

Policy Title:	Integrated Pest Management
Policy Area:	Pest management
Owner:	DAG
Approved by:	UM6P President
Effective Date:	

RELATED DOCUMENTS

[Dahir n° 1-03-59 du 10 rabii I 1424 \(12 mai 2003\) portant promulgation de la loi n° 11-03 relative à la protection et à la mise en valeur de l'environnement ; Loi n° 28-07 relative à la sécurité sanitaire des produits alimentaires, Loi n° 28-00 relative à la gestion des déchets et à leur élimination, Code du travail ; Sustainable Development Institutional Policy](#)

SECTION 1 POLICY STATEMENT

- 1.1. University Mohammed VI Polytechnic (UM6P) is continuously making efforts to develop a sustainable campus and to strengthen its commitment to reducing its environmental impact.
- 1.2. UM6P is committed to maintaining a healthy and safe environment through effective and sustainable Integrated Pest Management practices for its buildings and landscapes.
- 1.3. UM6P aims to manage building and landscape pests in an eco-friendly manner through regular maintenance, sanitation, and monitoring while reducing risks to human health and property.
- 1.4. UM6P engages to deploy all its efforts to minimize pesticide application/exposure to ensure the safety and wellbeing of students, faculty, staff, and visitors, and to support its decarbonization efforts for a more sustainable campus.

SECTION 2 SCOPE AND APPLICABILITY

- 2.1. This policy is applicable to all individuals and entities engaged in the management of building and landscape operations, with a particular focus on the General Affairs Department and associated service providers. This policy covers all the buildings and associated grounds as well as landscapes that UM6P manages.
- 2.2. This policy is consulted before undertaking any pest management action in the buildings or associated grounds and landscapes of UM6P campus.

SECTION 3 PURPOSE

- 3.1. The Integrated Pest Management policy aims to establish a pest management approach that minimizes risks to the health and wellbeing of the UM6P community, as well as to the environment, while effectively addressing potential problems caused by building and landscape pests.

- 3.2. This policy establishes best management practices for pest control at UM6P campus, aiming to enhance cleanliness and landscape quality while regulating toxicity levels to minimize exposure to harmful chemicals.
- 3.3. UM6P aims to reduce pesticide exposure and health risks for its community while ensuring cost-efficient pest control. The university seeks to prevent or suppress pests at non-damaging levels and minimize environmental pollution by prioritizing eco-friendly methods, using chemical pesticides only as a last resort. Its approach is based on accurate pest identification and a thorough understanding of their biology.

SECTION 4 DEFINITIONS

- 4.1. **Integrated Pest Management (IPM):** A strategy that focuses on the long-term prevention of pests or their damage through a combination of non-chemical control tactics, including preventative, cultural, mechanical, environmental, biological, and chemical control tactics. The techniques are utilized simultaneously to control pest populations in the most effective manner possible and manage pest damage by the most economical means, and with the least possible hazard to people, property, and the environment. Since IPM focuses on remediation of the fundamental reasons why pests are here, pesticides are rarely used and only when necessary.
- 4.2. **Pest Management in Buildings:** Pest management in buildings focuses on controlling pests inside buildings to create a safe, clean, and comfortable environment for occupants. The primary goal is to prevent infestations of common building pests that can cause health issues, damage property, or disrupt daily activities.
- 4.3. **Pest Management in Landscapes:** Pest management in landscapes focuses on controlling pests in outdoor areas around buildings, including gardens, landscapes, lawns, and other exterior environments. Its goal is to prevent pests from damaging plants, outdoor structures, and ecosystems, as well as to stop them from entering buildings.
- 4.4. **Pest:** Any animal, plant, or microorganism that negatively affects human environments by causing damage to buildings, crops or landscapes or pose health risks to humans, pets, or livestock. Pests may also interfere with the aesthetic and functional value of spaces, both indoors and outdoors.
- 4.5. **Pesticide:** Any substance or mixture of chemical and biological substances used to control pests by preventing, repelling or mitigating them. Pesticides can be synthetic or natural, and they are applied in various forms, such as sprays, powders, or granules, depending on the type of pest and area of application.
- 4.6. **Toxic pesticides:** Pesticides that pose a high risk to human health, animals, beneficial organisms, and the environment. They can cause severe short-term or long-term effects, including poisoning, cancer, reproductive issues, or environmental contamination.

