2025 PARKS DIVISION PESTICIDE REPORT

POLICY REGARDING PEST MANAGEMENT ON CITY PROPERTY
Policy Adopted 5/18/2004

1. The purpose of this policy is to eliminate or reduce pesticide use to the greatest possible extent. The City of Madison agrees with the US EPA that "all pesticides are toxic to some degree, and the commonplace, widespread use of pesticides is both a major environmental problem and a public health issue." For this reason, all departments will evaluate and give preference to non-pesticide management practices and use reasonably available alternative pest control methods, will minimize their pesticide use through Integrated Pest Management, and will use least risk pesticides as a last resort.

2. Definitions of terms used in this policy.

   a. Integrated Pest Management (IPM) is a decision-making process. The essential parts of IPM are monitoring, setting threshold levels for pests, identifying the causes of the pest problem, addressing the cause of the problem, and using the most effective, least harmful, methods to control the problem, before using chemical controls. IPM develops ways to change the conditions that cause the pest problem, so that pests will be prevented in the future or minimized. Preventive maintenance using pesticides for pest problems does not adhere to IPM. Prevention of pests should be managed with non-toxic methods.
   b. Biological Controls – support or introduction of natural predators or parasites of the pests to be controlled.
   c. Cultural Controls - practices that can reduce pests by making the environment less favorable, such as improved sanitation or horticultural practices.
   d. IPM Coordinator – Department staff person who is responsible for developing and implementing the pest management plan for the Department.
   e. Mechanical Controls - direct measures that either kill the pest or make the environment unsuitable for their entry, dispersal, or survival, such as tilling the soil to expose insects or hand pulling weeds.
   f. Physical Controls - practices that physically keep pests from places where they're not wanted, such as window screens and sealing cracks and crevices.
   g. Pesticides – substances that destroy or repel pests. For this document, they include herbicides, insecticides, fungicides, and rodenticides.

3. Chemical pesticide may be considered if:

   a. The non-toxic methods of pest control, such as Cultural Controls, Physical Controls, Mechanical Controls, and Biological Controls have been shown to be ineffective; and,
   b. Monitoring has indicated that the pest will cause unacceptable health or safety hazards, or an unacceptable reduction in the intended use of the property.

4. All departments will maintain appropriate records on pest monitoring data collected, pest control actions attempted (both non-chemical and chemical), and results of pest control activity. All departments will submit by February 1st an annual report to the Public Health Commission. This report will contain the following information:

a. Completed Pesticide Application Summary for all pesticide applications made in the previous year. Application data must include: purpose, location, and amount of each pesticide product applied, including the amount of active ingredient.
b. Annual summary of non-chemical pest control activities.
c. Estimated size of the total area managed for each pest problem in a given year. The area managed will likely exceed the area treated.
d. A summary of any complaints received regarding use or the perceived need for use of pesticides, including the date complaint(s) was (were) received and the nature of the complaint(s).
e. A pest management plan for the coming year. The plan will contain the following information for each type of pest problem:

    1. Definition of Roles. Identify who will: serve as the IPM Coordinator, perform pest monitoring, evaluate pest control alternatives, decide which pest control alternative to use, and implement pest control measures.
    2. Pest Management Objectives. Identify the action thresholds (i.e., pest population levels) to be used to decide when some type of action should be taken to control the pest problem.
    3. Monitoring Plan. Describe the methods to be used to monitor the pests and the frequency of monitoring.
    4. Control Method Selection. Describe the types of pest control methods to be evaluated and the criteria used to choose the appropriate control method. IPM control methods may include:

        i. Modifying the environment to increase the effectiveness of biological, mechanical, cultural, or physical controls such as blocking mouse holes, keeping areas clean where insects may be attracted, improving soil health, etc.
        ii. Destroying pests breeding, feeding, or shelter habitat.
        iii. Using pest resistant varieties of seeds, ornamentals, trees, etc.
        iv. Using chemical control strategies as a last resort only after a mix of other strategies is shown to be ineffective.
        v. Using mechanical methods and biological methods (parasites, predators, disease).
        vi. Spot-treating pest problems when chemical methods are used.

f. Parks Division Pesticide Report A standard notification plan that provides, at a minimum, readily visible posting for a period of 24 hours prior to a pesticide application (when possible) and a minimum of 48 hours following the application. These time intervals may be extended based on health or safety concerns. For areas that receive pesticide applications on a regular basis, permanent signs will be posted

5. Annual evaluation of pest management activities on City property will be performed in the following manner:

    a. Public Health Department staff will summarize pest management activities. This summary and individual Department reports and plans will be provided to the Pest Management Advisory Subcommittee of the Public Health Commission and the oversight commission of each department applying pesticides.

b. The Pest Management Advisory Committee, a commission of experts to be recommended by the Public Health Department and appointed by the Mayor's office, shall review the annual report and make recommendations to the Public Health Commission, will:

1. Review the available data and make recommendations concerning compliance with this Policy to the Public Health Commission.
2. Following review of the available data a list of pesticides acceptable for use on city property will be generated.
3. Report any contractors that are not complying with this policy to the Public Health Commission.

c. The Public Health Commission will submit recommendations and concerns to each commission charged with oversight of a department that applies pesticide on City property. The public Health Commission will also forward to the Purchasing Supervisor of the Comptroller's office the names of any contractor that does not comply with the City's pesticide policy.

d. The oversight commission of each Department with a need to manage pests on City property will have the following responsibilities:

1. Review the Department's pest management activities and plans,
2. Consider recommendations and concerns from the Public Health Commission, the Common Council, and the public.
3. Take appropriate action to ensure that the Department's pest management activities and plans are in compliance with this Policy

6. All Departments with a need to manage pests on City property will assign a staff person to serve as IPM coordinator. This person will be responsible for developing and implementing the Department's plan.

a. IPM Coordinators from all Departments will be required to meet annually to discuss past experiences and recent advances in pest management practices. The group may choose to meet more frequently as needed.

b. IPM Coordinators will receive IPM training.

7. All Departments will report any complaints regarding health effects possibly related to pesticide applications to the Public Health Department at the earliest opportunity.

8. Any unusual amount of pesticide use due to unusual circumstances will be reported to the Director of Public Health or his/her designee at the earliest opportunity.

