colorado

Welcome to Boulder, Colorado!



Putting Us on the Map












'Neonic' Poison Found Throughout City

Creeks Division Testing After Rains Discovers Insecticide Fatal to Bees

Monday, February 9, 2015
by JEAN YAMAMURA (CONTACT)

A grave concern is growing over the use of neonicotinoids, a type of insecticide known to affect the central nervous system of invertebrates, most alarmingly of bees. In its first tests for the poison, the city's Creeks Division found a "neonic" known as imidacloprid after the rains of February 2014, according to city creek reports. In fact, the monitors found the pesticide so consistently across their four creek sites (Arroyo Burro, Mission, Laguna, and Sycamore) that they suspected laboratory problems. Until this year. In 2015, post-storm tests again found imidacloprid in the city's four major streams and also in spot checks of urban sidewalks and streets.

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Boulder adopts 'bee safe' resolution

Measure formalizes city policy of not using neonicotinoid pesticides

By [Erica Meltzer](#)

Staff Writer

POSTED: 05/05/2015 09:11:59 PM MDT | UPDATED: 2 MONTHS AGO

The Boulder City Council unanimously adopted a resolution Tuesday night that states the city will not use neonicotinoid pesticides, except when necessary to save old and valuable trees.

RELATED STORIES

- [Boulder council OKs affordable housing fee on commercial development](#)

Keys to Success

- Change product mindset
- Use common sense/experiment to see what works
- Train staff – hire highly trained staff
- Reward innovation and risk-taking
- Work with other organizations, progressive faculty members to share info/ideas
- Educate the public/customers
- Celebrate success







sustainability
initiatives

EMORY

Engaging Stakeholders in Pollinator Protection

Ciannat Howett, Emory University

Campus Pollinator Protection Campaign

- **Emory University's Commitment to ban neonicotinoids and treated plants**
 - Worked with Grounds, Procurement, Planning Design & Construction, and EHSO; Georgia Organics, FOE, Turner Foundation, and Emory's Turner Environmental Law Center
 - Toxics Release Inventory (TRI); Grounds lists
 - Pesticide Research Institute-- safe substitutions; piloted on campus
 - IPM; vendor contracts; construction standards; landscape design plans
- **Student, staff & community outreach:** Sustainable Food Fair; Internal publications & social media; AJC op-ed; "tool kit"
- **Role of University as resource:** Emory Law students researched "Gardeners' Beware" Report; faculty experts for local legislative and media work; outreach to City



Emory's Pollinator Protection Commitment

- **Emory University's Pledge (August 2014)**
 - Eliminate neonicotinoid use on campus grounds
 - Purchase plants for campus landscaping that have not been pre-treated with neonicotinoids, to the extent feasible
 - Specify in contracts with vendors and campus construction standards not to use neonicotinoid insecticides or plants pre-treated with neonicotinoids
 - Ensure substitutes for neonicotinoid pesticides are safe for pollinators
 - Plant pollinator-friendly habitats on campus
 - Conduct campus outreach and education







“Bee”ing a More Responsible Retailer: BJ’s Pollinator Protection Program

Scott Williams

AVP of Quality Assurance and Environmental Stewardship

Gearing up For a Commitment

We started this process almost a full year before our discussion with Friends of the Earth

Asking the Right Questions

- **What areas are impacted?**
 - Obvious: Floral, Chemical, Lawn & Garden
 - Not Obvious: Pet
- **Understand the suppliers**
 - Is it an input issue?
 - A time issue?
 - A market issue?
- **Who are the “Big Levers”**
 - If you find the key suppliers they can get the rest of the players to move.

Explaining the Commitment to Vendors

BJ's Pollinator Protector Program

Our Commitment:

1. We require all vendors to disclose the use of any neonicotinoids in nursery or plant-able products (e.g., blueberry bushes, tulip bulbs).
2. We require any vendors using neonicotinoids in nursery or bedding plants to submit plan/process used to protect bees when using neonicotinoids (e.g., timing, segregation, etc.)

What we need from vendors:

1. Any vendor using neonicotinoids should label them “Neonicotinoids applied. Caution around Pollinators”
2. We need to know any vendor that is using neonicotinoids to let us know so we can keep a log.

Other Notes

1. We are not saying you cannot use neonicotinoids; however, we would like to get there. We will rely on vendors to regulate, with random monitoring. If we can't rely on the vendors, we will go to an audit program.
2. We will try to incorporate this into other Responsible Sourcing programs so the vendors get credit for doing it

Managing the Commitment

Vendor Questionnaire

Vendor Information

Vendor Name: _____ Vendor Contact for this program (name/email): _____
CHECK THIS BOX AND ANSWER NO FURTHER QUESTIONS IF YOUR PROCESS DOES NOT USE NEONICOTINOIDS:

Question 1: What items are using Neonicotinoids as part of your integrated pest management program?