- 4.7. **Less-toxic pesticides:** Pesticides have a lower risk of causing severe health or environmental damage compared to toxic pesticides. They may still pose some risks but are generally considered safer alternatives with a reduced impact on non-target organisms and ecosystems.
- 4.8. **Least-toxic pesticides:** These are pesticides with minimal or no significant harm to humans, animals, beneficial organisms, and the environment. They often degrade quickly and do not leave harmful residues.
- 4.9. **Emergency:** Urgent pest problem that arises suddenly and requires immediate intervention to prevent significant damage to public health, the environment, or assets.

SECTION 5 PROVISIONS

General Provisions

- 5.1. IPM practices are encouraged over the sole use of pesticides as the primary means of pest management.
- 5.2. Developing a comprehensive IPM program and approach allows UM6P to focus on its primary efforts of pollution prevention. By monitoring and preventing pests as well as minimizing heavy pest infestations we can reduce the need for chemicals and/or multiple applications.
- 5.3. Campus facility services staff involved in the oversight of pesticide use must actively acquire and maintain their knowledge of IPM and the importance of its use in safeguarding human and environmental health.
- 5.4. The goal of IPM is not to eliminate all pests, but to keep their populations at tolerable levels that are acceptable to UM6P community, minimizing any potential health risks and environmental impacts.
- 5.5. IPM is not a single method of pest control but rather a series of pest management assessments and decisions. To ensure an effective IPM, UM6P commits to following a **four-tiered approach** consisting of the following steps which are further detailed in Appendices 1 and 2:
- 5.5.1. **Set action thresholds:** Action thresholds are specific levels of pest population or damage to trigger a control action. They are set from previous experience or published recommendations and based on health and safety concerns, environmental factors, and economic considerations.
- 5.5.2. **Monitor and identify pests:** This step involves the regular observation and identification of pest species and their population levels. Accurate monitoring helps determine when pests have reached action thresholds, ensuring that control measures are applied only when required and targeting the correct pests.
- 5.5.3. **Prevent or remove conditions that attract pests:** Prevention focuses on reducing the factors that attract pests. By addressing these conditions proactively, the likelihood of pest infestations is minimized, reducing the need for reactive control measures.

5.5.4. **Control:** This is the process of selecting and implementing appropriate pest control methods when pest populations exceed action thresholds. IPM programs use a variety of pest control tactics in a compatible manner that minimize adverse effects to the environment, and to the health and wellbeing of UM6P community. A combination of several control tactics is usually more effective in minimizing pest damage than any single control method. The type of control that UM6P selects will likely vary on a case-by-case basis due to the varying site conditions.

5.6. The use of pesticides within the IPM program is permitted only when pest populations exceed established thresholds and approach damaging levels. Pesticides should be applied exclusively in the affected areas. Exceptions may be made for disease prevention, where specific modifications to this approach may be allowed.

Pesticide use and Safety guidelines

5.7. In all cases where emergency pest treatment is not required, it is mandated to use alternative pest control methods before applying chemical pesticides or baits. This ensures that we first explore non-chemical options to manage pests effectively.

5.8. If alternative pest control methods prove ineffective, it is required to use least-toxic pesticides before considering more toxic options. This step ensures that safety and environmental considerations are prioritized in UM6P pest management plan.

5.9. It is essential to store pesticides securely and dispose of them properly according to local regulations.

5.10. It is mandatory to apply pesticides in targeted areas only, following all safety guidelines and label instructions to minimize exposure risks.

5.11. It is preferable for all products used in pest management to be approved by the National Office of Food Safety (ONSSA).

5.12. All procedures related to handling pesticide exposure and accidents are detailed in Appendix 3.

Pest management for buildings

5.13. Pest management for buildings aims to prevent pests from entering and infesting buildings, address and eliminate conditions conducive to pest establishment, and ensure that pest management practices are integrated with overall facility maintenance and hygiene.

5.14. It is necessary to maintain a high standard of cleanliness and organization at UM6P to ensure effective pest management in its buildings.