9. The IPM Coordinator and all supervisors having responsibility for the handling, application, disposal or storage of pesticides shall be State certified under the Department of Agriculture, Trade and Consumer Protection's Pesticide Applicator Certification Program for the appropriate type of pesticide application engaged in. All employees and volunteers applying pesticides shall be State certified or working under the direct supervision of a certified applicator. All employees having any involvement with pesticide handling, application, disposal or storage shall receive basic training in pesticide safety.

10. All Departments storing, using and disposing of pesticides and pesticide containers will do so safely, according to label directions and any State and Federal regulations where applicable.

11. If the pest control program is performed through a private contractor, the contracts for these services will require the contractor to comply with this policy. The contractor must furnish the IPM Coordinator for the Department served with the following for each pesticide applied:

    a. Date, purpose, location, amount of product, and amount of active ingredient for each application.
    b. Product labeling and material safety data sheets for each product applied,
    c. Documentation of applicator certification and conformance with other Federal and State laws.

    Monitoring should not be solely performed by the contractor hired to treat the pest problem. The IPM Coordinator should oversee the monitoring.

12. If a private contractor is found to be out of compliance with this policy by the Pest Management Advisory Subcommittee, this non-compliance will be considered grounds for terminating an existing City contract with the contractor and the contractor will not be allowed enter into a contract with any City department for 1 year after the date that non-compliance was determined.

    a. A list of non-compliant contractors will be kept by the Purchasing Supervisor. The Purchasing Supervisor shall notify all IPM coordinators of non-compliant contractors.

13. This policy does not apply to disinfectants used in the routine maintenance of city facilities.

14. The City shall NOT USE pesticides to control dandelions and other broadleaf weeds on general parklands, median strips, street terraces, roadsides, general lawn areas, and athletic fields that are not reserved, nor are fees paid for their use.

    a. Guidelines for Pesticide Use

        1. Cosmetic use of lawn and garden areas (including medians) will be managed using non-toxic methods. These methods can be sought out and used on all city properties.
        2. Because of concern over the health of children with repeated exposure to pesticides when playing sports, lower priority athletic fields in particular should have a much higher tolerance for weeds and should use non-toxic weed management methods if desired.
        3. Golf courses have the opportunity for pesticide reduction by incorporating more cultural method and increasing weed tolerance of golfers through educational efforts, following guidelines set forth by the Audubon Golf Sanctuary Program.
        4. Olbrich Gardens and other city property managing large garden areas ought to continually seek out resources for non-toxic garden management.

5. An Integrated Pest Management professional ought to be used as a resource by the city to help coordinate and integrate non-toxic pest management methods.
6. All use of pesticides for conservation purposes for the control of invasive species, must be managed by the conservation supervisor and comply with all other aspects of the pest management policy including reporting and posting requirements. No pesticide will be used for conservation management in areas dedicated for use by children.

15. Any use of a pesticide under EPA Special Review is prohibited.

Pesticide Report – Parks Division 2025

The I.P.M. Coordinator for the Parks Division is Assistant Parks Superintendent, Lisa Laschinger. She can be reached at 608-266-9214. The Parks Division consists of several Sections with each Section Supervisor being responsible for complying with the City's Pesticide Policy. The Section Supervisors are also responsible for following the guidelines of Integrated Pest Management, establishing thresholds, considering alternative control measures, the application of any pesticide, and all record keeping as required.

The Parks Division is happy to report that their 2024 Annual Report was reviewed by Public Health of Madison and Dane County. The 2024 report was also reviewed by the Habitat Stewardship Subcommittee in 2024, and Parks is compliant with the policy and regulations.

General Parks

General Parks, divided into Central, East and West Parks, is comprised of a wide variety of properties with various uses. This includes small neighborhood parks, area parks, community parks, regional parks, natural areas, medians, bike paths, and specialty areas such as tennis courts, disc golf, football, soccer, baseball, and softball fields. Total land managed by General Parks is more than 4,000 acres.

Parks is thankful to all the volunteers that assisted us in our non-pesticide control efforts throughout the year. The list of groups and organizations that provides this valuable stewardship assistance is far too great to list without missing critical partners. The projects included flower gardening, natural area restoration, prairie maintenance and establishment, as well as removal of invasives, such as buckthorn, honeysuckle, and garlic mustard, etc., from many park areas. Volunteers in both general and conservation parks provided several thousand hours of labor for mechanical and cultural control in 2025!

The Parks Division uses several practices to maintain our parks year-round. We are conservative in our use of pesticides and aim to use them only where reservation fees are collected (i.e.. athletic fields, shelters, and immediately adjacent spaces) and in natural areas to control invasive species. In some cases, we use pesticides to control weeds in our highest use areas because heavy landscaping makes hand weeding very time-consuming and less efficient. We continue to work to enhance the surfaces of our athletic fields, as use and consequently wear of the fields continue to increase each year. We constantly strive to balance competing needs and demands of diverse user groups, constituents and policy makers in all services provided. All staff applying herbicides are trained and certified in the appropriate State of WI Commercial Pesticide Applicator category, as are any volunteers that apply herbicides, or under the direct supervision of a certified applicator. When contractors are hired for Land Management projects, they too must be licensed and certified in the appropriate category.

WOODY SPECIES CONTROL

Targeted Species: Amur maple, Asiatic bittersweet, buckthorn, honeysuckle, Norway maple, boxelder, black locust, poison ivy, porcelain-berry, sumac, privet, elm, mulberry, Oriental bittersweet, maple, multi-flora rose, willow, ash, hawthorn, and euonymus. Certain black locust and walnut were also targeted as part of oak woodland restoration efforts.

Purpose: To control invasive woody species growing in landscaped beds, managed meadows, overgrown natural areas, park borders, athletic fence lines, and natural shoreline buffers.

