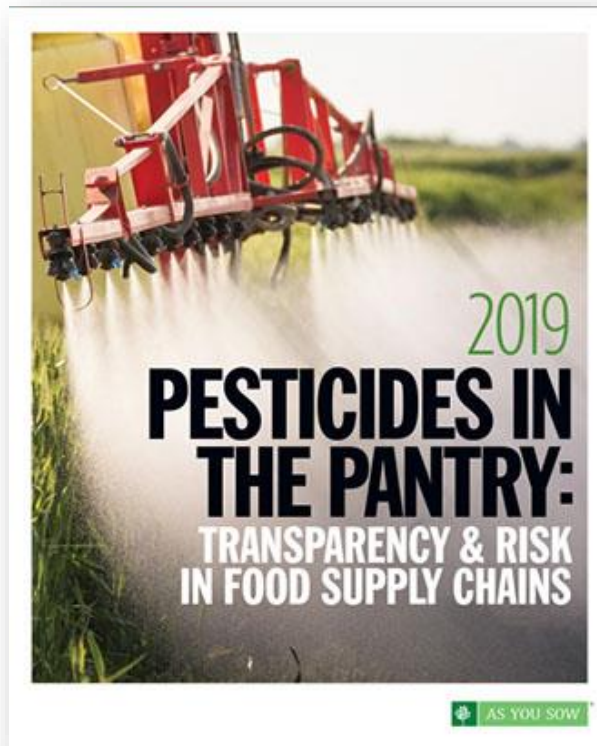




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PESTICIDES IN THE PANTRY: Transparency & Risk in Food Supply Chains



Webinar and Report
Thursday, November 7, 2019



AS YOU SOW

Moderator



Danielle Fugere

President and Chief Counsel

As You Sow



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Featured Speakers

Caroline Boden
Shareholder Advocacy
Manager
Mercy Investment
Service, Inc.



Christy Spees
Environmental Health
Program Manager
As You Sow



Jessica Hulse Dillon
Manager
Regenerative Supply
Working Group



Kendra Klein
Senior Staff Scientist
Friends of the Earth





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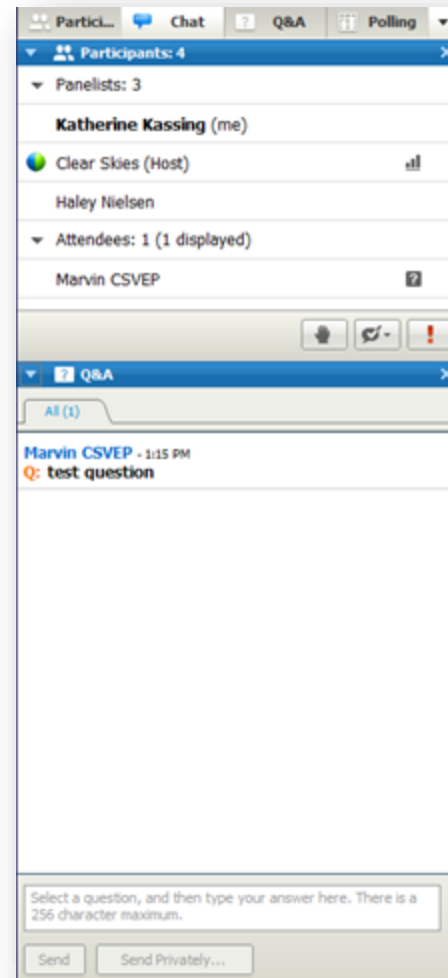
General Information

- Use the Q&A window to send us your questions
- After the webinar, you will receive an email link to the recording.

Q&A Window

DOWNLOAD REPORT

<https://asyousow.org/reports>





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AGRICULTURAL PESTICIDES: Harm to Human Health & Pollinators



Kendra Klein

Senior Staff Scientist,
Friends of the Earth





Plummeting insect numbers 'threaten collapse of nature'

