

REED COLLEGE
Integrated Pest Management Plan

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I. INTRODUCTION

Structural and landscape pests can pose significant problems on campus. Pests such as mice and cockroaches can trigger asthma. Mice and rats are vectors of disease. Many people are allergic to yellow jacket stings. The pesticides used to remediate these and other pests can also pose health risks to people, animals, and the environment. Because the health and safety of students, staff, and faculty is our first priority – and a prerequisite to learning – it is the policy of Reed College to approach pest management with the least possible risk to the Reed community. For this reason, the Reed College Integrated Pest Management Coordinators adopt this integrated pest management plan for use on Reed campus.

II. WHAT IS INTEGRATED PEST MANAGEMENT

Integrated Pest Management, also known as IPM, is a process for achieving long-term, environmentally sound pest suppression through a wide variety of tactics. Control strategies in an IPM program include structural and procedural improvements to reduce the food, water, shelter, and access used by pests. Since IPM focuses on remediation of the fundamental reasons why pests are here, pesticides are used only when other means of prevention and removal do not work to keep pest count below acceptable thresholds as defined in Section X.

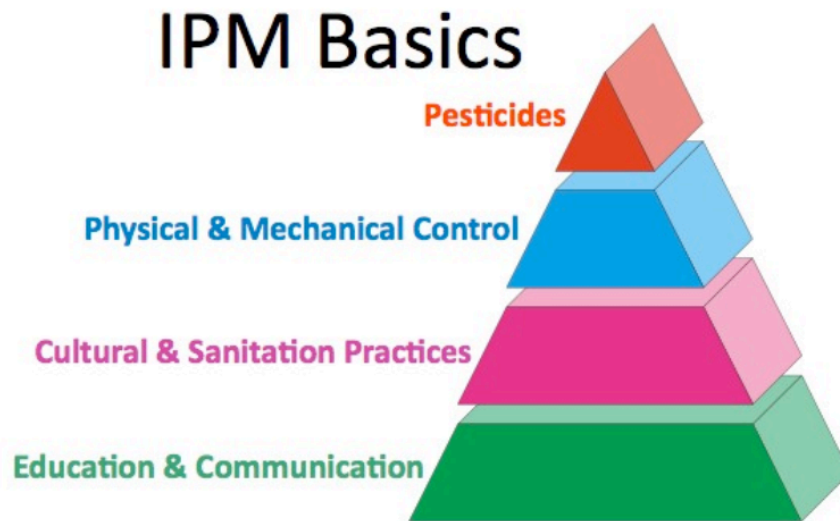
IPM Basics

Education and Communication - The foundation for an effective IPM program is education and communication. We need to know what conditions can cause pest problems, why and how to monitor for pests, proper identification, pest behavior and biology before we can begin to manage pests effectively. Communication about pest issues is essential. A protocol for reporting pests or pest-conducive conditions and a record of what action was taken is the most important part of an effective IPM program.

Cultural & Sanitation - Knowing how human behavior encourages pests helps you prevent them from becoming a problem. Small changes in cultural or sanitation practices can have significant effects on reducing pest populations. Cleaning under kitchen serving counters, reducing clutter in classrooms, putting dumpsters further from kitchen doors/loading docks, proper irrigation scheduling, and over-seeding of turf areas are all examples of cultural and sanitation practices that can be employed to reduce pests.

Physical & Mechanical - Rodent traps, sticky monitoring traps for insects, door sweeps on external doors, sealing holes under sinks, proper drainage and mulching of landscapes, and keeping vegetation at least 24 inches from buildings are all examples of physical and mechanical control.

Pesticides - IPM focuses on remediation of the fundamental reasons why pests are here; pesticides should be rarely used and only when necessary.