Locations: Aldo Leopold, Apple Ridge, Arbor Hills, Baxter, B.B. Clarke, Bear Mound, Blackhawk, Bordner, Britta, Brittingham, Burr Jones, Burrows, Country Grove, Cypress, Demetral, Door Creek, Eagle Trace, Eken, Elver, Everglade, Filene, Flagstone, Forest Hill, Garner, Garver, Giddings, Glacier Crossing, Goodman, goodman Pool, Hiestand, Hiawatha, High Crossing, Hill Creek, Honeysuckle, Hoyt, Hudson, Huegel, Ice Age Ridge, Indian Hills, Indian Springs, James Madison, Junction Ridge, Kennedy, Kingston-Onyx, Kingswood, Lakeside Building, Law, Linden Grove, Lucy Lincoln, Manchester, Maple Prairie, Marlborough, Marshall, McCormick, McPike, Meadowood, Meadow Ridge, Monona, Nakoma, Nesbitt, North Star, OB Sherry, Olbrich, Olin, Orlando Bell, Orton, Paunak, Penn, Portland, Quaker, Raymond Ridge, Reindahl, Rennebohm, Reservoir, Reston Heights, Richmond Hill, Rimrock, Secret Places, Skyview, Spring Harbor , Starkweather, Tenney, Thousand Oaks, Vilas, Walnut Grove, Warner, Washington Manor, Westhaven, Wexford, Whitetail Ridge, Wingra, Woodland Hills, Worthington, Yahara Place, Yahara River Parkway, Zook

Pesticides Applied for Exotic Woody Species Control:

Product(s) Used	Active Ingredient (A.I.)	Total Amount of A.I. Used
Pathfinder II Element 4 Garlon 3A	Triclopyr	23.4544 pounds
Glyphosate Pro	Glyphosate	0.0313 pounds
Escort	Metsulfuron-methyl	0.154 pounds

HERBACEOUS WEED CONTROL

Targeted species: Weedy grasses and broadleaf annual and perennial weeds, including teasel, burdock, Japanese knotweed, tansy, dame's rocket, garlic mustard, Canadian thistle, bird's-foot trefoil, motherwort, pampas grass, crown vetch, Japanese hedge parsley, Lamium, and wild parsnip.

Purpose: To control weed populations in areas that park users rent and reserve, which include athletic fields, ball diamonds and areas of park shelters, fence lines, adjacent parking lots, basketball and tennis courts, and landscaped planting beds. Also, to control exotic and invasive species in newly established managed meadow plantings from threatening native species diversity.

Locations: Aldo Leopold, Apple Ridge, Arbor Hills, Baxter, B.B. Clarke, Bear Mound, Blackhawk, Britta, Brittingham, Burr Jones, Burrows, Country Grove, Cypress, Demetral, Door Creek, Eagle Trace, Eken, Elver, Everglade, Filene, Flagstone, Forest Hill, Garner, Garver, Giddings, Glacier Crossing, Goodman, goodman Pool, Hiestand, Hiawatha, High Crossing, Hill Creek, Hoyt, Hudson, Ice Age Ridge, Indian Springs, James Madison, Junction Ridge, Kennedy, Kingston-Onyx, Kingswood, Lakeside Building, Law, Manchester, Marlborough, Marshall, McCormick, McPike, Meadow Ridge, Monona, Nakoma, Nesbitt, North Star, Olbrich, Olin, Orlando Bell, Orton, Paunak, Penn, Portland, Raymond Ridge, Reindahl, Reservoir, Reston Heights, Richmond Hill, Rimrock, Secret Places, Skyview, Tenney, Thousand Oaks, Vilas, Walnut Grove, Warner, Washington Manor, Wexford, Whitetail Ridge, Wingra, Woodland Hills, Worthington, Yahara Place, Yahara River Parkway, Zook

Pesticides Applied for Herbaceous Weed Control:

Product(s) Used	Active Ingredient (A.I.)	Total Amount of A.I. Used
Ranger Pro Roundup Custom Aquaneat Makaze	Glyphosate	82.0343 pounds
Polaris AC	isopropylamine salt of Imazapyr	0.0052 pounds
Milestone	Aminopyralid	0.304 pounds

BROADLEAF WEED CONTROL IN TURF

Targeted species: Broadleaf annual and perennial weeds

.

Purpose: To control weed populations on playing surfaces of designated playing fields and fenced field spaces, to improve health of turf, user experiences and safety.

Locations: Bowman, Country Grove, Demetral, Elver, Goodman, Midtown Commons, North Star, Olbrich, Warner

Pesticides Applied for Broadleaf Weed Control in Turf:

Product(s) Used	Active Ingredient (A.I.)	Total Amount of A.I. Used
T-Zone SE	Triclopyr Sulfentrazone 2,4-D Dicamba	18.25 pounds 2.19 pounds 63.875 pounds 7.3 pounds
Snapshot	trifluralin	6.25 pounds
Ranger Pro	glyphosate	7.184 pounds
Sotrion	Mesotrione	0.9375 pounds

This year saw a reduction in pesticide use for the control of broadleaf weeds in turf. This was due to the open Athletic Leadworker position from June until mid-October. With the position being open some applications were missed. Having completed a full evaluation of all athletic fields in the fall with the new Athletic Leadworker, an elevated program will be in place for 2026 to get the athletic fields back into a safer and more playable condition. Once fields have recovered work will again continue to transition to a more organic based approach where play, expectations, and conditions allow.

HERBICIDE APPLICATIONS BY CONTRACTORS (Woody and Herbaceous)

Targeted Species: Woody species include autumn olive, bittersweet nightshade, black locust, buckthorn, mulberry, honeysuckle, Japanese barberry, multiflora rose, Siberian elm, sumac, Asian bittersweet, and porcelain berry. Fire intolerant native species were also targeted as part of canopy thinning efforts for oak woodland restoration at Owen and Knollwood.

Herbaceous species targeted include bird's-foot trefoil, burdock, cattail, crown vetch, dame's rocket, daylily, garlic mustard, Himalayan pokeweed, Japanese hedge parsley, motherwort, reed canary grass, and non-native thistles.

Purpose: To control aggressive exotic plant species while populations are small. They threaten native plant diversity if left unmanaged.

Locations: Aldo Leopold, Arbor Hills, Baxter, Bear Mound, Brittingham, Demetral, Door Creek, Elver, Forrest Hill, Garner, Glacier Crossing,

Goodman, Harvey Schmidt, Highland, Indian Springs, James Madison, Meadow Ridge, Merrill Springs, North Star, OB Sherry, Olin, Reindahl, Tenney, Tilton, Vilas, Warner, Whitetail Ridge, Yahara River Parkway

Pesticides Applied by Contractors:

Product(s) Used	Active Ingredient (a.i.)	Total Amount of A.I. Used
Element 4 Garlon 4 Vastlan Trycera	triclopyr	40.801 pounds
Tordon	Picloram	1.132 pounds
Milestone	aminopyralid	6.0106 pounds
RoundUp Custom, Aquaneat, Glypho Stump 32	glyphosate	38.0395 pounds
Weedone Freelex	2,4-D	4.877 pounds
Transline	clopyralid	0..573 pounds
Method	Potassium salt of aminocyclopyrachlo	0.0006 pounds
Clash	Dicamba Salt	0.432 pounds
Imox	Imazamox	0.043 pounds
Polaris SP	Isopropylamine salt of Imazapyr	0.061 pounds

EXOTIC PLANT (woody & herbaceous) CONTROL APPLICATIONS BY VOLUNTEERS IN PARKS

Targeted Species: Bird's-foot trefoil, Canada thistle, Japanese knotweed, buckthorn, crown vetch, honeysuckle, Japanese barberry, and reed canary grass.