The Guardian
February 10, 2019



Common weed killer glyphosate increases cancer risk by 41%, study says

February 15, 2019



USDA Pesticide Data Program

APPLES

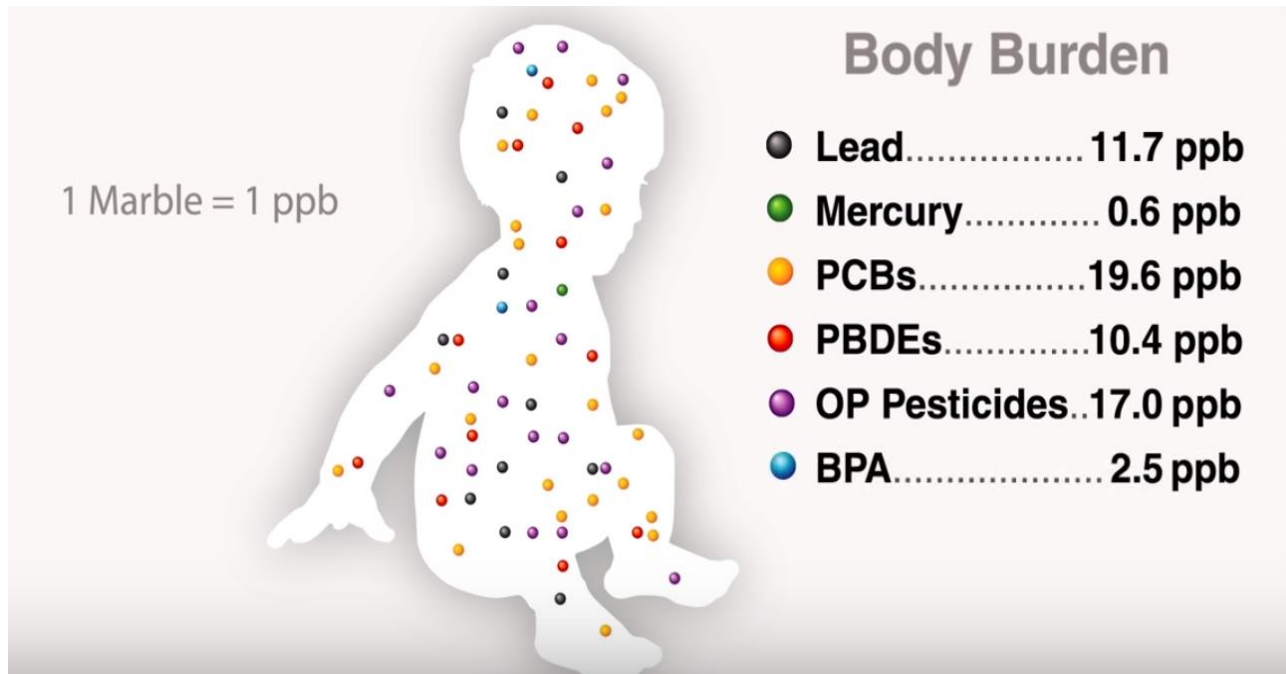
47 different pesticide residues found

- 6 Known or Probable Carcinogens
- 16 Suspected Hormone Disruptors
- 5 Neurotoxins
- 6 Development or Reproductive Toxins
- 11 Honeybee Toxins



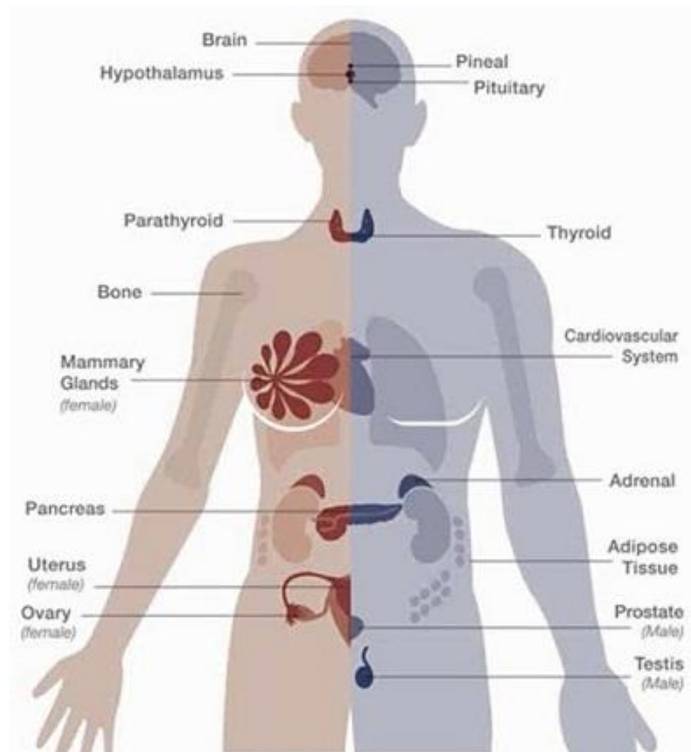
www.whatsonmyfood.org
Pesticide Action Network

Cumulative Exposures Add Up



Endocrine Disruption

“US regulations have not kept pace with scientific advances showing that widely used chemicals cause serious health problems at levels previously assumed to be safe.”



Gross, L. and Birnbaum, L.S., 2017. Regulating toxic chemicals for public and environmental health. *PLoS Biology*, 15(12), p.e2004814.

Research on health benefits of organic diet suggests that pesticide food residues matter

Reduced risk of cancer

Baudry, J. *et al.*, 2018. Association of frequency of organic food consumption with cancer risk: findings from the NutriNet-Santé prospective cohort study. *JAMA internal medicine*, 178(12), pp.1597-1606.

Improved fertility outcomes

Chiu, Y.H. *et al.*, 2018. Association between pesticide residue intake from consumption of fruits and vegetables and pregnancy outcomes among women undergoing infertility treatment with assisted reproductive technology. *JAMA internal medicine*, 178(1), pp.17-26.

Reduced risk of diabetes

Sun, Y. *et al.*, 2018. Inverse Association between Organic Food Purchase and Diabetes Mellitus in US Adults. *Nutrients*, 10(12), p.1877.

Pregnant women, infants, children, and adolescents are most vulnerable



Farmworkers, their families, and rural communities are more vulnerable



Mothers who live within a mile of fields where toxic pesticides are applied had a 60% higher chance of having kids with autism.

Pollinators & other beneficial insects are at risk

U.S. Agriculture is 48 times more toxic to insect life now than two decades ago—when we started using neonic pesticides.



<https://foe.org/toxic-acres/>

DiBartolomeis, M., Kegley, S., Mineau, P., Radford, R. and Klein, K., 2019. An assessment of acute insecticide toxicity loading (AITL) of chemical pesticides used on agricultural land in the United States. PloS one, 14(8), p.e0220029.

