# DON'T LET THE GRASS GROW UNDER YOUR FEET:

How we can prevent lawn care from harming our water



## INTRODUCTION



Everybody loves the look of a lush green lawn - but it comes at a price. Suburban lawns and parks are an underestimated source of water pollution. Over application and improper use of fertilizers, herbicides and pesticides can lead to harmful run-off into lakes, rivers and oceans. Action can be taken to reduce this source of pollution

Americans use

75

million lbs of pesticides per year on their gardens<sup>3</sup>

# THE PROBLEM

#### Lawn chemical runoff can:

- Harm and poison fish and other ocean wildlife <sup>1</sup>
- Contaminate sources of drinking water
- Encourage algal blooms, creating dead zones where aquatic life is minimal <sup>5</sup>
- Contaminate species in coastal fisheries







Why? Fertilizers contain nitrogen, phosphorous and potassium which in large quantities are toxic to waterways. <sup>5</sup>
Pesticides, which are designed to kill insects, are also harmful to aquatic insects and fish life. All contamination eventually makes its way into the ocean

# WHAT CAN BE DONE?

- Avoid running sprinklers after chemical application
- Do not apply fertilizers before forecasted rainfalls
  - Use organic compost
- Read the labels to prevent overapplication

## RECCOMENDATIONS

#### Create bylaws to reduce cosmetic lawn chemical use

- Enforce the use and sale of only organic fertilizers
- Designate fertilizer-free zones 10 feet from waterways
- Move towards a full ban of cosmetic pesticides/herbicides (or in rainy months)<sup>2</sup>

#### Monitor marine contaminants

• Make it a priority to test local fish and shellfish for synthetic chemical levels quarterly

#### Make free pesticide disposal sites

- Unused pesticides can often be dumped onto lawns/ poured down the sink or storm drains
- In collaboration with local recycling centers

# Educate communities on proper lawn care practices

Compliancy is achieved through buy-in rather than strict rules

- Send a pamphlet to homeowners
- Incorporate a lesson in school curriculums
- Create a city affiliated webpage with information available on composting (a great organic, slow releasing fertilizer)

#### SUCCESS STORIES

When Ann Arbor, Michigan banned phosphorous fertilizers for grass starting in 2009, it led to a 28% drop in pollutant levels in nearby Huron River.

THE REAL PROPERTY AND ASSESSED.

#### PROBLEMS WITH IMPLEMENTATION

Banning lawn chemicals does not guarantee a cease of use - and green lush lawns are important to Americans. The good news is, green lawns do not always require harsh chemicals and the environmental benefits are plentiful - How do we get people passionate about this topic!?

#### 

- Water quality improves after lawn fertilizer ban, study shows | EurekAlert! Science News. Accessed April 12, 2021.
- 2. Runoff Fertilizes Debate in Florida Lawn & Landscape.

https://www.lawnandlandscape.com/article/runoff-fertilizes-debate-in-florida/. Accessed April 12, 2021.

- 3. How Fertilizers Harm Earth More Than Help Your Lawn Scientific American. https://www-scientificamerican-com.ezproxy.library.ubc.ca/article/how-fertilizers-harm-earth/. Accessed April 12, 2021.
- 4. The suburban lawn: Enemy of lakes, oceans and rivers everywhere Scientific American Blog Network.

https://blogs.scientificamerican.com/newsblog/the-suburban-lawn-enemy-of-lakes-oc-2009-08-19/. Accessed April 12, 2021.

5. The Facts About Lawn Chemicals What Can You Do? www.marc.org/water. Accessed April 12, 2021.