Purpose: To control aggressive exotic plant species while populations are small. They threaten native plant diversity if left unmanaged.

Locations: 1000 Oaks, Acer, Eagle Trace, Elver, Garner, Hartmeyer, Hoyt, Hudson, Junction Ridge, Quarry, Tillotson, Westmoorland, Woodland Hills

Pesticides Applied by Volunteers for Control of Exotic Plant Species:

Product(s) Used	Active Ingredient (a.i.)	Total Amount of A.I. Used
Crossbow	2,4-D Triclopyr	0.0246 pounds 0.0123 pounds
Milestone	aminopyralid	0.178 pounds

2,4-D	2,4-D	0.365 pounds
Ranger Pro Cropsmart	glyphosate	5.019 pounds
Element 4 Pathfinder II Garlon 3A	triclopyr	14.364 pounds
Intensity	clethodim	0.0206 pounds

Non-Chemical Means of Pest Control
Staff-controlled weeds by mowing and string trimming. Additionally, over 400 hours were spent by volunteers pulling weeds in various locations throughout general parks. Other methods used to improve the quality of turf grass and allow it to out-compete weeds and withstand heavy traffic included core aeration, over-seeding, and fertilizing to help decrease weed populations.

Plan for 2026
General Parks will continue to reduce their pesticide use to only necessary locations for the betterment of the community experience. The return of parks to their native ecosystems by clearing invasive species will continue with guidance from the ecology team. Additionally, turfgrass applications will continue to be completed only when necessary for the upkeep of athletic fields. The organic pilot program completed in since 2021 and will continue this year at Flagstone.

FOREST HILL CEMETERY

Plunketts Pest Control was contracted in 2025 for insect and rodent control in and around the mausoleum.

Product(s) Used	Active Ingredient (A.I.)	Total Amount of A.I. Used
Suspend Polyzone	Deltamethrin	1.47 pounds
Demand CS, Demand G	Lambda-cyhalothrin	3.783 pounds
Taurus SC	Fipronil	2.2 pounds
Tempo 1%	Cyfluthrin	0.005 pounds
Makaze	Glyphosate (herbaceous)	0.25 pounds

Non-Chemical Means of Pest Control
Forest Hill Cemetery uses a variety of cultural practices to control or manage cemetery grounds as an alternative to chemical use. These mechanical and cultural control practices include, but are not limited to, the following: regular mowing to maintain height of 3” or higher, string trimming around trees and more than 30,000 headstones, hand removal of volunteer trees, suckers and weeds between markers and in flower/shrub beds, mechanical trapping of rodents in buildings, installation of door sweeps, cleaning gutters to deter interior insect issues.

THE MALL CONCOURSE

No pesticides were used on the Mall Concourse service area in 2025.

Non-Chemical Means of Pest Control
Numerous hours were spent hand-weeding landscaped beds, and cracks in sidewalks. In addition, staff controlled weeds by mowing and string trimming. Other methods used to improve the quality of turf grass and allow it to out-compete weeds and withstand heavy traffic included core aeration, compost topdressing, over-seeding, fertilizing, as well as returning mulched leaves and clippings to the turf. Mulch was used in areas to help decrease weed populations.

Complaints
We received no complaints in 2025 for pesticide use in Mall/Concourse Maintenance.

Plan for 2026
The Mall Concourse maintenance plan for 2026 is the same as that of 2025.

WARNER PARK COMMUNITY RECREATION CENTER (WPCRC)

Primary pest pressures at WPCRC are due to rodents.

Pesticides Used by Plunkett Pest Control

Product Used	**Active Ingredient (A.I)**	**Amount Used**	**Purpose**
Weatherblok XT	Brodifacoum	248blocks	Rodent Control
Alpine WSG	Dinotefuran	76 ounces (2.375 #'s A.I.)	Insect Control

Non-Chemical Means of Pest Control
Trash is removed and facilities cleaned daily to reduce insect issues, such as ants. Trash is removed from building and stored in exterior dumpsters. Door sweeps and vents are kept in good working order to prevent pests from entering.

Complaints
We received no complaints in 2025 for pesticide use in at WPCRC.

Plan for 2026
The WPCRC maintenance plan for 2026 is the same as that of 2025.

MALLARDS STADIUM GROUNDS

The Mallards organization contracts pest control in and around the buildings on the stadium grounds as well as contracting the field turf areas.

Pest control performed by 1st American Pest Control

Product Used	Active Ingredient (A.I)	Amount Used	Purpose
Demand CS	Lambda-cyhalothrin	26.4 mL	Insecticide
Demon EC	Cypermethrin	0.03475 pounds	Insecticide
Suspend	Deltamethrin	2.0303 pounds	Insecticide
Contract Blox	Bromadiolone	290 blocks	Rodent Control

Turf areas performed by Maple Leaf

Product Used	Active Ingredient (A.I)	Amount Used
T-Zone	Triclopyr 2-4D Sulfentrazone Dicamba	0.325 pounds 0.039 pounds 1.1375 pounds 0.13 pounds
13-0-0 Fertilizer with 0.1% Dimension	Dithopyr	0.00615 pounds

CONSERVATION PARKS (2025)

WOODY PLANT CONTROL APPLICATIONS BY STAFF

Targeted Species: Amur maple, buckthorn, black locust, honeysuckle, Norway maple, privet, Asiatic bittersweet, porcelain-berry, multi-flora rose. Certain clonal and fire-intolerant native tree species are also targeted within tallgrass prairie and oak woodland restoration project areas to reverse and prevent mesophication and loss of these rare habitats.

