Pesticide Use Report 2019
Overview

• How do we define pesticides?
• Share the MPRB’s current use of pesticides and how they are utilized in our land management practices
• Discuss how we protect park users
• Share the work of the Pesticide Advisory Committee and how it connects to our land management practices
• What are our next steps?
According to the Environmental Protection Agency (EPA) a pesticide is “any substance or mixture of substances intended for preventing, destroying, repelling, or mitigating any pest”.

This umbrella term is further broken down into categories focused on the type of pest targeted.

- Herbicides
- Fungicides
- Insecticides
- Bactericides
- Rodenticides
- Algaecides
- Miticides
Pesticide Products Used

Pool Chemicals

Indoor Pest Control

Cleaning Products

Landscape Products
Landscape Pesticide Products Used

**HERBICIDE**
Targets Plants
- Garlon 3A
- Garlon 4 Ultra
- Cheetah Pro
- Transline
- Relegate
- SpeedZone
- Clearcast
- Millenium Weed & Feed
- Milestone

**INSECTICIDE**
Targets Insects
- Neem Oil
- Acelepryn

**FUNGICIDE**
Targets Fungi
- Manzate Max
- Propiconazole 14.3
- Campanion
MPRB manages 6,800 acres of land including:

- Neighborhood Parks
- Regional Parks
- Bodies of Water
- Beaches
- Trails
- Premiere Athletic Complexes
- Enterprise Golf Courses
- Formal Gardens
- Community Gardens/Urban Agriculture
- Managed & Unmanaged Natural Areas
- Playgrounds & Tot Lots
- Water Parks and Wading Pools
- Recreation Centers

Pesticides are not used in many of these spaces or with the same intention throughout these land types and spaces. When pesticides are determined to be needed, it is site specific.
Pesticide Free* Sites

• Current IPM Policy dictates that no herbicides are used within 100’ of a playground or wading pool site.

• Pesticides aren’t currently utilized for cosmetic purposes on general parkland.
  – General parkland is not treated including turf, landscaped shrub beds, unmanaged natural areas, etc.
  – As bee lawns become more supported by the public, clover, dandelions, and other flowering “weeds” are more accepted in our general turf areas.

• Glyphosate ban in place
  – No neighborhood park treated since 2016 with exception to Loring Park
  – No park property treated since 2018 moratorium

• 100+ park properties are free of landscape pesticide products
  *Landscape Pesticides Not Used
ANNUAL LIQUID PESTICIDE* USE
EXCLUDING GOLF & FORESTRY

*Landscape Pesticides Only
2019 Pesticide Use*

Approximately 13 gallons of liquid pesticide* use was reported in 2019 (golf & forestry excluded)

- 12.85 gallons of liquid herbicide used
  - 1.68 gallons = managed natural areas, formal gardens, and planned restoration projects combined
  - 11.19 gallons = premiere athletic complexes

- 0.27 gallons of insecticide and fungicide combined used
  - Fungicide: Lyndale Park Rose Garden and Minneapolis Sculpture Garden
  - Insecticide: Victory Memorial and Lyndale Park Peace and Rose Gardens

*Landscape Pesticides Only
**Herbicide Application Sites**

**HERBICIDE APPLICATION COUNT BY PURPOSE: 2019**

- **Premiere Athletics**: 11.19 Gallons
- **Site Prep**: 0.40 Gallons
- **Noxious Weed**: 1.28 Gallons

*Legend*: Garlon 3A, Relegate, Cheetah Pro, Garlon 4 Ultra, Milestone, Transline, Clearcast
• Minnesota Department of Agriculture requires MPRB to comply with the state noxious weed law.

• This law is centered on a list of plants that is updated as invasive species are introduced to our landscape.

