# Pesticide Use On The Rise: How Do We Stem The Tide?

CT NOFA February 2026

Mia Park, Ph.D., Xerces Society

Louise Washer, CT Pesticide Reform Coalition

Connecticut CPR Pesticide Reform

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# Xerces Society for Invertebrate Conservation

*We know* the fate of the world's insects is inseparable from our own – from nutrient cycling, to pest control, to food webs, to pollination.

Art: Haley Grunloh

We work on the ground, in community, in coalition, strategically adapting our strategies to real-world constraints.

Photo: Katie Hetrick/ UC Davis Arboretum

We are meticulously evidence and science-based, while still believing that "we know enough to act now."

(Forister et al. 2019).

Photo: Katie Lamke / Xerces

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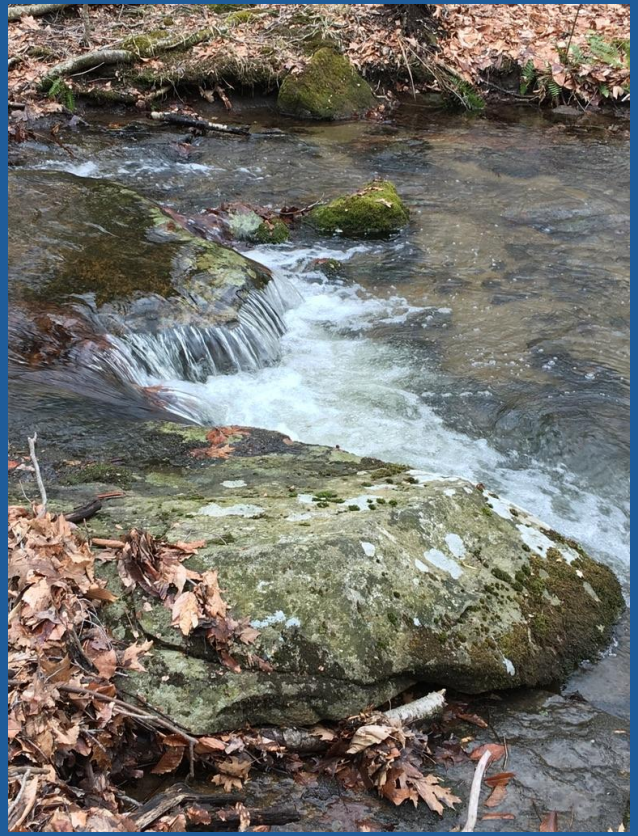

Connecticut CPR Pesticide Reform

Louise Washer
Norwalk River Watershed Association
Pollinator Pathway
CT Pesticide Reform Coalition
lwasher@norwalkriver.org

NRWA
Norwalk River Watershed Assoc

Pollinator Pathway
Native Plants • Pesticide Free


American Bird Conservancy
Audubon Connecticut
Aspectuck Land Trust
Backyard Beekeepers Association
Beyond Pesticides
Clean Water Action
Connecticut Audubon Society
Connecticut Butterfly Association
CT League of Conservation Voters
CT Ornithological Association
Conservation Law Foundation
East Norwalk Blue
Estuary Magazine
Farmington Land Trust
Farmington River Watershed Association
Farmington Valley Trout Unlimited
Friends of the Earth
Great Meadows Conservation Trust
Greenwich Pollinator Pathway
Greenwich Sustainability Committee
Hamden Land Trust
Hartford Audubon
Huneebee Project
Individual Concerned Connecticut Voters
Inter-Religious Eco-Justice Network
Long Island Soundkeeper
Norwalk River Watershed Assoc.
NRDC
Nutmeg Chapter Trout Unlimited
Peabody Museum of Natural History
Pollinator Pathway National
Pollinator Pathway Stamford
Protect Our Pollinators, Newtown
Quercus Works Gardens
Rivers Alliance
Save the Sound
Sierra Club Connecticut
Surfrider Connecticut
Sustainable Fairfield County
The Bee Conservancy
Trout Unlimited
Wildlife in Crisis
Xerces Society

# Who are you?

- Name
- Where you are from
- What brought you to this talk?

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5 of 328 million ac = 1.5% (usda survey 2021)

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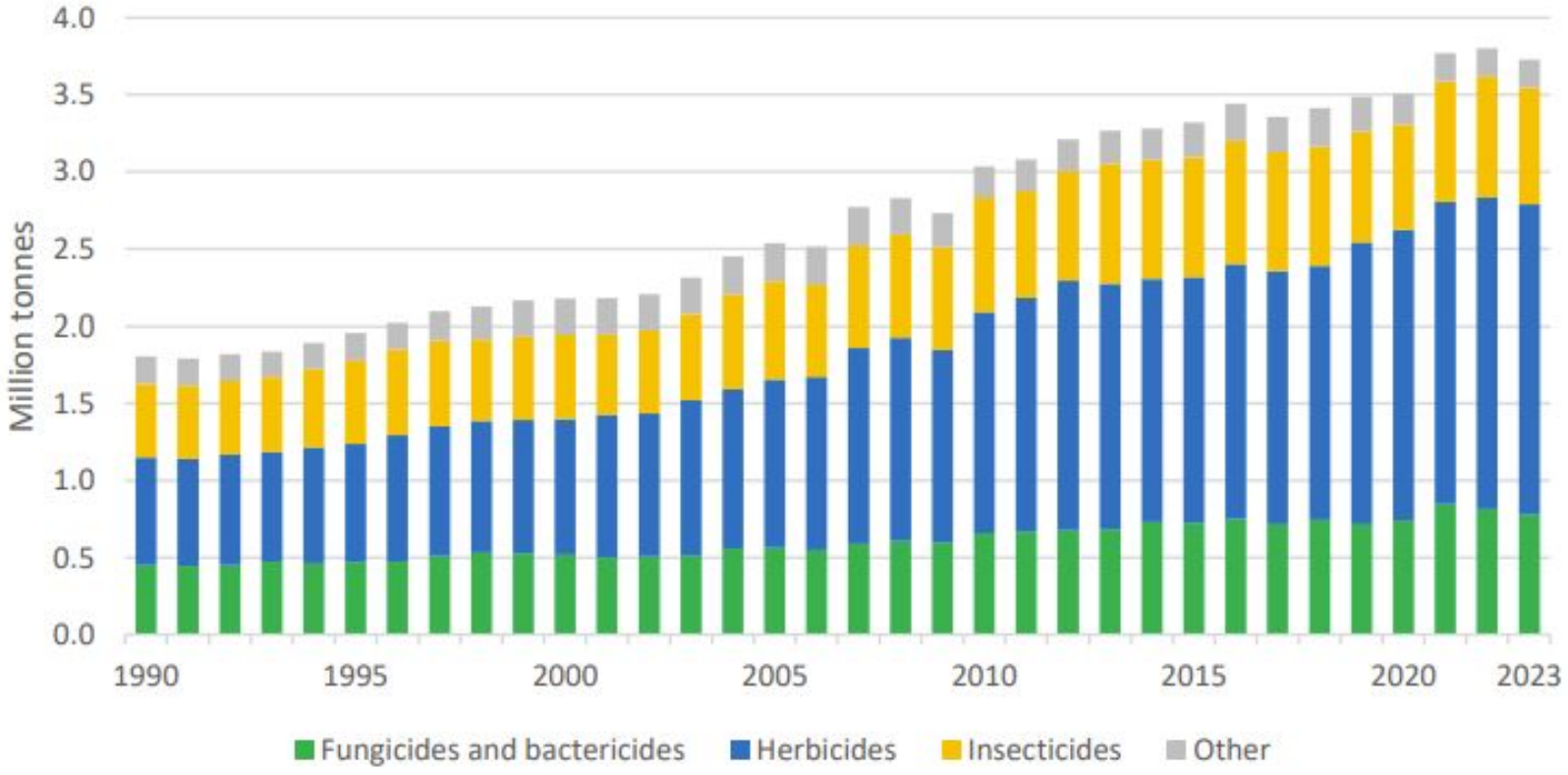
## Figure 1: Global pesticides use by category




US:
1
billion
lbs $yr^{-1}$

**Source:** FAO. 2025. FAOSTAT: Pesticides Use. [Accessed July 2025]. http://www.fao.org/faostat/en/#data/RP. Licence: CC-BY-4.0.

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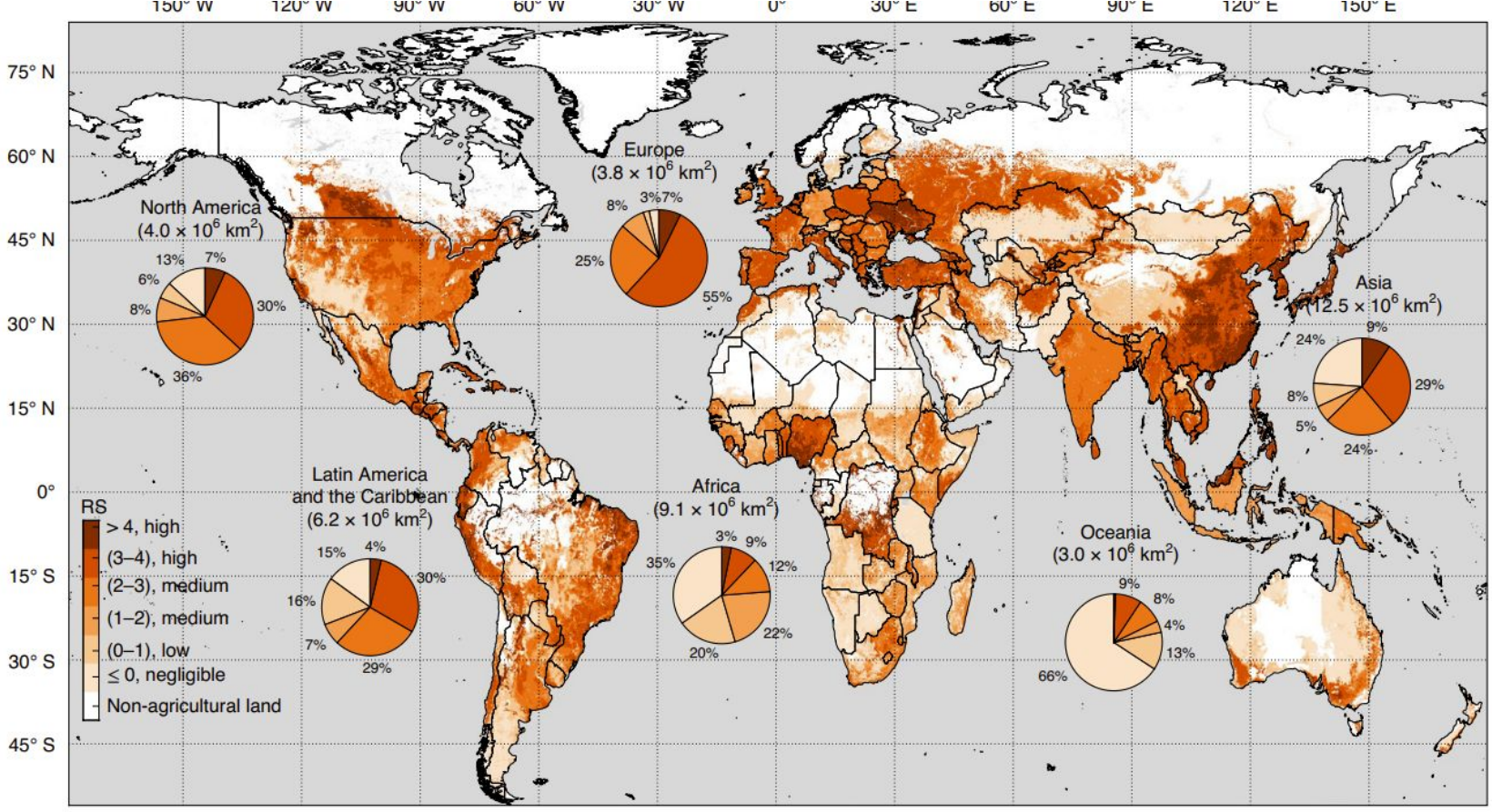


**Fig. 1 | Global map of pesticide RS.** The map has a spatial resolution of 5 arcmin, which is approximately 10 km × 10 km at the Equator. The pie charts represent the fraction of agricultural land classed under different RS in each region, and the values in parentheses above the pie charts denote the total agricultural land in that region.

Tang *et al.* 2021 *Nat. Geosci.* 14, 206–210

# IMPACTS OF PESTICIDES

Pesticides are used in our countryside, urban areas, homes and gardens

## IMPACTS HEALTH

Exposure can cause fertility and reproductive issues, diabetes, obesity, degenerative diseases e.g. Parkinson's, cancers, asthma, depression, anxiety, ADHD etc.

## PREGNANT MOTHERS AND CHILDREN

This group is particularly sensitive as exposure can cause disruption to endocrine systems, childhood cancers, neuro-developmental issues and other disorders.

## DRAINS ECONOMIES

Pesticides cause illness and injury resulting in lost work days. Exploitative markets keep farmers on the pesticide treadmill, crops develop resistance, and incorrect use affects yields.

## DECREASES BIODIVERSITY

Pesticides have been linked to declines in bees and pollinators, beneficial insects, birds, mammals, aquatic animals and non-target plants etc.

## IMPACTS ON WATER, SOIL AND AIR

Run-off contaminates surface and ground wate
Soil microorganisms an
earthworms are poisone
affecting soil fertility, an
drift and volatisation
contaminates air, rain, fo
and snow.

