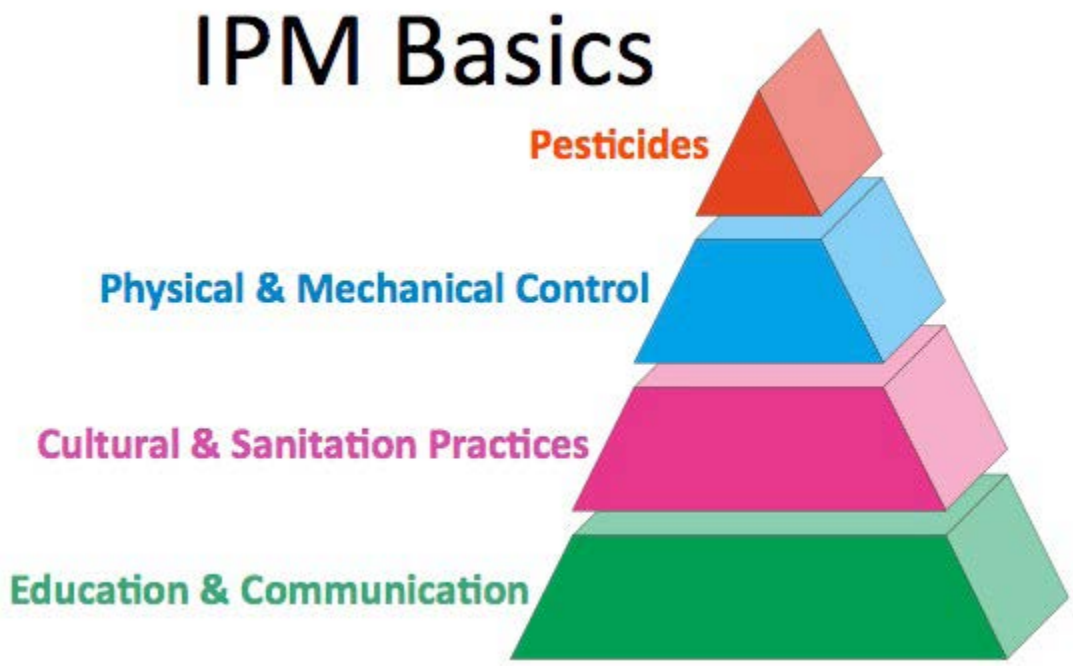
Integrated Pest Management Plan

Clackamas Community College 2012



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INTRODUCTION

Structural and landscape pests can pose significant problems in schools. 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. These same pesticides may pose special health risks to children due in large part to their still developing organ systems. Because the health and safety of students and staff is our first priority – and a prerequisite to learning – it is the policy of Clackamas Community College to approach pest management with the least possible risk to students and staff. In addition, Senate Bill 637 requires all school districts to implement integrated pest management in their schools. For this reason, the College adopts this integrated pest management plan through board policy EBB, for use on its campuses.

INTEGRATED PEST MANAGEMENT PLAN

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 only used when necessary.

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 cafeteria serving counters, reducing clutter in classrooms, putting dumpsters further from cafeteria door/loading dock, 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.

INTEGRATED PEST MANAGEMENT PLAN DEFINITION

ORS 634.700 defines an Integrated Pest Management (IPM) plan as a proactive strategy that focuses on the long-term prevention or suppression of pest problems through economically sound measures that:

- Protect the health and safety of students, staff and faculty
- Protect the integrity of campus buildings and grounds
- Maintain a productive learning environment
- Protect local ecosystem health
- 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
- 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
- Includes regular monitoring and inspections to detect pests, pest damage and unsanctioned pesticide usage
- Evaluates the need for pest control by identifying acceptable pest population density levels
- Monitors and evaluates the effectiveness of pest control measures
- 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
- Excludes the application of pesticides for purely aesthetic purposes
- Includes school staff education about sanitation, monitoring and inspection and about pest control measures
- Gives preference to the use of nonchemical pest control measures
- Allows the use of low-impact pesticides if nonchemical pest control measures are ineffective
- 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 college campus IPM plan. This plan fleshes out the required strategy from ORS 634.700 – 634.750 for Clackamas Community College.
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, several steps must be taken before any “routine” applications are allowed:
1) Staff must be educated on sanitation, monitoring, and exclusion as the primary means to control the pest.