5.15. Education and training are essential for the success of an Interior IPM program. Building occupants and maintenance staff should be trained on pest identification, the importance of maintaining cleanliness, and the procedures for reporting pest sightings. Regular training and awareness programs help in fostering a collaborative effort to maintain a pest-free environment and ensure that everyone is informed about their role in pest management.

- 5.16. Any pest management applications within the buildings of UM6P campus must adhere to the four-tiered approach outlined in Appendix 1.
- 5.17. UM6P commits to tracking key performance indicators (KPIs) to monitor and improve pest management in buildings. These KPIs include the complaint resolution rate, 4D maintenance plan completion rate every trimester, and areas with high complaint rate, along with monthly analysis of complaint motives.

Pest Management for landscapes

- 5.18. Pest management for landscapes should focus on keeping the campus' animal and insect pest population under control and preventing pests from entering buildings.
- 5.19. Invasive plants and fungi are considered landscape pests and should be included in pest management strategies.
- 5.20. UM6P recognizes the importance of maintaining healthy landscapes making plants less susceptible to pest infestations, which is a critical strategy for weed and insect control.
- 5.21. UM6P considers the following in regard to exterior pest management:
- 5.21.1. Landscaping features that might harbor pests (e.g. vegetation close to structures that could cause damage to the building or provide habitat for vectors should be trimmed and removed)
 - 5.21.2. Managing pest attractants (e.g. trash cans, compost bins)
 - 5.21.3. Controlling noxious weeds and invasive plants
- 5.22. Any pest management applications within the landscapes of UM6P campus must adhere to the four-tiered approach outlined in Appendix 2.
- 5.23. UM6P commits to tracking key performance indicators (KPIs) to monitor and improve pest management in landscapes. These KPIs include the percentage reduction in pest populations after treatment, the number of emergency treatments conducted per year, and the user satisfaction rate related to pest management, particularly in sensitive areas.

Quality Control

- 5.24. After applying control measures, it is necessary to continue monitoring pest populations to assess effectiveness as well as to re-evaluate and adjust thresholds, monitoring techniques, and control strategies as needed to ensure ongoing pest management success.

SECTION 6 ROLES AND RESPONSIBILITIES

6.1. The table below outlines the specific roles and responsibilities of the IPM team:

Name/Title	Responsibilities
Overall responsible party: Mouhcine Talbaoui, <i>General Affairs Manager</i>	1. Ensuring that this plan is executed. 2. Ensuring that the contracted IPM service provider is fully trained on this plan and adheres to the plan procedures.

	3. Coordinating site visits by the service provider for regular inspections and as needed for implementation of pest controls. 4. Overseeing work performed by the service provider. 5. Approving the use of pesticides when they are necessary. 6. Providing proper notification to occupants when non-least toxic pesticides are applied in buildings. 7. Ensuring tenant contracts are aware of the procedures in this plan. 8. Evaluating performance and making updates to the plan as necessary.
Pest control service provider	1. Adhering to the procedures outlined in this policy and its appendices. 2. Identifying pests during site visits and inspections. 3. Reporting the results of site visits and inspections to the overall responsible party. 4. Notifying the overall responsible party when pest action thresholds are reached or exceeded. 5. Obtaining approval from the overall responsible party to apply chemical pesticides when necessary.
Tenant contracts	1. Reporting pest issues in respective tenant spaces to overall responsible party.

SECTION 7 REVIEW AND MONITORING STATEMENT

7.1. This policy document is reviewed once every four (4) years, or more frequently when requested by the President or subsequent changes in regulations or accreditation requirements.

SECTION 8 APPROVAL AUTHORITY AND REVISION HISTORY

Approval Authority	Signature and Date
Document Owner General Affairs Department	
Endorsed by Sustainable Development Department Research Infrastructure & EHS Management Office Agricultural Innovation and Technology Transfer Center Strategic planning, Governance, Policy and Risk Department	
Approved by Hicham El Habti, President	

First disseminated by the President on

Most Recent Review:

Revision History: 0

Revision No.	Effective Date	Description
2		
1		

0		Policy document first adopted.
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Next scheduled review : **September 2029**

APPENDIX 1

INTEGRATED PEST MANAGEMENT PLAN FOR BUILDINGS

1. INTRODUCTION:

- 1.1. This plan applies to all the buildings of UM6P campus and will be consulted prior to any pest management actions within the university buildings.
- 1.2. The plan ensures a four-tiered approach to addressing these pests, minimizing their impact, and maintaining a safe and pleasant environment. It outlines procedures for assessing pest problems inside UM6P buildings, selecting appropriate control measures, and coordinating pest management professionals as needed.