Purpose: Herbicide is used to permanently control individuals of deciduous woody species. Cutting alone results in re-sprouting and denser growth, which confounds efforts to maintain native plant communities and habitat diversity. Trail maintenance also requires occasional herbicide applications to effectively control encroaching brush.

Locations: Acewood, Cherokee Marsh, Door Creek (ski trail maintenance), Edna Taylor, Elvehjem, Elver (ski trail maintenance), Heritage Prairie, Heritage Sanctuary, Kettle Pond, Knollwood, Meadow Ridge, Odana Hills (ski trail maintenance), Owen, Prairie Ridge, Stricker's Pond, Turville Point

Pesticides Applied by Staff for Control of Woody Species

Product(s) Used	Active Ingredient (a.i.)	Total Amount of A.I. Used
Milestone	Aminopyralid	5.974 pounds
Aquaneat	glyphosate	1.412 pounds
Garlon, Element 4	triclopyr	16.671 pounds

HERBACEOUS PLANT CONTROL APPLICATIONS BY STAFF

Targeted Species: Burdock, bird's foot trefoil, crown vetch, dame's rocket, garlic mustard, pampas grass/silver grass, tansy, motherwort, Japanese knotweed, Japanese hedge parsley, and Lamium species.

Purpose: To control invasive plant species and preserve native plant community diversity.

Locations: Cherokee Marsh, Edna Taylor, Heritage Prairie, Kettle Pond, Knollwood, Owen, Prairie Ridge, Stricker's Pond, Turville Point

Pesticides Applied by Staff for Control of Exotic Herbaceous Plants:

Product(s) Used	Active Ingredient (A.I.)	Total Amount of A.I. Used
Aquaneat	glyphosate	8.229 pounds
Vastlan	triclopyr	6.029 pounds
Milestone	aminopyralid	7.668 pounds

WOODY AND HERBACEOUS PLANT CONTROL APPLICATIONS BY VOLUNTEERS

Targeted Species: Buckthorn, burning bush, honeysuckle, Japanese barberry, Phragmites, porcelain-berry, and sumac.

Purpose: To control invasive plant species and support habitat restoration efforts. Volunteers work at the direction of Parks staff to implement management plans.

Locations: Cherokee Marsh, Owen, Prairie Ridge, and Stricker's Pond conservation parks.

Pesticides Applied by Volunteers for Control of Exotic Plant Species:

Product(s) Used	Active Ingredient (a.i.)	Total Amount of A.I. Used
Garlon 4, Pathfinder II	triclopyr	16.579 pounds
Aquaneat, Cropsmart	Glyphosate	4.943 pounds
Milestone	Aminopyralid	0.055 pounds

HERBICIDE APPLICATIONS BY CONTRACTORS

Targeted Species: Woody species include autumn olive, bittersweet nightshade, black locust, buckthorn, burning bush, honeysuckle, Japanese barberry, mulberry, multiflora rose, Siberian elm, sumac, Asian bittersweet, and porcelain berry. Fire intolerant native species were also targeted as part of canopy thinning efforts for oak woodland restoration at Cherokee Marsh.

Herbaceous species targeted include bird's-foot trefoil, burdock, crown vetch, dame's rocket, garlic mustard, Himalayan pokeweed, Japanese hedge parsley, motherwort, reed canary grass, and non-native thistles.

Purpose: To control invasive plant species and support habitat restoration efforts.

Locations: Bitzer, Cherokee Marsh, Elvehjem, Kettle Pond, Knollwood, Owen, Sandburg, Stricker's Pond, Turville Point

Pesticides Applied by Contractors:

Product(s) Used	Active Ingredient (a.i.)	Total Amount of A.I. Used
Clash	dicamba	0.524 pounds
Escort	metsulfuron methyl	0.469 pounds
Milestone	aminopyralid	0.33pounds
Aquaneat, Roundup Pro RoundUp Custom	glyphosate	56.368 pounds
Element 4, Garlon 4, Vastlan,	triclopyr	105.301 pounds

NON-CHEMICAL PEST CONTROL MEASURES SELECTED AS PART OF IPM PROGRAM

The level of effort devoted to mechanical weed control methods continued to increase in 2025.

Hand-pulling, digging: Staff spent approximately 550 hours (up from 300 hours in 2024) hand pulling and digging invasive species this year. Target species included garlic mustard, dames rocket, Japanese hedge parsley, and Himalayan pokeweed. Sites included Bitzer, Cherokee Marsh, Edna Taylor, Elvehjem, Heritage Prairie, Heritage Sanctuary, Knollwood, Meadow Ridge, Owen, Prairie Ridge, Stricker's Pond, and Turville Point Conservation Parks.

Volunteers, including ongoing Friends group work and special events hosted by Parks staff, spent **more than 200 hours** hand-pulling garlic mustard, dame's rocket, Japanese hedge parsley, and sweet clover, and digging burdock and wild parsnip. An undetermined (un-recorded) number of hours were also spent by volunteers pulling garlic mustard at Acewood Pond, Kettle Pond, and Sandburg Woods, where casual efforts were encouraged by posting of designated weed compost/collection sites for target plants pulled in these parks.

Prescribed Fire: Fire is an integral component of the ecology of the Midwest. Regular burning is necessary to maintain the structure and species composition of native plant communities such as oak woodlands, tallgrass prairies, and sedge meadows. Properly timed prescribed burns can help suppress non-native and invasive species (e.g., late spring burns harm cool season weeds such as garlic mustard seedlings but promote native warm season plants). Fire can also cause mortality to small diameter woody species like buckthorn and honeysuckle. Parks continues to expand its prescribed fire

program by training and supporting volunteers, hiring contractors, and increasing intra-departmental cooperation. A total of **442 acres were burned in parklands in 2025**. This includes 343 acres within designated conservation parks, as well as 100 acres across 40 sites that included managed meadows and other native plantings.

Prescribed grazing: Goats **grazed 56 acres** at seven sites in 2025 to control woody invasive species and brambles. These included Acewood, Cherokee Marsh (2 units), Knollwood, Marlborough, Moraine Woods, and Turville Point.

Mowing: In 2025, staff devoted **approximately 300 hours** to mowing to control invasive species. This is triple the time spent mowing in 2024. Targets included crown vetch, dame's rocket, Japanese hedge parsley, sweet clover, and wild parsnip, as well as invasive brush. Mowing was used across most conservation parks.