PESTICIDE ACTION NETWORK UK

MONOPOLISATION OF AGRICULTURAL SYSTEMS & CORRUPTION OF SCIENCE

LINKS TO SUICIDES: 15-20% OF SUICIDES ARE A RESULT OF PESTICIDE SELF-POISONING DUE TO EASE OF ACCESSIBILITY AND HIGH TOXICITY

# Outline

- Case study: neonicotinoids, pollinator declines, and data gaps
- Power of data to drive neonic policy: Quebec, NY and VT
- Connecticut contamination and policy
- Pesticide Data Modernization Act and how you can get involved

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# Alarming insect declines: CCD

- 2006
- Workers not coming back to hive
- Mass bee deaths
- Twitching, disorientation
- 2025: 60% overwintering losses nationwide

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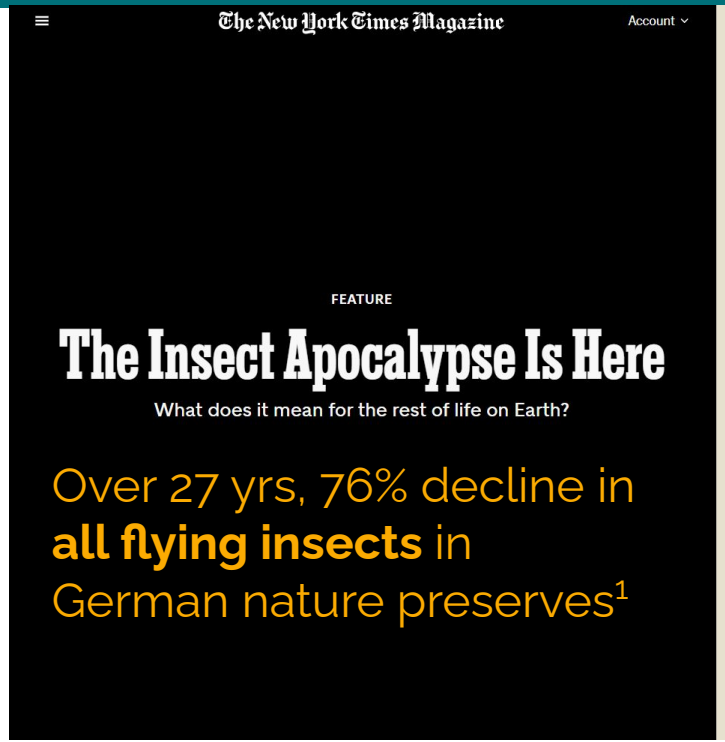
# Alarming insect declines: biodiversity




- **25% fewer wild bee** species than 30 yrs ago[2]
- 20 year # declines:
  - 90% for monarchs[3]
  - 22% all butterflies[4]
- 28% bumble bees risk extinction[5]
- 32% native bees are in decline in CT[6]

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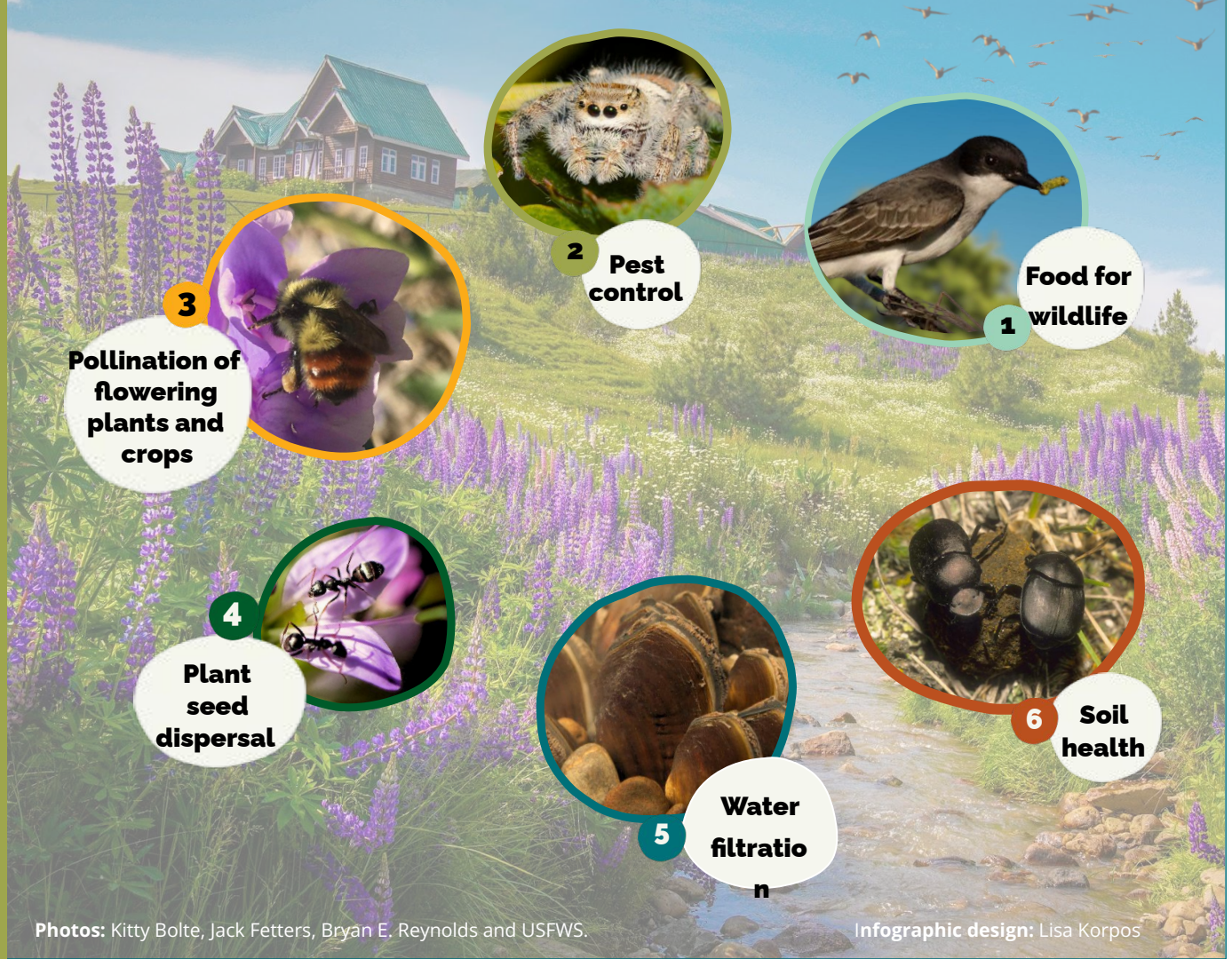
1Hallman et al. 2017; 2Zattara et al. 2021; 3Xerces Society; 4Edwards et al. 2025; 5Xerces & IUCN; 6Zarillo et al. 2025

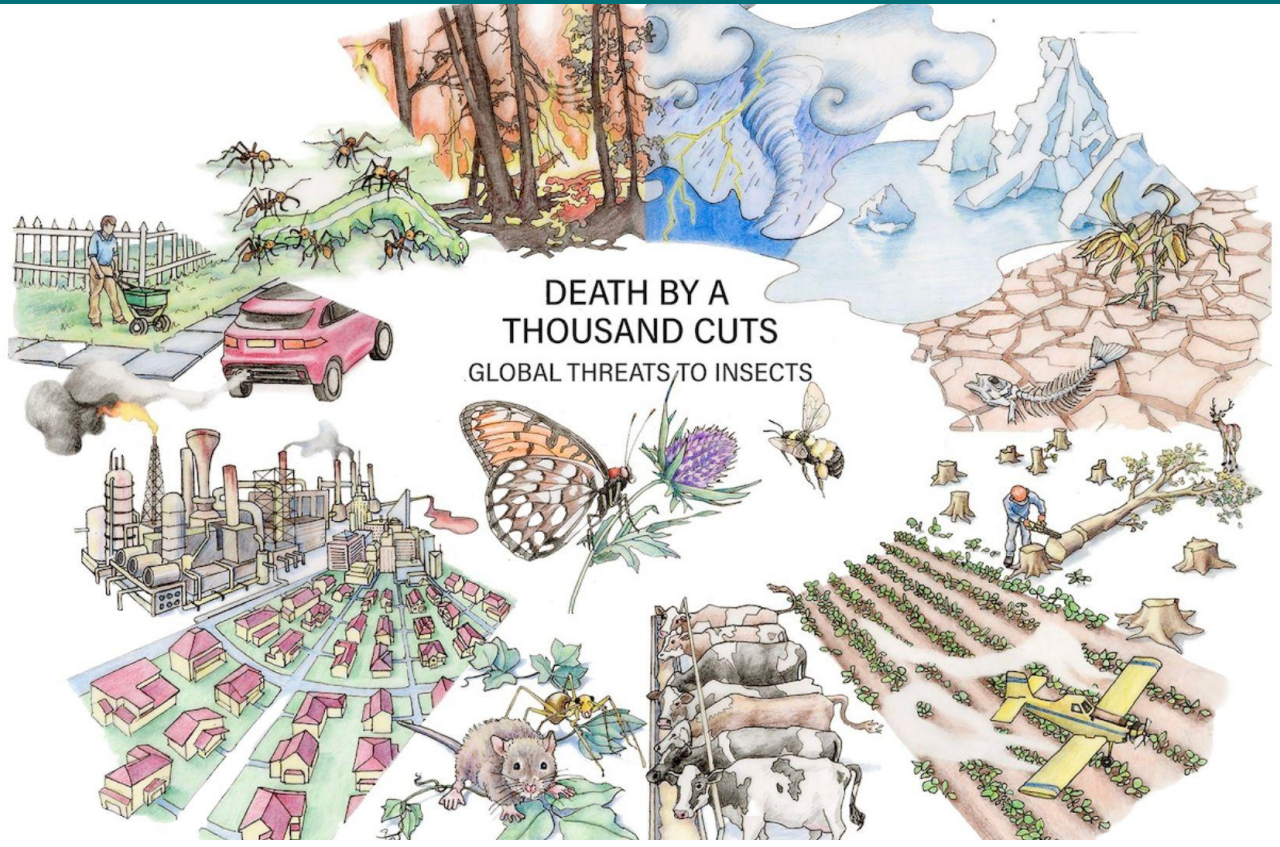
# Invertebrates are the heart of a healthy landscape

Many services

Inherent beauty



# Factors driving biodiversity decline




Wagner et al. 2021. PNAS

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# Pesticides: Umbrella Term

- Herbicides
- Fungicides
- Insecticides
- Rodenticides
- Avicides

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Photo: NRCS/Jeff Vanuga

# Neonicotinoids: high risk

- **Synthetic, systemic** insecticide chemically similar to nicotine
- 1990's less toxic alternative

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Photo: www.dtnpf.com/, Pamela Smith

# Neonicotinoids: high risk

- **Synthetic, systemic** insecticide chemically similar to nicotine
- 1990's less toxic alternative
- One of the most bee-toxic insecticides. Nitroguanidine neonic $LD_{50}$s: 3.2-3.9 ng/bee
- Water soluble
- Persistent

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Photo: www.dtnpf.com/, Pamela Smith

# Neonicotinoids: high risk

- **Synthetic, systemic** insecticide chemically similar to nicotine
- 1990's less toxic alternative
- One of the most bee-toxic insecticides. Nitroguanidine neonic $LD_{50}$s: 3.2-3.9 ng/bee

**A single neonic-coated seed contains enough active ingredient to kill a songbird or more than 150,000 bees.**

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Photo: United Soybean Board

# Where Are Neonicotinoids Used?

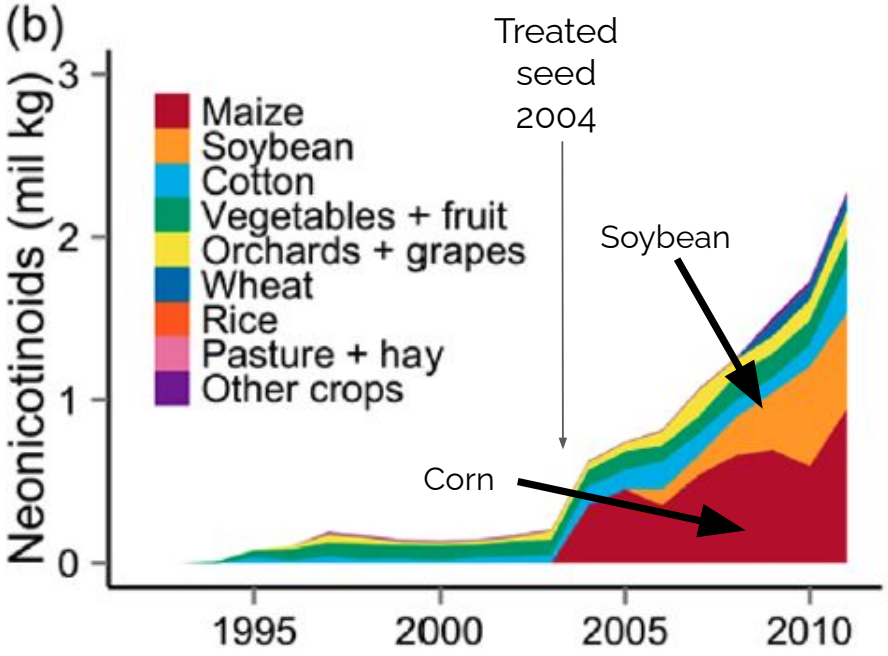
Most widely used insecticide in US & world