Question 2: For items grown with the use of Neonicotinoids is there a specific target pest?

Item(s)	Pest(s)
_____	_____
_____	_____
_____	_____

Question 3: For items grown with the use of Neonicotinoids describe any and all additional steps taken to protect pollinators besides follow EPA-approved label (i.e. timing of application, greenhouse segregation, etc.).

Question 4: Are you pursuing or plan to pursue any other alternatives to Neonicotinoids? If yes, please describe below
 No _____
 Yes _____

Question 5: Do you have a preference or alternative for the following statement on all products labeling for items treated with Neonicotino
"Treated with neonicotinoids, use caution around pollinators"
 No concerns Would prefer alternate wording "_____"

Question 6: Do you have any other questions/concerns/notes you would like us to take under advisement as we build a program?

- All vendors had to respond.
- Found out what the obstacles were for our suppliers.
- Learned which obstacles were actual impediments to business, which were just hard to do
- Asked for Alternatives & A/B Testing

Spreading the Commitment



BJ's Wholesale Club shared a link
about an hour ago

A new study by Friends of the Earth U.S. and Pesticide Research Institute found 36 out of 71 "bee friendly" garden plants – 51% -- contained neonic pesticides that are harmful to bees, with no warning to gardeners. Find out how BJ's is committed to phasing out the use of neonicotinoids in garden plants and removing neonicotinoid pesticide products from our shelves by visiting www.beeaction.org



Friends of the Earth
www.foe.org

Friends of the Earth is fighting to defend the environment and create a more healthy and just world. We're progressive environmental advocates who pull no punches and speak sometimes uncomfortable truths to power.



Research Institute Tools for Protecting Pollinators

Susan Kegley, Ph.D.