Farmers are on a “pesticide treadmill”

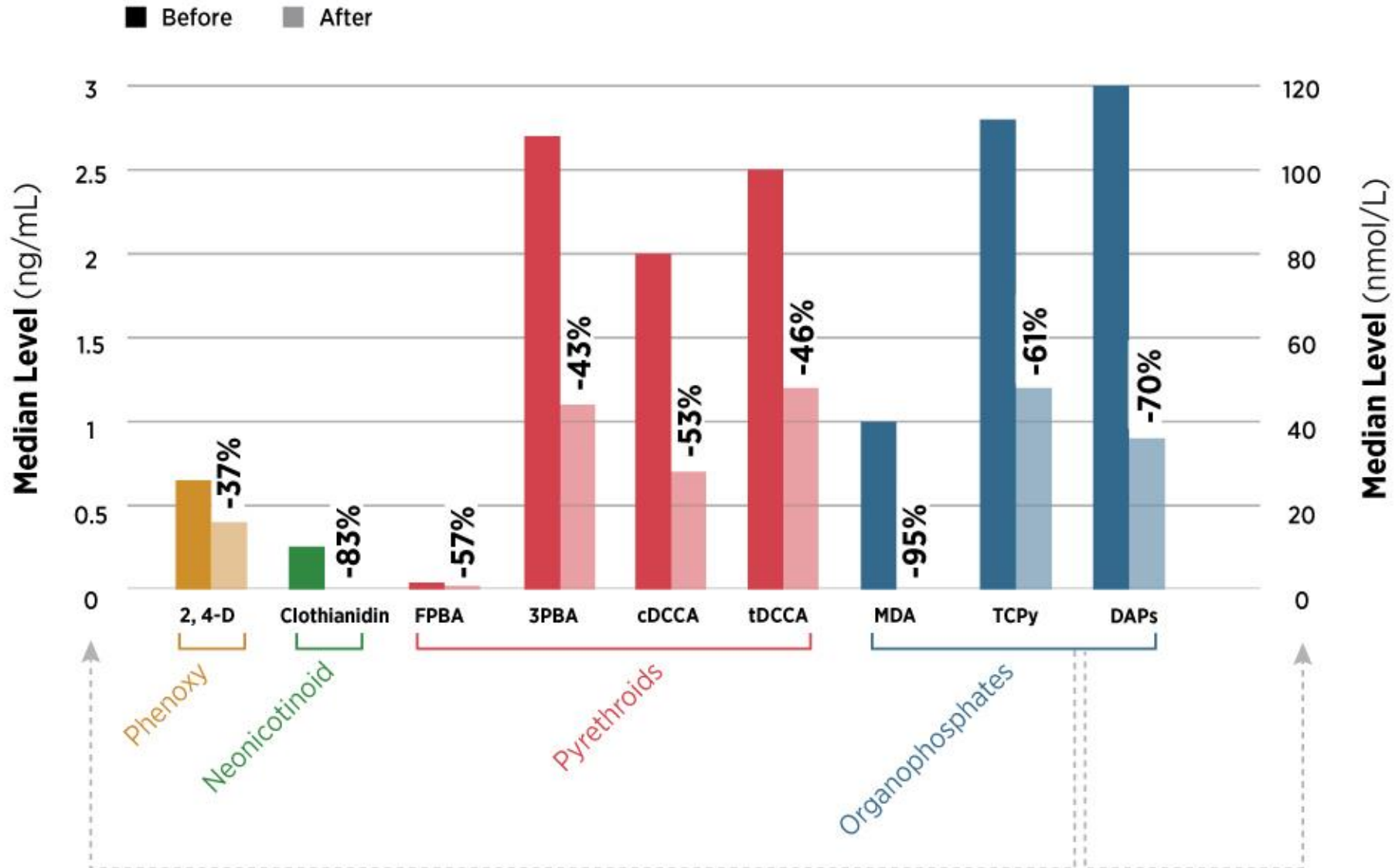
Despite increasing use of pesticides, farmers are losing more of their crops to pests today than they did in the 1940s.

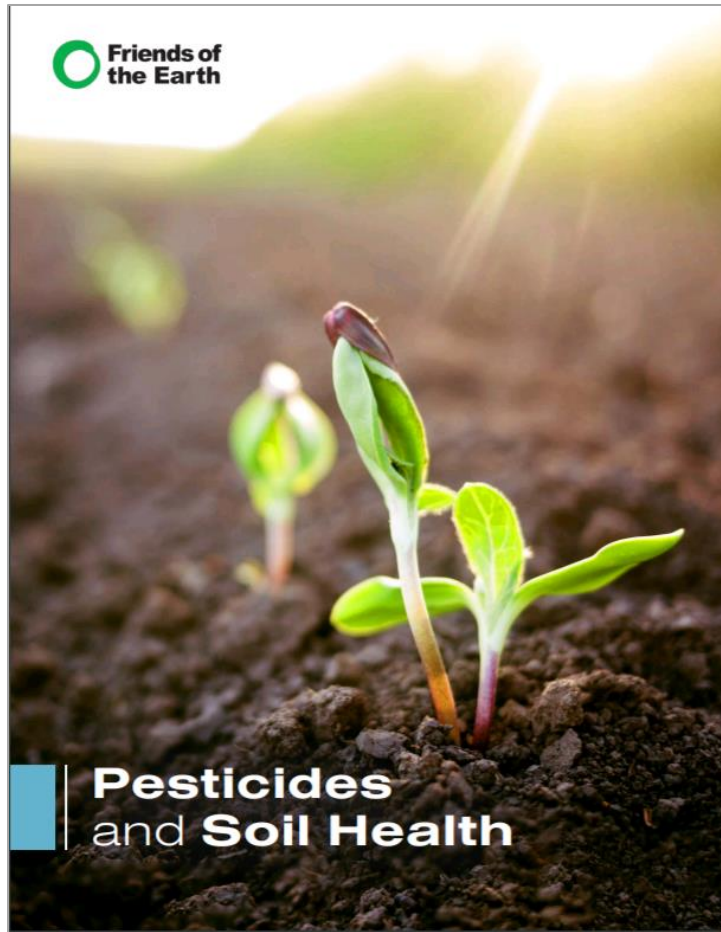
Worldwide, approximately 368 weed varieties and 540 insect species have developed resistance to pesticides.