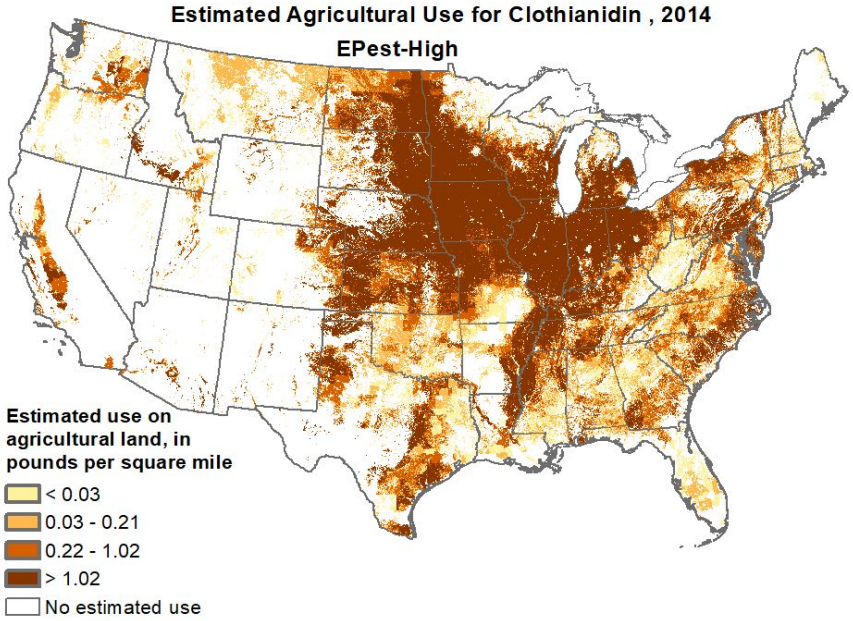

Photos: USDA/Lance Cheung; Flickr/Krista Guenin; Xerces Society/Rich Hatfield

de Montaigu *et al*. 2025

# Neonic use in USA:

## Primarily in corn & soybean via seed treatments

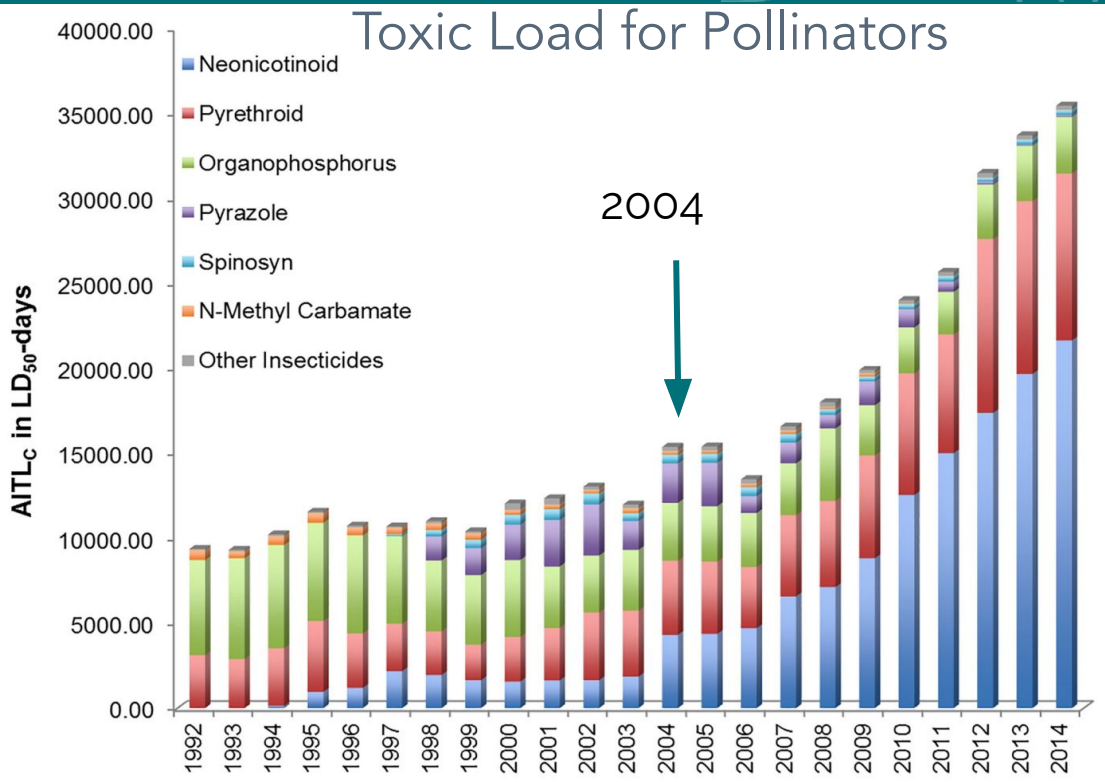



Douglas & Tooker 2015 *Env. Sci. & Tech;* Hitaj et al. 2020

https://www.usgs.gov/tools/estimated-annual-agricultural-pesticide-use

# Modern environment more toxic to bees than in the past

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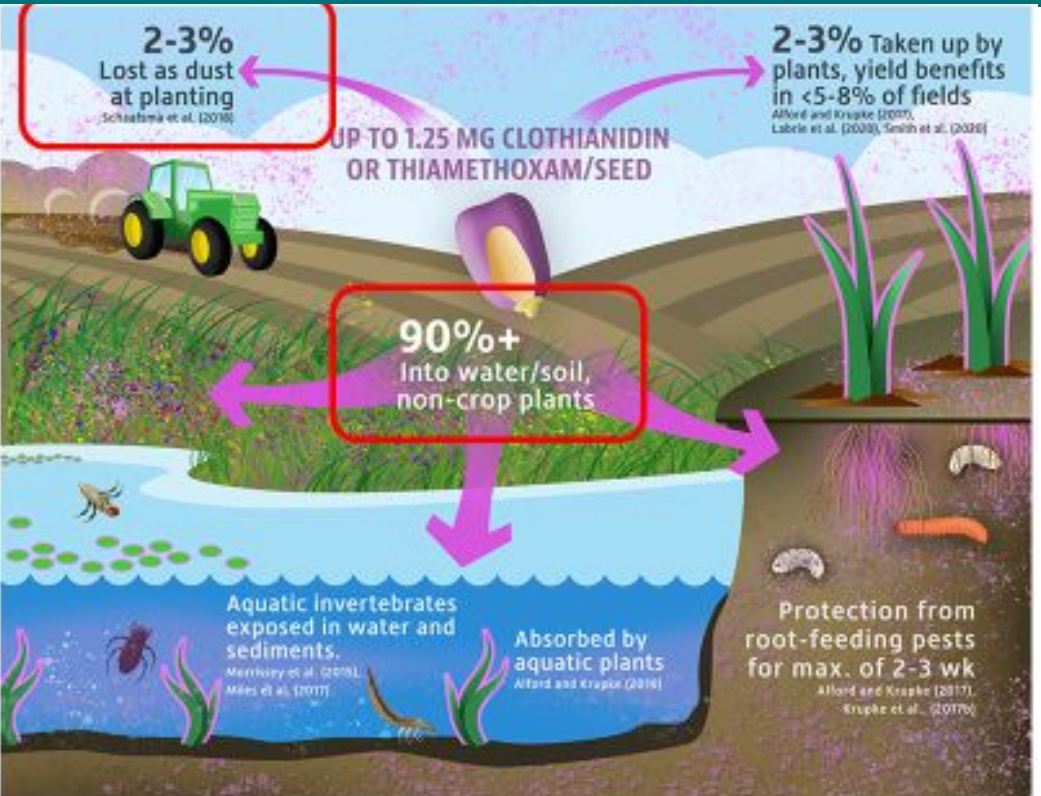
DiBartolomeis et al. 2019

# Widespread contamination by seed treatments:

80-98% gets into the environment




- Residues in water:
  - > 60% midwest rivers[1]
- Residues in soil[2]
- Residues in plants
  - leaf[3]
  - nectar[4]
  - Pollen[4]
- Dose mostly sublethal

1Xerces; 2Mogren & Lundgren 2016;
3Olaya-Arenas et al. 2019; 4 Botias et al. 2015

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# Field studies on honey bees:
## Seed treatments reduced colony growth

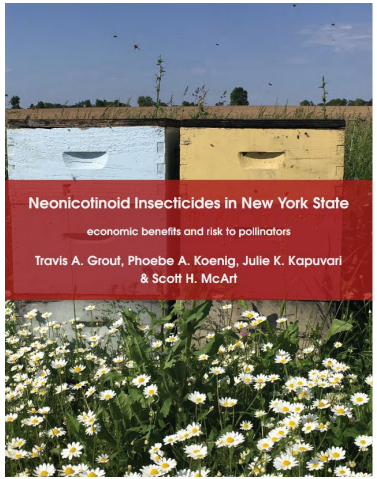


*Photo: JIM CONRAD, Wikimedia Commons*

**<u>Exposure in and near corn predicted to impact</u>**

Physiology: 74%

Behavior: 58%

Reproduction: 37%

↓ Population decline

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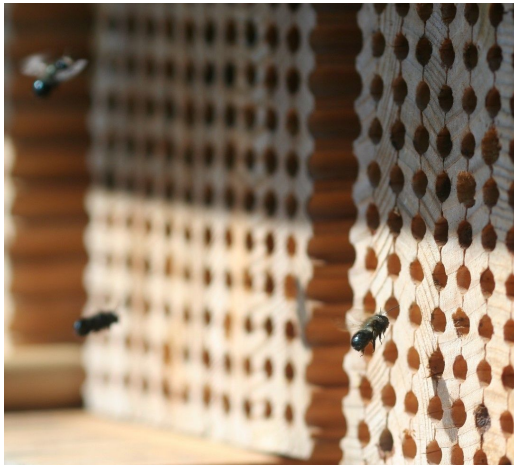
Grout et al. 2020

# Field studies on wild bees:

## Seed treatment effects on wild bees

### Fewer wild bees

**50%** fewer wild bees around fields with neonic treated seeds



### Fewer nests

**100%** reduction in mason bee nests next to seed-treated canola fields

### Fewer bumbles

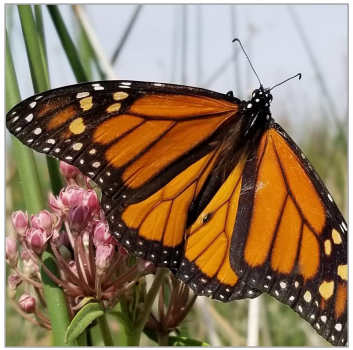
**40%** fewer males & workers.
**70%** fewer queens next to neonic treated seed fields

for Invertebrate Conservation

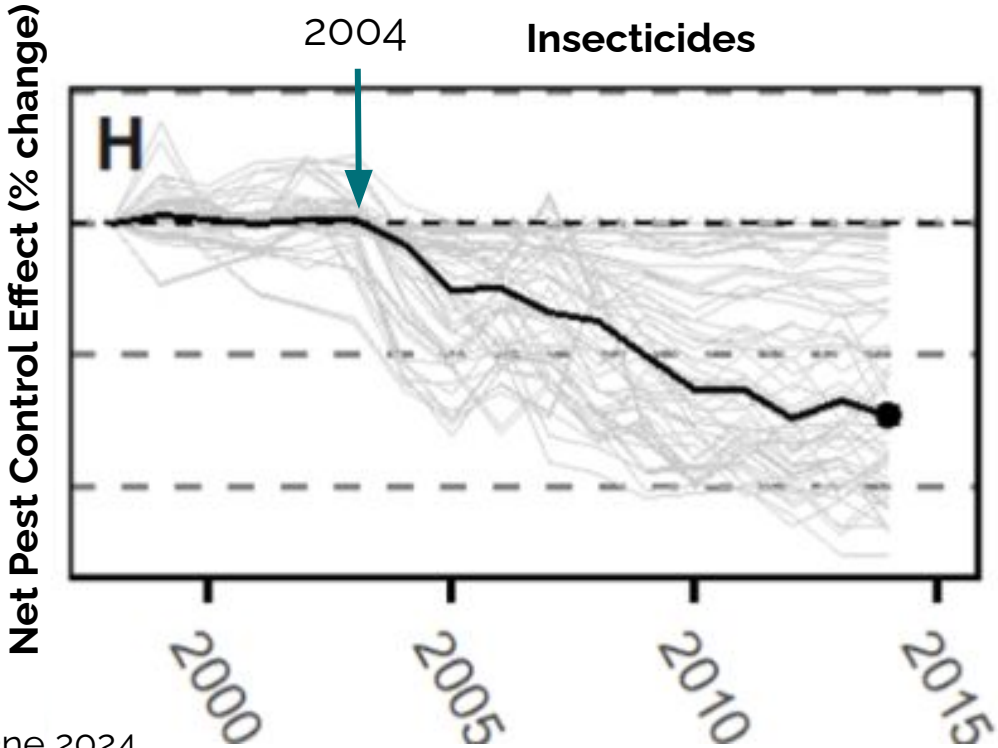
Data: Rundlof et al (2015) Photos: Emily May

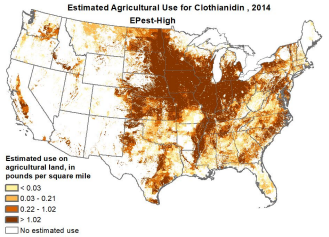
# Big data - insect surveys + USGS data

## Butterflies in the Midwest



Monarch butterfly
(*Danaus plexippus*)