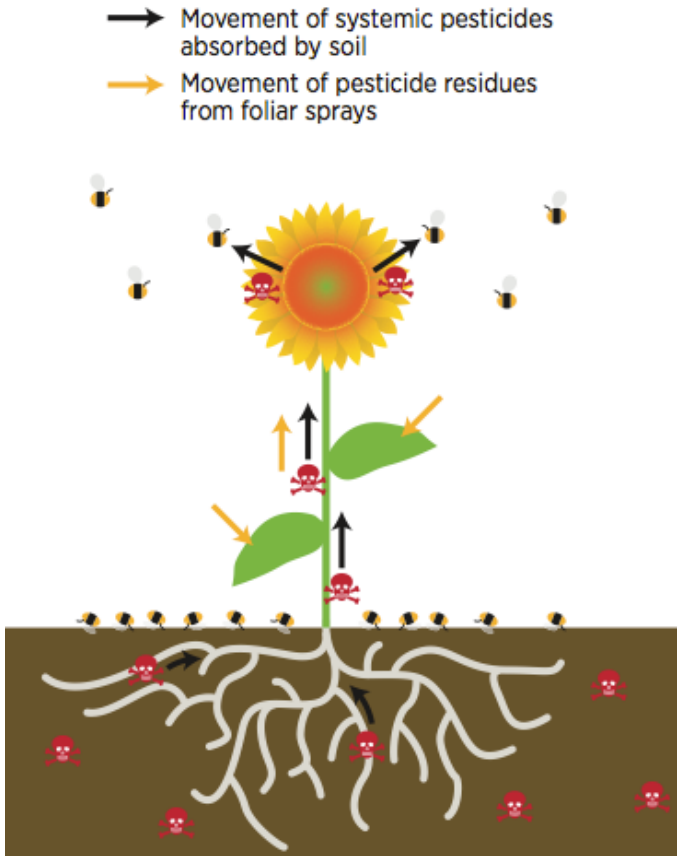
CEO, Pesticide Research Institute

One Helpful Approach

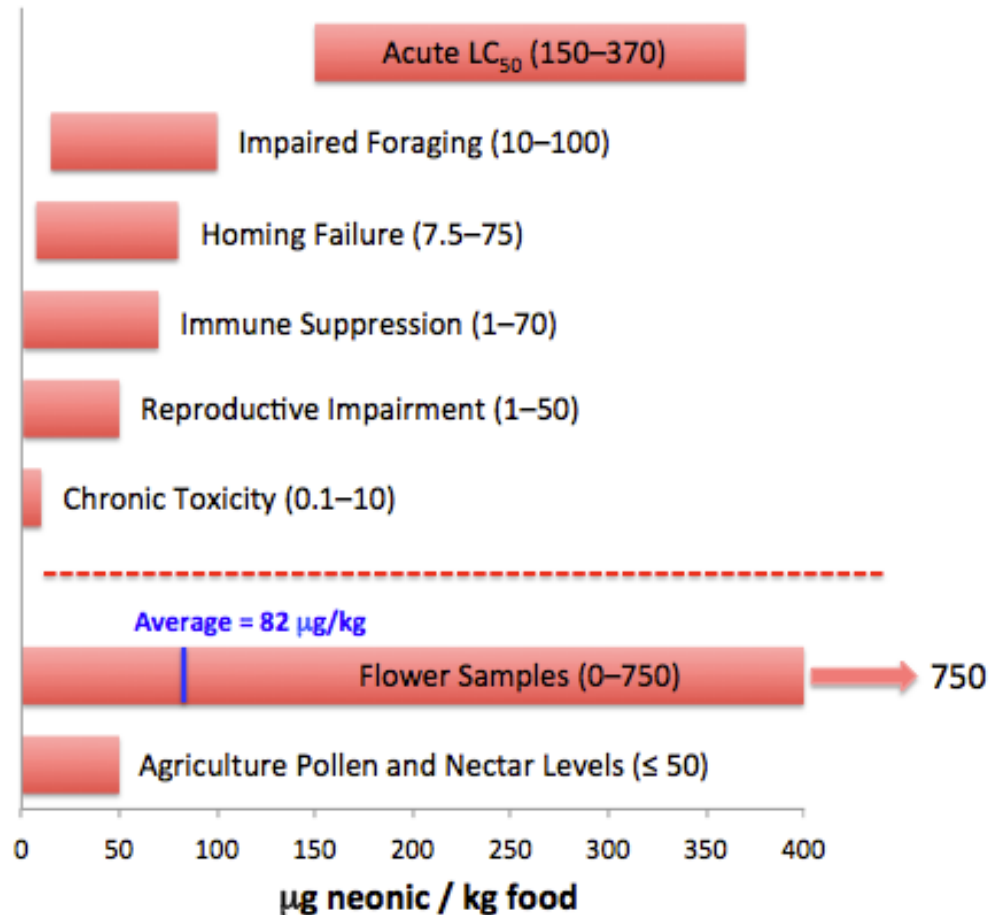
Plant a bee-friendly space



Systemic Insecticides in Nursery Plants



Concentrations of Neonicotinoids Associated with Effects on Bees



Assessing Hazards: The Challenge

- Difficult to compare pesticide product hazards
- Limited staff time and resources
- Frequent product changes
- Product efficacy
- Transparency important for communication with the public



The Solution:

PRI Pesticide Product Evaluator[®]



- Bee-toxic icon: Helps avoid regrettable substitutions
- CA Healthy Schools Exempt
- Low-exposure products (baits, gels)
- Easy-to-understand Hazard Tier ranking system



Low Hazard

Moderate Hazard

High Hazard



- Annual Subscription: \$99; Monthly: \$10

[Pesticideresearch.com/site/evaluator](https://pesticideresearch.com/site/evaluator)

Create a list of products to share or compare

Quick access to MSDS and product label

Product ingredients

Read product reviews

ADAMENT 50 WG FUNGICIDE

Registration Number: 264-1052

Hazard Tier: 2

Product type: Fungicide

Buttons: Close All, Print All, Back to Search Results

Product Information

Registration Status	Manufacturer
EPA: Active	Bayer CropScience Lp
CA: Active	Find MSDS, US EPA Label

Find Registration Status in Other States

Cancellation Date: Currently registered

Acute Toxicity Signal Word: CAUTION

Restricted Use: No

Formulation: Emulsifiable Concentrate

Active Ingredients

Tebuconazole, 25%; Trifloxystrobin, 25%

Other Known Ingredients

Registration Numbers

EPA	264-1052	Previous EPA Registration Numbers
CA	264-1052-AA	None

Chemical ID Information on Known Ingredients in this Product

Chemical ID +

Other Names for This Product +

Pests Targeted By This Product +

Crops/Sites On Which This Product is Approved For Use +

Review +

Hazard Tier Assessment

This product is a Hazard Tier 2 product because:

- It is moderately toxic to birds.
- It is moderately toxic to fish.
- It is moderately toxic to aquatic invertebrates.
- It is moderately toxic to aquatic life.
- It contains an ingredient that is a Possible carcinogen that

PRI Comments

This product contains tebuconazole, which is highly toxic to bees.