III. WHAT IS AN INTEGRATED PEST MANAGEMENT PLAN?

Reed College defines an IPM using the definition found in ORS 634.700, which states that it is a proactive strategy that:

- 1) Focuses on the long-term prevention or suppression of pest problems through economically sound measures that:
 - a. Protect the health and safety of students, staff and faculty;
 - b. Protect the integrity of campus buildings and grounds;
 - c. Maintain a productive learning environment; and
 - d. Protect local ecosystem health;
- 2) Focuses on the prevention of pest problems by working to reduce or eliminate conditions of property construction, operation, and maintenance that promote or allow for the establishment, feeding, breeding and proliferation of pest populations or other conditions that are conducive to pests or that create harborage for pests;
- 3) Incorporates the use of sanitation, structural remediation or habitat manipulation or of mechanical, biological and chemical pest control measures that present a reduced risk or have a low impact and, for the purpose of mitigating a declared pest emergency, the application of pesticides that are not low-impact pesticides;
- 4) Includes regular monitoring and inspections to detect pests, pest damage, and unsanctioned pesticide usage;

- 5) Evaluates the need for pest control by identifying acceptable pest population density levels;
- 6) Monitors and evaluates the effectiveness of pest control measures;
- 7) Excludes the application of pesticides on a routine schedule for *purely preventive purposes*, other than applications of pesticides designed to attract or be consumed by pests;
- 8) Includes campus community education about pest control measures, sanitation, monitoring, and inspection;
- 9) Gives preference to the use of nonchemical pest control measures;
- 10) Allows the use of low-impact pesticides if nonchemical pest control measures are ineffective; and
- 11) Allows the application of a pesticide that is not a low-impact pesticide only to mitigate a declared pest emergency or if the application is by, or at the direction or order of, a public health official.

The above definition is the basis for Reed College's IPM plan.

Note: As mentioned above, ORS 634.700 allows for the routine application of pesticides designed to be consumed by pests. To avoid a proliferation of pests and/or unnecessary applications of pesticides, we will not set out any ant or cockroach baits until first:

- 1) Informing staff in the area where the pests are that sanitation and exclusion are the primary means to control the pest.
- 2) Cleaning up any food debris in the area.
- 3) Sealing up any cracks or crevices where we know the pests are coming from.

IV. IPM PLAN COORDINATORS

The Reed College designates the Director of Facilities, the Assistant Director of Facilities, the Building Services Manager, the Building Maintenance Supervisor, the Grounds Supervisor, and Environmental Health and Safety staff as the IPM Plan Coordinators. The Coordinators are key to successful IPM implementation at Reed College, and are given the authority for overall implementation and evaluation of this plan. The Coordinators are responsible for:

1. **Meeting with all IPM coordinators twice a year.**

The meeting will include reviewing IPM principles, approved pesticide list, and state and federal requirements.

2. **Conducting training for the campus community about the school's IPM plan (each coordinator is responsible for training their respective group as seen in Section V).**
3. **Overseeing pest prevention efforts (Building Maintenance and Services and EHS coordinators).** – the IPM coordinators (or designees) work with the campus community to reduce clutter and food in campus facilities. This includes noting pest related issues during campus Safety Inspections (EHS).
4. **Assuring that the decision-making process for implementing IPM in Section VI is followed (all coordinators).** – the IPM Plan Coordinators (or designees) continually assess, discuss, and improve the pest monitoring, reporting, and action protocols.
5. **Assuring that all record-keeping requirements in Section VII are met when the decision to make a pesticide application is made (all coordinators).**
6. **Maintaining the approved pesticides list as per section VIII (all coordinators).**
7. **Responding to inquiries and complaints about noncompliance with the IPM plan (Building Maintenance, Building Services, and Grounds coordinators).**
8. **Maintaining contact with and tracking pest management of pest response companies on campus (Building Services coordinator - contact with Paramount).**
9. **Keeping records of pest complaints using the online maintenance request system (all coordinators).**
10. **Developing protocols and provisions for pest avoidance and prevention during construction and renovation projects (Facilities director and assistant director coordinators).**

The Coordinators will be involved in drafting any bids, and will have the authority to halt construction projects if protocols and provisions for pest avoidance and prevention are not being met.

V. RESPONSIBILITIES + TRAINING/EDUCATION of SCHOOL EMPLOYEES

IPM Plan Coordinator

1. Training (see section IV above)
2. Responsibilities (see section IV above)

Building Services Staff

1. Training/Education

The IPM Plan Coordinator from Building Services (or a designee of the Coordinator) will train Building Services staff, at least annually, on sanitation, monitoring, inspection, and reporting, and their responsibilities as outlined below.

