

# Adopt Pesticide Regulations

Managing Landscapes While Protecting Health and the Environment

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ENVIRONMENTAL  
FINANCE CENTER



# Presenter

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# What is a Pesticide?

- **Active Ingredients** are by nature biologically and chemically active against the target pest, be it an insect, weed, or fungus. By definition, these materials kill living things.
- **Inert Ingredients** can be just as toxic as the active ingredient, but are considered confidential business information (CBI). They are the solution, dust, or granule in which the active ingredient is mixed. Examples include materials like formaldehyde, quaternary ammonium, and hydrochloric acid.

I.I. Iicide, Inc.  
Specimen Label for Educational Purposes Only

## Weed Eliminator

**Concentrate**

**HERBICIDE Kills Lawn Weeds**  
(dandelion, clover, thistle, and other listed broadleaf weeds)

Active Ingredients:

Mecoprop, dimethylamine salt .....	10.60%
2, 4-D, dimethylamine salt .....	3.05%
Dicamba, dimethylamine salt .....	1.30%

Inert Ingredients: ..... 85.05%

TOTAL 100.00%

KEEP OUT OF REACH OF CHILDREN

### CAUTION

See back label for additional precautionary statements.



EPA Reg. No. : 123-114-16802  
EPA Est. No. : 50263-PA-A

Net Contents 32 fl oz  
(1 qt) 946ml

Patented, Trade  
Label, Proprietary. Do not copy, alter or  
reproduce. Printed in the U.S.A.  
(21 1 11) 1111-111111  
www.iicide.com



# Problems with Federal Pesticide Regulation



**Regulatory agencies do not adequately consider:**

- Pesticide Mixtures
- Synergistic effects
- Inerts, metabolites, and contaminants
- Endocrine disruption
- Conditional Registration
- Lack of label compliance
- Sensitive populations (children, pregnant mothers, the elderly and immunocompromised)
- Bans in other countries
- Viability of alternatives



# Importance of Adopting Pesticide Regulations



## Health Effects of 30 Most Commonly Used Pesticides:

- 16 are likely, probable or possible carcinogens
- 17 are known or suspected endocrine (hormone) disruptors
- 12 are linked to birth defects
- 21 are reproductive toxicants
- 25 cause kidney or liver damage
- 26 are sensitizers/irritants



# Importance of Adopting Pesticide Regulations



## Environmental Effects of 30 Most Commonly Used Pesticides:

- 30 are toxic to fish and aquatic organisms
- 29 are toxic to bees
- 22 are toxic to birds
- 14 are toxic to mammals
- 19 are groundwater contaminants



# Importance of Adopting Pesticide Regulations



Icahn  
School of  
Medicine at  
**Mount  
Sinai**

Sarah Evans, PhD, MPH  
Mount Siani Ichan School  
of Medicine, Children's  
Environmental Health  
Center



# Importance of Adopting Pesticide Regulations

## Environmental Justice

- ▶ “Poison Parks Report” – The Black Institute
  - ▶ Significant disparities in where pesticides are applied
  - ▶ Public parks often the only recreation space for low-income families
  - ▶ “It is difficult to keep children happy and health on a miniscule budget. Poisoning parks with toxic chemicals is yet another strike against the Black and Brown community. Enjoying a free, public space should not carry unexpected consequences.”



# Importance of Adopting Pesticide Regulations



Bertha Lewis, Executive  
Director  
The Black Institute



# Importance of Adopting Pesticide Regulations

## Benefits of Alternative Pest and Weed Management



Natural  
Approach

➔ Focuses on **root causes**



Chemical  
Approach

➔ Focuses on **addressing symptoms**



# Importance of Adopting Pesticide Regulations



## Natural Approach

- ▶ Emphasizes pest prevention through cultural practices
  - ▶ Aeration, overseeding, dethatching, mowing high
- ▶ Natural inputs guided by a soil test
  - ▶ Compost, natural fertilizers, humates, horticultural molasses
  - ▶ Non-toxic and least-toxic pest management