2. FOUR-TIERED APPROACH:

- 2.1. **Set action thresholds:** The first step of this approach required establishing specific pest population levels (thresholds) at which pest control actions will be initiated to prevent unacceptable levels of damage. This step is implemented in this order:

- 2.1.1. Determine the types of pests common to buildings, such as ants, cockroaches, rodents, spiders, and flies.
- 2.1.2. Set action thresholds based on the type of area and pest type as the following:
 - ✓ Low Tolerance: Kitchens, food storage areas, and health care facilities (e.g., any presence of cockroaches, rodents, or flies).
 - ✓ Moderate Tolerance: Offices, common areas (e.g., up to 5 ants in a week or 3 spider sightings per week).
 - ✓ High Tolerance: Storage or mechanical rooms (e.g., presence of a few insects or rodents might be acceptable unless signs of infestation are noted).
- 2.1.3. Clearly define and document thresholds for each pest type and area.

- 2.2. **Monitor and identify pests:** The second step of this approach requires a regular inspection and monitoring of buildings to accurately identify pest species and population levels. This can be done as follows:

- 2.2.1. Conduct regular inspections of all interior areas, focusing on pest-prone zones such as kitchens, bathrooms, storage areas, and utility rooms.
- 2.2.2. Place sticky traps, pheromone traps, or bait stations in strategic locations to monitor pest activity. Check traps regularly and document findings.
- 2.2.3. Accurately identify pests caught in traps or sighted during inspections. This may involve consulting pest identification guides or professionals.
- 2.2.4. Maintain detailed records of pest sightings, trap counts, and identification results to help track pest population trends over time and evaluate the effectiveness of control measures.

2.3. Prevent or Remove Conditions that Attract Pests: The third step of this approach requires implementing measures to reduce the attractiveness of the interior environment to pests and eliminate potential entry points by adhering to the following measures:

2.3.1. Food and Waste Management:

2.3.1.1. Store food in sealed containers and keep food preparation and eating areas clean.

2.3.1.2. Use sealed trash bins, ensure regular removal of waste, and clean bins frequently.

2.3.1.3. Clean up spills, crumbs, and other food residues promptly.

2.3.2. Sanitation:

2.3.2.1. Establish routine cleaning schedules for floors, countertops, and equipment.

2.3.2.2. Repair leaky faucets and plumbing to eliminate water sources.

2.3.2.3. Ensure proper ventilation to reduce humidity.

2.3.3. Structural Maintenance:

2.3.3.1. Close gaps, cracks, and other openings in walls, floors, and around pipes.

2.3.3.2. Install and maintain door sweeps, and ensure windows and doors close tightly.

2.3.4. Pest Harborage:

2.3.4.1. Reduce clutter where pests can hide or build nests.

2.3.4.2. Regularly inspect and clean under and behind furniture and equipment.

2.4. Pest control strategies: The last step of this approach is applied when pest populations exceed action thresholds, and it becomes necessary to employ appropriate control measures that are safe, effective, and environmentally responsible.

2.4.1. The buildings will be periodically inspected for the presence of pests. After preventive measures, if any pests are detected, integrated (non-chemical) methods will be implemented as the first control step, including sanitation measures, exclusion measures, and the use of traps.

2.4.2. Non-Chemical Control: A variety of non-chemical control methods will be used to manage pests, including physical traps, barriers, and environmental modifications.

2.4.3. Chemical Control: If integrated pest control measures are unable to resolve the problem, less chemical alternatives will be used prior to resorting to toxic pesticides. This approach aims to protect the health, safety, and well-being of the community. Toxic pesticides will only be used when all alternative, integrated, and least toxic pest control measures have been exhausted, and the pest action threshold has still been exceeded. This approach typically includes Rodent control, Insect control, Disinfection and Reptile control. In such cases, the tenant communication plan outlined below will be implemented to ensure transparency and safety.