2. Responsibilities
 - i. Attending annual IPM training provided by the IPM Coordinator from Building Services Manager (or designee)
 - ii. Continually monitoring for pest-conducive conditions during daily work, and sealing small holes and cracks when noticed (if this can be done in a short amount of time).
 - iii. Reporting pest problems and pest-conducive conditions that they cannot resolve in a short amount of time to the IPM Coordinator.
 - iv. Reporting staff, faculty, or students to IPM Coordinator who repeatedly refuse to or need assistance to reduce clutter and other pest-conducive conditions in campus facilities.
 - v. Reporting any unapproved pesticides discovered in their regular duties or during an inspection to the IPM Coordinator from Custodial staff.
 - vi. Working with the IPM Coordinator from Custodial staff to develop a protocol and priority list with deadlines for sealing holes, installing external door sweeps, and other pest exclusion needs which cannot be done in a short period of time.

Maintenance Staff

1. Training/Education

The IPM Plan Coordinator from Building Maintenance (or a designee of the Coordinator) will train maintenance staff, at least annually, on identifying pest-conducive conditions and

mechanical control methods (such as door sweeps on external doors and sealing holes under sinks), and their responsibilities as outlined below.

2. Responsibilities

- i. Attending annual IPM training provided by the IPM coordinator from Building Maintenance (or designee).
- ii. Continually monitoring for pest-conducive conditions during daily work, and sealing small holes and cracks when noticed (if this can be done in a short amount of time).
- iii. Reporting pest problems and pest-conducive conditions that he/she cannot resolve in a short amount of time to the IPM Coordinator.
- iv. Reporting students/staff/faculty to IPM Coordinator who repeatedly refuse to or need assistance to reduce clutter and other pest-conducive conditions in their classrooms.
- vii. Reporting any unapproved pesticides discovered in their regular duties or during an inspection to the IPM Coordinator from Building Maintenance.
- v. Working with the IPM Coordinator from Building Maintenance to develop a protocol and priority list with deadlines for sealing holes, installing external door sweeps, and other pest exclusion needs which cannot be done in a short period of time.

Grounds Department

1. Training/Education

The IPM Plan Coordinator from Grounds Services (or a designee of the Coordinator) will train grounds staff at least once per year. Each year before the training, the IPM Plan Coordinator from Grounds Services will meet with the other IPM Coordinators to review pesticide applications and plan training for all grounds staff. The annual training will review this IPM Plan (especially grounds department responsibilities outlined below) and pesticide applications by grounds crew. Grounds staff will also be trained in basic monitoring for common pests on grounds.

2. Responsibilities

- i. Attending annual IPM training provided by the IPM Plan Coordinator from Grounds Services (or a designee).
- ii. Working with the IPM Coordinator from Grounds Services to reduce conditions conducive to weeds, gophers, moles, yellow jackets, and other outdoor pests
- iii. Keeping vegetation (including tree branches and bushes) at least 18 inches from building surfaces.
- iv. Proper mulching in landscaped areas to reduce weeds.
- v. Proper fertilization, over-seeding, mowing height, edging, drainage, aeration, and irrigation scheduling in turf areas to reduce weeds.

Kitchen Staff

1. Training/Education

The IPM Coordinator from Environmental Health and Safety (or a designee of the Coordinator) will ensure that kitchen staff are trained by a Bon Appetit designated trainer at least once per year on the principles of Bon Appetit's IPM.

2. Responsibilities

- i. Attending annual IPM training provided by the designated trainer.
- ii. Assuring floor under serving counters and movable equipment is kept free of food and drink debris.
- iii. Avoiding long-term storage or use of cardboard boxes.
- iv. Removing recycling products daily.
- v. Keeping outside doors closed at all times (except during deliveries and emptying trash).
- vi. Keeping all food items in sealed containers.
- vii. Immediately reporting any sightings of rodents or rodent droppings to facilities staff.
- viii. Reporting to the Coordinator any pest-conducive conditions that require maintenance (e.g., leaky faucets, dumpster too near building, drains need scrubbing, build-up of floor grease requiring spray-washing, etc.)