Aeration



Overseeding



Compost/Natural Fertilizer



Non-toxic Pest Management



# Importance of Pesticide Free Zones



## Chemical Approach

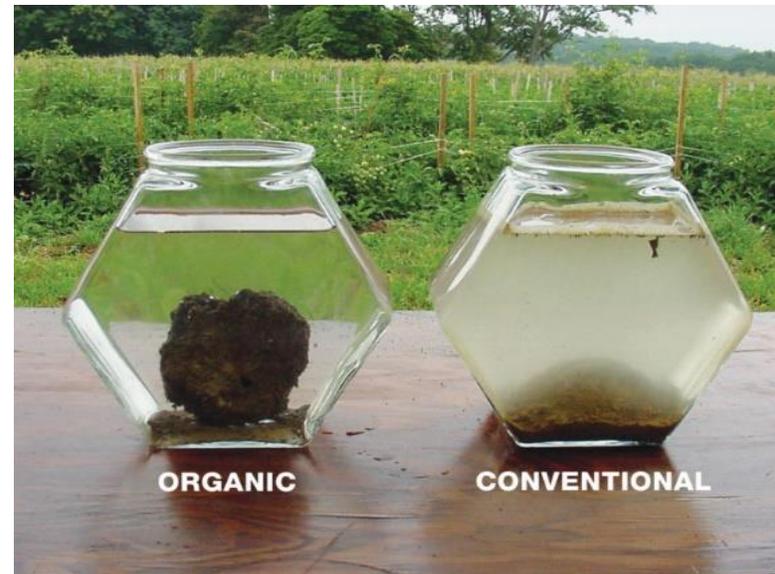
- ▶ Use of synthetic fertilizers, pesticides without considering need
- ▶ Spray by calendar date, see and spray
- ▶ Limited cultural practices



# Importance of Adopting Pesticide Regulations

## Soil Health

- ▶ Living system
- ▶ Increases nutrient and water-holding capacity
- ▶ Stronger plants better able to withstand weed and pest pressure
- ▶ Reduces the need for outside inputs



# Importance of Adopting Pesticide Regulations

## Read Your Weeds

Common Lawn Weeds and What Contributes To Them

Weed	Common Name	Soil Compaction	Mowing Height	pH	Fertility	Watering	Poor Drainage
	Annual bluegrass	X	L		E	E	
	Clover	X		L	L (N)	D/E	
	Crabgrass		L		L	D/E	
	Dandelion	X		L	L (Ca) E (K)		
	Ivy (Ground)						X
	Knotweed	X		L	L (Ca) E (K, Mg)		X
	Plantains	X	L	L	L		X

X- Condition associated with the weed, D- Drought, E- Excessive, H- High, L- Low, K- Potassium, Mg- Magnesium, N- Nitrogen

Illustrations Source: Cornell University Cooperative Extension

# Importance of Adopting Pesticide Regulations



# Importance of Adopting Pesticide Regulations

## Weed Management: Mechanical



Weed whacking



Other tools/machinery



Flame Weeding



Steam Weeding



# Importance of Adopting Pesticide Regulations

## Weed Management: Habitat Manipulation

- Reduce/increase shade or sunlight
- Eliminate waterlogged areas
- Weed covers/suppressants
  - Mulch
  - Weed Mats
  - Black plastic



# Importance of Adopting Pesticide Regulations

## Weed Management: Biological



Goats



Microorganisms

*"This use of goats for targeted grazing serves as a role model for other parks and sends a strong conservation message to the community. **Goats provide a unique opportunity to move toward economical, sustainable and ecological weed control and away from methods relying on the use of heavy equipment or herbicides... In this tight budget time, it is always helpful to find creative solutions and leverage partnerships.** The goats are a welcome sight to help us out and also give area children a chance to come enjoy them along with the park."*

*-- Anne Arundel County Executive John R. Leopold*



# Importance of Adopting Pesticide Regulations

## Weed Management: Least-toxic Products

- Two programs to designate least-toxic pesticides:
  - USDA Certified Organic
    - Undergoes another level of health and safety review by independent stakeholder board before allowing use
  - EPA/MD Minimum Risk Pesticides
    - Materials having such low toxicity they are not required to undergo federal pesticide registration
- Examples
  - Vinegar (above 20% acetic acid)
  - Horticultural soaps/oils