Ninety percent of Iowa farmers reported feeling that “pest management is a never-ending technology treadmill” in a 2014 poll.

Organic diet intervention significantly reduces urinary pesticide levels in US children and adults

www.OrganicForAll.org

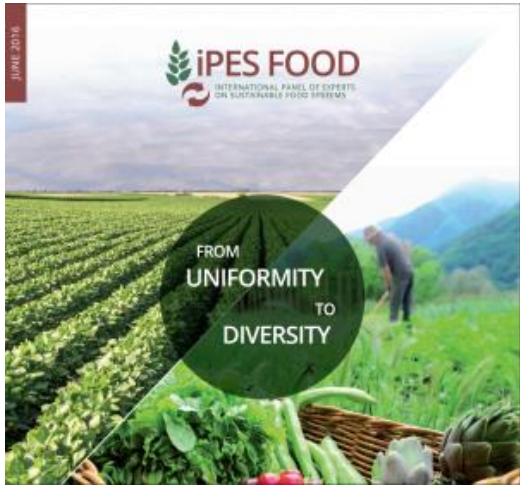
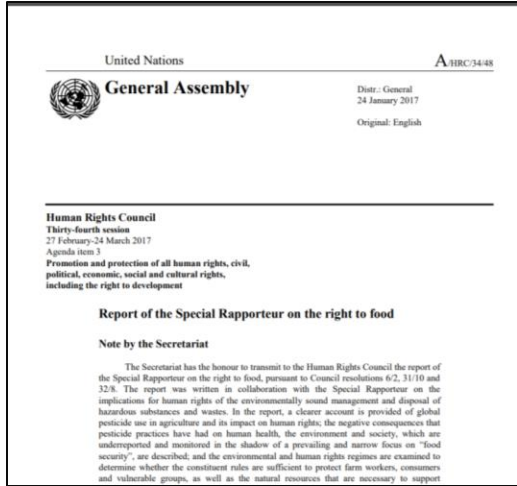
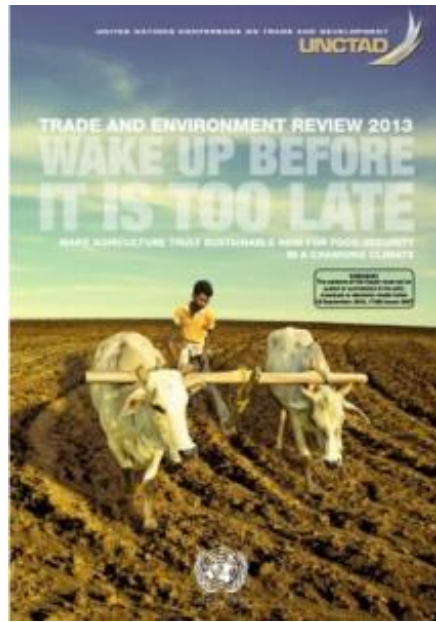
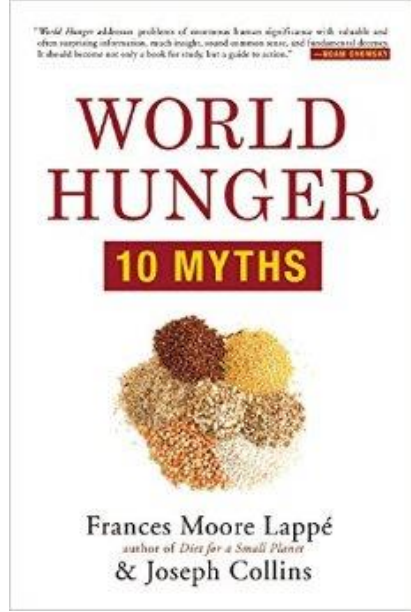
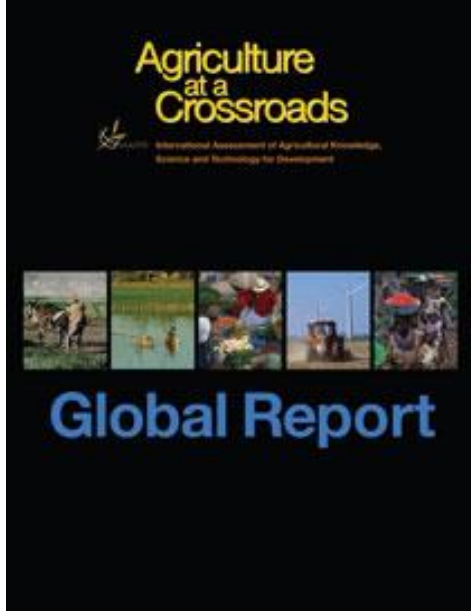