Van Deynze *et al.* PLOS One 2024

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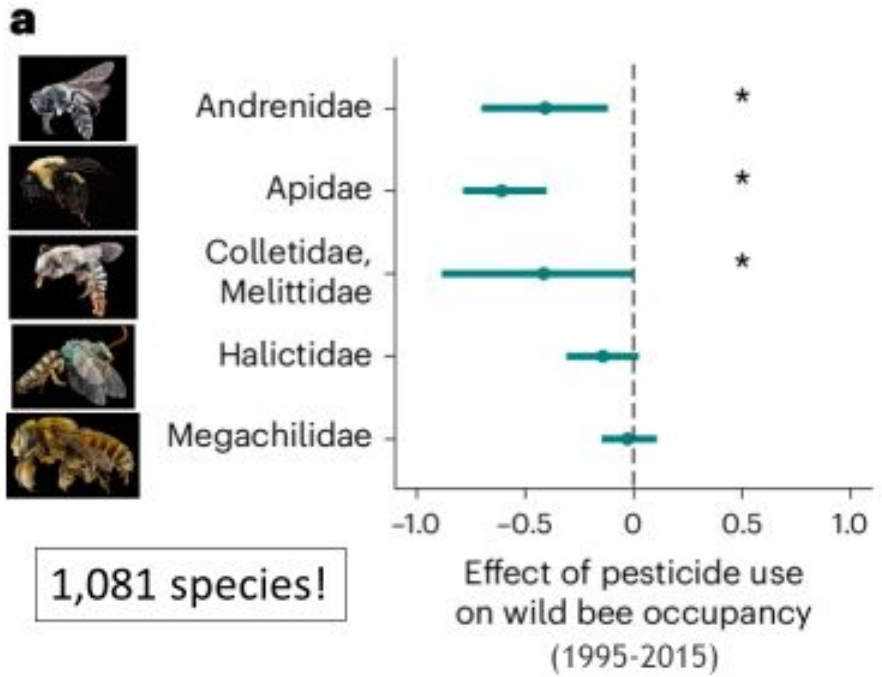
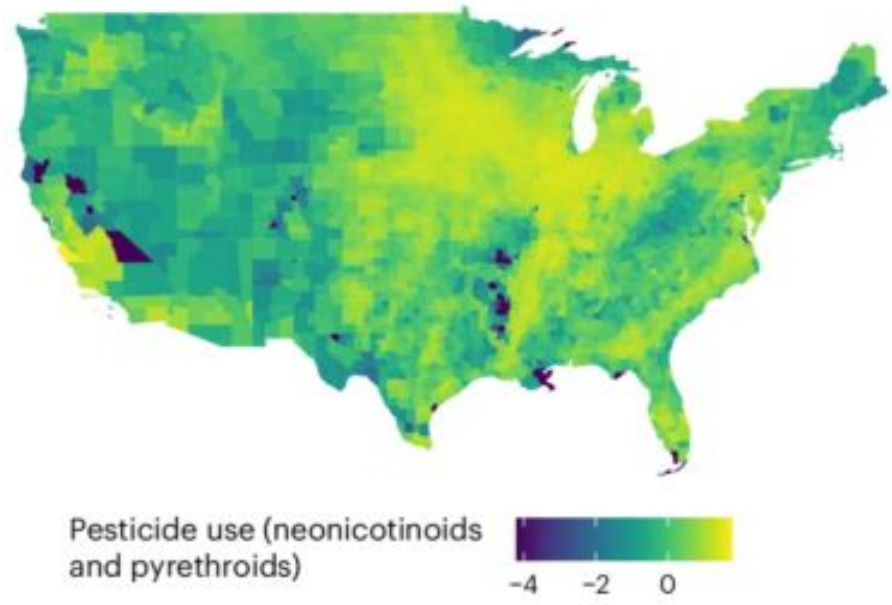
# Bigger data: insect surveys + USGS data

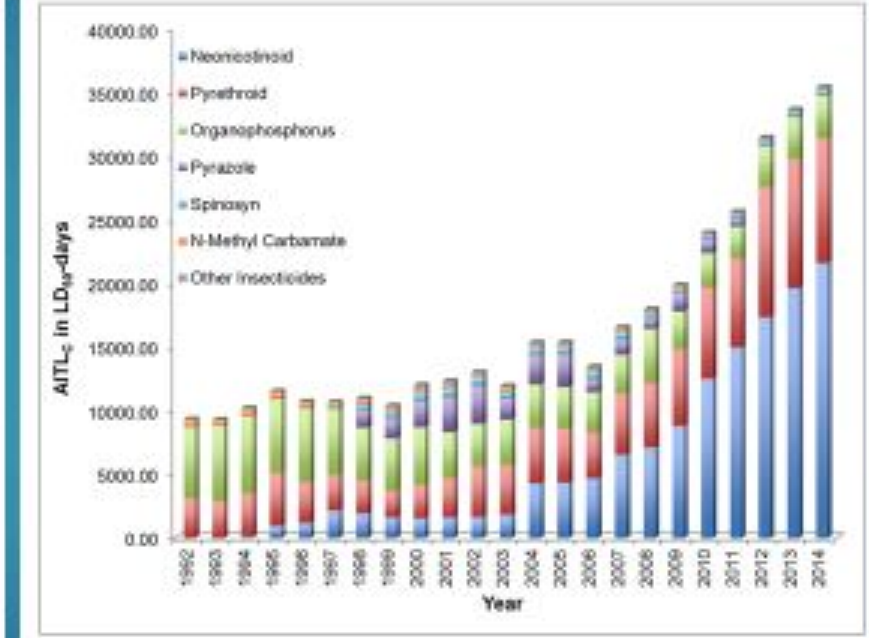
## Continent-wide declines of wild bees in US




Guzman et al. 2024 *Nature Sustainability*

# Let's compare bird declines to pesticide use

# Neonics harm pollinators:
## Summary

*Clytus ruricola*, BugGuide.net

- Neonics are highly toxic to bees.
- Ubiquitous contamination of cropland and adjacent areas where treated seed it used
- A strong body of research, at multiple scales, corroborates neonics as driver of declines

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# Data Gaps - national pesticide use data

An official website of the United States government Here's how you know

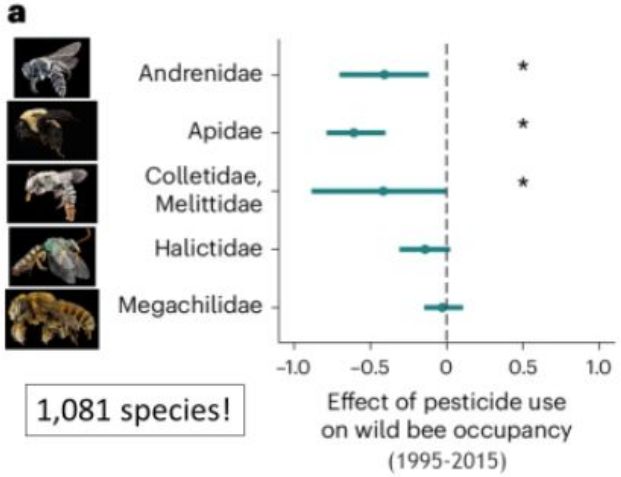
USGS science for a changing world

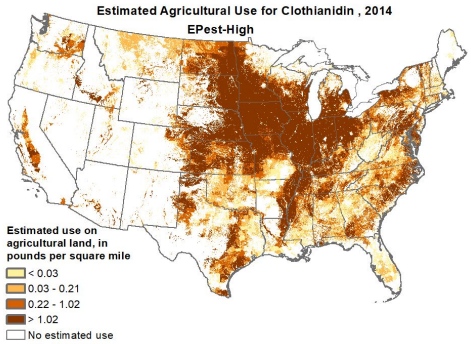
SCIENCE PRODUCTS NEWS CONNECT ABO

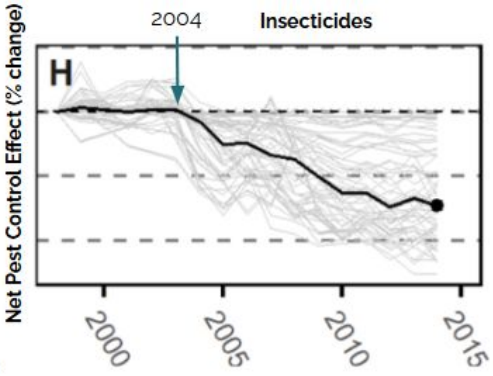
WEB TOOLS | DATA ACCESS TOOLS | DATA ANALYSIS TOOLS | INTERACTIVE MAPS

## Estimated Annual Agricultural Pesticide Use

March 4, 2019

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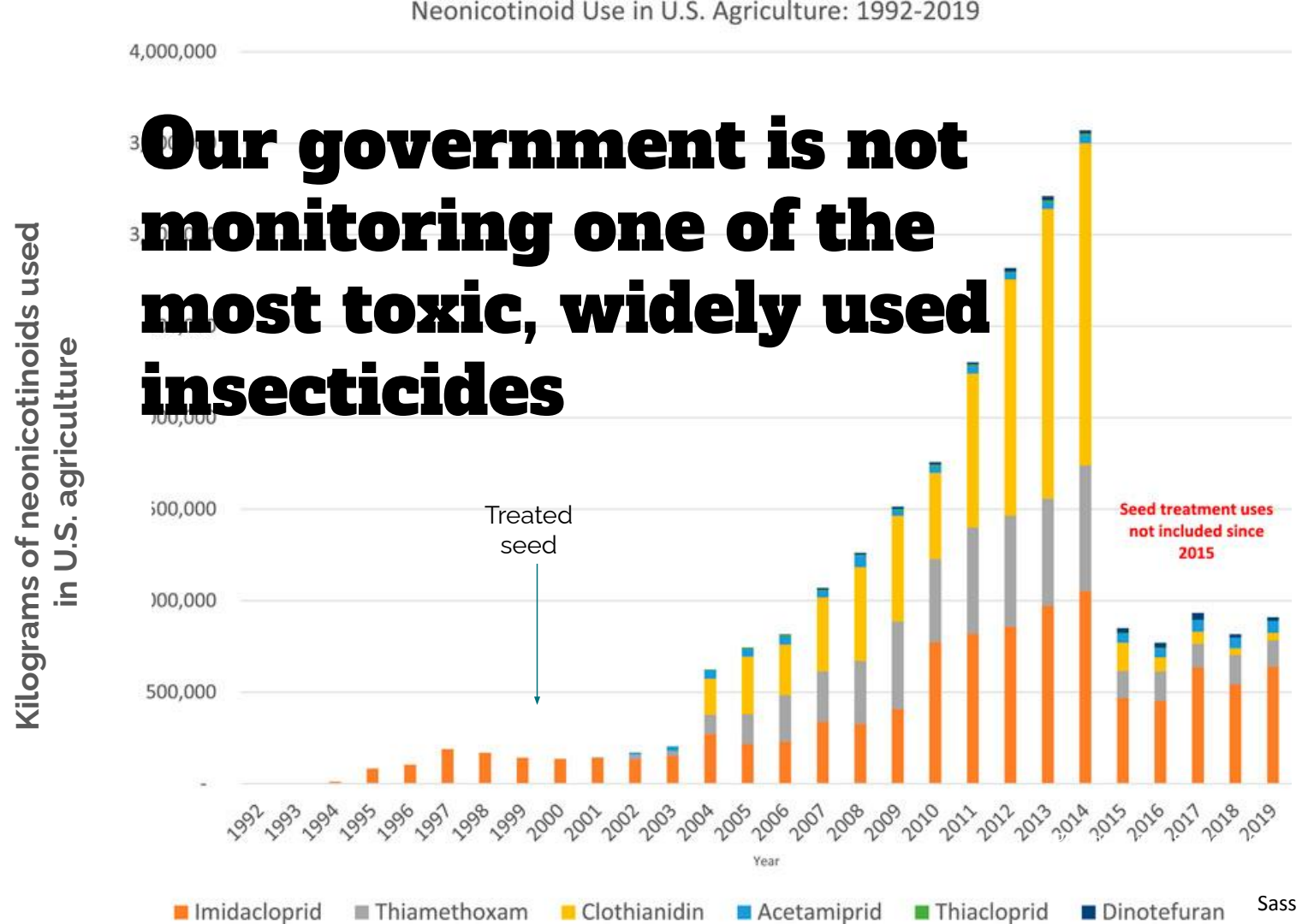
# Our government is not monitoring one of the most toxic, widely used insecticides

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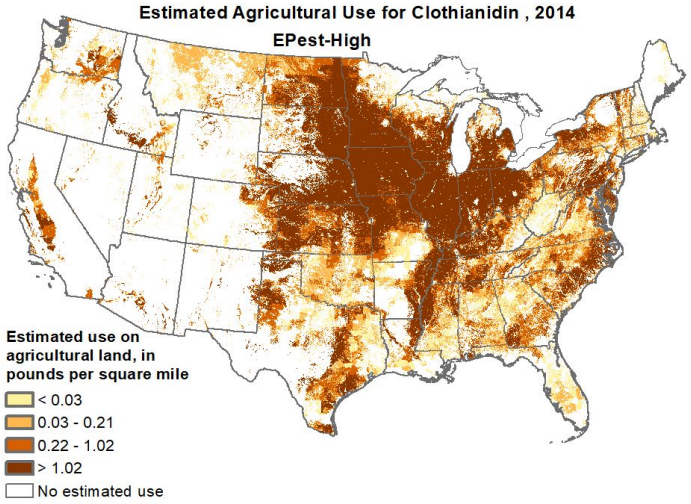
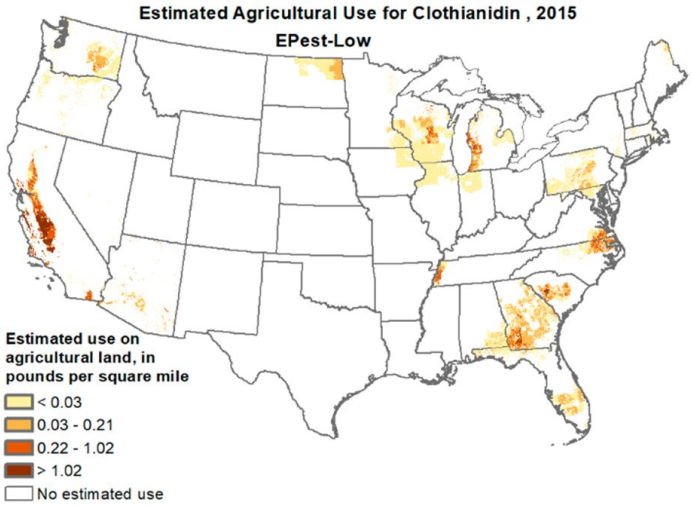
Sass et al. 2024 *Frontiers in Toxicology*




Figures: USGS NAWQA

# Data Gaps: Pesticide Use

Millions of pounds of pesticide use not tracked or reported

- Seed treatments not tracked: >10% of ag insecticide use in the US
- Residential use not tracked: 60 million pounds, 25% of total insecticide use
- Total ⅓ of use data is unavailable
- Public data on ag pesticide use cut back

xerces.org

# Pesticide risk is often underestimated

- Limited toxicity data for non-honeybee insects
- Screening for individual chemicals, not mixtures
- Real world impacts are more complex than our models
- The labels do not guarantee safe use

Photo: Jennifer Prince

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# Summary - data gaps

- By not tracking treated seed, we lost a vital tool to monitor population changes through time as a result of pesticide use.
- We lack good risk assessment that accounts for exposure to multiple chemicals, over long periods, and non-honey bee pollinators.
- Despite these data gaps, we know enough to act now!