2) An acceptable pest population density level must be established.
3) The use of sanitation, structural remediation or habitat manipulation or of mechanical or biological control methods must be incorporated into the management strategy of the pest.
4) Documentation that the above steps were ineffective.
5) The pesticide label must be read thoroughly to make sure the pesticide will be used in strict compliance with all label instructions.

IPM PLAN COORDINATOR

Note: ORS 634.720 states that the Coordinator "must be an employee of the governed district, unit, school or entity, unless the IPM coordinator or designee delegates pest management duties to an independent contractor."
The Board of Education designates the Dean of Campus Services as the IPM Plan Coordinator, and is given the authority for overall implementation and evaluation of this plan. **The Coordinator is responsible for:**

- *Attending not less than six hours of IPM training each year* and shall include at least a general review of IPM principles and the requirements of ORS 634.700 – 634.750.
- *Conducting outreach to the campus community (custodians, maintenance, construction, grounds, staff, faculty, and cafeteria staff) regarding the school's IPM plan.*
- Providing training
- *Overseeing pest prevention efforts;*
- Working with custodians, staff, instructors, and maintenance to reduce clutter and food in the classrooms, and seal up pest entry points.
- *Assuring that the decision-making process for implementing IPM is followed;*
- Assessing and improve the pest monitoring/reporting/action protocol.
- *Assuring that all notification, posting, and record-keeping requirements are met*
- *Maintaining the approved pesticides list*
- *Responding to inquiries and complaints about compliance with the plan. (*Responses to inquiries and complaints will be in writing and kept on record with the Coordinator.)

RESPONSIBILITIES

Custodial Services Responsibilities

Custodial Services is responsible for the following:
1) Attending annual IPM training provided by the IPM Plan Coordinator (or designee).
2) Placing and checking sticky insect monitoring traps in break rooms, kitchens, and cafeteria as per the IPM Plan Coordinator's instructions.
3) Report counts & type of trapped pests to IMP Coordinator (or designee).
4) Assuring floor under serving counters is kept free of food and drink debris.
5) Sealing up small cracks or holes when reported by staff and instructors or noticed by custodian when this can be done in a short time (e.g. less than 15 minutes).

6) Recording his/her pest management actions in the pest logs.
7) Reporting pest problems that he/she cannot resolve in less than 15 minutes to the IPM Plan Coordinator.
8) Reporting staff and instructors to the IPM Plan Coordinator who repeatedly refuse to reduce clutter and other pest-conducive conditions in their classrooms.
9) Reporting pest-conducive conditions to the IPM Plan Coordinator if the custodian cannot fix them in less than 15 minutes.
10) Confiscating any unapproved pesticides (such as aerosol spray cans) discovered during regular duties and delivering them to the IPM Plan Coordinator.
11) Following up on issues found in annual inspection report as instructed by the

Maintenance/Construction Responsibilities
Facilities maintenance and construction staff are responsible for working with the IPM Plan Coordinator to ensure their daily tasks, projects and operations enhance effective pest management. This includes:
1) Receiving training from the IPM Plan Coordinator (or designee of the Coordinator) on the basic principles of IPM, sealing pest entry points, and sanitation during construction projects.
2) Continually monitoring for pest conducive conditions during daily work, and sealing small holes and cracks when noticed (if they can be sealed in a short period of time – e.g. 15 minutes).
3) Working with the Coordinator 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 (e.g. 15 minutes).
4) Developing protocols and provisions for pest avoidance and prevention during construction and renovation projects. The IPM Plan Coordinator has the authority to halt construction projects if these protocols and provisions are not being met.

Grounds Department Responsibilities
Grounds crews are responsible for:
1) Attending annual IPM training provided by the IPM Plan Coordinator (or designee).
2) Keeping vegetation (including tree branches and bushes) at least three feet from building surfaces.
3) Proper mulching in landscaped areas to reduce weeds.
4) When possible, adhere to proper fertilization, over-seeding, mowing height, edging, drainage, aeration, and irrigation scheduling in turf areas to reduce weed populations.
5) When the decision is made to apply a pesticide, following the outlined notification, posting, record-keeping and reporting protocols.

Cafeteria Staff Responsibilities
Cafeteria staff are responsible for:
1) Attending annual IPM training provided by the IPM Plan Coordinator (or designee).
2) Assuring floor under serving counters is kept free of food and drink debris.
3) Promptly emptying and removing corrugated cardboard materials.
4) Keeping exterior cafeteria doors closed.

