

Thriving Communities Guide

10 Places Where You Can Live Roundup-Free

U.S. PIRG
Education Fund



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Executive Summary

In 2015, the World Health Organization's cancer arm, the International Agency for Research on Cancer, concluded that glyphosate, the active ingredient in Roundup, is a "probable carcinogen." This sparked a worldwide debate about the dangers of the chemical and the levels of exposure sufficient to threaten our health. Given these health concerns, can we live without weed killers that have been tied to health risks like Roundup, and have we become far too reliant on them?

In this report, we look at ten communities that have chosen to eliminate or seriously limit Roundup and other glyphosate-based pesticides. We include tips and advice from the communities so that other places might also consider policies and actions that would reduce exposure to Roundup. While there are many communities that have restricted the use of Roundup, these ten places stand out for their efforts to create a pesticide-free community. The ten cities we examined are:

1. Boulder, CO;
2. Carrboro, NC;
3. Charlottesville, VA;
4. Dubuque, IA;
5. Takoma Park, MD;
6. Evanston, IL;
7. Irvine, CA;
8. Richmond, CA;
9. Portland, OR;
10. Wellesley, MA.

These cities demonstrate that there is a lot people can do in their own communities to protect themselves from pesticides. Here are some highlights from our examination:

- Boulder, Colorado has begun to water its parks more efficiently and use organic fertilizers.
- Dubuque, Iowa has been planting native plants, which are more adaptable to the Iowa soil than grass.
- Wellesley, Massachusetts has a website devoted to facts about pesticide use that is accessible to its citizens who are looking for tips on how to stop using Roundup.

From Portland, Oregon to Wellesley, Massachusetts, these cities and communities prove that it is possible to keep out weeds without the help of Roundup. In surveying these communities, it became clear that strong public support is necessary to initiate a change in pest and weed management, and dedicated planning and community engagement are important elements that must follow. We hope that these examples can provide guidance for communities that would like to protect themselves from harmful pesticides like Roundup, and show that Roundup-free communities are a reality, and not a far-off impossibility.

IT'S SIMPLE: EXPERTS REVEAL FIVE EASY WAYS TO AVOID THE USE OF ROUNDUP

Research from experts in their respective fields offer five simple, tested and proven methods that are already employed across the country to help avoid the use of harmful chemicals found in Roundup.



MOW LONGER

Boulder, CO -- Rella Abernathy, the IPM program coordinator in Boulder, says that maintaining a length of at least 3 inches for the grass blades helps promote the strength of the root of the grass as well as shade out unwanted weeds.



INCREASE SEED DENSITY

Carrboro, NC -- The IPM manager of Carrboro, Chris Gerry, includes over seeding in his program. He explains that laying extra grass seed makes it easier for the grass to crowd out other invasive plants.



MULCH FLOWER BEDS

Dubuque, IA -- Marie Ware is the city Leisure Services Manager that oversees the IPM program in Dubuque. The program utilizes mulch in flower beds to prohibit weed growth as well as promote the ability of larger plants to retain water and nutrients.



NATURALLY WEED

Boulder, CO -- One of the most effective methods of weed control is natural weeding. Rella Abernathy's IPM team understands this and has been able to cut Roundup out of their budget due in large part to natural and healthy maintenance of parks by simply hand picking weeds.



USE ORGANIC FERTILIZER

Durango, CO -- Cathy Metz is the director of the Durango Parks and Recreation, where her team switched to the use of organic fertilizers. These include plant based and water soluble nitrogen as well as soluble humic acid from decomposed organisms. Natural fertilizers promote growth without the use of harmful chemicals.