<https://bit.ly/2kduNNV>

Why Talk of Regenerative Agriculture Should Include Pesticide Reduction

<https://bit.ly/2ky83bQ>





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PESTICIDES IN THE PANTRY: Transparency & Risk in Food Supply Chains



Christy Spees

Environmental Health
Program Manager,
As You Sow



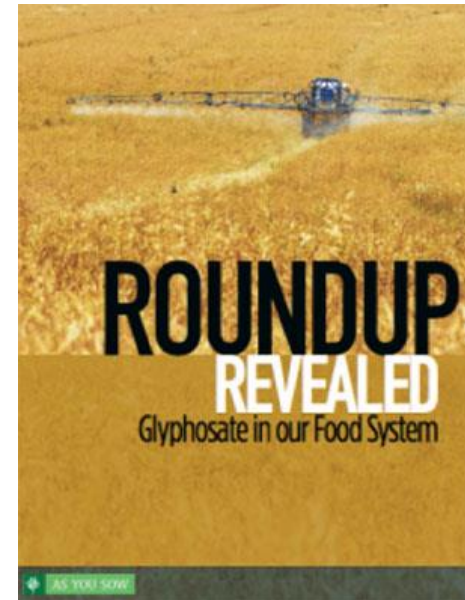
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Background

- *As You Sow* engagement history
- *Roundup Revealed* (2017)



Methods

- 14 companies scored on 30 indicators
- Information gathered from publicly available content



PEPSICO



B&G FOODS, INC.

Nestlé



Mondelez International



CONAGRA
BRANDS

Kellogg's



Lamb Weston
SEEING POSSIBILITIES IN POTATOES

Kraft Heinz



Methods

Indicator Themes:

- Pesticide reduction policy
- Targets/specific goals
- Pesticide use tracking
- Glyphosate
- Integrated Pest Management
- Sustainable sourcing programs
- Crop-specific sourcing programs
- Industry sustainability collaboratives
- Regenerative agriculture programs



Results

- PepsiCo and General Mills led by significant margins
- Average score of about 6
- Post and B&G Foods scored 0 points

Company	Score
General Mills	18
PepsiCo	14
Del Monte	8
Lamb Weston	8
Kellogg's	8
Nestle	7
Mondelez	6
Campbell's	6
Hain Celestial	5
Kraft Heinz	2
ConAgra	2
J.M. Smucker	2
Post	0
B & G Foods	0



Results

Aggregate Company Scores: Pesticide Reduction Policy

Indicator	Score	Number of Companies
Has a policy to reduce supply chain pesticide use	3	
Discloses methods used to achieve policy goals	3	
Commitment encompasses all suppliers	2	
Measures policy effectiveness in terms of pesticide reduction	2	
		Number of Companies

Aggregate Company Scores: Goals and Targets

Indicator	Score	Number of Companies
Discloses specific goal/target to reduce pesticide use	1	
Target is time-bound	1	
Prioritizes high-risk chemicals for reduction	0	
		Number of Companies



Results

Noteworthy Practice – Pesticide Policy

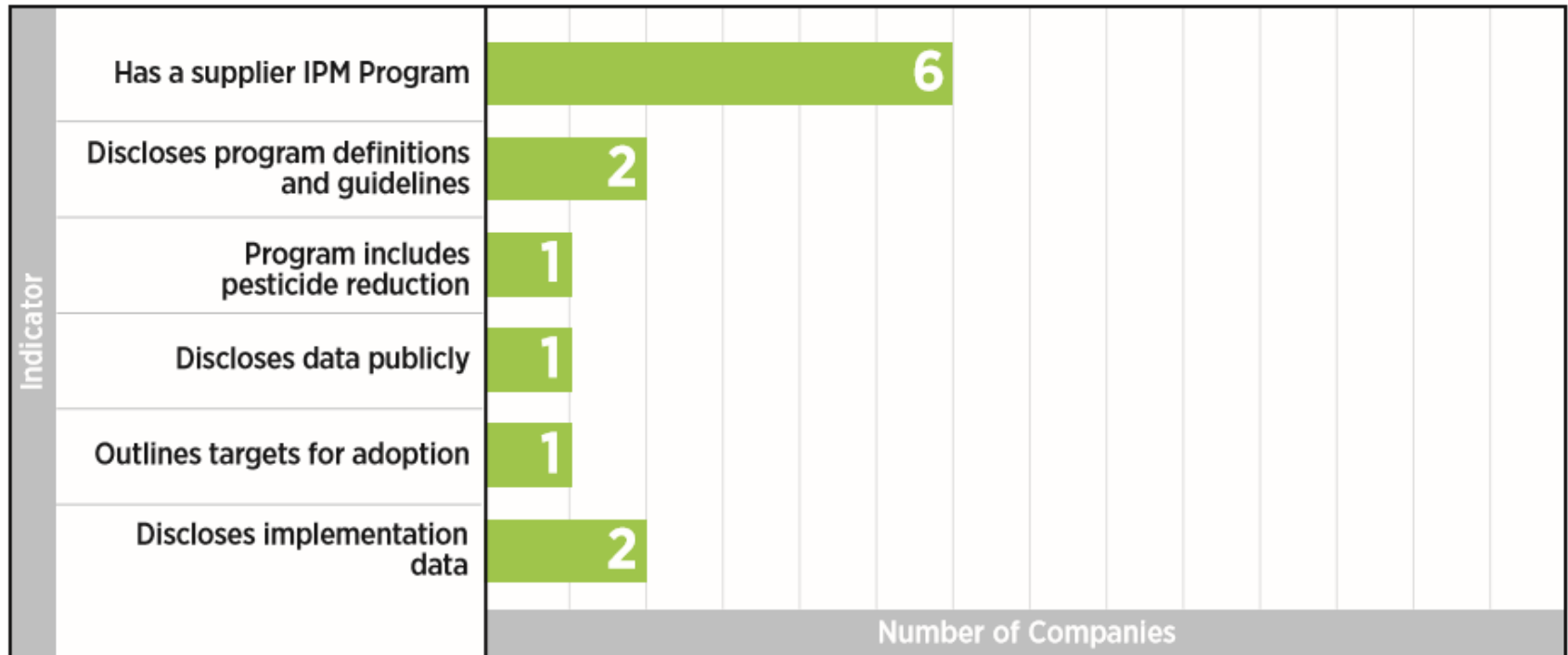
General Mills:

