Integrated Pest Management Plan
for
University Grounds

Updated 2/13/23

Contents

Introduction

Summary

The Binghamton University Physical Facilities – Grounds Department is committed to sustainable practices and environmental stewardship. As such, the Department has implemented this Integrated Pest Management (IPM) Plan for University Grounds. This plan was developed in accordance with industry best practices and various resources, including the US Environmental Protection Agency (US EPA), NY Department of Environmental Conservation (NYS DEC), the New York State Integrated Pest Management Program (a program of Cornell University's College of Agriculture and Life Sciences and Cornell Cooperative Extension), and the Association for the Advancement of Sustainability in Higher Education (AASHE).

Definitions

Integrated pest management can have different definitions depending on the source. According to the US EPA, IPM is defined and described as follows:

> Integrated Pest Management (IPM) is an effective and environmentally sensitive approach to pest management that relies on a combination of common-sense practices. IPM programs use current, comprehensive information on the life cycles of pests and their interaction with the environment. This information, in combination with available pest control methods, is used to manage pest damage by the most economical means, and with the least possible hazard to people, property, and the environment.
>
> The IPM approach can be applied to both agricultural and non-agricultural settings, such as the home, garden, and workplace. IPM takes advantage of all appropriate pest management options including, but not limited to, the judicious use of pesticides.

In contrast, **organic** landscape management "applies many of the same concepts as IPM but limits the use of pesticides to those that are produced from natural sources, as opposed to synthetic chemicals" (US EPA). An organic program may include the use of chemical pesticides for "rescue treatments" (AASHE).

Scope

This plan applies to all grounds owned by the University or affiliated entities (such as the Binghamton University Foundation) that are under the auspices and control of the Physical Facilities Department.

Purpose

The purpose of this plan is to manage pest populations on campus grounds to ensure health & safety, protect campus infrastructure, and enhance campus appearance, all while reducing the potential exposure of hazardous materials to the campus community (students, faculty/staff, & visitors), minimizing the impact of management practices on the local environment, and minimizing labor and material costs.

Responsibilities

The Grounds & Mechanical Services Manager has primary responsibility for the implementation of this plan, and for ensuring all Grounds staff are properly trained in and follow the provisions of this plan. Any contracted service providers will also be required to adhere to the provisions of this plan.

The Assistant Director of Operations – Campus Services has overall administrative oversight of this plan.

The Committee on the University Environment provides general support and guidance.

Annual Review

This plan shall be reviewed annually and updated as needed, and shall be submitted to the Committee on the University Environment for review annually.

Categorization of Grounds

University Grounds are divided into three categories:

- Unmanaged grounds
    - This includes forested and natural areas that are completely wild and unmanaged.
- Grounds managed organically
    - This includes forested and natural areas that are managed in accordance with an organic program, including the Binghamton University Nature Preserve and designated no mow/low mow areas.
- Grounds managed in accordance with IPM practices
    - This includes all other University grounds.

IPM Practices

1. Identification of Pests & Monitoring Pest Activity
    a. University Grounds are routinely inspected by the Grounds & Mechanical Services Manager and designated trained Grounds personnel for the identification of pests and monitoring of pest activity.
2. Determining Action Thresholds
    a. The Grounds & Mechanical Services Manager determines whether the type, location, and density of pest(s) warrant the implementation of prevention and/or control measures.
3. Prevention & Control
    a. The type of prevention and/or control measures taken depends on the factors listed in Step 2. Prevention measures may include the selection of pest-resistant plants. Control measures may include mechanical removal (including weeding, string-trimming, & utilization of backpack propane torch kits), targeted spraying of chemical pesticides, or broadcast spraying of non-specific chemical pesticides as a last resort. Less risky measures (such as mechanical removal) are considered before more risky measures (such as pesticide application).
4. Evaluation of Results
    a. The Grounds & Mechanical Services Manager will reinspect areas after prevention and control measures have been taken, document the results of these inspections, and utilize this information to determine the effectiveness of the measures already taken, and determine whether additional measures should be taken.

Use of Chemical Pesticides & Fertilizer

The Physical Facilities Grounds Department uses pesticides (including herbicides and insecticides) and fertilizer to maintain a safe, healthy, functional, and beautiful environment for the campus community. Physical Facilities endeavors to use only as much pesticide and fertilizer as needed to achieve these goals, in accordance with the principles of IPM.

Products & Locations

Pre-emergent flowable liquid herbicide ("Evade") is applied only as needed to curbs, asphalt sidewalks, concrete sidewalks, paver sidewalks, patios, courtyards, and parking lots in order to prevent weed growth early in the Spring. More specifically, applications are made to areas of First Impressions.

Pre-emergent flowable liquid herbicide ("Speedzone") is applied only as needed to selected lawns in areas of First Impressions and to co-rec fields.

Pre-emergent granular herbicide ("Treflan") is applied only as needed to landscaping beds located in areas of First Impressions.

Post-emergent flowable liquid herbicide ("Finale XL" & "Vacate") is applied only as needed after Commencement to curbs, asphalt sidewalks, concrete sidewalks, paver sidewalks, patios, courtyards, and parking lots in order to eliminate any emerging weed growth.

Organic polymer fertilizer ("Polyon") is applied only as needed to selected lawns in areas of First Impressions and to co-rec fields.

Insecticide ("Sevin") is applied only as needed to control beetle damage to newly-planted trees.

Regulatory Compliance

- The Binghamton University Physical Facilities Grounds Department complies with all applicable New York State Department of Environmental Conservation (NYS DEC) and United States Environmental Protection Agency (US EPA) regulations.

- Storage & Disposal
    - All pesticides are stored securely in accordance with NYS DEC regulations.
    - All empty pesticide containers are disposed of in accordance with NYS DEC regulations.

- Application
    - The application of restricted-use pesticides is done only by Grounds employees who are NYS DEC Certified Pesticide Applicators or Technicians. These employees complete annual continuing education requirements in order to maintain their certification.
    - All applications are logged in accordance with NYS DEC regulations.

- Notification
    - This plan shall be updated annually and posted to the Physical Facilities website. Notification shall be made to the campus community via Dateline and B-Line.
    - In accordance with NYS DEC regulations, the public will be notified of the application of restricted-use pesticides as follows:
        - For herbicide applications, small yellow signs will be posted at intervals of no greater than 75 feet around the perimeter of and at the entry point to the treated areas. These signs must remain in place for 24 hours following the application.
- Reporting
    - Application logs are submitted to the NYS DEC annually.