Faculty, Other Staff, and Students

1. Training/Education

The IPM Plan Coordinator from Environmental Health and Safety (or a designee of the Coordinator) will train faculty, staff (excluding groups mentioned earlier in Section V), and students at least once per year on the basic principles of IPM and their responsibilities as outlined below. Training will consist of a newsletter, sent via email, with the IPM plan, highlighting their responsibilities and any changes or updates. Coaches and students who use athletic fields should be given an overview and updates of basic monitoring and IPM practices for turf so they understand key pest problems to look out for and when to report them. Some specific details that will be covered include:

- i. What pest-conducive conditions are (clutter, food debris, moisture, cracks, holes, etc.) and the importance of preventing these conditions in campus facilities.
- ii. The importance of cleaning up after themselves when food or drink is consumed anywhere on campus (including residence halls).
- iii. How to report pests and pest-conducive conditions.

2. Responsibilities

- i. Reviewing IPM plan information and other details included in the annual newsletter.
- ii. Keeping classrooms, lecture halls, lab spaces, residence halls, and work areas free of clutter.
- iii. Making sure they clean up after themselves when food or drink is consumed

- anywhere on campus (including residence halls).
- iv. Reporting pests and pest-conducive conditions through the maintenance request system (reed.edu/facilities_services/request/maintenance.php).

VI. IPM PROCESS

A. Monitoring

Monitoring is the most important requirement of ORS 634.700 – 634.750. It is the backbone of Reed College's IPM Program. It provides recent and accurate information to make intelligent and effective pest management decisions. It can be defined as the regular and ongoing inspection of areas where pest problems do or might occur. Information gathered from these inspections is always written down. As much as possible, monitoring should be incorporated into the daily activities of the campus community. Training on monitoring should include what to look for and how to record and report the information.

IPM Coordinators and Staff from Custodial Services and Building Maintenance

During the normal course of their daily work, the IPM Coordinators and staff from Custodial Services and Building Maintenance will monitor structures and building perimeters for:

1. Pest-conducive conditions inside and outside the building (structural deterioration, holes that allow pests to enter, conditions that provide pest harborage).
2. The level of sanitation inside and out (waste disposal procedures, level of cleanliness inside and out, conditions that supply food and water to pests)
3. The amount of pest damage and the number and location of pest signs (rodent droppings, termite shelter tubes, cockroaches caught in sticky traps, etc.)
4. Human behaviors that affect the pests (food preparation procedures, concessions procedures, classroom food, etc.)
5. Their own management activities (caulking/sealing, cleaning, setting out traps, treating pests, etc.) and their effects on the pest population.
6. Any pests or pest-conducive conditions will be reported through the maintenance request system (reed.edu/facilities_services/request/maintenance.php).

Sticky traps are neither a substitute for pesticides nor an alternative for reducing pest populations, but rather a diagnostic tool to aid in identifying a pest's presence, their reproductive stage, the likely direction pests are coming from, and the number of pests.

Affected staff will be made aware of the traps and their purpose so they do not disturb them.

Sticky monitoring traps will be placed in the kitchen and any other “pest-vulnerable areas” by Paramount Pest Control.

Kitchen sticky insect traps will be checked monthly (primarily for drain flies, ants, and cockroaches).

In addition to monitoring for signs of mice (droppings, gnawing, hair, etc.), snap traps will be placed in the kitchen and any other areas deemed necessary.

IPM Coordinator and Staff from Grounds Services

During normal daily activities, grounds staff will monitor for invasive weeds, gophers, moles, yellow jackets, and other outdoor pests. These will be reported through the maintenance request system (reed.edu/facilities_services/request/maintenance.php).

Faculty, Other Staff, and Students

After reading the annual newsletter, faculty, staff (excluding groups mentioned earlier in Section VI), and students will be knowledgeable of the signs of pest and pest conducive conditions. They will be able to recognize potential or current pest issues from this information, and they will report these issues through the maintenance request system (reed.edu/facilities_services/request/maintenance.php).

B. Reporting

Reporting (pests, signs of pests, and pest conducive conditions)

When campus community members observe pests or pest-conducive conditions they will report these issues through the maintenance request system (reed.edu/facilities_services/request/maintenance.php).

Reporting “Pests of Concern”

“A pest of concern” is a pest determined to be a public health risk or a significant nuisance pest. Refer to Appendix I for the list of pests of concern.