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- Case study: neonicotinoids, pollinator declines, and data gaps
- Power of data to drive neonic policy: Quebec, NY and VT
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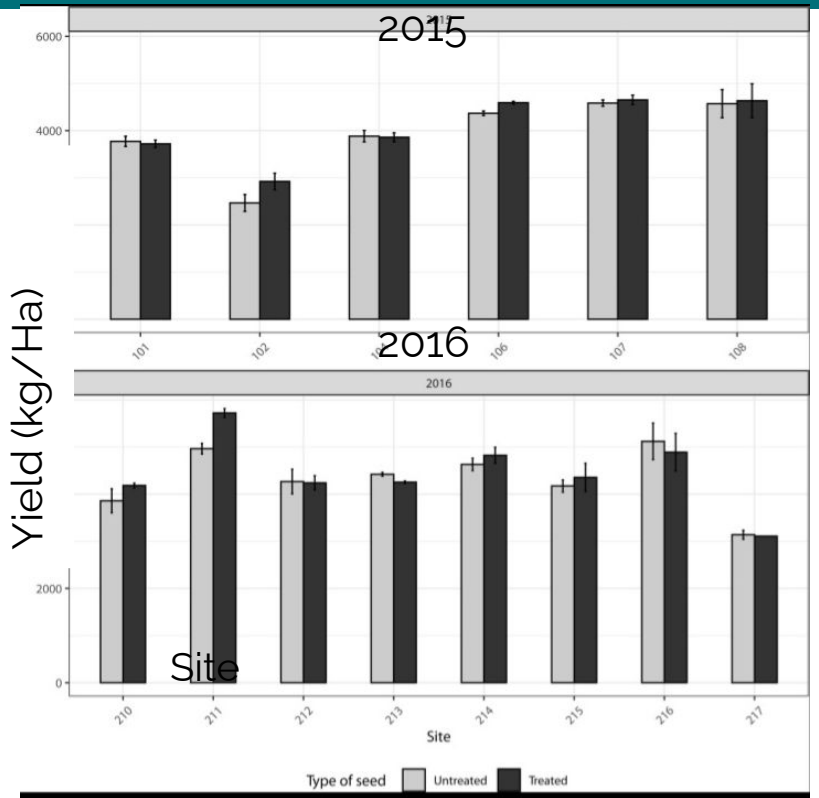
# Data driven neonic policy:
## Quebec




- EU: neonic ban in 2013 in flowering crops, expansion in 2018 to outdoors
- 2016 study ⇒ NSTs not needed
  - Wireworm was not a pest issue
  - seed treatments increased yield in fewer than 5% of fields
- 2019 agronomic prescription required for corn and soy ⇒ IPM
- 2025 expanded prescription to all insecticide treatments

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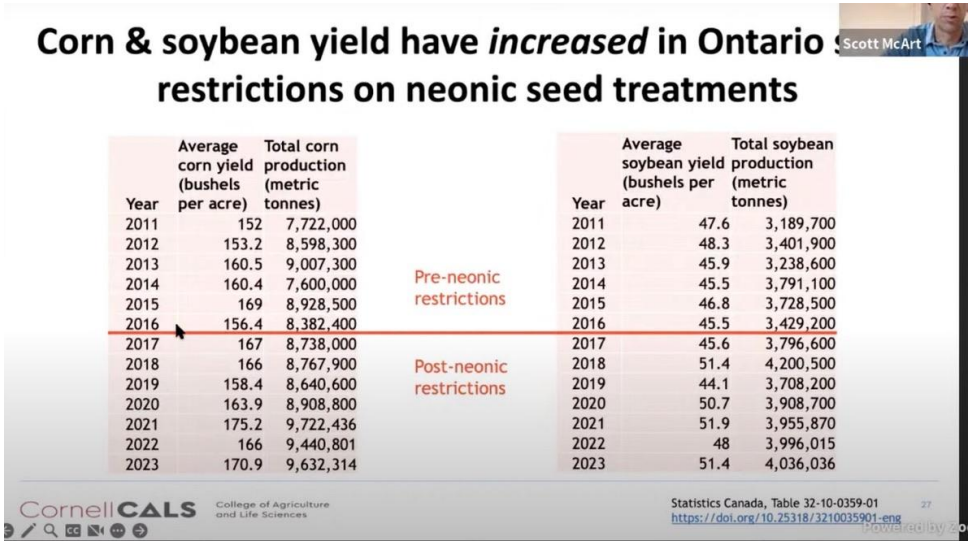
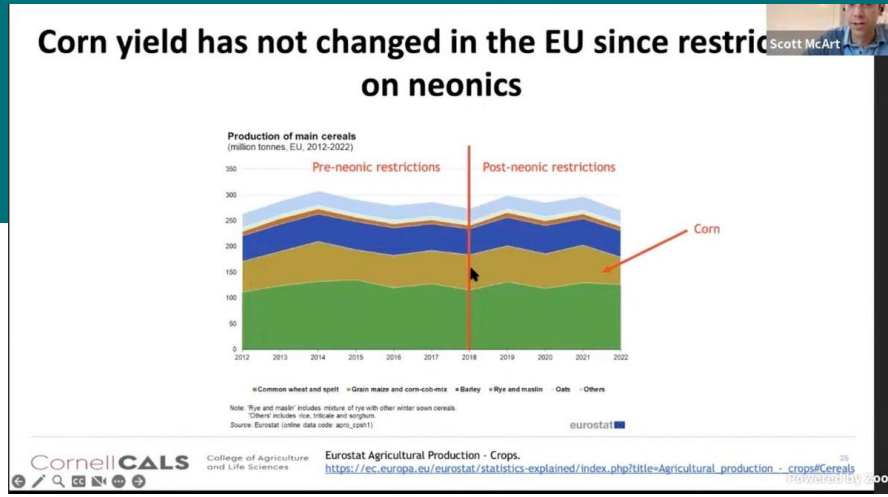
# Yields have Not Declined in Europe or Canada




| Year | Average corn yield (bushels per acre) | Total corn production (metric tonnes) |
|---|---|---|
| 2011 | 152 | 7,722,000 |
| 2012 | 153.2 | 8,598,300 |
| 2013 | 160.5 | 9,007,300 |
| 2014 | 160.4 | 7,600,000 |
| 2015 | 169 | 8,928,500 |
| 2016 | 156.4 | 8,382,400 |
| 2017 | 167 | 8,738,000 |
| 2018 | 166 | 8,767,900 |
| 2019 | 158.4 | 8,640,600 |
| 2020 | 163.9 | 8,908,800 |
| 2021 | 175.2 | 9,722,436 |
| 2022 | 166 | 9,440,801 |
| 2023 | 170.9 | 9,632,314 |

| Year | Average soybean yield (bushels per acre) | Total soybean production (metric tonnes) |
|---|---|---|
| 2011 | 47.6 | 3,189,700 |
| 2012 | 48.3 | 3,401,900 |
| 2013 | 45.9 | 3,238,600 |
| 2014 | 45.5 | 3,791,100 |
| 2015 | 46.8 | 3,728,500 |
| 2016 | 45.5 | 3,429,200 |
| 2017 | 45.6 | 3,796,600 |
| 2018 | 51.4 | 4,200,500 |
| 2019 | 44.1 | 3,708,200 |
| 2020 | 50.7 | 3,908,700 |
| 2021 | 51.9 | 3,955,870 |
| 2022 | 48 | 3,996,015 |
| 2023 | 51.4 | 4,036,036 |




Slides from testimony by Cornell's Scott McArt before the Vermont legislature

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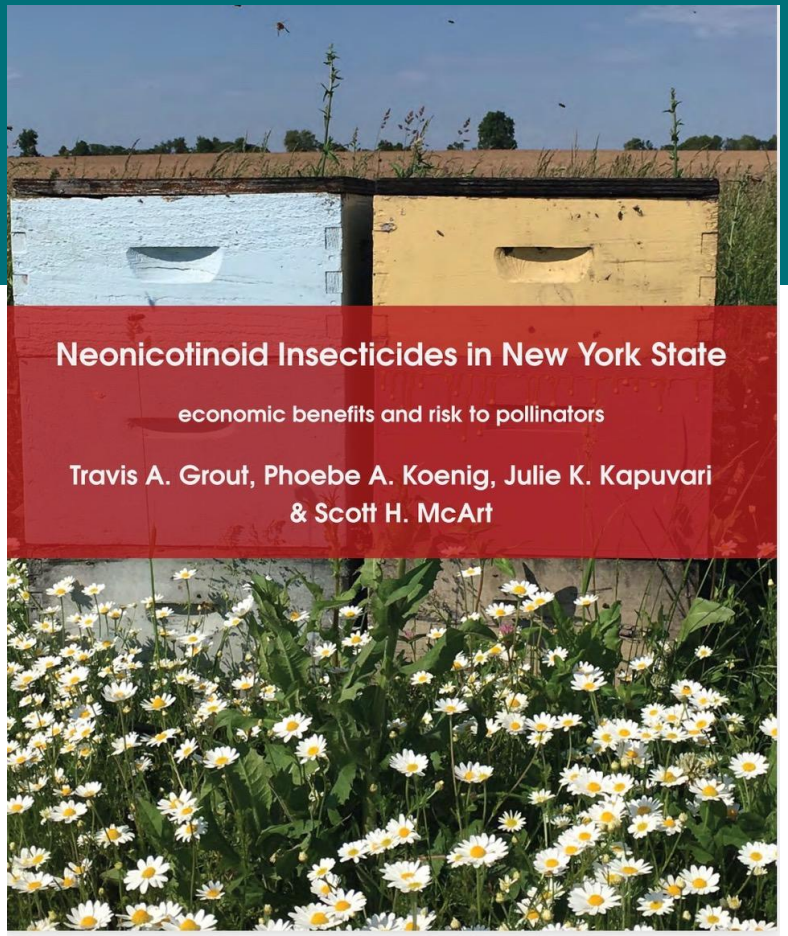
# Data driven neonic policy:
NY

- 2020 Cornell report
  - Summarized > 5000 paired field studies & confirmed:
  - Sublethal risks that will cause population declines
  - Little to no yield gains in field crops
- 2024 Birds & Bees Act
- 2029 Restriction on neonic treated seed after research trials.




Cornell University, Neonic Report 2020.

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# Data driven neonic policy:
## VT


Photo: Audubon Vermont

- 2015 Bill passed that started to track treated seed sales
- 2020 Data review revealed treated seed was largest source of neonic & total insecticide use
- 2024 Pollinator Protection Act
- Follows NY bill, seed treatment restricted in 2029 after field trials

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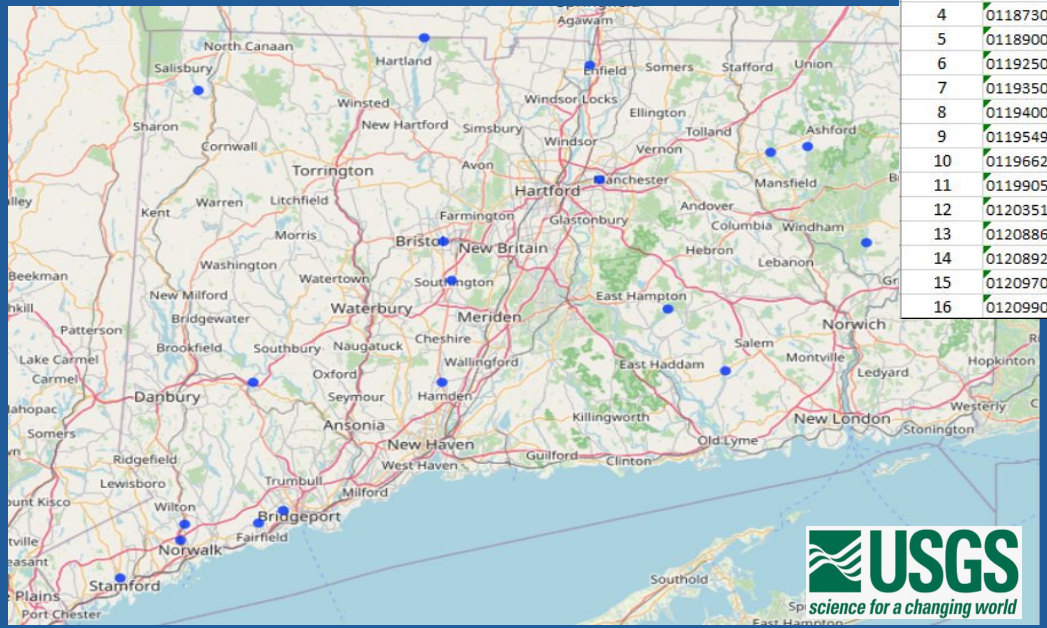
# CPR Formed During the Fight to Restrict Neonicotinoids

- We relied on data from New York, Quebec, Vermont and other neighbors.
- We could not find usable data on pesticide use in CT.  DEEP does not test for pesticides.
- DEEP does collect information on pesticide use but it is not searchable, unlike in neighboring states.