Introduction

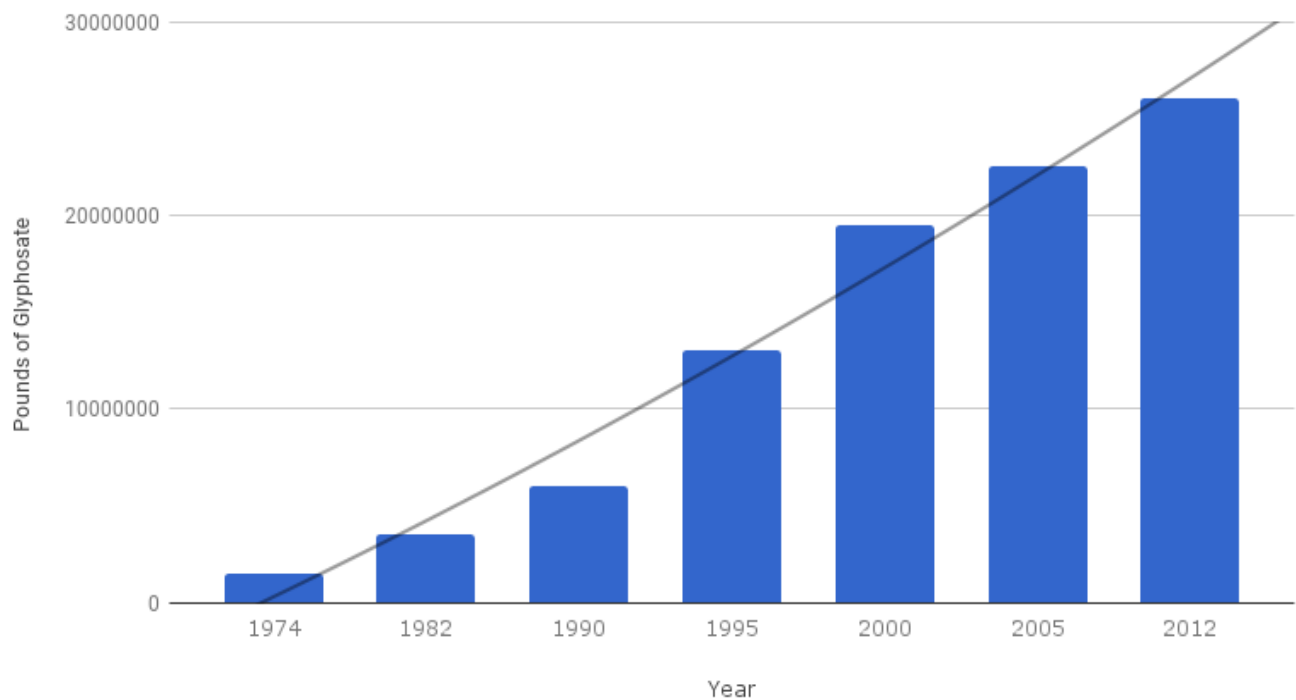
Roundup poses significant risks to human health. According to the World Health Organization, glyphosate, the main ingredient in Monsanto's Roundup, is a probable carcinogen.¹ Research also shows that Roundup exposure increases the risk of liver and gastrointestinal disease.

But even as our understanding of the dangers of Roundup is growing, schools and cities continue to use the pesticide in city parks, playing fields, and playgrounds. In the United States, 26 million pounds of Roundup are sprayed on public parks, playgrounds, schools, and gardens every year.² In fact, the use of Roundup in these public places is growing. From 2005 to 2012, the non-agricultural use of Roundup grew by 14 percent.³

Public health experts are warning that the use of Roundup in schools and parks is problematic. Kids are especially impacted by Roundup. Dr. Philip Landrigan, professor of pediatrics at Mount Sinai, suggests that the activity patterns of children increase their exposure to Roundup.⁴ As children are likely to explore wooded areas, run around on the grass, and roll around in the park, they come in closer contact with the harmful chemicals within Roundup. In addition, children are less likely to wash their hands. Therefore, the chemicals in Roundup are likely to stick on children's hands for a longer period of time. This could result in the chemicals entering the body through a child's mouth, increasing the risk of negative health impacts.⁵

Glyphosate Use in the US in Parks, Schools, and Gardens Since 1974

Source: Trends in glyphosate herbicide use in the US and globally, Environmental Sciences Europe, Charles Benbrook (2016)



We surveyed dozens of towns and cities that have some restrictions on the use of Roundup, and chose ten communities to demonstrate what is attainable and achievable at the city level in terms of reducing the use of, and exposure to, Roundup. These places range from big cities like Portland, Oregon to smaller Midwest hubs like Dubuque, Iowa. Many of these cities are known for their thriving and beautiful public spaces and parks.

All of these cities we examined have “integrated pest management” (IPM) plans that emphasize the use of native plants, organic weed killers, and physically

pulling weeds over the use of Roundup and other pesticides. We included facts and details about each city’s weed management plan, and contact information for each city’s integrated pest management program.

This report provides a guide on communities that offer Roundup-free public places and parks, but more importantly, it also provides other cities and community-minded residents in those cities with a blueprint for eliminating Roundup. Interested activists, community groups, and city councils can use the report to design future weed-management plans that do not include Roundup.

1) Boulder, Colorado



Community Snapshot:

Allows Roundup Use?

- Only in limited circumstances

Length of time Roundup has been restricted/banned:

- Six years

Where Is Roundup restricted/banned?

- All city-owned public parks, schools, property, and open space

A) Background: How the community restricted Roundup

The city manages nearly 40,000 acres of land in the Boulder Valley, along with numerous buildings and facilities. Every year, action is required in some areas to control noxious weeds, insect, and animal pest populations. In 1993, The City of Boulder grappled with how to manage so much acreage. Several community groups attended the Boulder City Council, pointing out that the existence of that much land near a large town required a new form of land management: controlling the open space without using too many synthetic or dangerous pesticides.