5) Reporting pest-conducive conditions that require maintenance (e.g., leaky faucets, dumpster too near building, build-up of floor grease requiring spray washing, etc.) to proper staff either orally or using pest logs.
3) Participating in any inspections conducted by custodian or IPM Plan Coordinator.
4) Checking sticky trap monitors once per month for cockroaches or drain flies. Immediately reporting these pests and any sightings of rodents or rodent droppings to custodian and marking them in pest log.

College Staff and Faculty Responsibilities

Staff and Faculty are responsible for:
1) Attending annual basic IPM training provided by the IPM Plan Coordinator (or designee).
2) Keeping their classrooms and work areas free of clutter.
3) Making sure students clean up after themselves when food or drink is consumed in the classroom.
4) Reporting pests and pest-conducive conditions to campus services, either orally or via online work order requests.
5) Following first steps of protocol for ant management before notifying the custodian (clean up any food the ants are eating, kill visible ants, wipe down area where ants were with soapy water, notify custodian only if ants continue to be found after following these steps).

President's Responsibilities

The School President is responsible for:
1) Scheduling time for staff and instructors to receive annual training provided by the IPM Plan Coordinator (or designee).
2) Attending annual IPM training for staff and instructors.
3) Assuring that staff and instructors keep their rooms clean and free of clutter in accordance with the IPM Plan Coordinator's instructions.
4) Assuring that all faculty, administrators, staff, adult students and parents receive the annual notice (provided by the IPM Plan Coordinator) of potential pesticide products that could be used on school property
5) Working with the IPM Plan Coordinator to make sure all notifications of pesticide applications reach all faculty, administrators, staff, and students (via the method most likely to reach the intended recipients).
6) Assuring that all staff fulfills their role as outlined in the College's IPM plan.

MONITORING-REPORTING-ACTION PROTOCOL

Monitoring is the most important requirement of ORS 634.700 – 634.750. It provides timely and accurate information used 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 documented. As much as possible, monitoring should be incorporated into the routine activities of school staff. Staff training on monitoring should include what to look for and how to report the information.

Three levels of monitoring

1) Casual observing/looking with no record keeping
2) Casual observing/looking with written observations
3) Careful inspections with written observations

Levels 1 & 2 Monitoring (staff and faculty)

All staff will be trained to improve their "casual observing/looking" to level 2, and to report any pests and pest-conducive conditions they observe. Staff will be expected to report pests or pest-conducive conditions they observe during the normal course of their daily work. Custodial, maintenance, and cafeteria staff are expected to set and/or check sticky monitoring traps as per the College's IPM plan.

Level 3 monitoring (Coordinator and campus services leads/managers)

The IPM Plan Coordinator (or designee) will periodically conduct monitoring at level 3 with the custodial, grounds, and maintenance leads or managers of pest-conducive conditions inside and outside the building (structural deterioration, holes that allow pests to enter, conditions that provide pest harborage). Monitoring should include:

- The level of sanitation inside and out (waste disposal procedures, level of cleanliness inside and out, conditions that supply food and water to pests)
- The amount of pest damage and the number and location of pest signs (rodent droppings, termite shelter tubes, cockroaches caught in sticky traps, etc.)
- Human behaviors that affect the pests (working conditions that make it impossible to close doors or screens, food preparation procedures that provide food for pests, etc.)
- Their own management activities (caulking/sealing, cleaning, setting out traps, treating pests, etc.) and their effects on the pest population.
- The condition of the plants (vigor and appearance)
- The amount of plant damage
- Kind and abundance of pests (weeds, insects, mites, moles, etc.) as well as natural enemies (ladybugs, spiders, lacewing larvae, etc.)
- Weather conditions (record any unusually dry, hot, wet, or cold weather in the past few weeks)
- Proper drainage
- Human behaviors that affect the plants or pests (foot traffic that compacts the soil,
- Physical damage to plants caused by people,
- Management activities (pruning, fertilizing, mulching, aeration, treating pests, etc.) and their effects on the plants and the pest population.

Sticky monitoring traps for insects

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.
All staff will be made aware of the traps and their purpose so they don't disturb them. Custodians will be responsible for setting them out and checking them once per month and replacing them once every four months.