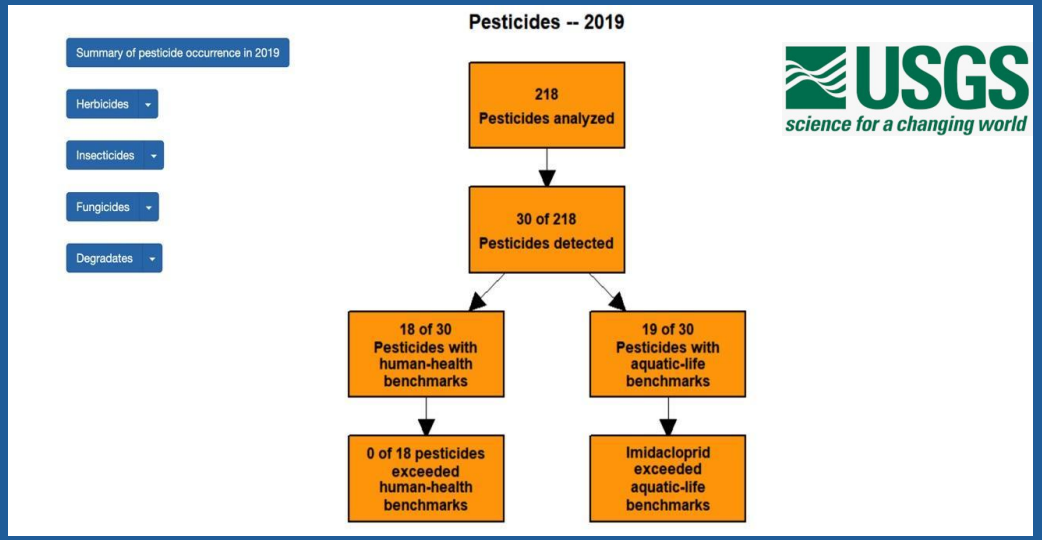
# A Breakthrough! The U.S. Geological Survey Tests Rivers for Pesticides Across the Country

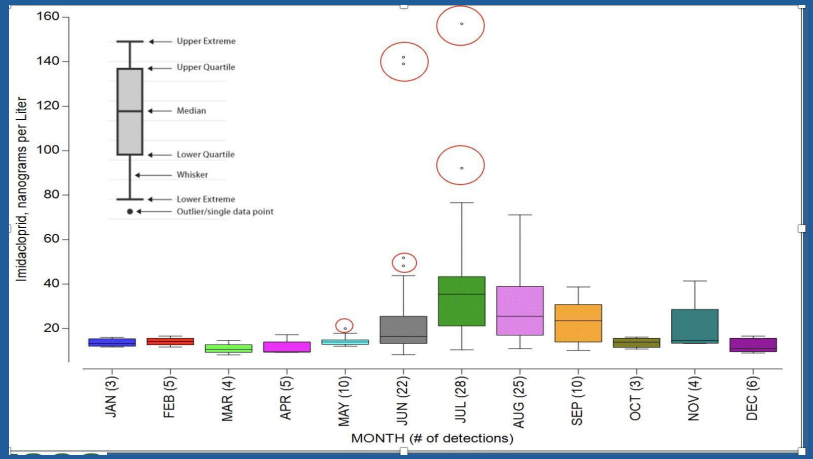



| Map ID | USGS ID | RIVER | Site type | # of pesticide samples collected | # of samples with imidacloprid detections | Concentration, in nanogram per Liter | | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | MIN | MAX | MEDIAN |
| 1 | 01121000 | MOUNT HOPE RIVER | Light Urban | 1 | 0 | < MDL | < MDL | < MDL |
| 2 | 01121330 | FENTON RIVER | Light Urban | 4 | 0 | < MDL | < MDL | < MDL |
| 3 | 01123000 | LITTLE RIVER | Light Urban | 1 | 0 | < MDL | < MDL | < MDL |
| 4 | 01187300 | HUBBARD RIVER | Forested | 4 | 0 | < MDL | < MDL | < MDL |
| 5 | 01189000 | PEQUABUCK RIVER | Urban | 9 | 9 | 35.2 | 175 | 60.1 |
| 6 | 01192500 | HOCKANUM RIVER | Urban | 9 | 9 | 27.8 | 85.9 | 41.6 |
| 7 | 01193500 | SALMON RIVER | Light Urban | 4 | 0 | < MDL | < MDL | < MDL |
| 8 | 01194000 | EIGHTMILE RIVER | Forested | 1 | 0 | < MDL | < MDL | < MDL |
| 9 | 01195490 | QUINNIPIAC RIVER | Urban | 9 | 8 | 10.5 | 56.3 | 31.0 |
| 10 | 01196620 | MILL RIVER, HAMDEN | Urban | 9 | 8 | 12.2 | 120 | 24.8 |
| 11 | 01199050 | SALMON CREEK | Light Urban | 4 | 0 | < MDL | < MDL | < MDL |
| 12 | 01203510 | POOTATUCK RIVER | Urban | 9 | 5 | 14.9 | 42.5 | 15.3 |
| 13 | 01208869 | ROOSTER RIVER | Urban | 9 | 9 | 22.7 | 567 | 122 |
| 14 | 01208925 | MILL RIVER, FAIRFIELD | Urban | 9 | 9 | 13.9 | 245 | 17.0 |
| 15 | 01209700 | NORWALK RIVER | Light Urban | 9 | 6 | 17.4 | 109 | 36.7 |
| 16 | 01209901 | RIPPOWAM RIVER | Urban | 9 | 7 | 16.0 | 270 | 47.6 |

Finds 56% of Connecticut Rivers Show Neonic Levels Harmful to Aquatic Life

# The Norwalk River



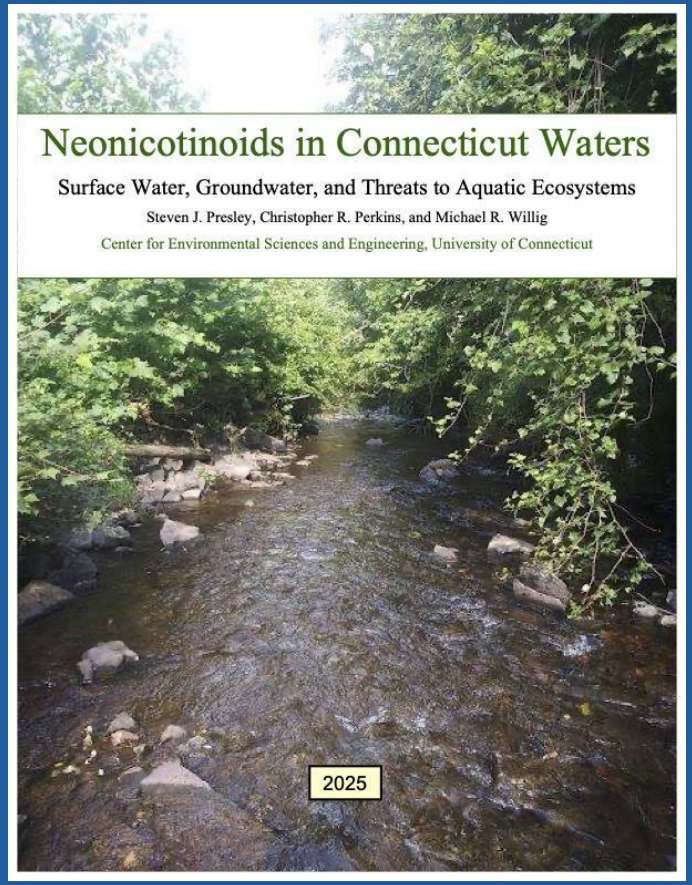




2013-2022

Of 218 Pesticides Tested, 30 Show Up in the River

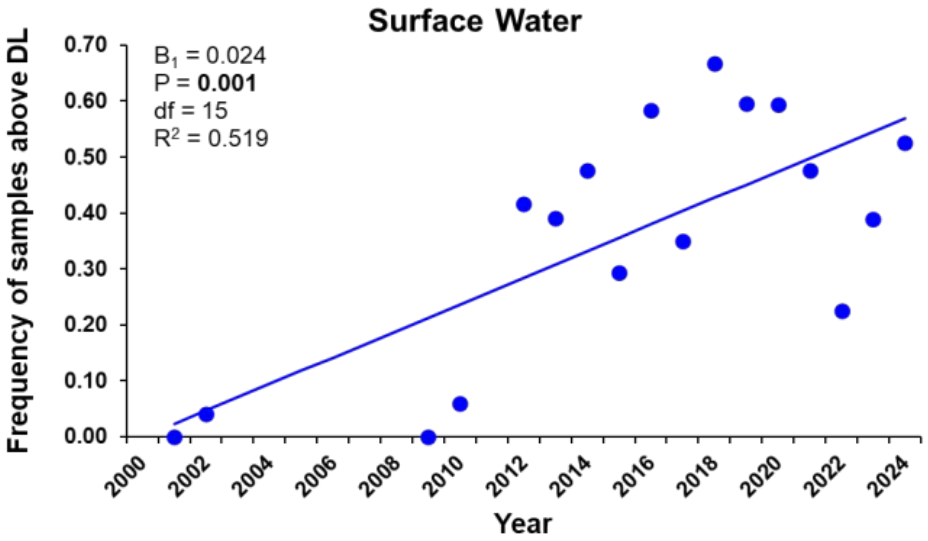
# UCONN Report

- CPR partners begin testing for neonics around golf courses
- Work with UCONN to compile USGS and CPR test results
- Incorporate CT DEEP surveys monitoring aquatic insects in the Norwalk River since 1989.



# Neonics in CT Surface Waters:
# Present at harmful levels in the Norwalk River which is tested by the US Geological Survey monthly

## Norwalk Is Mostly Non-Ag Uses



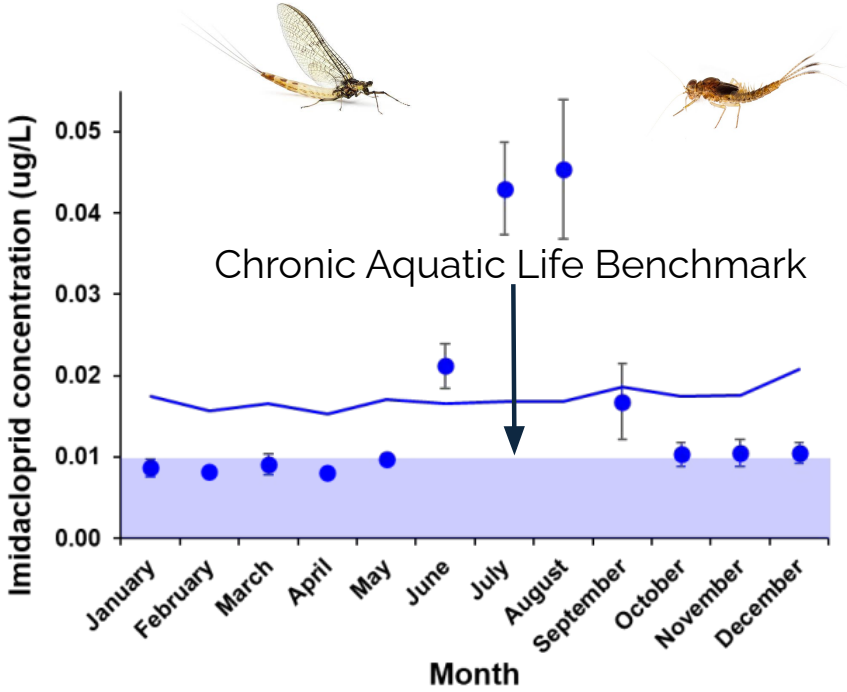
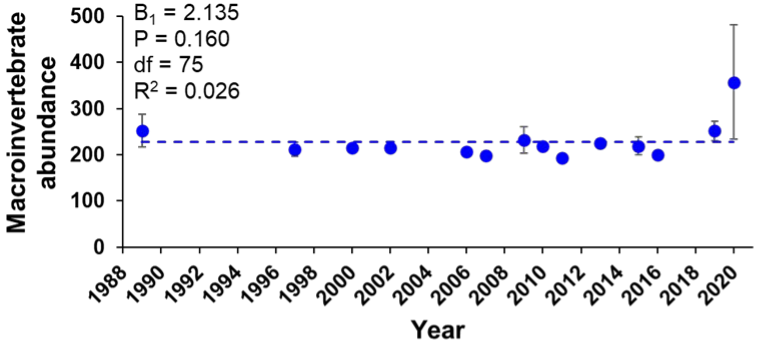



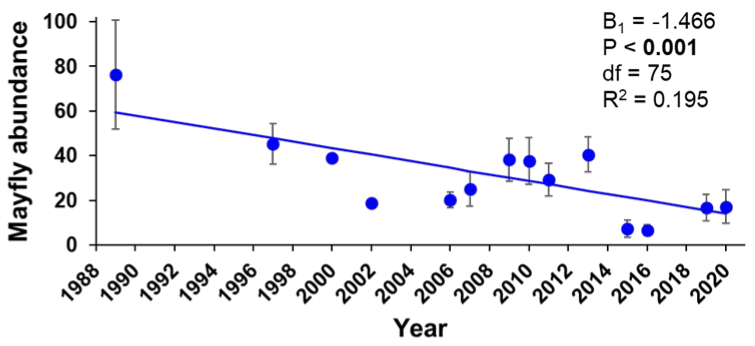

Photo: Andy Holt & GlobalP @ Getty Images/iStockphoto

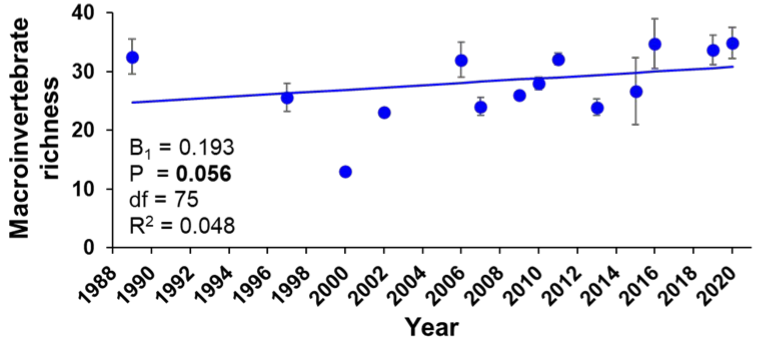
Presley et al 2025 UCONN

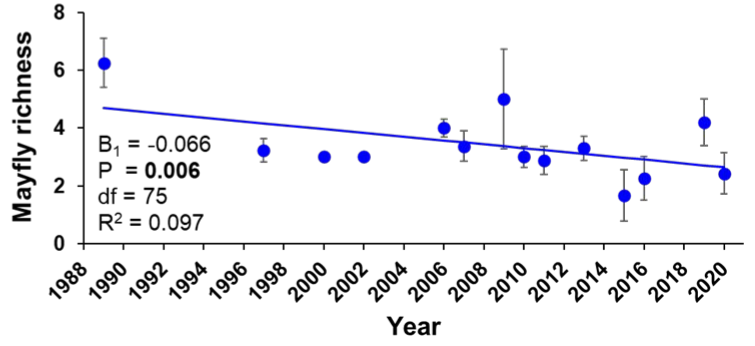
# CT DEEP Aquatic Insect Monitoring Results