PLAN FOR 2026

Conservation's IPM Program will be implemented in 2026 similarly to how it was in 2025 in accordance to the Parks Division's Adopted Land Management Plan. Staff will continue to target priority invasive species, striving for complete control, in priority management units. These efforts will be complemented by volunteer-led efforts in adjacent management units. Visual estimates of canopy cover will be used to prioritize areas for brush mowing, and to determine thresholds for hand-pulling versus mowing versus foliar herbicide applications, for those invasive species that can be effectively controlled with mechanical methods only. Chemical control will be used in conjunction with mechanical methods wherever possible, in order to reduce the amount of pesticide required. We also continue the practice of making an initial herbicide treatment to dense populations of herbaceous invasive species in certain management units, then following up with hand pulling for target plants that were missed, rather than conducting a second herbicide treatment. These initial treatments are made as early as possible to limit collateral damage to native species that have not yet emerged.

Large-scale restoration efforts will continue at Cherokee Marsh, Kettle Pond, Knollwood, Moraine Woods, and Turville Point. Maintenance-level management will continue at all other conservation parks. Contractors will be hired to make cut-stump and basal bark applications to buckthorn and honeysuckle, as well as foliar applications to bird's-foot trefoil, burdock, crown vetch, garlic mustard, dame's rocket, Himalayan pokeweed, and reed canary grass. Some forestry mowed areas will be grazed, while others will receive foliar herbicide treatments to control re-sprouts.

Following invasive species control efforts, native grasses, forbs, shrubs, and trees will be seeded or planted to complement recovery from the natural seed bank as part of the restoration process.

Prescribed fire, prescribed grazing, mowing, and hand-pulling will continue to be used as management tools in 2026.

GOLF ENTERPRISE PROGRAM (GEP)

The Madison Parks' Golf Enterprise Program (GEP) consists of 72 golf holes at four facilities (Yahara Hills, Odana Hills, Monona, The Glen Golf Park golf courses) encompassing approximately 750 acres of city owned property. GEP's Integrated Pest Management (IPM) philosophy is a multi-faceted approach that integrates all beneficial measures into a comprehensive program that controls pests in golf settings. Through the implementation of comprehensive Integrated Pest Management strategies that include establishing pest thresholds, monitoring for pests, cultural practices (mowing, rolling, irrigation, fertilization) and judicial use of pesticides the City of Madison golf division balances the expectations of our customers/golfers and manages our sites and golf courses in an environmentally sustainable and responsibly manner.

Turf Insect Management in GEP

The 2025 golf season saw little in the way of major insect problems at our facilities. Some white grub damage, primarily resulting from secondary damage caused by animals (skunks, raccoons, cranes etc.) feeding on these grubs is being reported on areas of rough and near teeing areas that we currently do not treat with insecticides. Should damage continue to increase in these non-treated areas it may necessitate making preventative insecticide applications to rough areas. Additional future insecticide treatments will follow best management practices for protecting pollinators in turf settings. Recently published guidelines are available; (http://ncipmc.org/action/bmpturf.pdf) and will be implemented in our pest management programs.

Pesticides Used for Control of Insect Pests

Product(s)	Active Ingredient	Total A.I. Used	Areas Treated
Merit Lesco fertilizer with Merit Prokoz Zenith 75 WSP, 2F	Imidicloprid	24 pounds	tees, fairways, Rough
Aloft	Bifenthrin Clothianidin	0.5 pounds 1 pounds	greens, tees
Award Fertilizer with Chlorantraniliprole and Dithiopyr	Chlorantraniliprole	0.5 pounds	Rough
Bayer Tetrino	Tetraniliprole	0.35 pounds	Tees

Turf Disease Management

The 2025 golf season presented light to moderate challenges from a turf disease management standpoint. Weather patterns periodically favored disease development, requiring close monitoring and timely responses. Dollar Spot remained the most prevalent disease encountered across managed turf areas and continued to be the primary focus of our preventative and curative programs. While more severe diseases such as Pythium Blight were limited and did not reach problematic levels, anthracnose pressure on Poa annua continues to increase and remains a growing concern, particularly under periods of stress. In response, we have continued our collaboration with the University of Wisconsin, providing fairway turf for ongoing research into effective control products and management strategies. This partnership remains an important

component of our long-term approach to addressing anthracnose and improving overall turf health.

Fungicides Used for Control of Turfgrass Disease

Products	Active Ingredient (A.I.)	Total A.I. Used	Areas Treated
AMVAC Previa, Lesco Manicure Ultrex	Chlorothalonil	329 pounds	greens,tees, fairways
Bayer Chipco 26019	Iprodione	115.6 pounds	greens,tees, fairways
Artiva 2 SC	Azoxystrobin	10.6 pounds	greens,tees, fairways
Omni Tebuconazole 3.6 Foliar Fungicide	Tebuconazole	16.4 pounds	greens, tees, fairways
Propi-Star	Propiconazole	13.47 pounds	greens, tees, fairways and trees in rough
Lexicon	Fluxapyroxad Pyraclostrobin	12.3 pounds 4.2 pounds	greens
Quali-Pro Mefenoxam 2AQ	Mefenoxam	4 pounds	Greens Glenway
Rotator 2	Fluazinam	5.8 pounds	greens, tees, fairways
Sharda Ruby	Boscalid	2.8 pounds	greens, tees
BASF Xzemplar	Fluxapyroxad	2.337 pounds	greens, tees

Plant Growth Regulation

Ethephon, trinexapac-ethyl, and prohexadione-calcium are plant growth regulators that slow down the growth of turfgrass and are used to suppress seed head formation on Poa Annua. They are being further implemented into our IPM programs. They are useful for their plant health attributes and reduce mowing frequency. Reducing mowing saves the city money in fuel, labor and equipment maintenance, and reduces golf's carbon footprint.

Chemicals Used to Regulate Plant Growth

Product(s)	Active Ingredient	Total A.I. Used	Areas Treated
Pramaxis	Trinexapac-ethyl	5.075 pounds	greens, tees, fairways
Helena Oskie	Ethephon	33.2	Greens, tees, fairways

Turf Weed Management

As a general rule, the necessity and application of herbicides to highly maintained turf grass stands such as found in a golf setting is significantly less than that of non-irrigated, non-fertilized turf areas. A healthy actively growing turf is good at out competing lawn weeds and it should come as no surprise the golf division's reliance and application of turf herbicides is fairly limited in scope.