Cafeteria staff will be responsible for weekly monitoring of those traps in the cafeteria to identify (cockroaches and drain flies).
Custodial staff will be responsible for checking traps placed in pre-determined "pest-vulnerable areas" in the break rooms, kitchens, cafeteria, concession stands, classrooms with animals/plants, custodial closets/storage) on a monthly basis, and replacing them every four months. If custodial staff cannot interpret what they find in the monitors they will contact the IPM Plan Coordinator for assistance

Reporting pests, signs of pests, and conducive conditions
When staff or faculty observes pests or pest conducive conditions they should report the observation to campus services using the online FWO form or email.

Reporting "Pests of Concern"
"A pest of concern" is a pest determined to be a public health risk or a significant nuisance pest. These include:

- cockroaches (disease vectors, asthma triggers)
- mice & rats (disease vectors, asthma triggers)
- yellow jackets (sting can cause anaphylactic shock)
- nutria
- raccoons
- cats
- dogs
- opossums
- skunks
- bed bugs

When pests of concern (or their droppings, nests, etc.) are observed, staff should immediately contact campus services to inform the IPM Plan Coordinator.

Acceptable Thresholds (pest population density levels)
A threshold is the number of pests that can be tolerated before taking action. The acceptable threshold for cockroaches, mice, rats, raccoons, cats, dogs, opossums, skunks, and nutria is zero. Acceptable thresholds for other pests will be determined by the IPM Plan Coordinator.

Inspections
Routine Inspections
The IPM Plan Coordinator will conduct routine inspections of campus facilities throughout the year. Custodial, Maintenance, and Grounds managers/leads are required to accompany the Coordinator during the inspections. The inspections will focus on compliance with this plan and an inspection of the cafeteria, break rooms, and any other places of concern. Inspection documents will be retained within the IPM Coordinator's space.
Annual Inspections
The IPM Plan Coordinator will conduct annual inspections at individual campuses, maintenance, grounds, and custodial staff are required to assist the Coordinator with the annual inspection. The annual inspections will be more thorough than the routine

inspections, and will use the Annual IPM Inspection Form (see Appendix 2) to guide the inspections. The specific facilities to be inspected will be determined by the IPM Plan Coordinator based on a review of the annual number of pest problems and pesticide applications reported.

Pest Emergencies
IMPORTANT: If a pest emergency is declared, the area must be evacuated and cordoned off before taking any other steps. When the IPM Plan Coordinator, after consultation with school faculty and administration, determines that the presence of a pest or pests immediately threatens the health or safety of students, staff, faculty members or members of the public using the campus, or the structural integrity of campus facilities, he or she may declare a pest emergency. Examples include (but are not limited to) yellow jackets swarming in areas frequented by students, a nutria in an area frequented by students, or more than half a dozen mice or rats running through occupied areas of a school building.

Structural Action
Any items (such as sealing up holes) that maintenance/construction staff or custodial staff observe (or see on Pest Logs) that they can resolve in less than 15 minutes should be taken care of and this follow up action should be noted in the Pest Log. Custodial staff will review Pest Logs twice per week. Any items he/she cannot resolve in less than 15 minutes should be marked in order of priority. Pest Logs will be provided to the IPM Plan Coordinator once per week. The Coordinator will determine further actions to be taken and when. If the actions needed are not something the Coordinator can accomplish alone or with minimal assistance, the Coordinator will meet with maintenance/construction and/or the Pest Management Professional (PMP) to develop a protocol and priority list with deadlines for sealing holes, installing external door sweeps, and other pest exclusion or pest management needs. The Coordinator will then generate a work order with a proposed deadline for completion based on the severity of the risk or nuisance.
The Coordinator will monitor the completion of the work order. If the work is not completed by the proposed deadline, the Coordinator will write a follow-up e-mail to maintenance/construction and/or the Pest Management Professional (PMP). Upon completion of the work, the Coordinator and the maintenance manager/lead or custodial manager will be notified.

REQUIRED TRAINING/EDUCATION

ORS 634.700 (3) (i) requires staff education “about sanitation, monitoring and inspection and about pest control measures”. All staff should have at least a general review of IPM principles and strategy as outlined in this plan.

A. IPM Plan Coordinator Training
ORS 634.720 (2) requires that the IPM Plan Coordinator “shall complete not less than six hours of training each year. The training shall include at least a general review of IPM principles and the requirements of ORS 634.700 to 634.750.”