# Establishing Pesticide Regulations



Connecticut Department of  
Energy and Environmental  
Protection



# Establishing Pesticide Regulations

## Building Knowledge and Engaging the Community

- Educate yourself and residents on the issue
- Hold public meetings
  - Listen to concerns from the community
- Hold formal public hearings
  - Move at the speed of your residents
  - Provide opportunity for all stakeholders to have input



# Reaching Out to Stakeholders

Connect with Local Governmental Agencies and Officials, and Local, State, Regional and National Experts and Organizations



# Mythbusting and Misinformation

*You May Hear: Federal and state law provide adequate protections from toxic pesticides*

**FACT: Deficiencies in the federal pesticide regulatory process are well documented and date back decades**



Source: Government Accountability Office. 1975. Federal Pesticide Registration Program: Is it Protecting the Public and the Environment Adequately from Pesticide Hazards?

<https://www.gao.gov/assets/red-76-42.pdf>

# Mythbusting and Misinformation

*You May Hear: Pesticide free zones will cost too much*

**FACT:** Costs of switching from chemical to organic land management are negligible over the long-term. There may be some initial upfront expenditures for staff training or new equipment, but these costs decline significantly as focus shifts to building soil biology, pest prevention practices.

Source: Osborne, Charles. 2010. A Cost Comparison of Conventional Turf and Natural Management for School Athletic Fields <https://www.grassrootsinfo.org/pdf/turfcomparisonreport.pdf>; Connecticut Department of Energy and Environmental Protection. 2019. Organic Lawn Care: Your neighbors will “go green” with envy! <https://www.ct.gov/deep/cwp/view.asp?a=2708&q=382644#Expensive>; Alexander, Steven: City Manager. 2019. City of South Miami Inter-Office Memorandum. [https://beyondpesticides.org/assets/media/documents/SouthMiami\\_FL\\_Organicordinance.pdf](https://beyondpesticides.org/assets/media/documents/SouthMiami_FL_Organicordinance.pdf). ; Daryl Braithwaite, Public Works Director, Takoma Park, Personal communication.



# Mythbusting and Misinformation

*You May Hear: Restrictions on toxic pesticides will increase residential pesticide use, and hurt lawn care businesses*

**FACT:** Peer-reviewed studies show significant decreases in pesticide use and environmental contamination following implementation of pesticide free zones. These studies also show an increase in lawn care company business.

Source: Cole, DC et al. 2011. Municipal bylaw to reduce cosmetic/nonessential pesticide use on household lawns – a policy implementation evaluation. Environmental Health. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3224547/>; Todd and Struger. 2013. Changes in Acid Herbicide Concentrations in Urban Streams after a Cosmetic Pesticides Ban. Challenges. <https://www.mdpi.com/2078-1547/5/1/138/htm>



# Mythbusting and Misinformation

*You May Hear: Organic and least-toxic pesticides don't work*

**FACT:** Going organic doesn't just mean swapping out a toxic pesticide for a less toxic pesticide. Systems approach to pest management builds greater pest and weed resiliency. Organic keeps a range of "tools in the toolbox" when problems do arise.



# Submission Requirements

- TBD



# Policy Formation: Main Considerations

## Public, Private, or Both?

Consider:

- a. Language that restricts pesticide use to only pesticides that are clearly defined as "least-toxic" or another like term.
- b. Language that clearly establishes exemptions and waiver processes.
- c. Language that describes compliance and enforcement guidelines.
- d. Language that identifies sustainable management practices.
- e. Language that provides for an outreach and public education campaign.



# Community Spotlight: Maryland Leading the Nation

Nearly 2 million Marylanders Living in a Community Where Local Government Reformed Pesticide Laws!

Local Governments in Maryland with Pesticide Policies:

- Takoma Park
- Montgomery County
- Baltimore
- Hyattsville
- Howard County
- Greenbelt Policy



# Community Spotlight: Montgomery County, MD

Grassroots  
advocacy



Legal battle



Successful  
implementation

A collage of images related to the pesticide law. It includes a butterfly, a child, and a dog. The text "MONTGOMERY COUNTY'S NEW PESTICIDE LAW" is prominently displayed in a green box. Below it, there is a section titled "IMPORTANT NOTICE" in a red box. The text explains that the way pesticides can be used has changed and provides information on how to protect families, pets, pollinators, and the environment. There is also a Spanish translation of this information. Logos for the Department of Environmental Protection and Montgomery County, Maryland are also present.