The city council listened to the groups, and adopted the first city-wide Integrated Pest Management (“IPM”) policy in the United States. The plan was to make city pest control operations more effective and less toxic. The IPM policy dictates that cultural, mechanical, or biological controls be considered before using pesticides.⁶ According to Boulder’s IPM Coordinator, Rella Abernathy, “the city has reduced pesticide use substantially since the adoption of its first IPM policy in 1993 with the goal of reduction and elimination of pesticide use whenever possible.”⁷

Ms. Abernathy pointed out that the city was still using Roundup and its main ingredient until more recently. But in 2011, the city revisited its IPM policy and limited the use of glyphosate on public parks and city property. According to the city, “the decision to reduce the use of Roundup is based partly on new scientific studies that have shown the surfactant ‘POEA’ -- the inactive ingredient in Roundup -- to be more harmful to humans than its active ingredient of glyphosate.”⁸

B) Overview of the community's Roundup-free program

The Boulder IPM program includes a pre-approved list of pesticides acceptable for use on city properties. Glyphosate is only allowed if other, organic methods of weed control have failed, and only in locations that are considered lower-risk. Boulder was one of the first cities to adopt an IPM policy and neighbor notification ordinance for glyphosate applications. Boulder is considered a national leader in integrated pest management, and plans to launch a program that will designate some city-owned parks and open spaces as pesticide free. The new program formalizes former city methods that have been in use for over a decade to manage approximately 650 acres of turf throughout the city. In total, Boulder has nearly 100 urban parks and thousands of acres of open space land. Boulder has six city parks that have not been treated with Roundup for over 12 years.⁹

The Open Space and Mountain Parks Department uses controlled burning to restore natural conditions (controlling disease, exotic plants, and insect pests); mowing and grazing to limit the spread of weeds; and the release of beneficial insects to control pest populations.

The Public Works Department plants medians with native vegetation, xeriscapes, and hand pulls weeds instead of spraying. The Parks and Recreation Department uses an increased blade height for mowers, aerates turf, and uses computerized watering to increase the vigor of grasses on city property. These activities limit the number of weeds and the need for Roundup. The Forestry Division treats trees only for those diseases and insect pests that potentially

threaten the life of the tree.

Boulder was able to push forward its IPM program in 1993 due to “its flexibility, capacity, creativity, and motivation,” to be at the forefront of change. City leaders realized that local action was the most effective way to cut down on the dangerous use of pesticides in city parks and playgrounds. Rella Abernathy emphasizes that a dedicated IPM policy takes years to successfully implement and requires patience from the community and from city workers.¹⁰

C) Tips on how the community avoids using Roundup

- Water deeply and infrequently: Water deeply and infrequently to encourage deep root growth — one inch per week is ideal. You can easily measure that amount by placing a cup in your yard while watering. When your sprinkler fills it one inch deep, your watering for the week is done. Water early in the morning to minimize turf disease problems.

- Mow high: Keep your lawn mowed at three inches or higher. This will increase the root strength and naturally shade out weeds. Don't mow your lawn unless it needs it. This creates healthy grass that can withstand drought and stay green longer.

- Use organic fertilizers: Commercial fertilizers easily wash away, polluting nearby lakes and streams. Many contain toxic weed killers. Choose an organic fertilizer to capture and deliver nutrients to the lawn throughout the growing season. Keep grass clippings on the lawn as they are an excellent natural fertilizer.

- Weed naturally: Proper lawn care maintenance naturally eliminates most weeds. Avoid using pesticides, as they can harm other beneficial living things such as bees, birds and fish. The right tool makes quick work of weeding. After pulling weeds, use grass seed and soil to fill in the hole.

For more information, contact:

Rella Abernathy, Boulder IPM Coordinator

(303) 441-1901

abernathy@bouldercolorado.gov

2) Carrboro, North Carolina



Community Snapshot:

Allows Roundup Use?

- Only in limited circumstances

Length of time Roundup has been restricted/banned:

- 18 years

Where Is Roundup restricted/banned?

- All town-owned public parks, schools, and town buildings/property

A) Background: How the community restricted Roundup

The Town of Carrboro has restricted Roundup use since 1999.¹¹ The impetus for restricting the use of pesticides began when local community members expressed concern. In response, Carrboro hired a pest management director who was deeply interested in changing how cities deal with weeds, Chris Gerry. Gerry went back to the city council in 1999, presented his ideas for creating a pesticide-free Carrboro, and asked them to pass a resolution supporting his vision of a community without Roundup. Pesticides have been banned in the town since that year.

B) Overview of the community's Roundup-free program

The goal of Carrboro's IPM policy is to develop a systematic course of action to prevent weed infestations and to manage pests and weeds successfully, all while minimizing adverse effects on people and the environment. The program restricts Roundup use throughout the community, including in parks and landscapes within the town's maintenance jurisdiction. The purpose of establishing the IPM program is to assure municipal employees, visitors, and residents that no unacceptable public or environmental health risk is taken.