Content should include health and economic issues associated with pests in schools, exclusion practices, pest identification and biology for common pests, common challenges with monitoring-reporting-action protocols, proper use of sticky monitoring traps for insects, and hands-on training on proper inspection techniques.
Contact the OSU School IPM Program for information an OSU-approved training courses.

B. Training for Custodial Staff
The IPM Plan Coordinator (or a designee of the Coordinator) will train custodial staff at least annually on sanitation, monitoring, inspection, and reporting, and their responsibilities.

C. Training for Maintenance and Construction Staff
The IPM Plan Coordinator (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.

D. Training for Grounds Staff
The IPM Coordinator (or designee) will train grounds staff at least once per year. Each year before the training, the head of grounds staff will meet with the IPM Plan Coordinator will review the annual report of pesticide applications and plan training for all grounds staff. The annual training will review this IPM Plan (especially grounds department responsibilities. Grounds staff will also be trained in basic monitoring for common pests on grounds.

E. Training for Cafeteria Staff
The IPM Plan Coordinator (or a designee of the Coordinator) will train cafeteria staff at least once per year on the basic principles of IPM and their responsibilities.

F. Training for Staff and Faculty
The IPM Plan Coordinator (or a designee of the Coordinator) will arrange to train staff and faculty at least once per year on the basic principles of IPM and their responsibilities as outlined in this plan.

PESTICIDE APPLICATIONS-NOTIFICATIONS-POSTING AND RECORD KEEPING

Any pesticide application (this includes weed control products, ant baits, and all professional and over-the-counter products) on school property must be made by a licensed commercial or public pesticide applicator. At the beginning of each school year, all faculty, administrators, staff, adult students and parents will be given a list of potential pesticide products that could be used in the event that other pest management measures are ineffective. They will also be informed of the procedures for notification and posting of individual applications, including those for pest emergencies. This information will be provided to all the above via e-mail as well as hard copy.

Notification and Posting for Non-emergencies

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

The IPM Plan Coordinator (or a designee of the Coordinator) will give written notice of a proposed pesticide application (via the method most likely to reach the intended recipients at least 24 hours before the application occurs.

The notice must identify the name, trademark or type of pesticide product, the EPA registration number of the product, the expected area of the application, the expected date of application and the reason for the application.

The IPM Plan Coordinator, or a designee, shall place warning signs around pesticide application areas beginning no later than 24 hours before the application occurs and ending no earlier than 72 hours after the application occurs.

A warning sign must bear the words “Warning: pesticide-treated area”, and give the expected or actual date and time for the application, the expected or reentry time (specified on product label), and provide the telephone number of a contact person (the person who is to make the application and/or the IPM Plan Coordinator).

Notification and Posting for Emergencies

Important Notes:

1) The IPM Plan Coordinator may not declare the existence of a pest emergency until after consultation with administration.

2) If a pesticide is applied at a campus due to a pest emergency, the IPM Plan Coordinator shall review the IPM plan to determine whether modification of the plan might prevent future pest emergencies.

3) If a pest emergency is declared, the area must be evacuated and cordoned off before taking any other steps. If a pest emergency makes it impracticable to give a pesticide application notice no later than 24 hours before the pesticide application occurs, the IPM Plan Coordinator shall send the notice no later than 24 hours after the application occurs.

The IPM Plan 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.

Record Keeping of Pesticide Applications

The IPM Plan Coordinator or designee shall keep a copy of the following pesticide product information on file in the office of the IPM Plan Coordinator:

- A copy of the label
- A copy of the MSDS
- The brand name and EPA registration number of the product
- Approximate amount and concentration of product applied
- Location of the application
- Pest condition that prompted the application

- Type of application and whether the application proved effective
- Pesticide applicator's license numbers and pesticide trainee or certificate numbers of the person applying the pesticide
- Name(s) of the person(s) applying the pesticide
- Dates on which notices of the application were given
- Dates and times for the placement and removal of warning signs
- Copies of all required notices given, including the dates the IPM Plan Coordinator gave the notices

The above records must be kept on file in the office of the IPM Plan Coordinator, for at least four years following the application date.

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 IPM plan shall include a list of low-impact pesticides for use with their integrated pest management plan. The approved list of pesticides may include any product on the list except products that:
(a) Contain a pesticide product or active ingredient that has the signal words "warning" or "danger" on the label;
(b) 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
(c) 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 npic@ace.orst.edu for assistance in determining a pesticide a.i. cancer classification.

LIST OF APPENDICES