When pests of concern (or their droppings, nests, etc.) are observed, staff should report these issues through the maintenance request system (reed.edu/facilities_services/request/maintenance.php).

C. Action!

Maintenance Services and Building Services Staff

Any items (such as sealing up pest related holes) that custodial or maintenance staff observe that they can resolve should be taken care of and reported through the maintenance request system for tracking purposes. The Coordinators will keep records of these actions using Pest Logs.

If the actions needed are not something that can be accomplished by facilities staff, the appropriate Coordinator will develop a plan of action with a proposed deadline for completion based on the severity of the risk or nuisance.

The Coordinator will keep records of actions taken/work performed using Pest Logs which will be shared on the Pest Management Google Drive. The Coordinator will inform the rest of the IPM Coordinators of actions taken/work performed by writing up information in the Google Drive, and monitor the completion of all work.

Grounds Staff

When pests on grounds exceed the acceptable threshold established by the IPM Coordinators, action will be taken as per guidelines developed by the Coordinators and Grounds Crew. The Grounds Crew or Coordinator will keep records of actions, time, and money spent to manage pests on grounds.

Acceptable Thresholds

A threshold is the number of pests that can be tolerated before taking action. Acceptable thresholds are dependent on the scenario and will be decided by the appropriate coordinator at the time of pest assessment.

D. Inspections

The EHS IPM Plan Coordinators will inspect pest related issues during quarterly campus safety inspections. Inspections will include checking for pest-conducive conducive conditions and signs of pests. EHS will write up inspection reports and provide corrective actions to the appropriate party.

E. Pest Emergencies (see also Section VII. B. below)

IMPORTANT: If a pest emergency is declared, the area must be evacuated and cordoned off before taking any other steps. When any of the IPM Plan Coordinators determine that the

presence of a pest or pests immediately threatens the health or safety of the campus community or members of the public using the campus, or the structural integrity of campus facilities, they may declare a pest emergency. Examples include (but are not limited to) yellow jackets swarming in areas frequented by children, a nutria in an area frequented by children, a half a dozen mice or rats running through occupied areas of a school building. The declaration of the existence of a pest emergency is the only time a non-low-impact pesticide may be applied. The Coordinator who declared the emergency will keep records of actions taken using Pest Logs and the event will be discussed at the next IPM Coordinator meeting.

VII. PESTICIDE APPLICATIONS: REQUIRED NOTIFICATION, POSTING, RECORD KEEPING, AND REPORTING

A. Notification and Posting for Non-emergencies

When prevention or management of pests through other measures proves to be ineffective, the use of a low-impact pesticide is permissible. Documentation of these measures is a prerequisite to the approval of any application of a low-risk pesticide. This documentation will remain on file with the IPM Plan Coordinators.

Non-emergency pesticide applications may occur on campus while school is in session, unless the IPM Plan Coordinators authorize an exception. If the labeling of a pesticide product specifies a reentry time, a pesticide may not be applied to an area of campus where the school expects people to be present before expiration of that reentry time. If the labeling does not specify a reentry time, the IPM Plan Coordinators will determine an appropriate reentry time based on the times at which people would normally be expected to be in the area, area ventilation, and whether the area will be cleaned before people are present.

The IPM Plan Coordinators (or a designee of the Coordinator) will give written notice of a proposed pesticide application in the case of indoor applications that would affect person(s) who occupy the space (via email) at least 24 hours before the application occurs. The notice must identify the expected area of the application, the expected date of application, the date and time of reentry, and the reason for the application.

The IPM Plan Coordinators (or a designee of a Coordinator) shall place warning signs around pesticide application areas, for cases that require written notice, before the application and until reentry is allowed. A warning sign must bear the words "Warning: pesticide-treated area", and give the date and time for the application, the expected or actual reentry time, and provide the telephone number of a contact person (the person who is to make the application and/or the appropriate IPM Plan Coordinator).

B. Notification and Posting for Emergencies

If a pesticide is applied at a campus due to a pest emergency, the Coordinators shall review the IPM plan to determine whether modifications of the IPM plan might prevent future pest emergencies.

If a pest emergency is declared, the area must be evacuated and cordoned off before taking any other steps. The declaration of the existence of a pest emergency is the only time a non-low-impact pesticide may be applied.