To take care of playing fields without using Roundup, Carrboro's Recreation & Parks Department mows daily with high fertilization and over-seeds the fields with season-appropriate grasses so that the grass succeeds where the weeds fail.¹²

According to Carrboro's IPM Manager Chris

Gerry, the program is tough, but it is worth it: "The benefits far outweigh the costs. If I was using Roundup, I would have to have a tractor and a water tank, just like I'm using now...and a man on the ground and a man on the tractor. I don't need a licensed applicator, so I don't have to send them to school. I can do it when it's raining or damp, or when the wind's blowing (unlike with Roundup application)."¹³

The town has a Least Toxic IPM Manual that provides pest management decision makers with information about pest biology, monitoring guidelines, options relative to action or treatment thresholds, pest management, and general procedures. It also includes the Department IPM plans and specific site plans. The IPM policy applies only to town operations and not to those of its residents and businesses. The town passed the IPM policy to serve as an example of how varied pest problems can be controlled with the least toxic IPM, and it encourages residents and others to follow voluntary guidelines on private property.

To make their policy effective, all town employees work together to identify, control, and eliminate pests on town-owned properties within their scope of work.¹⁴ All town staff are given an appropriate level of training to familiarize them with basic weed and pest identification and control. Each department or relevant section of town government designates an IPM coordinator who will consult with the town's IPM Coordinator concerning control procedures, prevention, and implementation.

The town considers Roundup to be a "Category III" pesticide, and has phased it out of use except in urgent, rare cases.¹⁵ When Roundup has to be used, it is considered an "unusual circumstance" and the IPM coordinator has to do the following: 1) receive approval from the Director of Public Works to apply

Roundup; 2) inform the Town Manager; 3) notify those who may be affected including the posting of notices at principal points of entry to the park or building where Roundup is being used.

According to Mr. Gerry, “If a family goes to use any public grounds in Carrboro, be it a picnic or the Farmer’s Market, a soccer game at Anderson park, or a day playing in the grass--you can do it chemical-free.”

C) Tips on how the community avoids using Roundup

- Use hot water to kill weeds as an alternative to Roundup. The town uses a machine that superheats water and dispenses it in a controlled stream. The machine is used in several other countries such as New Zealand, but its use is mostly unknown in the United States.¹⁶

For more information, contact:

Pesticide Education Project

115 W. Main St.

Carrboro, NC 27510

919-967-1886

3) Charlottesville, VA



Community Snapshot:

Allows Roundup Use?

- Only in limited circumstances

Length of time Roundup has been restricted/banned:

- Two years

Where Is Roundup restricted/banned?

- All city-owned public parks, schools, and city buildings/property

A) Background: How the community restricted Roundup

Charlottesville recently decided to restrict the use of Roundup following the work of local groups who were alarmed by pesticide use. A local moms group went to the city council and testified in support of pesticide-free parks and school grounds after they had found out that “county schools [were spraying] roach killer along the walls in the cafeteria and classrooms once a month, regardless of whether there was a roach seen.”¹⁷ The campaign to convince the city to adopt a restrictive policy on Roundup was successful because: 1) there was already a policy in place for local schools that restricted the use of Roundup on school property; 2) community activists were heavily involved in getting buy-in from citizens (collecting 1,000 petitions asking for an IPM policy); 3) city workers were already using an informal IPM policy in the area, meaning that the city already had buy-in from its employees.¹⁸

After hearing from these community members and from city officials who believed that they could develop a pesticide-free plan, in 2015 the City of Charlottesville adopted a formal pest management program that restricts the use of Roundup.

B) Overview of the community's Roundup-free program

The city's Parks and Recreation Department uses the integrated pest management approach for maintaining parks and school grounds. John Mann, city landscape manager, said the main goal is to “move toward a program that is based on the values of the community. This [policy] leads us further ahead to achieve

those goals.”¹⁹ The City of Charlottesville previously adopted integrated pest management programs for the interiors of their school buildings. This safer-chemical policy has applied to school grounds since 2008.

The city uses organic methods as its first line of defense. However, if it does have to use Roundup during a bad weed outbreak, the city staff puts all the spray information online (dates, locations, and information on the strength of Roundup and its possible health effects). They also mark where applications have been made for 24 hours following any application and provide a 24-hour notice of applications on school property. All integrated pest management records are kept for three years and made available for the public to view at any time.

C) Tips on how the community avoids using Roundup

- Structural and procedural modifications to reduce food, water, shelter, and access used by weeds (this means pruning healthy plants, using more native plants, using goats to control vegetation, making sure plants get plenty of irrigation, using mulch to control weeds, and testing soil to make sure there is soil health).
- Using organic alternatives to Roundup and other pesticides, such as vinegar.²⁰

For more information, contact:

Brian Daly

Charlottesville Parks and Recreation Director

(434) 970-3260

dalyb@charlottesville.org

4) Dubuque, Iowa



Community Snapshot:

Allows Roundup Use?

- Completely banned in public parks

Length of time Roundup has been restricted/banned:

- One year

Where Is Roundup restricted/banned?