- States intention to reduce pesticides in its supply chain:
- Outlines strategies
- Provides available data
- Outlines metrics for future data collection



Results

Aggregate Company Scores: Integrated Pest Management Program





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Results

Noteworthy Practice – IPM

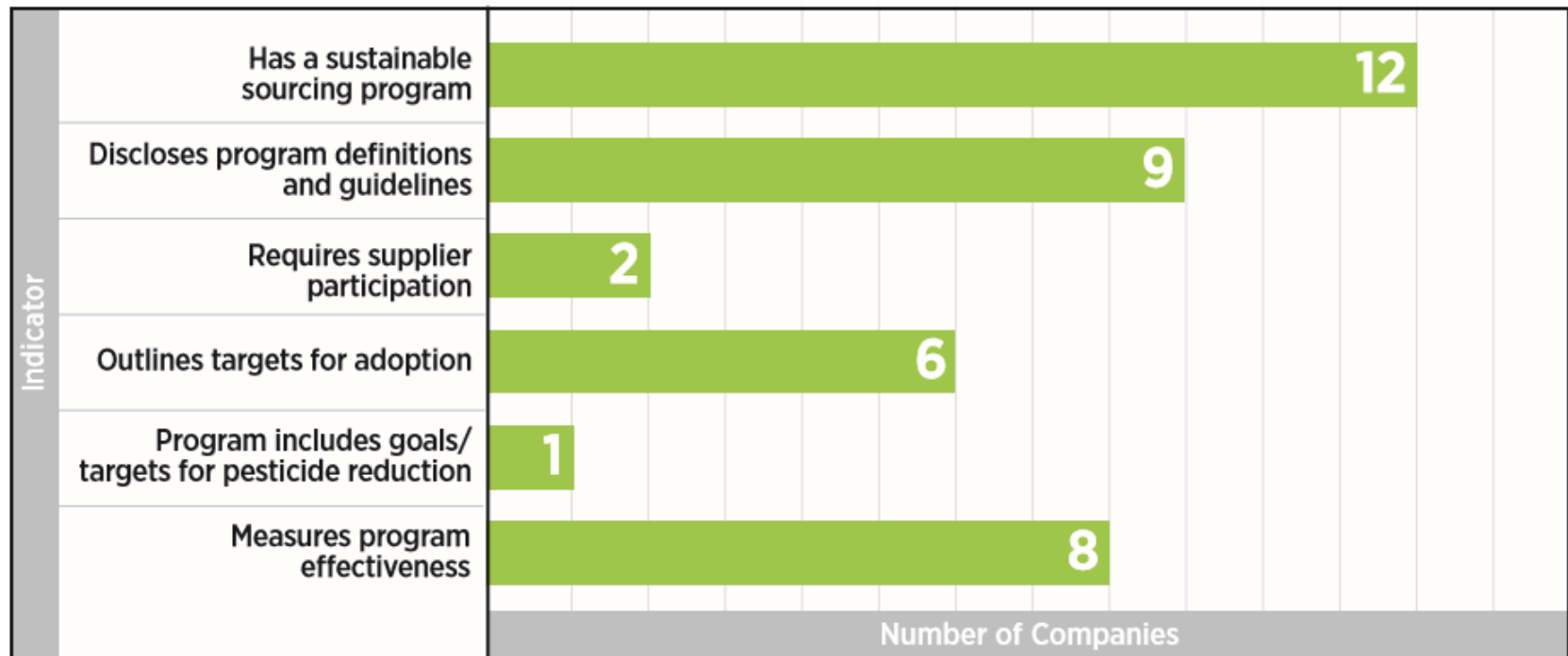
Sysco:

- Partnered with IPM Institute
- Cleared outlines guidelines
- Explicit goal of pesticide use reduction
- Requires supplier tracking
- Reports data to show results



Results

Aggregate Company Scores: Sustainable Sourcing Program





Results

~~Noteworthy Practice~~

Concerning Practice – Sustainable Sourcing

Kellogg, General Mills

- State percentages of key crops that are “sustainably” or “responsibly” sourced
- Do NOT have clear guidelines
- Do NOT disclose whether pesticide use is considered



Results

Noteworthy Practice – Sustainable Sourcing

Nestle

- Requires that all suppliers comply or demonstrate continuous improvement toward compliance
- Provides specific guidelines for the use of pesticides (including requiring suppliers to avoid certain chemicals)

(does not include metrics for tracking progress or goal of overall pesticide use reduction)



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Results

Noteworthy Practice – Regenerative Agriculture

General Mills

- Outlines program goals, principles, and guidelines
- Includes specific target: 1 million acres by 2030
- Discloses specific quantitative metrics to be used for measuring progress

Use Data Visualization to Explore Results

HOW DO THEY COMPARE?