If a pest emergency makes it impracticable to give a pesticide application notice 24 hours before the pesticide application occurs, the IPM Plan Coordinator shall send the notice ASAP, no later than 24 hours after the application occurs.

The Coordinator or designee shall place notification signs around the area as soon as practicable but no later than at the time the application occurs.

Note: ORS 634.700 also allows the application of a non-low-impact pesticide “by, or at the direction or order of, a public health official”. If this occurs, every effort must be made to comply with notification and posting requirements above

C. Record Keeping of Pesticide Applications

The IPM Plan Coordinators shall keep a copy of the pesticide product and application information on file in the [Pest Management Database](#) using the [Pesticide Application Form](#):

- Name and brand of chemical
- An image of the label
- A copy of the SDS
- The approximate amount (grams, ounces, or units) and concentration (ounces/gallon) of product applied
- The location of the application, including square footage for spray applications
- The pest condition that prompted the application, include what pest this was meant to target
- The type of application (spray, granular, gel, etc.) and whether the application was effective
- The name(s) of the person(s) applying the pesticide

For small applications, pesticide product and application information will be tracked using the [Small application tracker](#).

The above records must be kept on file for at least four years following the application date.

VIII. APPROVED LIST OF LOW-IMPACT PESTICIDES

Note: All pesticides used must be used in strict accordance with label instructions.

According to ORS 634.705 (5), the governing body of a school district shall adopt a list of low-impact pesticides for use with their integrated pest management plan. The governing body may include any product on the list except products that:

1. Contain a pesticide product or active ingredient that has the signal words “warning” or “danger” on the label;
2. Contain a pesticide product classified as a human carcinogen or probable human carcinogen under the United States Environmental Protection Agency 1986 Guidelines for Carcinogen Risk Assessment; or
3. Contain a pesticide product classified as carcinogenic to humans or likely to be carcinogenic to humans under the United States Environmental Protection Agency 2003 Draft Final Guidelines for Carcinogen Risk Assessment.

As a part of pesticide registration under the Federal Insecticide Fungicide and Rodenticide Act (FIFRA) and re-registration required by the Food Quality Protection Act (FQPA), EPA Office of Pesticide Programs (OPP) classifies pesticide active ingredients (a.i.) with regards to their potential to cause cancer in humans. Depending on when a pesticide active ingredient was last evaluated the classification system used may differ as described above.

The National Pesticide Information Center (<http://npic.orst.edu/>) can be contacted at 1.800.858.7378 or ornpic@ace.orst.edu for assistance in determining a pesticide a.i. cancer classification.

The most current list of approved low-impact pesticides can be found in Appendix II of this IPM plan.

IX. APPENDICES

Appendix I – Pests of Concern

Pest	Concern
Cockroaches	Disease vectors, asthma triggers
Mice	Disease vectors, asthma triggers
Rats	Disease vectors, asthma triggers
Bed bugs	Significant nuisance
Ants	Significant nuisance
Spiders	Significant nuisance
Moles	Damage to grounds
Yellow jackets	Sting can cause anaphylactic shock
Bats	Disease vectors
Birds	Disease vectors
Squirrels	Disease vectors

Appendix II – Current List of Approved Low-impact Pesticides

Safety Data Sheets (SDSs) and labels for chemicals listed below can be found in the [Pest Management Database](#).

Chemical	Use
Advion Ant Gel	Insecticide
Generation Mini Blocks	rodent bait
Gentrol Complete aerosol	broad spectrum insecticide
Gentrol Point Source	Roach control device
Maxforce FC Magnum	Roach killer bait gel
Suspend Polyzone	Insecticide
Talstar PL Granular	Insecticide
Talstar P Professional	Insecticide
Temprid	Insecticide
Termidor SC	Termiticide/insecticide
Web Out	Web remover & repellent
Round-Up Quick Pro	Herbicide
Tordon RTU	Herbicide
Casoron 4G	Pre-Emergent Herbicide
Escort XP	Herbicide
Finalsan	Herbicide
Aquaneat	Herbicide

Moss Melt	Moss/Algae remover
LI 700	Surfactant
SpectracidePro	Insecticide