- City-owned parks (Roundup use is limited, but still used, on other city property)

A) Background: How the community restricted Roundup

In 2015, the City of Dubuque developed an IPM program for its 2,300 acres of open space and parks. The program's objective was to reduce chemical use in outdoor spaces and facilities, as part of an overall effort to create a more sustainable Dubuque.²¹ Since 2016, parks in Dubuque are free of Roundup.²²

The city was acting in response to a local group called “Dubuque Poison-Free Parks.” This community group has 249 local members and created a petition calling on the city to completely ban the use of Roundup in all public spaces, which garnered over 500 signatures (in a town of 58,000 people).²³

B) Overview of the community's Roundup-free program

Implementation of the IPM program is an ongoing process, and the staff continues to explore the most effective and least toxic method for controlling weeds. Parks in Dubuque are known as “Pesticide-Free Parks” where Roundup use is banned. On other property, the department has identified best practices in park maintenance to minimize Roundup and other pesticide use.

As a result of eliminating Roundup in these areas, weeds such as dandelions are sometimes apparent for a short time each spring. On its Pest Management website, Dubuque lets its citizens know that dandelions are a sign that the Integrated Pest Management program is working—and that they are an indication of a healthy and safe environment for families.²⁴

No chemicals are used to manage the landscape

in these parks. Instead, staff have created maintenance-friendly landscapes that reduce the need for weed management and employ mechanical techniques such as mulching, mowing, or hand-weeding to manage weeds.

To make this new program possible, the city has taken several steps. Parks have been branded as “Pesticide-Free Parks” to get more buy-in from community members. These parks are maintained without the use of any registered pesticides. Because techniques like weeding and mulching are more labor intensive and expensive, volunteers are enlisted to help. The volunteers are needed to satisfy weed-control duties. The city works in coordination with civic groups and organizations that are interested in making their community pesticide-free. Dubuque ensures their employees and volunteers get education and proper training on weed control.

C) Tips on how the community avoids using Roundup

- Identify weeds at small population densities before they become established.
- Mulch in planting beds to suppress weeds
- Plant desired plants at densities that preclude weeds
- Select pest-resistant plants and give plenty of water and soil

For more information, contact:

Marie Ware, Dubuque Leisure Services Manager
(563) 589-4263
mware@cityofdubuque.org

5) Takoma Park, Maryland



Community Snapshot:

Allows Roundup Use?

- Completely banned

Length of time Roundup has been restricted/banned:

- Two years

Where Is Roundup restricted/banned?

- City-owned parks and private property (first time a local jurisdiction restricted pesticides on private property)

A) Background: How the community banned Roundup

In Maryland, local governments can enact strong protections from pesticides. The City of Takoma Park prioritizes protecting the health of its citizens by advocating for clean water, safe neighborhoods and working environments, and recommends the “use of alternative, less environmentally damaging products.”²⁵ The ordinance was drafted by residents Julie Taddeo and Catherine Cummings, who both recognized a need to reduce pesticide use in their community for the long-term health and safety of their children. When Taddeo and her family moved into a house after living in an apartment, she was dismayed and baffled to see neighbors loosely using pesticides on their lawns to get rid of dandelions. Thanks in large part to efforts from Taddeo and Cummings to educate neighbors on the dangers of pesticide exposure, the city passed laws restricting pesticide use, leading to the creation of Safe Grow Zone in 2013.²⁶

B) Overview of the community's Roundup-free program

The Safe Grow Act of 2013 restricts the use of pesticides for lawn care on public and private property. This act was effective for commercial applicators in March 2014 and for private residents in January 2015. Takoma Park has a list of restricted pesticides that are known to cause cancer, endocrine disruption, and have other toxicity characteristics.²⁷ There have been better outcomes at a competitive cost through sustainable management practices.

The city provides information on how to maintain

healthy lawns while avoiding the use of harmful chemicals. There are a few situations where pesticide applications are allowed: to kill noxious growths, weeds, and invasive species determined to be detrimental to the environment, or to control dangerous insects.

Residents must comply with the Safe Grow Act and must correctly fill out and post a notice to verify that any pesticide applied is not a restricted pesticide. The notice must be two days prior and remain in place two days after application, and be visible to the public. Application of a restricted pesticide carries a \$100 fine for the first offense and a \$400 fine for repeat offenses. Residents must request a waiver and receive the city's approval before applying a restricted pesticide. A waiver may be in place if all other lawn care alternatives are exhausted.

C) Tips on how the community avoids using Roundup

- Takoma Park has a Residential Lawn Care Assistance Program that is designed to assist residents in practicing organic lawn care methods. If homeowners have trouble transitioning to organic lawn care practices, they can receive a free lawn care consultation.²⁸
- Cities should provide public educational materials like brochures, classes, and public forums to raise awareness.²⁹

For more information, contact:

Nima Upadhyay

Takoma Park Special Projects Coordinator

(301) 891-7621

NimaU@takomaparkmd.gov

6) Evanston, Illinois



Community Snapshot:

Allows Roundup Use?

- Heavily limited

Length of time Roundup has been restricted/banned:

- Seven years

Where Is Roundup restricted/banned?