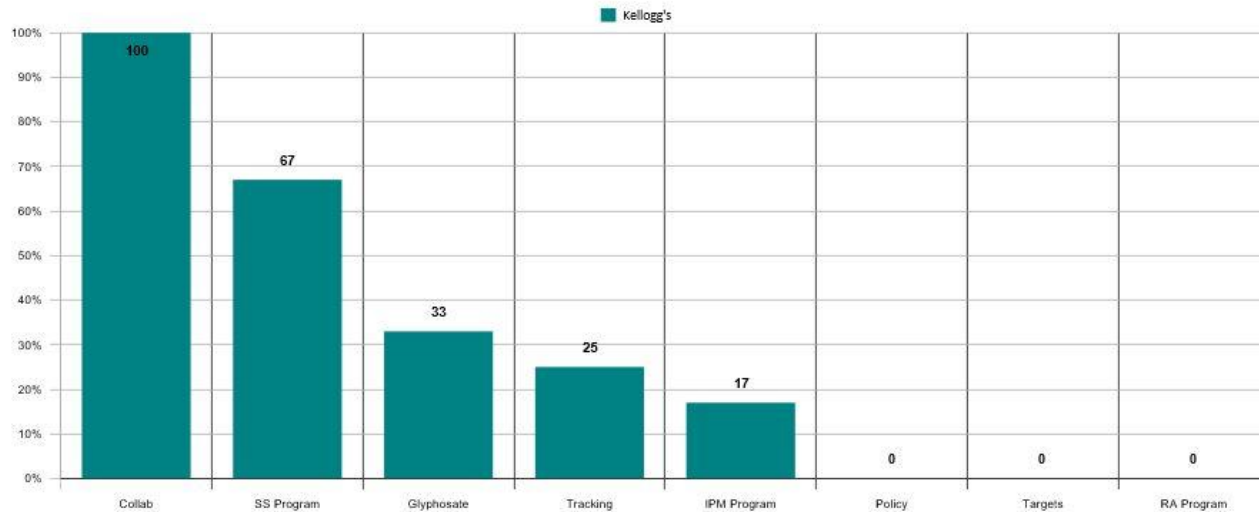
USE THE TOOL BELOW TO COMPARE UP TO THREE COMPANIES ON SELECTED THEMES.

Select companies to compare:

Kellogg's

Filter by themes:

8 items selected



<https://www.asyousow.org/report-page/2019-pesticides-pantry-transparency-risk-food-supply-chains-data-visualization>



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Engaging on Pesticides: An Investor Approach



Caroline Boden

Shareholder Advocacy Manager
Mercy Investment Service, Inc.



Why Engage on Pesticides?

- Ensure long-term safety of consumers, workers, and the environment through the use of safe and sustainable chemicals in products and manufacturing, including agricultural processes.
- Growing reputational, regulatory, and even legal risk for companies that don't address the issue of safer chemical management and how it applies to pesticide use.
- Even low levels of pesticide residues pose risks.

Pesticide Engagement Campaign

- Organized by IEHN, Friends of the Earth, and Mercy Investment Services.
- Engagement goals include:
 - 1) adoption of a safer chemical management process to assess and mitigate risks from pesticide use;
 - 2) measure and report pesticide use in supply chain, and set reduction goals;
 - 3) participate in or become a signatory to Chemical Footprint Project.



Target Companies

Engage 14 of the largest publicly-traded grocery/food retailers

				
				
 	 TARGET			

Chemical Footprint Project



- Considered gold standard by investors for assessing chemical management due diligence of companies.
- Creates framework for companies to develop and implement chemical management processes.
 - CFP's Chemicals of High Concern list includes several neonicotinoids, organophosphates, and glyphosate.
- Annual survey process to conduct a chemical footprint and identify areas for further improvement.
 - Trend of continued improvement from regular participation.



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PESTICIDES IN THE PANTRY: Transparency & Risk in Food Supply Chains



Jessica Hulse Dillon

Manager, Regenerative Supply
Working Group



Agriculture Spectrum

Less Regenerative

More Regenerative

- Integrates reduced tillage, cover crops & crop rotation
- Incorporates advanced practices such as multi-species animal & crop integration, introduction of trees & other permanent (not annual) crops
- Restores soil health with compost/microbes; builds soil resiliency with biodiversity
- Moves away from chemical inputs, synthetic fertilizer, animal confinement
- Captures carbon in biomass above and below the ground