• Different plants require different levels of control
  – Prohibited: Eradicate
  – Prohibited: Control
  – Restricted Noxious Weeds
  – Specially Regulated
Protection of Park Users

• Strategic Timing
  – Early morning hours before park spaces receive higher levels of visitation
  – Scheduled to avoid events and permits
  – Scheduled around opening hours

• Controlling Access
  – Gates and fences are closed and locked

• Product Selection
  – Lower toxicity
  – Organics and biologicals when available

• Signage
  – In compliance with MN Department of Agriculture and Minneapolis City Ordinance for signage of treated turf.
Product Selection

• Pesticide products all have a signal word to warn user of their toxicity.
  – Danger
  – Warning
  – Caution
  – Not Required

• Need to consider multiple factors including but not limited to
  – Ecological, Worker, & Consumer Safety
  – Target pest
  – Level of threat
  – Use of space
Pesticide Applicator Licenses

• Currently 200+ staff members are licensed to apply pesticides through the MN Department of Agriculture
  – This count includes forestry, horticulture, park maintenance, golf, and environmental management staff.
  – 8 hours of continuing education is required every other year to maintain license.

• While many positions currently require this license, only a small fraction actively utilize their license each season.
  – Premiere Athletic Complexes
  – Golf
  – Formal Gardens
  – Natural Resources
All positions that require a pesticide applicator’s license receive continuing education/training & development opportunities annually outside of pesticide applicator recertification workshop.

- Examples of External Opportunities
  - MNLA’s Northern Green Expo
  - U of MN’s Shade Tree Short Course
  - Pollinator Friendly Alliance’s Pollinator Summit
  - MPCA’s Turfgrass Maintenance Best Practices
Limiting Use of Landscape Pesticide Products

Practices in place to limit use of landscape pesticide products
Charged with:

- Researching viable alternatives to glyphosate and other toxic pesticides.
- Assist and advise the MPRB in transitioning towards pesticide free resource management alternatives.

Actions:

- Reviewed MPRB’s current pesticide use and practices
- Identified park properties that are free of pesticides products
- Reviewed current signage practices and piloted signage in place of herbicide treatments
- Created written document outlining natural resource management operations
Pesticide Advisory Committee

Committee Recommended Next Steps:

- Natural turf care pilots at Fort Snelling Golf and Neiman Baseball Field #1
- EIQ pilot at a MPRB golf course (other than Fort Snelling)
- Work with MPRB Planning Department to go through the community engagement process
- Use findings, to inform an update of MPRB’s current IPM Policy
In 2019, signage as an alternative to herbicide use was piloted for weed species that are toxic to humans.

- **Wild Parsnip** at Cavell Park
- **Poison Ivy** at East Cedar Lake Beach, William Berry Woods, East River Parkway, & Father Hennepin Bluffs Lower Trail

Signage warns park users of the danger if the plant is directly contacted. Compliant to the MN Noxious Weed law when partnered with other control practices.

**Signage does not replace MDA legal requirements to implement control measures.**
Natural Turf Care Pilots

Natural Turf pilots planned for Fort Snelling Golf & Neiman Athletic Complex led by Chip Osbourne of Osbourne Organics through grant funding from Beyond Pesticides.

– Implementation stage begins Spring 2020 and will last 3 years
– Results are to be observed as the pilot is implemented and learning can be applied to other sites as they become known
– Outcomes are not known at this time so no timeline can be estimated.
  • Each site is unique so learnings may not be able to be instantly implemented at all sites even if favorable but rather trialed and phased into practice.
Environmental Impact Quotient (EIQ) pilot has been proposed at a golf course led by Dr. Paul Koch from U of Wisconsin-Madison, Plant Pathology Department.

- Developed by Cornell University
- Aids in more thoughtful product selection by taking multiple factors into account including impacts to the following
  - Worker
  - Consumer
  - Ecological
Property owners or neighborhood groups can work with the MPRB to get approval to pay for injection treatments of boulevard and/or park trees by licensed contractors.

- Oak Wilt
- Emerald Ash Borer
- Dutch Elm’s Disease

Oak preservation efforts are also been in place at Eloise Butler Wildflower Garden for two decades. This work is a combination of manual techniques partnered with fungicide and growth regulator injections.
• Defined pesticides
• Overview of the use of landscape pesticides
• Looked at data on pesticide use reductions
• Outlined the protection of park users
• Next steps & key milestones
  – Document best practices and update our IPM policy to reflect current and future best practices
  – Utilize pilot project findings to inform practices at other athletic and golf sites
  – Continue to network and seek out advancements in landscape management in order to reduce pesticide use
Questions?

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