- All city-owned property, schools, public parks, and buildings

A) Background: How the community restricted Roundup

After a two year grassroots organizing effort, Evanston, Illinois decided to go pesticide-free in 2010. Rachel Rosenberg (of the nonprofit Midwest Pesticide Action Center) worked with the Evanston Environment Board and with the city to push for a pesticide-free community. Dozens of community members called for a pesticide-free program, and the city council asked city staff to explore their options. Evanston staff in the Health Department and Forestry Division worked with outside organizations to assess the city's pesticide use and to create a subsequent policy.³⁰

According to the city's website, Evanston's city employees and contractors viewed this as an easy adaptation because the city "has been applying minimal to no pesticides or insecticides in its municipal parks and on [city-owned] properties since the early 1990s." In 2010, the Evanston City Council passed the Sustainable Pest Control and Pesticide Reduction Policy. When the city council passed the IPM policy in 2010, they were "attempting to set an example for the community," according to Carl Caneva, the division manager for the Evanston Health Department.³¹ Evanston now considers all other alternatives before applying chemicals to eliminate pests.

B) Overview of the community's Roundup-free program

Evanston uses sustainable pest control practices on city-owned or -leased property, and educates the general public as well as the private sector about these practices. The city only allows the use of Roundup on

public property under extremely limited circumstances.³² With this policy, an Integrated Pest Management Coordinator position was also established to oversee policy implementation, and that coordinator is responsible for maintaining links to the list of prohibited pesticides on the city's website.

Evanston's Health Department has found that alternative approaches to conventional pest management can effectively control pests. According to the Department, such techniques also often cost less over the long run than routine spraying.³³ Since the adoption of the Sustainable Pest Control and Pesticide Reduction Policy, the city has reduced the use of pesticides by over 50 percent, including those that contain glyphosate.

The pesticides that are prohibited on city property include: "U.S. EPA known, probable, likely, possible, or suspected carcinogens, U.S. EPA Toxicity Category I and II pesticides (these pesticides are identified by the words "DANGER" or "WARNING" on the label), and chemicals known to the state of California to cause cancer or reproductive toxicity."³⁴

The Sustainable Pest Control and Pesticide Reduction Policy prohibits the city from using Roundup except in emergency circumstances. For example, if the city's parks department exhausts other options to control an invasive weed after using organic attempts, Roundup or another close substitute would be used. The policy includes notification requirements when pesticides are applied (signs and at least 72 hours of notice to the local community that must remain at least four days after). There is also an annual training of staff and contractors on sustainable pest control practices.

C) Tips on how the community avoids using Roundup

- Improve soil health before planting grass through soil testing and by adding fertilizers to soil where necessary.

- Keep lawns taller to improve root health and to shade out any growing weeds.

For more information, contact:

Lawrence Hemingway

Director, Evanston Parks & Recreation

847-448-4311

ParksRecCommServ@cityofevanston.org

7) Irvine, California



Community Snapshot:

Allows Roundup Use?

- Completely banned

Length of time Roundup has been restricted/banned:

- One year

Where Is Roundup restricted/banned?

- All city-owned property

A) Background: How the community restricted Roundup

The City of Irvine has completely banned the use of Roundup on city property. In 2012, four local moms in Irvine created the community group Non-Toxic Irvine with a goal of eliminating pesticides, and particularly Roundup, from their community. In 2015, thanks in part to Non-Toxic Irvine, Irvine Public Schools eliminated the use of Roundup on all public school property. By February of 2016, the community group had dozens of members appear at a city council meeting. At that meeting, the city voted to eliminate the use of all toxic pesticides on city property, including Roundup, after reviewing a presentation that focused on the finding from the World Health Organization's International Agency for the Research on Cancer, which identified glyphosate as a probable human carcinogen.³⁵ This ban protects 570 acres of parks, over 800 acres of rights-of-way, 70,000 trees, and nearly 1.5 million square feet of facilities.³⁶

B) Overview of the community's Roundup-free program

Within their management plan, Irvine focuses on prevention, monitoring, non-chemical control, and chemical controls only when all other options have been exhausted.

The city's prevention protocol includes selecting plants compatible with the site's environment (for example: plants that are native to the area, or those that do well in the type of park where they're planted). Irvine monitors, evaluates, and controls pest levels, tol-

erance thresholds, and the impact of controls available and/or used. Non-chemical control measures include biological, cultural, and physical tactics. Lastly, according to their IPM policy, chemical controls are only utilized when other methods fail to provide adequate control. Irvine's program was amended to use organic pesticides first. Pesticides are recommended by a licensed California Pest Control Adviser and applied by Licensed Qualified Applicators pursuant to Department of Pesticide Regulation guidelines.

When chemicals are required as a last resort, the city requires 48 hours advanced notification signs that must stay up for a minimum of 72 hours after.³⁷

C) Tips on how the community avoids using Roundup

- Mow as high as possible, as longer grass blades equal deeper root systems.
- Use mulching rather than bagging when mowing.
- Avoid over-seeding to give plants more air to breathe.³⁸

For more information, contact:

Manuel Gomez
Irvine Public Works
949-724-7516
pw@cityofirvine.org

8) Richmond, California



Community Snapshot:

Allows Roundup Use?