In a 2012 DRAFT report, the Danish EPA concluded that tebuconazole should be placed in the European Union (EU)

EPA Data Updated: 4/9/2015

PRI Review Date: 3/18/2015

Find IPM Solutions

Environmental Hazards

Fish	Aquatic Invertebrates	Other Aquatic Organisms
Moderately Toxic	Moderately Toxic	Moderately Toxic

Birds: Moderately Toxic

Bees: No Warning on Label or MSDS

Acute Human Health Hazards

Eye Irritation	Skin Irritation	Sensitization
Eye Irritant	Mild to Moderate Skin Irritant	Not a Sensitizer

Dermal Toxicity: Low Toxicity (LD50 >2,000)

Ingestion Toxicity: Low Toxicity (LD50 >500 mg/kg)

Inhalation Toxicity: Low Toxicity (LC50 >0.5 mg/L)

Hazard Information on Known Ingredients in this Product

Human Health Hazards +

Water Pollution Potential +

Low Toxicity Indicators +

Currently registered

Bee-toxic indicator

Non-chemical solutions

Color coded for clarity

Announcing
PestSmart™ Web
 Find low-impact solutions for
 your pest problems

- Contains a subset of information in the Product Evaluator
- Aimed at consumers
- Free



Pesticide Research Institute
PestSmart™ Web

Search About Help Product Rankings Product Evaluator

Welcome!













Use PestSmart to find information on over 18,000 pesticide products and select least-toxic alternatives.

Search by Product Name or EPA Registration Number

contains
 starts with

Search for a product name or registration number

Search by Pest

 Ants	 Roaches	 Microbes	 Fleas	 Rats & Mice	 Bed Bugs
 Mosquitoes	 Garden Weeds	 Aphids	 Lawn Weeds	 Snails & Slugs	 Fungi

Find more detailed product information with the [PRI Pesticide Product Evaluator](#).

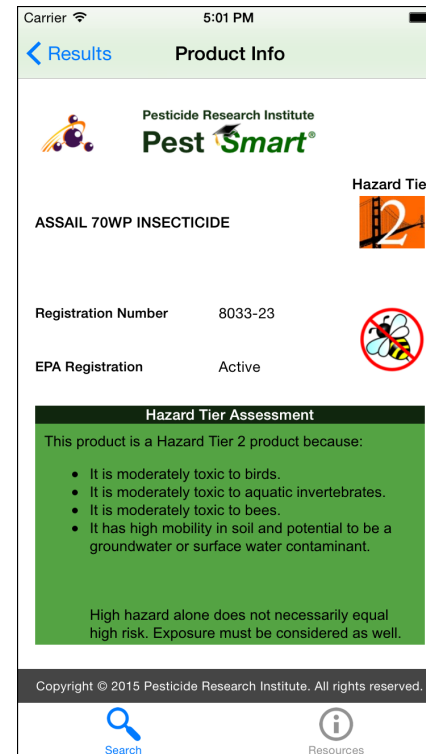
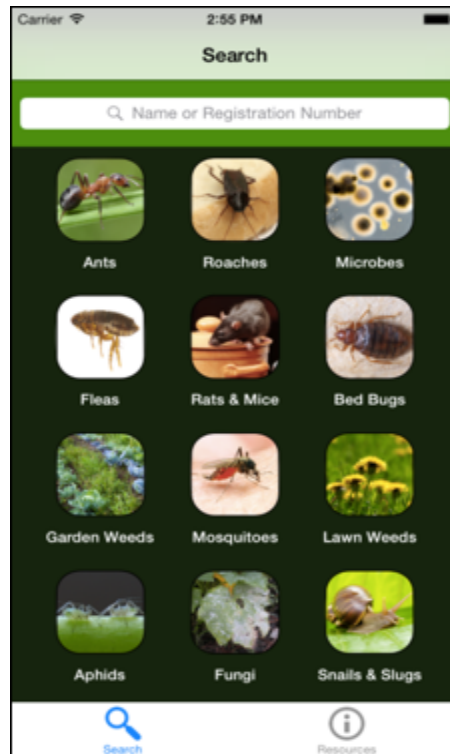
Check out PRI's [Pest Management Bulletins](#) for pesticide-free methods of managing pests.

PRI Services PRI Pest Management Bulletins Contact

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Pesticideresearch.com/site/pestsmart

iOS Mobile App



itunes.apple.com/us/app/pest-smart/id976412743?mt=8

PRI's Bee-Friendly Gardening Resources

garden4bees.com



Poll Question #3:

What resources would be most helpful in supporting your organization's pollinator protection efforts?

RPN/FOE Action Guide

For Institutional Buyers – Coming Soon!



- Action Guide Contents
 - Latest science on pollinators and role neonics is playing in pollinator decline
 - Examples of innovative actions being taken in different sectors
 - Pollinator-friendly purchasing strategies
 - Resources for purchasers and their supply partners

Upcoming RPN Webinars

- Flame Retardant-free Furniture
- Model Green Office Supplies Contract
- Purchasing Renewable Electricity
- Sustainable Procurement Policies: Best Practices

Thank you!