Herbicides Used to Control Turf Weeds

Product(s)	Active Ingredient	Total A.I. Used	Areas Treated
Dimension Lesco Fertilizer with Dimension	Dithiopyr	18 pounds	tees, fairways, rough
Roundup	Glyphosate	4 pounds	
Prokoz Vessel	2-4D Propionic Acid Dicamba Acid	71.4 pounds 18.9 pounds 6.25 pounds	Rough, Fwys

Non-Chemical Means of Pest Control

Golf relies heavily on cultural practices to manage the turf stand. These cultural practices include, mowing, vertical mowing, watering, fertilizing, aerification, topdressing and rolling. Regular mowing controls many annual weed species and regular mowing promotes the rhizomatous and stoloniferous growth habitat of most turf species that crowds out many if not most weed species. Additionally, the height of cut of the turf can affect the presence and population of many weeds and pests. Generally, higher heights of cut promote healthier turf stands. A rough grass stand mowed at 3 inches of cut will have far less crabgrass populations than a turf cut at 1.5 inches. Furthermore, a putting green cut at 5/32 of an inch will have much less disease, algae, and moss infestations than a green cut at 1/8 of an inch or less. Staff carefully monitors moisture levels and irrigates to ensure the turf is not drought stressed. A semi-regular fertilization program is utilized to promote a heathy lawn. Regular aerification promotes a healthy water, soil, air mix that allows the turf to grow vigorously and withstand traffic and pests. Topdressing with sand provides smooth putting surfaces, increases drainage, and dilutes out organic matter, which allows the turf to withstand traffic and pest damage, such as anthracnose. Rolling helps smooth the playing surface, reduces mowing frequency, and has been shown to directly reduce the severity and incidence of the common turf grass disease, dollar spot.

Complaints

The Golf Department did not receive any complaints in 2025 related to pesticide usage.

Plan for 2026

The Integrated Pest Management plan and pesticide use for 2026 is expected to be less than that of previous years. The GEP will be reduced in size by 18 holes at Yahara Hills and the reduction in size will correspond to a reduction in pesticide use. As always pesticide use in the golf division will be highly dependent on budgetary constraints, managing the expectations of customers and seasonally evolving due to unforeseen factors such as increases/decreases of play/traffic and weather conditions.

Olbrich Botanical Gardens

Pest Control in Olbrich Botanical Garden's Facilities

Rodent and Insect control is conducted throughout and around the facility (including the Bolz Conservatory and Production Greenhouses). Rodent/Insect control is practiced only in areas where there is a known problem. The material is contained in bait stations which are concealed and tamper proof and are not accessible to the public. Orkin Pest Control, a commercial pest control company, routinely checks and services the stations around the property.

Product Used	**Active Ingredient (A.I)**	**Total A.I. Used**	**Purpose**
Contrac	BROMADIOLONE, .005%	96 ounces	Rodent control
Tempo SC	B-CYFLUTHRIN, 11.8%	26 ounces	Insect control
Final	BRODIFACOUM, .005%	34 ounces	Rodent control
Suspend SC	DELTAMETHRIN, 4.75%	6 ounces	Insect Control
Spectre 2 SC	CHLORFENAPYR, 21.45%	18 ounces	Insect control

Complaints Received

There were no visitor complaints regarding rodent/insect control in Olbrich's Facilities in 2025.

Pest Control in the Eugenie Mayer Bolz Conservatory

Since the Bolz Conservatory opened to the public in November of 1991, the insect control program has strived to use the least toxic methods of insect and pest control. No chemical pesticides are used on the plant collection within the Conservatory. Our Integrated Pest Management strategy within the Conservatory relies primarily on biological, mechanical, and removal as means of controlling insect pests. Orkin (pest control company) maintains several boxed traps discreetly placed throughout the premises to aid in insect and rodent control (These numbers are provided in the Facilities Reporting section above). Among the myriad of biological controls we use, beneficial insects are routinely released to target plant-damaging insects. Some of the beneficial insects used in the conservatory have a broad diet of target insects while others control a single insect. Following is a list of the beneficial insects that are released into the conservatory as the situation warrants.

Beneficial Insect	**Target Pest**
Amblyseius cucumeris (predator)	Thrips, Mites
Aphidius colmani	Aphids
Phytoseiulus persimilis	Mites
Chrysoperla spp. (predator)	Several Insects
Cryptolaemus montrouzieri (predator)	Mealybugs,Scales, Aphids
Encarsia formosa (parasite)	Whitefly
Delphastis pusillus	Whitefly

Orius spp. (predator)	Thrips, Aphids, Mites

Birds, specifically Quail (*Coturnix coturnix*), have been effective at controlling the nuisance palmetto bugs found in the conservatory. Assorted frogs and toads living in the conservatory also use the palmetto bugs as a food source**.** Populations of these animals are maintained as part of the pest control program.

Vigorous daily or weekly washing of the plants in the conservatory has also proven to be very effective at controlling unwanted insects. This practice will continue as part of the pest control program.

The conservatory insect control program will continue to evolve as new beneficial insect species and additional control methods are carefully trialed. It is obvious from past success that it is possible to maintain a healthy plant collection while relying on least toxic and non-traditional methods of insect control.

Pesticides Used to Control Pests in Production Greenhouses

Product Used	**Active Ingredient (A.I)**	**Total amt. of A.I. applied**
Akari 5 SC	Tert-Butyl	0.011 pounds
Aria 500 WG	Flonicamid	0.0515 pounds
Azaguard	Azadirachtin	0.0152 pounds
Botanigard ES	*Beauveria bassiana* Strain GHA	0.0282 pounds
BotaniGard Maxx	Pyrethrins Beauveria bassiana strain GHA	0.0215 pounds
Cease	Strain of *Bacillus subtillis*	0.0134 pounds
Conserve SC	Spinosad	0.0531 pounds
Distance IGR	Pyriproxyfen	0.006 pounds
Enstar AQ	S-Kinoprene	0.0726 pounds
Epishield O	Peppermint Oil & Clove Oil	0.0207 pounds
Flagship 25WG	Thiamethoxam	0.1442 pounds
Mainspring GNL	Cyantraniliprole	0.0273 pounds