- Only as a last resort

Length of time Roundup has been restricted/banned:

- Three years

Where Is Roundup restricted/banned?

- All city-owned property

A) Background: How the community restricted Roundup

In July of 2012, the City Council of Richmond, California adopted an Integrated Pest Management Ordinance to guide the work of city departments tasked with weed and pest control. The Intergraded Pest Management Ordinance (IPM) said, “Pesticides shall only be used as a last resort, following other feasible IPM efforts includ[ing] cultural, mechanical, and biological methods.” This change happened after a 2011 report titled “Round Up and Birth Defects,” written by scientific experts, was published.³⁹ This study led to the banning of Roundup and glyphosate until a thorough scientific evaluation was undertaken.

While the original IPM ordinance was intended to decrease pesticide use, the ordinance still allowed pesticide use under certain circumstances. This created a great deal of confusion from city staff and residents. Residents and community members still observed the use of pesticides. Richmond’s residents asked the Richmond mayor and city council to make the language clear to end any sort of confusion. On February 24, 2014, the City Council of Richmond unanimously voted to enact a ban on all pesticides, including glyphosate.⁴⁰

B) Overview of the community's Roundup-free program

Richmond only allows the application of Roundup and other pesticides as a last resort. The IPM coordinator is not allowed to grant any exemptions to allow the use of pesticides in the eradication of invasive or noxious weeds. The City Council of Richmond

urges residents to use suitable, less-toxic alternatives to glyphosate to control weeds. The City Manager’s Office must prepare information to educate Richmond’s residents and local businesses about the harmful uses of pesticides like glyphosate. The city council also encourages the school district to educate employees, students, and parents about the harmful use of toxic pesticides.

C) Tips on how the community avoids using Roundup⁴¹

- Minimize the use of chemicals.
- Use fertilizer sparingly.
- Do not over water.
- Garden with native plants.
- Prevent soil erosion.
- Contain yard waste.

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9) Portland, Oregon



Community Snapshot:

Allows Roundup Use?

- Limited use in emergency weed-control situations

Length of time Roundup has been restricted/banned:

- 19 years

Where Is Roundup restricted/banned?

- All city-owned property

A) Background: How the community restricted Roundup

Since 1988, Roundup use in Portland has been restricted to emergency-use only. Further, if the “emergency situation warrants the use of non-exempt pesticides, the city council may grant a... waiver [and] the least-toxic material available must be used to address the emergency.”⁴² Portland Parks & Recreation is the steward of over 11,500 acres of land at more than 250 locations including regional, community and neighborhood parks, natural areas, recreational facilities, special gardens, and trails. These Roundup-free parks contain over 2.2 million square feet of developed shrub beds, six botanic gardens including three specialty rose gardens containing 20,000 roses, 1,360 acres of turf with 365 athletic fields, five 18-hole golf courses, and over 7,000 acres of natural areas.⁴³

Parents urged the City of Portland to go pesticide-free because of their concerns about children playing in parks covered in harmful chemicals. Mulya Melco started noticing the amount of pesticides that the City of Portland was using and decided to join the Overlook Neighborhood Association after becoming pregnant. “I’m hoping that long term exposure will decrease,” she said. “I hope for healthier people, especially kids.”⁴⁴ Members of the Overlook Neighborhood Association’s sustainability committee started communicating to the neighbors through social media, email, and door-to-door visits.

While Portland can still use Roundup on some of its property during major weed control efforts, it started a “pilot pesticide-free parks” system, where Roundup use was fully banned. Since the fall of 2004, Portland Parks & Recreation and the Pesticide-Free

Parks partners began pesticide-free park management at three sites: Lair Hill Park in southwest Portland, Sewallcrest Park in the southeast, and Arbor Lodge Park in north Portland.⁴⁵ No Roundup is used in these parks. Instead, volunteers weed by hand, mulch shrub beds, and control weeds in other ways, such as aeration and over-seeding of the park turf.⁴⁶

B) Overview of community's Roundup-free program

The City of Portland credits its success in running a pesticide-free parks system to working with state agencies, local volunteers, and employees to find a good balance in attacking pest problems. City administrators in Portland encourage other cities to follow their program. On its website, the Portland Parks Department says: “if a community wants to avoid the risks and dangers to pesticides and herbicides, [they] should do all that they can to make it happen.”⁴⁷

C) Tips on how the community avoids using Roundup

- Utilizing plants with natural resistance to pests.
- Proper mowing and irrigation of park turf.
- Mulching of planting beds to reduce establishment of weeds.
- Application of selected pesticides to control invasive weeds and prevent their spread.

- Release of natural biological control insects to control invasive weed infestations.

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10) Wellesley, Massachusetts



Community Snapshot:

Allows Roundup Use?

- Limited use in emergency weed-control situations

Length of time Roundup has been restricted/banned:

- Six years

Where Is Roundup restricted/banned?