**IMPORTANT NOTICE**

**MONTGOMERY COUNTY'S NEW PESTICIDE LAW**

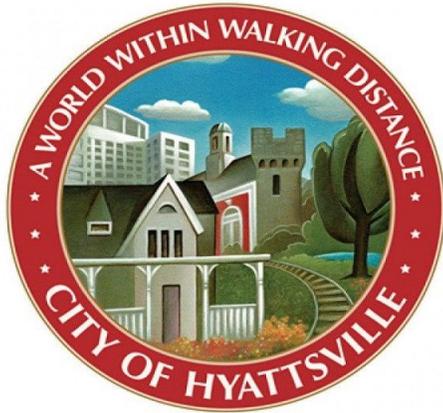
The way that pesticides can be used has changed. Here's what you need to know to protect your family, pets, pollinators, and your environment.

Aviso importante – Nueva ley sobre pesticidas en el Condado de Montgomery

Se han hecho cambios a la forma de usar pesticidas. A continuación, encontrará lo que necesita saber para proteger a su familia, mascotas, polinizadores y a su medio ambiente.

# Community Spotlight: Hyattsville, MD

Passage of Pesticide Policy



Stonyfield Organic  
#PLAYFREE Field Day

Pilot Site Project



# Community Spotlight: Baltimore, MD

## Pilot Site Project

### Canton Waterfront Land Care

#### Protecting People, Pets, Wildlife and the Bay

We all play an important role in protecting our health and that of our family and pets, of wildlife and our waterways, especially the Chesapeake Bay. The City of Baltimore, in collaboration with Maryland Pesticide Network, is transitioning Canton Waterfront Park to a Bay-friendly, pesticide-free lawn and landscape care program.



Our goal is to provide a safe, healthy and attractive open space for Canton residents, and park visitors and to demonstrate how organic land care improves the health and appearance of lawn and landscape plants while protecting your family's health and the environment.

## Passage of Pesticide Policy



# Resources and Tools

Model Legislation: [Beyond Pesticides' Model Pesticide-Free Policy](#)

Peer-Reviewed Study on the Benefits of Pesticide Policies: [Municipal bylaw to reduce cosmetic/non-essential pesticide use on household lawns - a policy implementation evaluation](#) (Environmental Health journal)

Health Effects of Toxic Pesticides:

- [Pesticide Induced Diseases Database](#) (Beyond Pesticides)
- [Report on Pesticide Exposure in Children](#) (American Academy of Pediatrics)
- [Children and Pesticides Don't Mix](#) (Beyond Pesticides)

Environmental Impacts of Toxic Pesticides:

- [Worldwide Assessment on Systemic Pesticides](#) (International Task Force on Systemic Pesticides)
- [Pesticide Concentrations in Ontario's Urban Streams One Year After the Cosmetic Pesticides Ban](#) (Ontario Ministry of Environment)
- [Toxic Contaminants in the Chesapeake Bay and its Watershed](#) (USGS, EPA, USFWS)



# Resources and Tools

## Alternative Approaches to Pest and Weed Management

- [Organic Lawn Care](#) (University of Maryland, Extension)
- [Defining Ecological Pest Management](#) (Beyond Pesticides)
- [Products Compatible with Organic Landscape Management](#) (Beyond Pesticides)

## Training and Implementation Assistance:

- Stonyfield #Playfree Initiative: <https://www.stonyfield.com/playfree>
- Northeast Organic Farming Association (NOFA) Accreditation Course in Organic Land Care: <https://nofa.organiclandcare.net/nofa-accreditation-course-in-organic-land-care/>
- [Beyond Pesticides' Model Ordinance and Implementation Plan](#) (also, email [dtoher@beyondpesticides.org](mailto:dtoher@beyondpesticides.org) or [info@beyondpesticides.org](mailto:info@beyondpesticides.org))
- Reach out and collaborate with nearby communities moving towards safer land care practices



# Questions?

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