3. Tenant Communication plan

- 3.1. When it is determined that a pesticide may need to be used in order to manage pests, the least hazardous material will be chosen. Additionally, prior to treatment, the plan will be shared with Health, Safety and Environment (HSE) staff for approval to proceed with the application.
- 3.2. The overall responsible party will share the typical treatment plan with all tenants once per semester which will include application mode, used products, and Safety Data Sheets (SDS).
- 3.3. The overall responsible party will post a sign at the application site, such that an occupant reading the sign can choose to avoid the application area. For an emergency application of a pesticide, tenants must be notified within 24 hours of the application and given an explanation of the emergency. If pests are observed in a tenant space, it is the responsibility of the tenant to notify the overall responsible party of the pest via email. Within one business day, the overall responsible party will contact the pest control service provider to inspect the situation and determine whether the regular action threshold or the emergency action threshold has been met. The pest control service provider will then take the appropriate actions.

4. Emergency treatment

- 4.1. Regular treatment includes the use of first non-chemical controls (sanitation, exclusion, traps using non-chemical baits), followed by the use of least-toxic control methods if the situation is not resolved, and then non-least toxic control methods if the situation is still not resolved. Even if no pests are detected, preventive measures are implemented to avoid infestation.
- 4.2. Emergency treatment includes the use of the most effective control method as a first step, which may be chemical.

Pest type	Action thresholds
Ants	Regular treatment will be performed if any ants are noted in the building and their presence is confirmed through monitoring. Emergency treatment may be used if there are ten or more reported cases or complaints of ants within a two-day period.
Other insects	Regular treatment will be performed if nuisance insects are noted in the building and their presence is confirmed through monitoring. Emergency treatment may be used if there are ten or more reported cases or complaints of nuisance insects within a two-day period.
Cockroaches	Regular treatment will be performed if any cockroaches are noted in the building and their presence is confirmed through monitoring. Emergency treatment may be used if the presence of cockroaches is confirmed in two different spaces within the building OR if the presence of a large population of cockroaches is confirmed in one space in the building.
Rats, Mice	Emergency treatment may be used if the presence of rats or mice is confirmed in two or more different spaces within the building.

Bed bugs	Emergency treatment may be used if the presence of bed bugs is confirmed in the building.
Other occasional invaders	If the other occasional pests pose a threat to occupants' health, emergency treatment may be sought. Otherwise, regular treatment will be performed.

APPENDIX 2:

INTEGRATED PEST MANAGEMENT PLAN FOR LANDSCAPES

1. Introduction:

- 1.1. As the first impression for visitors and prospective students, UM6P's landscape is a critical asset for the University. The beauty of the campus' well-maintained landscapes serve as a strong first impression and continuing comfort to those considering attending school here as well as those students already enrolled at the University. In this regard, UM6P is committed to ensuring that the campus landscape is protected, maintained and enhanced in ways that are both sustainable and responsible. With those goals in mind, this protocol has been developed.
- 1.2. This plan applies to all exterior spaces of UM6P campus and will be consulted prior to any pest management actions within the campus grounds. The plan ensures a four-tiered approach to addressing these pests, minimizing their impact, and maintaining a safe and pleasant environment. It outlines procedures for assessing pest problems on UM6P landscapes, selecting appropriate control measures, and coordinating with pest management professionals as needed.

2. Four-tiered approach:

- 2.1. **Set Action Thresholds:** The first step involves establishing specific pest population levels (thresholds) at which pest control actions will be initiated to prevent unacceptable levels of damage. This step is implemented in the following order:

- 2.1.1. Identify Key Pests: Determine the types of pests commonly found in exterior areas and landscapes, such as insects, rodents, ants, snails, and various bird species.
- 2.1.2. Determine Tolerance Levels:
 - ✓ Low Tolerance: Sensitive areas like vegetable gardens, flower beds, and outdoor dining areas where any significant pest presence (e.g., rodents, destructive insects) can lead to damage or pose health risks. For this type of area, a high monitoring frequency is recommended—ideally weekly, or even twice a week during high-risk periods (spring/summer)—in order to quickly detect any infestation.
 - ✓ Moderate Tolerance: General landscape areas, such as lawns, trees, and shrubs, where some pest presence is tolerable but significant damage (e.g., defoliation, disease spread) would trigger control measures. For this type of area, a biweekly monitoring frequency is generally sufficient, with an increase to once a week in case of conditions favorable to pest development (high temperatures, humidity, or a history of infestation).
 - ✓ High Tolerance: Areas like naturalized or wild zones, where a higher level of pest presence is acceptable (such as Insect Shelters) unless it threatens ecosystem balance or spreads to more sensitive areas. A monthly monitoring frequency is generally sufficient,

with additional spot checks in case of significant ecological changes or reports of pest spread to low-tolerance areas.