- All athletic facilities and city-owned property

A) Background: How the community restricted Roundup

In 2011, the City Council of Wellesley, Massachusetts banned all pesticides.⁴⁸ The city council's decree states: "pesticides shall only be used as last resort, following other feasible organic efforts including cultural, mechanical, and biological methods."⁴⁹ The city declared that a main reason for their decision is that glyphosate has been found to cause serious health conditions in humans and animals, including birth defects, cancer, and deformities. Said one community activist, Jeff Ritterman, to the city council: "Monsanto continues to advertise glyphosate as safe for humans and animals, but scientific evidence shows that humans in fact do possess the enzymes that glyphosate targets, in our gastrointestinal bacteria, and that glyphosate also affects other enzymatic pathways."⁵⁰

Wellesley receives a \$7,000 grant from the Toxic Use Reduction Institution (TURI) at the University of Massachusetts to develop and implement a pesticide use reduction strategy for all public and private land. The objective is to reduce exposure of children and adults to pesticides that are known to have health risks. The five partners of this project are the Charles River Watershed Association, the Northeast Organic Farmers' Association, the Needham Garden Center, the Natural Resources Commission, and the Wellesley Cancer Prevention Project. All of these partners have collaborated with Wellesley to ensure the campaign has proper information, materials, and the right amount of expertise to educate residents and town departments to get them to transition to toxic-free practices on their own.⁵¹

The city council's resolution states that by pass-

ing this law, local residents will consider safer alternatives to weed control. The Wellesley Natural Resource Commission issued a statement saying that "the town of Wellesley recognizes that it is in the best interest of public health to eliminate the use of toxic pesticides in Wellesley and to introduce natural, organic cultural and management practices to prevent, and when necessary, address pest problems."⁵² The same statement also states that it agrees with the EPA that all pesticides are toxic to some degree and that the widespread use of pesticides poses both environmental and health risks.

B) Overview of the community's Roundup-free program

In the years since Roundup has been banned in Wellesley, local activists have worked with the area's IPM manager to find organic solutions for keeping Wellesley's parks Roundup-free. There are frequent opportunities for neighborhood groups and other volunteers to assist the city in keeping the parks organic. According to Janet Bowser, the IPM manager for Wellesley, this has "helped keep the parks beautiful."⁵³ Ms. Bowser also points out that having a lot of community involvement made the project more sustainable over the long run. She believes that any successful IPM project needs a lot of community engagement.

The town of Wellesley has created the Organic Pest Management Policy to prevent the use of pesticides including Roundup. The application of all toxic pesticides by Wellesley employers or private contractors is prohibited. Natural and organic cultural practices should be the main method of choice to prevent pest or weed problems. All Wellesley employees working with turf are trained in natural and organic turf

management. All water and compost is tested for pesticides, and a registry has been put in place for all pesticides currently in use. And finally, the town must be tested for pesticides at least every three years.⁵⁴

The City of Portland uses an unusual way of cutting grass naturally: goats. This is an easy solution to clearing invasive plants in an environmentally friendly way. There are two pairs of goat siblings—Marshmallow, Ethel, Birch, and Buttercup—that have been put to work gnawing away already. The community claims that the goats have been successful. The only thing the goats require is their water bowl to be filled.⁵⁵

C) Tips on how the community

avoids using Roundup

- Organic composting: By composting in our yards, biodiversity in the soil increases, creating less space for weeds. Even more importantly, composting makes soil stronger and healthier.
- Using only organic materials for lawn care rather than pesticides, as all pesticides are at least somewhat toxic.⁵⁶

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Conclusion and Recommendations

Communities around the country have made the decision to stop using Roundup on playgrounds, public parks, and schools. The communities that have made this transition are able to maintain beautiful parks and outdoor spaces without the use of Roundup. Due to the health risks posed by Roundup, more cities and towns should crack down on the use of Roundup in public spaces. We recommend that communities look into options for restricting or banning the use of Roundup.

Based on a survey of the towns that have restricted Roundup, a few trends emerge. First, many changes happened because local activists got involved. To make the Roundup-free transition happen, community members should build strong public support for going Roundup-free. Educating the community on the harm that comes from using Roundup can create this community of support.

Local elected officials have to get involved, too—either from the beginning of the effort to ban Roundup, or later on before a law is passed. Officials often buy in once citizens demonstrate that people want safer parks

and public spaces. Once there is support, a city-specific Integrated Pest Management plan is needed. The city or community needs to come up with a plan to take care of parks and spaces that does not involve the use of Roundup. Once this plan is created, community members can check in with the community to make sure that the plan is being followed and that it is working. Strong community involvement is another key to the success of these programs.

Finally, and perhaps most importantly to activists who want to create a Roundup-free town: it is possible to make this work. Many places have already gone Roundup-free: communities in rural towns, large urban centers, and small college towns have all made progress on restricting the use of Roundup. While there has been progress, there are still communities using these harmful chemicals. More communities can make a Roundup-free future happen if they, as a community, have the support to implement policies as well as an Integrated Pest Management Program to ensure the safety of the community.

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