## Norwalk River Case Study - Macroinvertebrates



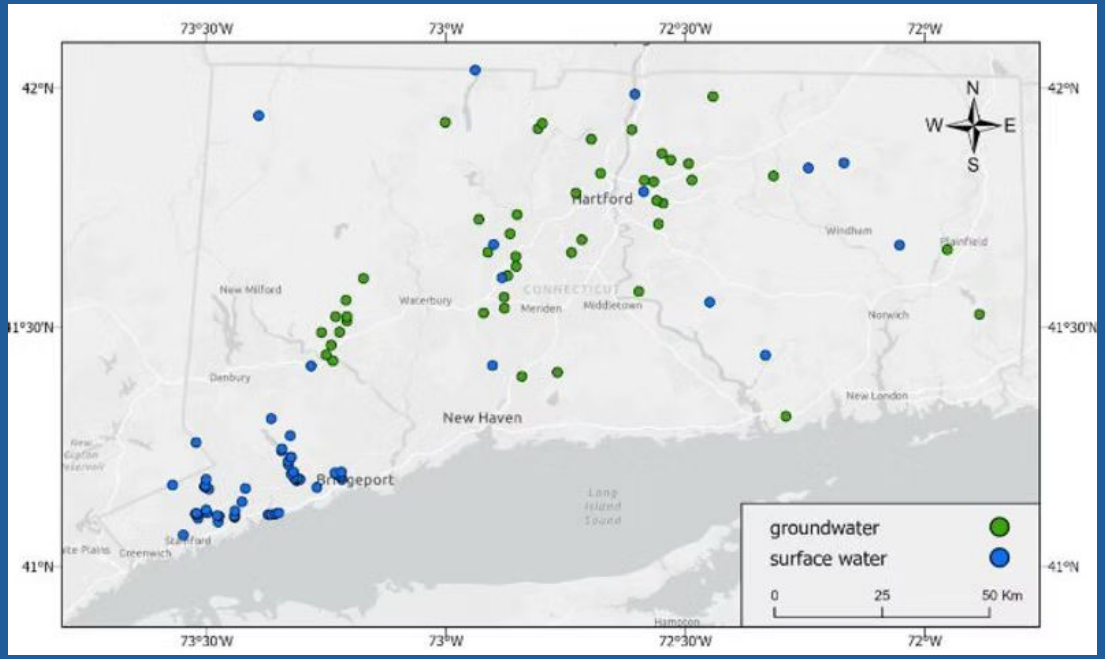



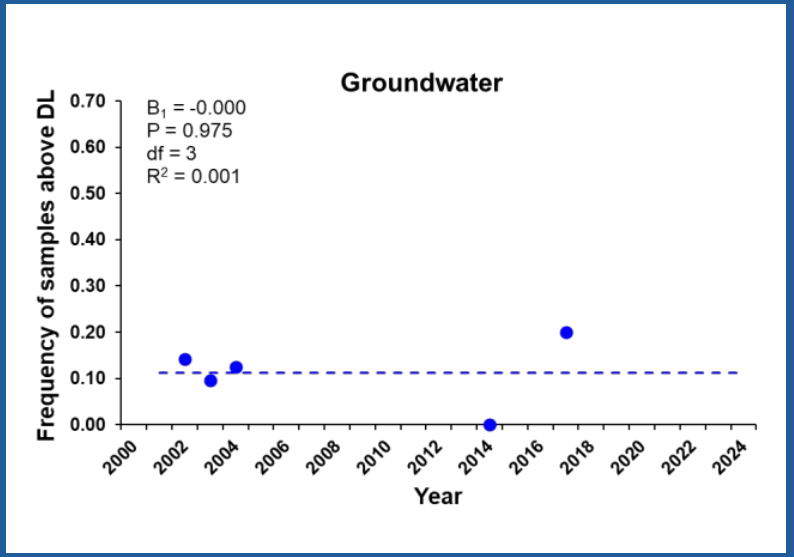



# USGS RESULTS

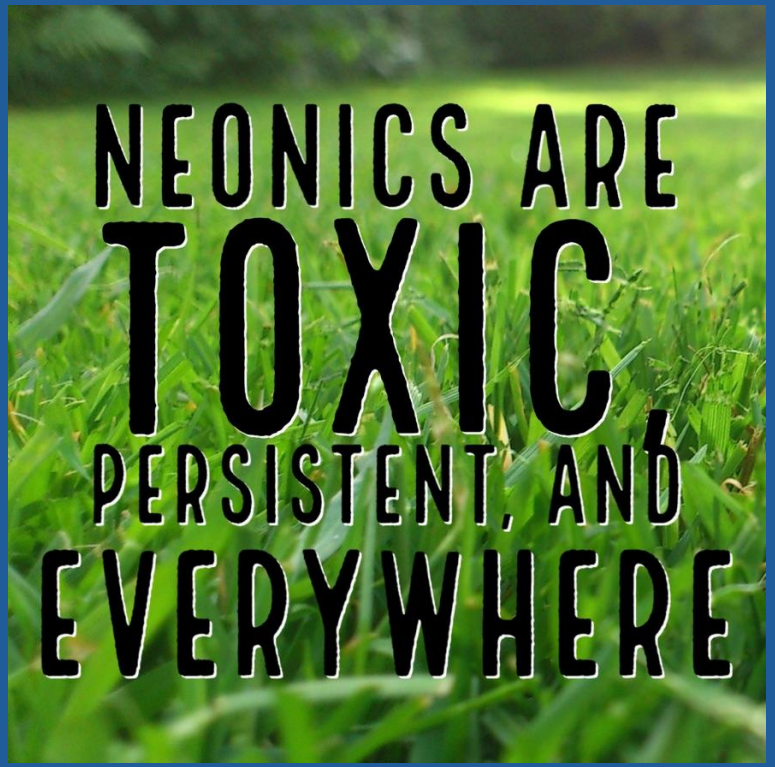
## Ground Water



# Human Health Impacts of Neonics

- Nicotine-like, they affect the neurological system
- Studies show harms to heart and brain development in prenatally exposed children, decreased sperm quality and quantity, decreased testosterone, altered insulin regulation, and changes in fat metabolism.
- The CDC found neonics in 50% of the population with the highest concentrations found in children.

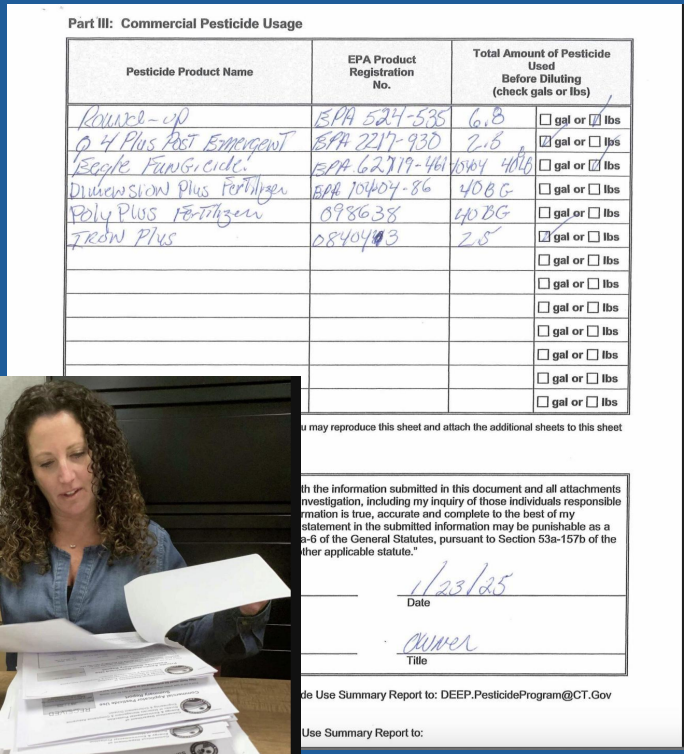


# Legislative Progress Last Year!
# Connecticut Bans Use of Neonics on Lawns and Golf Courses—350,000 Acres

Connecticut CPR Pesticide Reform

# What We Learned About Pesticide Use Reporting While Advocating for Neonic Policy

- Applicators submit information as an uploaded image of a hand-written form to DEEP's eLicense portal.
- The information isn't searchable by chemical name. No summaries of use can be created.
- There is no easy way for researchers, the public, policy makers or the agencies to use the information on the thousands of pages uploaded each year.



Part III: Commercial Pesticide Usage

| Pesticide Product Name | EPA Product Registration No. | Total Amount of Pesticide Used Before Diluting (check gals or lbs) | |
|---|---|---|---|
| Round-up | EPA 524-535 | 6.8 | ☐ gal or ☑ lbs |
| Q4 Plus Post Emergent | EPA 2217-930 | 2.5 | ☑ gal or ☐ lbs |
| Eagle Fungicide | EPA 62719-461 | 4016 | ☐ gal or ☑ lbs |
| Dimension Plus Fertilizer | EPA 10404-86 | 40BG | ☐ gal or ☐ lbs |
| Poly Plus Fertilizer | 098638 | 40BG | ☐ gal or ☐ lbs |
| Iron Plus | 0840[illegible]3 | 2.5 | ☑ gal or ☐ lbs |
| | | | ☐ gal or ☐ lbs |
| | | | ☐ gal or ☐ lbs |
| | | | ☐ gal or ☐ lbs |
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| | | | ☐ gal or ☐ lbs |

u may reproduce this sheet and attach the additional sheets to this sheet

th the information submitted in this document and all attachments
nvestigation, including my inquiry of those individuals responsible
rmation is true, accurate and complete to the best of my
statement in the submitted information may be punishable as a
a-6 of the General Statutes, pursuant to Section 53a-157b of the
ther applicable statute."

1/23/25
Date

Owner
Title

de Use Summary Report to: DEEP.PesticideProgram@CT.Gov

Use Summary Report to:

# Council on Environmental Quality Pesticides in Connecticut Report (2025)

- Identifies major deficiencies in the way Connecticut collects and reports pesticide use data.
- The report lists data gaps
- This year's bill HB 5155 was written to address some of these gaps

# Outline

- Case study: neonicotinoids, pollinator declines, and data gaps
- Power of data to drive neonic policy: Quebec, NY and VT
- Connecticut contamination and policy
- Pesticide Data Modernization Act and how you can get involved

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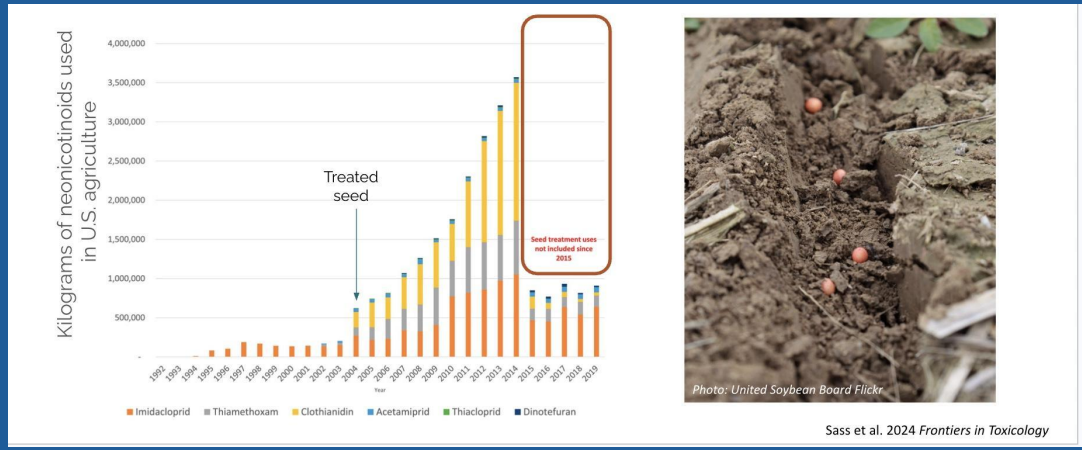
for Invertebrate Conservation

# HB 5155 An Act Concerning Pesticide Reporting Modernization

- Requires DEEP to “institute the use of modern technology and methodologies” for the reporting of pesticide applications that are already required by state statute.
- And to require the sellers of pesticide treated seed to report total annual sales.

# Tracking Treated Seed is Key


- Vermont has tracked seed sales since 2021
- Uses on corn, soy and wheat have been shown in hundreds of field trials to be ineffective.
- 95% of treatment escapes into air, soil, and water



# Landscapers Do Not Have to Report Location of Use

- Private pesticide applicators (largely farmers) report location of use but Commercial Applicators (largely landscaping companies) do not.
- Please help us encourage the legislature to strengthen HB 5155 by adding a requirement that commercial pesticide applicators submit location information.
- This could be done in a way that does not expose individual addresses as is done in other states.  (California and New York are examples).

# A Concern You May Hear:
# A searchable database would make farmers vulnerable to being targeted for using pesticides.

The Reality:

- Farmers' names and addresses appear in the current system, which the public can access
- Potentially a modernized system could provide farmers with more protections, reporting information publicly at the county level only.

# Modernizing the System Will

- Improve data quality for agricultural and environmental decision-making.
- Improve DEEP's ability to monitor use and investigate potential violations of state laws and regulations.
- Help researchers detect emerging contamination trends.
- Build public trust.

# Actions We Can All Take

- Support science!
- CPR coalition organizations CT Audubon, Norwalk River Watershed Association and East Norwalk Blue, are working with UCONN researchers to study pesticide levels in rivers and their effects on aquatic and marine life.

NRWA
Norwalk River Watershed Assoc

NorwalkRiver.org

THE CONNECTICUT Audubon SOCIETY

CTAudubon.org

ENb
East Norwalk Blue

EastNorwalkBlue.org

# Write or Call Your Legislators

- Write a postcard tonight
- Call your representatives tomorrow
- Ask them to support modernizing Connecticut's pesticide reporting systems, so we have reliable data on what is being used in the state and in what quantities.
- Take home a factsheet about the bill…and share!

Connecticut CPR Pesticide Reform

## HB 5155 AN ACT CONCERNING PESTICIDE REPORTING MODERNIZATION

### WHY WE NEED PESTICIDE REPORTING MODERNIZATION

#### PESTICIDE TRACKING IN CONNECTICUT IS OUTDATED

- A 2025 Connecticut Council on Environmental Quality (CEQ) report identifies major deficiencies in the way Connecticut collects and reports pesticide use data.
- Licensed pesticide applicators currently upload images of handwritten paperwork. There is no searchable database.
- This leaves state agencies, researchers, and the public without access to data on pesticide use--what is being used, how much and where.