Marathon 1%	Imidacloprid	0.1111 pounds
Mavrik Aquaflow	Tau-fluvalinate	0.0625 pounds
Molt-X	3.0% Azadirachtin	0.0358 pounds
Monterey B.T.	Bacillus thuringiensis	0.005 pounds
RootShield Plus	*Trichoderma harzianum* strain T-22	0.0145 pounds
Safari 20 SG	Dinotefuran	0.0207 pounds
Safer insect killing soap	potassium salts of fatty acids	0.1392 pounds
Suffoil - X	Mineral Oil	1.3475 pounds
Talstar Pro	Biffenthrin	0.0232 pounds
Talus 70 DF	Buprofezin	0.0612 pounds
Tetrasan 5DWG	Etoxazole	0.0262 pounds
Tristar 8.5SL	Acetamiprid	0.0308 pounds

PEST CONTROL IN OUTDOOR GARDENS

Olbrich Botanical Gardens is committed to gardening for the environment, as well as our visitors that expect to see gardens maintained at a high aesthetic standard. In addition, horticulturists continue to face new disease and insect attacks, some of which may be tied to our changing climate. As always, the principles of Integrated Pest Management (IPM) are applied to gardening practices.

Pesticides Used to Control Pests in Outdoor Gardens:

Product Used	Active Ingredient	Total A.I. Used	Purpose
GrassOut Max	Clethodim	0.014pounds	Weed Control
Reward	Diquat	0.0937	Weed control
Aquaneat Ranger Pro	Glyphosate	3.625 pounds	Weed Control
Lepitect	Acephate	1.31 pounds	Insect Control
Lontrel	clopyralid	0.0468 pounds	Weed Control
Drive XLR8	Quinclorac	0.0351 pounds	Weed Control
Certainty	Sulfosulfuron	0.85 pounds	Weed Control
Safari	Dinotefuron	0.0052 pounds	Insect Control

RoundUp Quik Pro	Glyphosate Diquat dibromide	0.2452 pounds 0.0073 pounds	Weed Control
Suffoil-X	Mineral oil	0.06 pounds	Insect control
Cambistat	Paclobutrazole	0.07 pounds	Insect Control
Xytect	Imidacloprid	0.15pounds	Insect Control
Arbotect	Thiobendazole hypophosphite	1.62	Insect Control

Non-Chemical Measures Taken in Outdoor Gardens

Continuing a program that began in the 2011 season, a contractor was engaged that specializes in applications of compost tea, a product that inoculates the soil with a multitude of beneficial microorganisms. This leads to healthier soils and more resilient plants, minimizing the need for synthetic fertilizers and pesticides. Multiple areas were given season long applications last year. These locations continue to be monitored for long term results.

In 2025 Olbrich continued its efforts to keep chemical pesticide use in the outdoor gardens as low as possible. This can be challenging, given the high aesthetic standards expected at a highly regarded botanical garden. Horticulturists continue to face new disease and insect attacks, some of which may be tied to our changing climate.

Olbrich's Garden Scouts are a volunteer team who emphasize our commitment to sustainable gardening, our discontinuation of chemical use, as well as support experimentation with natural alternatives and the creation of insect-inspired elements throughout the gardens. These volunteers help staff scout for beneficial insects, pollinators, and pests from May-October. They've participated in educational lectures, helped fill native bee houses, tagged Monarch butterflies, and planted bulbs for early spring pollinators.

As always, the principles of Integrated Pest Management (IPM) are applied to gardening practices. IPM stresses evaluating a wide range of criteria to decide when and what treatments are necessary for dealing with garden pests; and selecting solutions that minimize the amount and types of products used to combat them. Below is a listing of some of the strategies that fall under the guidelines of Olbrich Botanical Garden's IPM program.

Select disease and pest resistant varieties.

One good example is the collection of ornamental crab apples, prone to fungal diseases, many of the less resistant cultivars have been eliminated from the gardens reducing the need for fungicide use.

Assess damage thresholds.

Staff are willing to tolerate some damage, both aesthetic and pathological. For instance, minor cases of powdery mildew on ornamental plants, while easily cured by common fungicides, are usually ignored. The same holds true for many of the minor insect problems that are present. Pesticides are applied only if the health of the plant is compromised, or the visual attraction of the plant is

greatly affected. Turf weeds are tolerated within the aesthetic standards of the Garden. Less toxic solutions are utilized before selecting a more toxic product. Minor localized problems may be pruned out rather than treating the entire plant with a chemical, for instance a single branch on a fruit tree with tent caterpillars. Olbrich does treat selected valuable specimen trees, and two ash trees are being treated against Emerald Ash Borer.

Manual/cultural controls.

The great majority of weed control in the gardens is accomplished by manual pulling and preventing them in the first place by liberal and frequent applications of leaf and wood mulches. Vulnerable new plantings around the Learning Center and elsewhere were equipped from the start with wire cages to prevent rabbit and vole damage.

Let nature help.

When gardens are healthy, there is a natural balance between predator and prey that helps keep plant collections and gardens protected from visible damage. When the gardens function as an ecosystem, there are natural checks and balances that minimize the number of chemical inputs required. Birds and beneficial insects help keep pest insects in check and resident foxes, red-tail hawks and mink have helped reduce rodent and rabbit problems. Rabbits are live trapped and relocated when their population reaches damaging levels. A cyclical increase in the population causes an increase in efforts in this area, which continues into the winter. In 2025 a diverse array of raptors and owls were seen in the gardens, along with other mammalian predators like mink, coyote and fox.

Complaints Received:

There were no visitor complaints regarding chemical use in the gardens in 2025.

Pesticide Management Plan for the 2026 Season

The garden and conservatory staff will continue to work with an Integrated Pest Management (IPM) program. Staff will monitor the Garden's indoor and outdoor plant collections for optimum health and vigor, strive to improve the cultural and biological environment, provide mechanical eradication, and if possible, use resistant plant varieties. This strategy will entail eliminating the plant if the problem persists and, as a final option, using pesticides to control plant pests. This past year saw a continuation of the use of beneficial insects in the Bolz Conservatory with satisfactory results. Canopy birds and ground quail also assist in keeping pest populations low in the Bolz Conservatory. The outdoor garden staff will continue to seek out less toxic pesticides that will provide control of pests while providing a safe environment for visitors. Staff will continue to experiment with alternatives to the use of traditional pesticides, including the use of beneficial insects in the greenhouses.