- 2.1.3. Document Thresholds: Clearly define and document thresholds for each pest type and area. For example, note the number of pests per plant or square meter that would trigger intervention.

2.2. *Monitor and Identify Pests:* The second step requires regular inspection and monitoring of exterior spaces and landscapes to accurately identify pest species and population levels. This can be done as follows:

- 2.2.1. Conduct regular bi-weekly or monthly inspections of all landscaped areas, focusing on pest-prone zones such as gardens, lawns, and outdoor structures.
- 2.2.2. Place sticky traps, pheromone traps, and bait stations in strategic locations to monitor pest activity.
- 2.2.3. Accurately identify pests caught in traps or observed during inspections. This may involve consulting pest identification guides or enlisting the help of pest management professionals.
- 2.2.4. Maintain detailed records of pest sightings, trap counts, and identification results to help track pest population trends over time and evaluate the effectiveness of control measures.

2.3. *Prevent or Eliminate Conditions That Attract Pests:* The third step involves implementing measures to reduce the attractiveness of the exterior environment to pests and eliminate potential entry points. The following measures should be adhered to:

- 2.3.1. Landscape and Garden Management:
 - 2.3.1.1. Implement proper irrigation techniques to avoid overwatering or water pooling, which can attract pests like mosquitoes and fungi.
 - 2.3.1.2. Use mulch to suppress weeds and retain soil moisture while avoiding excessive mulch near plant stems. Regularly prune plants to remove dead or diseased branches and improve air circulation.
- 2.3.2. Sanitation:
 - 2.3.2.1. Ensure that outdoor waste bins and trash cans are regularly emptied and kept clean to avoid attracting pests such as rodents and insects.
 - 2.3.2.2. Regularly remove plant debris, fallen leaves, and other organic matter that can serve as breeding grounds or shelter for pests.
- 2.3.3. Structural Maintenance:
 - 2.3.3.1. Seal cracks and gaps in building exteriors, foundations, and walls to prevent pests such as rodents and insects from entering indoor spaces.
 - 2.3.3.2. Regularly inspect and repair outdoor structures (e.g., sheds, greenhouses) to prevent pests from nesting or burrowing.

2.3.4. Habitat Modification:

2.3.4.1. Choose pest-resistant plant varieties and native species that are less susceptible to local pests and diseases.

2.3.4.2. Eliminate standing water sources where pests like mosquitoes can breed, such as birdbaths, gutters, and puddles.

2.4. **Pest Control Strategies:** The fourth step is applied when pest populations exceed action thresholds, and it becomes necessary to employ appropriate control measures that are safe, effective, and environmentally responsible.

2.4.1. Non-Chemical Control:

2.4.1.1. Introduce or encourage natural predators and beneficial insects, such as ladybugs, predatory beetles, or nematodes, to control pest populations naturally.

2.4.1.2. Use barriers such as row covers or netting to protect plants from pests like birds, deer, and rabbits. Use hand-picking or water sprays to remove pests like caterpillars and aphids.

2.4.2. Chemical Control:

2.4.2.1. Apply chemical controls as a last resort and only to affected areas and follow proper application procedures to avoid broad-spectrum use which affects a wide range of organisms, including beneficial ones.

2.4.2.2. Toxic pesticides may only be used under specific circumstances, such as when less chemical and alternative methods have failed, and pest populations continue to exceed action thresholds.

2.4.2.3. Ensure that proper notification is given to relevant staff before applying non-least toxic pesticides. Follow all safety guidelines and label instructions.

3. Emergency treatment

3.1. In cases where an immediate threat to landscape health arises (e.g. rapid infestation or damage to critical plants), emergency treatment may be applied using the most effective control method available right away. This method may include non-least toxic chemicals if they are deemed necessary to quickly control the situation and prevent further damage.