#### PESTICIDES ARE SHOWING UP IN OUR WATER

- US Geological Survey testing shows pesticides in Connecticut groundwater.
- 56% of Connecticut rivers contain pesticides at levels toxic to aquatic life (USGS).
- CT DEEP surveys show a 75% decline in mayflies in the Norwalk River since 1989, the same period pesticide levels began to exceed aquatic life benchmarks.

#### PESTICIDE COATED SEEDS ARE NOT TRACKED AT ALL

- A federal loophole exempts pesticides used as seed coatings from being classified as pesticides.
- Therefore no tracking of sales or monitoring of use occur at all for this source of pesticides in the environment.

#### MODERNIZING THE SYSTEM WILL:

- Improve data quality for agricultural and environmental decision-making.
- Align with CT DEEP's 20BY26 governmental efficiency initiative.
- Improve DEEP's ability to monitor use and investigate potential violations of state laws and regulations.
- Help researchers detect emerging contamination trends.
- Build public trust. The public has a right to know, according to state law, what pesticides are being used, where, and how much.

### HB 5155 STATEMENT OF PURPOSE

To require the Department of Energy and Environmental Protection to institute the use of modern technology and methodologies for the reporting of pesticide applications in the state and enable ready knowledge of where pesticides are being used, what pesticides are being used and the quantities of pesticides that are being used.

### KEY POINTS

- HB 5155 adds to state law the tracking of how much treated seed is sold in the state, something Vermont has done since 2021, and which fills a key pesticide use data gap.
- Sellers of treated seed would be the ones to report amounts sold in the state
- No added burden on farmers--they buy and plant seeds as always with no added reporting.
- Farmers submit the same information they do now, just into an updated more user-friendly system.
- Farmers submit location of use information but commercial applicators (landscape companies) do not currently.
- The bill language should be strengthened to specify the collection of locational data from all users.
- As the 2025 CEQ Pesticides in CT Report states, a data gap exists because no locational information is required to be submitted to DEEP for restricted-use pesticides applied or directed by Commercial Supervisors.

# Plant for Pollinators, Avoid Pesticides
# Log Observations on iNaturalist, Bumble Bee Watch, Support These Organizations


Pollinator-Pathway.org

XERCES SOCIETY
for Invertebrate Conservation

Xerces.org

iNaturalist

iNaturalist.org

# Your Voices Matter So Much!
# You Have made CT a Leader in Pesticide Reform

- Since 2010 CT has banned pesticide use on school grounds k-8, the strictest protections in the country
- In 2016, CT made neonics restricted use as part of the Pollinator Protection Act
- In 2023, CT banned chlorpyrifos from golf courses, which were responsible for 80% of use in the state
- Last Year We Passed a Law Barring the Use of Neonics on Lawns and Golf Courses
- There is more work to do, though, let's pass HB 5155 An Act Concerning Pesticide Reporting Modernization
- More info at **CTPesticideReform.org**

Questions?
Comments?

# Bee an Influencer

*"A little pressure goes a long way."*

Lori Vollmer, owner of Garden Fever!
in Portland, Oregon

mia.park@xerces.org
lwasher@norwalkriver.com

Please fill-out the evaluations!

xerces.org

Photo: *Bombus occidentalis*- Rich Hatfield

Stay for…

Mia - iNaturalist Demo

Louise - postcard to your representative

# Bee an Influencer

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xerces.org

Photo: *Bombus occidentalis*- Rich Hatfield

skip?

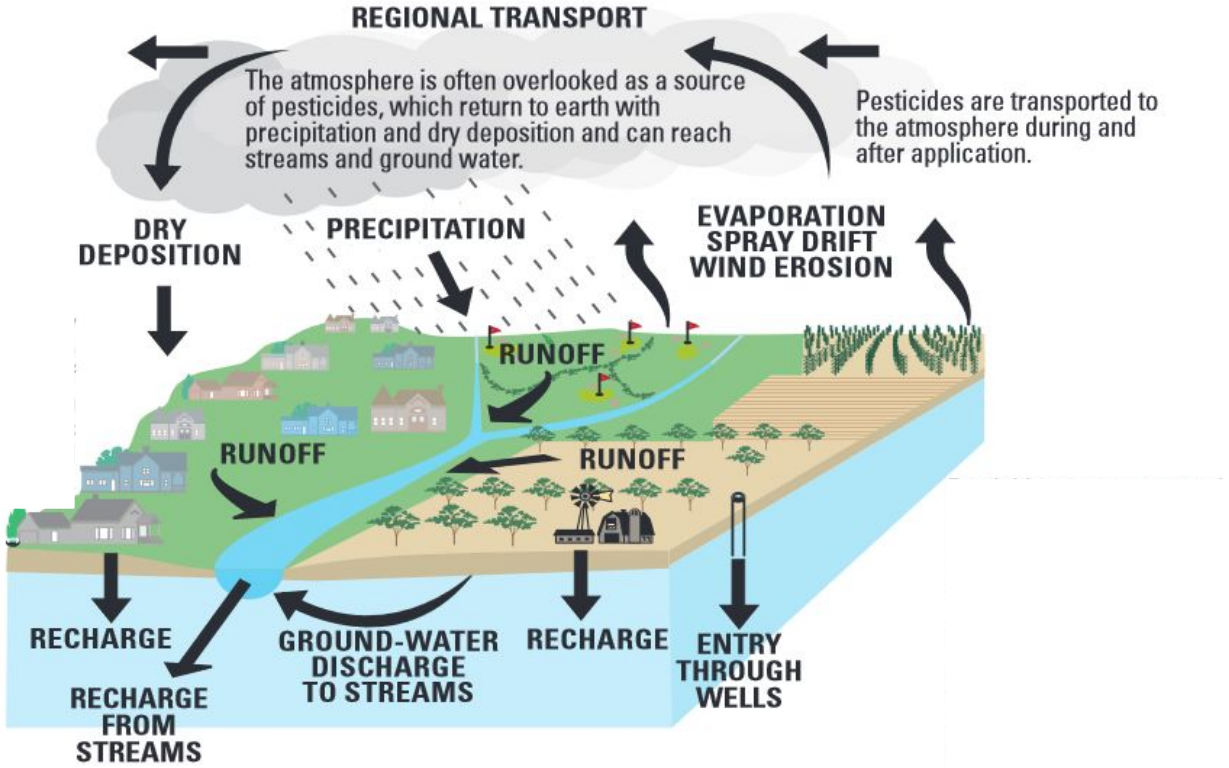


**Figure 2–4.** Pesticides are transported to streams and ground water primarily by runoff and recharge. Nonpoint sources of pesticides originating from areas where they were applied—rather than point sources such as wastewater discharges—are the most widespread causes of pesticide occurrence in streams and ground water. (Modified from Majewski and Capel, 1995.)

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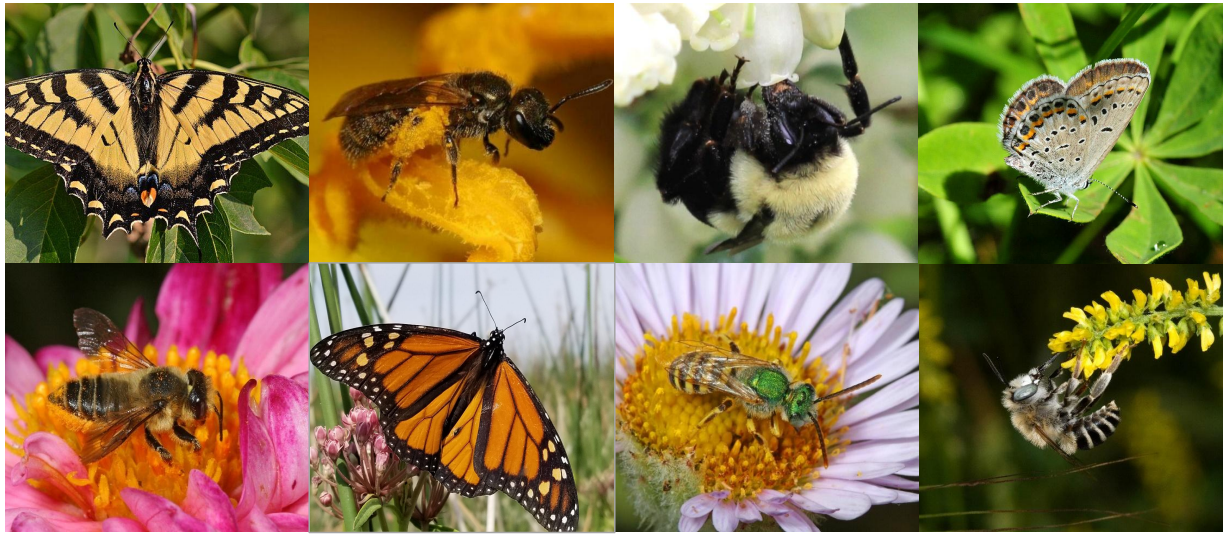
# Pollinator Declines:
## Wild bees and butterflies

### 390 bee & 121 butterfly species in CT



Photos: Ryan Hodnett, wikimedia commons; Rollin Coville, Betsy Betros, Jason Gibbs, Emily May

- 32% native bees are in decline in CT
- 25% fewer wild bee species than 30 yrs ago
- 30% bumble bees are threatened or endangered
- 33% fewer butterflies in Ohio from 1996 to 2016

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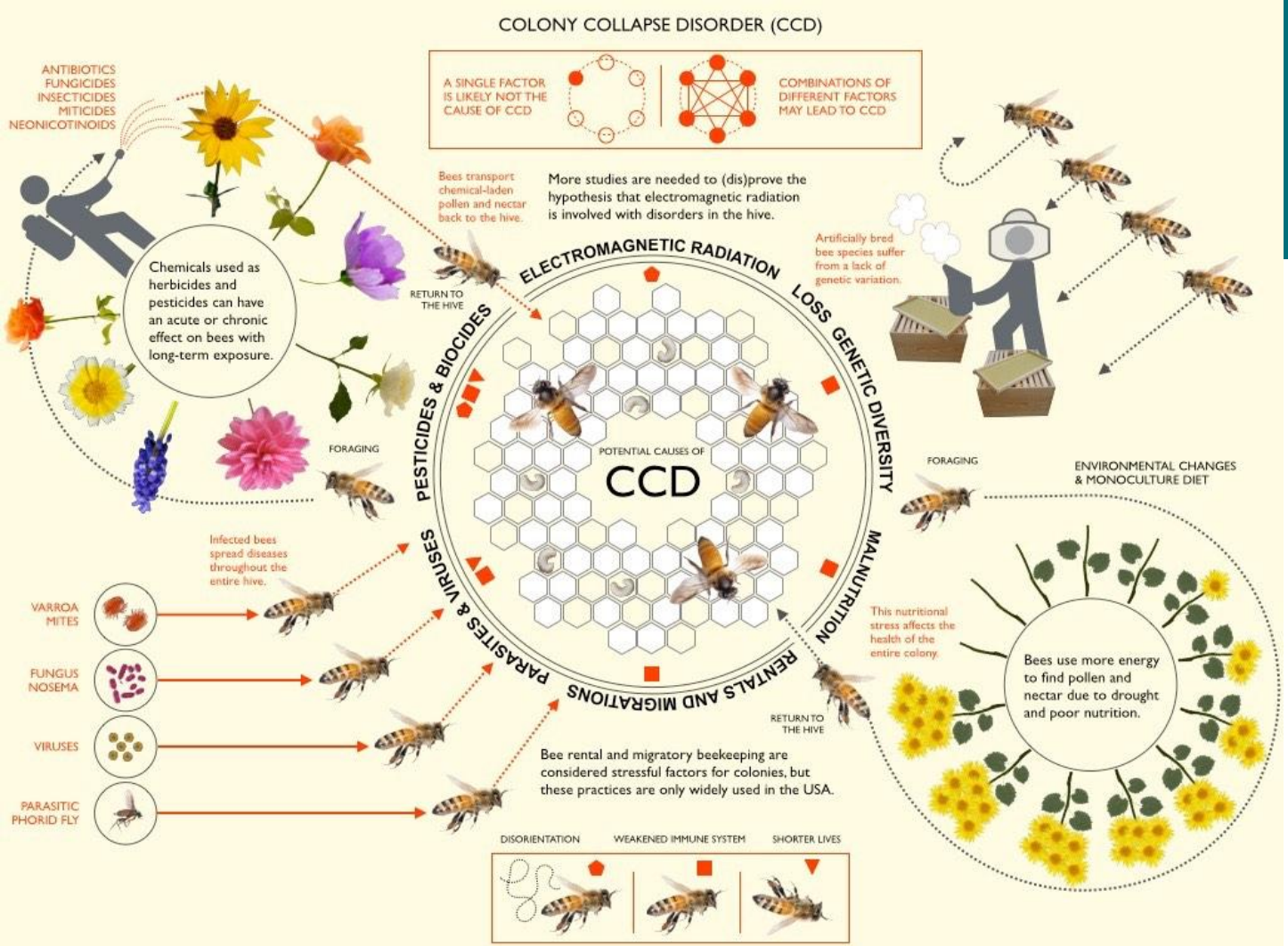


Wood 2015 in Environmental Sciencebites, The Ohio State University

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# Widespread contamination of pesticide mixtures

## HB and BB pollen

Canola, wildflower, & bee pollen with neonicotinoids and synergistic fungicides[1]

## CA Wildlife Refuges

36 ai's detected. Similar contamination at refuge edge & center from surrounding ag[2]

## Urban Host Plants

93.5% plants in Sacramento and Albuquerque had ag pesticides. Ave. 3 (18 max). Toxic levels detected.[3]

for Invertebrate Conservation

Data: 1 David 2016; 2 Lenard et al. 2025;, 3Dittemore et al. 2025; Photos: Fluidr, Emily May Xerces, Tom Potterfield flickr