Conventional

Non-GMO

Non-GMO+/Non-GMO Done Well

Organic

Regenerative Organic

Biodynamic

Regenerative

Regenerative agricultural includes the layering of practices that support:



soil health



climate resiliency



water quality



biodiversity above
and below ground



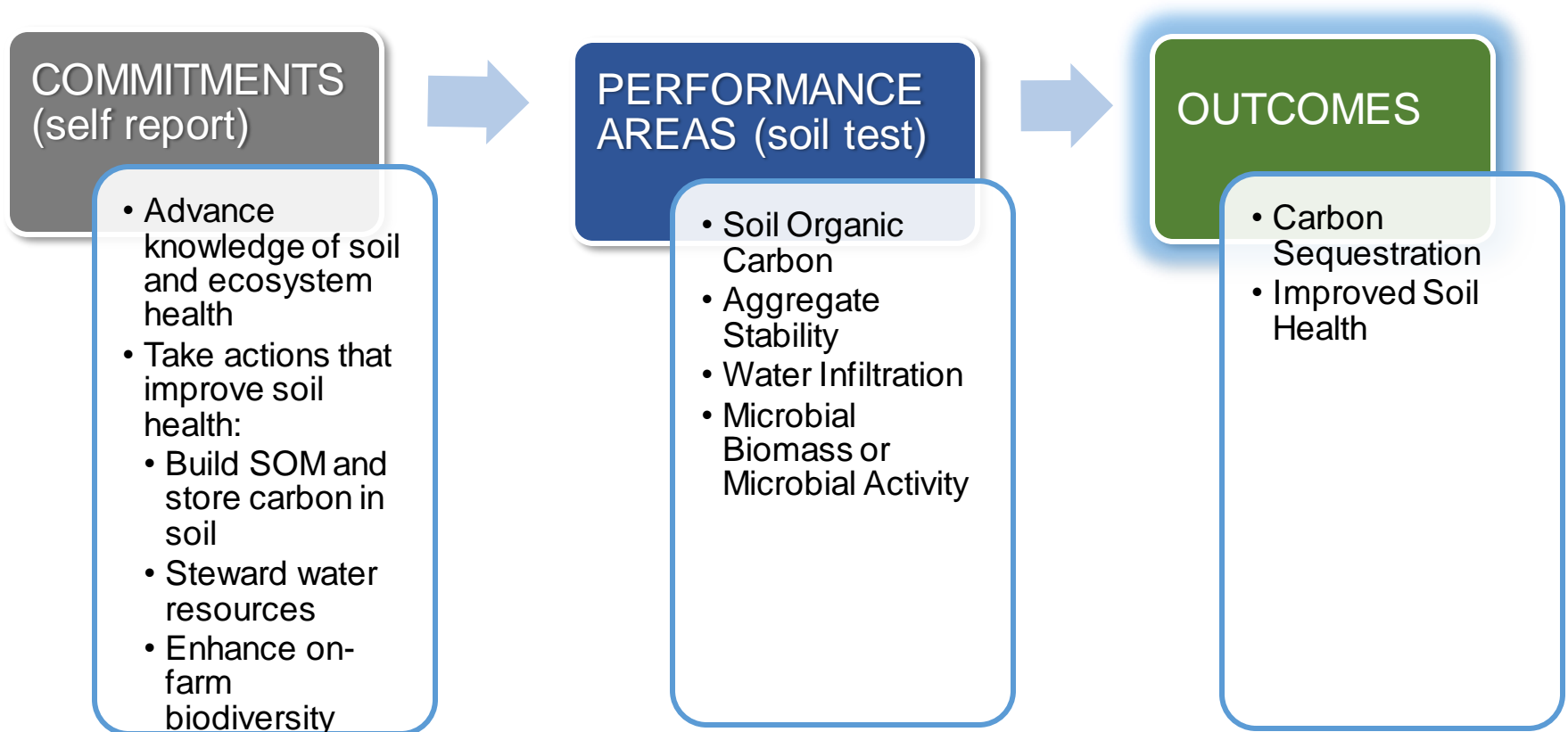
farmer, farm
worker, and rural
economics



food security and
access

SCI Overview:

Commitments, Performance Areas, Outcomes



Talking the Talk



Input Reductions

Input	2011	2018	% change
Diesel fuel	30,011 gal	15,151 gal	49.5
Horsepower	3350	1200	64.2
Synthetic N	220 lbs/A	110 lbs/A	50.0
MAP	330 tons	27 tons	91.8
Potash	400 tons	0	WOW!
Lime	2100 tons	0	WOW!
Chemistry	\$40/A	\$18/A	55.1

Source: Rick Clark



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Questions and Answers

- For technical support call 1-855-888-6094
- Use the Q&A window to send us your questions

Q&A Window

The screenshot shows a software interface with a 'Q&A' window. The window title is 'Q&A' and it contains a question from 'Marvin CSVEP' at 1:15 PM: 'Q: test question'. Below the question is a text input field with a 256 character limit and two buttons: 'Send' and 'Send Privately...'. The background shows a 'Participants' window with 4 participants: Katherine Kassing (me), Clear Skies (Host), Haley Nielsen, and Marvin CSVEP.



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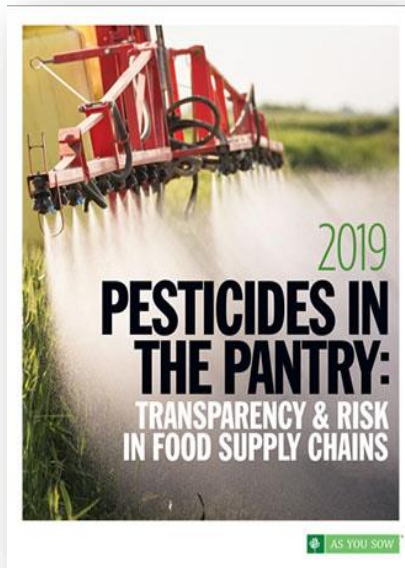
Kendra Klein
Senior Staff Scientist
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