Pest type	Action thresholds
Ants	No treatment necessary
Other insects	Regular treatment will be performed if nuisance insects are noted in landscapes and their presence is confirmed through monitoring. Emergency treatment may be used if there are ten or more reported cases or complaints of nuisance insects within a two-day period.
Cockroaches	Regular treatment will be performed if cockroaches are noted in landscapes, and their presence there is confirmed through monitoring.

	Emergency treatment may be used if a large population of cockroaches is confirmed in one landscape site.
Rats, Mice	Regular treatment will be performed if rats or mice are noted outdoors, and their presence is confirmed through monitoring. Emergency treatment may be used if any noticeable mice burrows or activity exist around buildings.
Crickets	No action unless perceived as causing problems. Emergency treatment: Use appropriate traps (glue traps, pheromone traps, mechanical traps) to quickly reduce the population. Apply specific insecticides or rodenticides, following safety instructions and prioritizing products with low environmental impact. Isolate the affected area: restrict access to people and pets during treatment to avoid any health risks.
Weeds	Regular treatment will be performed if any extreme weed cover is noticed. Emergency treatment may be used if they become aesthetically displeasing, potentially damaging to buildings entry or block visibility needed for security.
Fungal diseases	Regular treatment will be performed based on monitoring and severity. Emergency treatment will be initiated if the spread threatens plant health or nearby structures.
Insect attacks	Regular treatment will be performed based on severity and impact of the attack. Emergency treatment will be used if the attack threatens ecosystem balance or causes widespread damage.
Root System Diseases	Regular treatment will be performed if root system diseases are noted and confirmed through monitoring. Emergency treatment may be applied if plants are dying or showing significant stress.
Other occasional invaders	If the pests pose a health threat, emergency treatment may be sought. Otherwise, regular treatment will be performed.

APPENDIX 3:

INTEGRATED PEST MANAGEMENT ACCIDENT GUIDELINES

- 1.1. The IPM accident guidelines are designed to provide clear protocols for addressing accidents or unintended exposures during pest management activities. These guidelines aim to ensure the safety of UM6P community, and outline steps for prompt response, containment, and reporting of incidents, as well as prevention measures to reduce the likelihood of future accidents.
- 1.2. Facility Management and HSE entities should be notified immediately of all pesticide-related accidents, including those involving a pest control vehicle.
- 1.3. The guidelines for responding to the accident types are as follows:
- 1.3.1. **Vehicle Accident:** In case a vehicle accident involves a pest control vehicle, first determine if there are any injuries. If there are injuries, immediately call emergency (if the contractor team is injured, HSE needs to be involved, and if it is a community member, Health Center needs to get involved). If a liquid is leaking from a container or the vehicle, contain its spread as much as possible. If the liquid appears to be gasoline or fuel, stay clear and keep others away from the vehicle. Also, do not allow ignition devices in the area, e.g., open flames, lit smoking materials, etc. If the leaking liquid appears to be a pesticide, contain the flow to the extent possible and immediately notify the facility manager.
 - 1.3.2. **Ingestion/Inhalation of Pesticide:** If someone appears to have ingested a pesticide, emergency is to be called immediately. An effort is made to determine what pesticide could have been ingested. After emergency services are notified, the facility manager is contacted.
 - 1.3.3. **Eye Contamination:** If a pesticide or any other harmful liquid or dust gets into someone's eye, rinse it out with clean water referring to any of the restrooms or water fountains located at different areas of campus. The Facility Manager is to be notified of the exposure, and during work hours, the person will be transported to the health center. The Safety Data Sheet (SDS) for all pesticides should be located in the Facility Management Office. The information in the MSDS should be used to determine any medical treatment.
 - 1.3.4. **Dermal Exposure to Pesticides:** In the event of dermal exposure to pesticides, the skin should be washed as soon as possible with plenty of soap and water. The facility manager is to be notified immediately. If clothes are contaminated with a pesticide, they should be removed and stored in a plastic bag until they can be washed. If the exposure is through pesticide-soaked clothing, the affected skin is to be washed immediately. Clothing contaminated with pesticides is washed separately from other clothing. A pesticide-contaminated open cut or wound must be washed thoroughly before seeking medical attention.