

# Integrated Pest Management in Child Care Centers: Protecting our Children from Pests and Pesticides



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R2 Pesticide Program**

# Integrated Pest Management in Child Care Centers: Part 1 - IPM: Protecting our Children



# What are Pesticides



- Pesticides are substances designed to kill, control or repel pests.
- If used irresponsibly they may result in serious injury or even death.

# Pesticides and Children



- Keeping child care centers free of pests.
- Most child care facilities hire pest control operators to routinely use only pesticides for controlling pests, regardless of the actual need.
- Concerns about:
  - the frequency of application,
  - what is being applied, and
  - possible effects on children.

# Exposure in Centers



- Children and child care providers may be exposed to pesticides, especially those applied by spraying.
- Sprayed chemicals may become airborne and settle on all surfaces.
- Children may touch these surfaces and unknowingly expose themselves to pesticide residues.

# Exposure



- Infants and small children are among the most likely groups to suffer long-term health harm from exposure to chemical pesticides. There are two main reasons for this:
  - higher exposure risk and
  - greater vulnerability.

# Why Are Young Children Especially Vulnerable?

- ▶ Exposure Routes:
- ▶ Dermal, Inhalation, Ingestion
  - ▶ Children crawl on the floor.
  - ▶ They pick up toys and other objects off of the floor.
  - ▶ They put objects and fingers into their mouths.
  - ▶ They often squeeze into small places.
  - ▶ They examine and touch all cracks, crevices and holes.



# Life and Exposure are Different on the Floor



- Infants and young children live closer to the floor, where pesticide residues may tend to concentrate and linger.
- Concentrations of some toxic substances, are four to six times higher <sup>3</sup> near the floor.



# Early Exposure to Pesticides



Early exposure to pesticides can disrupt and permanently change the structure and function of organs and body systems.

How much exposure is too much for children?

# Pesticides and Asthma



According to the US EPA Office of Research and Development's Asthma Research Strategy, "pesticides are listed as one of four environmental pollutants that may influence the induction and exacerbation of asthma."

# Pesticides and Health Concerns



- If applied irresponsibly, some pesticides have been linked to long term health problems, including:
  - Cancer,
  - Leukemia,
  - Birth defects,
  - Endocrine disruption,
  - Asthma,
  - Neurological disorders,
  - Immune system deficiencies.

# Precautionary Principle



- Take precautions to prevent the possible harmful effects of exposure to children.
- The EPA recommends that child care centers use integrated pest management (IPM) to reduce pesticide risk and exposure to children.
- IPM is a safer, and usually less costly option for effective pest management in a child care community.

# What is IPM?

## Integrated Pest Management



All creatures require food, water and shelter to survive.

Pests find buildings where these needs are met and take up residence.

Block pests out and remove their sources of food, water and shelter and you will need fewer pesticides to control pests.

# What is Integrated Pest Management (IPM)?

## EPA Definition:

- Integrated Pest Management (IPM) is an effective and environmentally sensitive approach to pest management that relies on a combination of common-sense practices, with pesticide application as a last resort pest control method.
- IPM programs use current, comprehensive information on the life cycles of pests and their interaction with the environment.
- This information, in combination with available pest control methods, is used to manage pest damage by the most economical means, and with the least possible hazard to people, property, and the environment.

# The Steps to Follow in IPM

Develop and implement a Pest Management Plan,

- 1) Conduct an inspection to identify pest issues,
- 2) Monitor for signs of pest activity,
- 3) Use non-chemical approaches like sanitation and maintenance to:
  - A.) keep pests out,
  - B.) remove food and water sources,
  - C.) take away their homes/ harborages.
- 4) Apply low-toxicity pesticides such as baits, traps or gels.



Keep a log book of sightings and activities.



# IPM in Child Care Centers

- Integrated pest management provides an opportunity to create a safer learning environment - - to reduce children's exposure to pesticides as well as eliminate pests.
- EPA encourages child care administrators to adopt IPM practices to reduce children's exposure to pesticides.





# Benefits of Child Care Center IPM

- More effective: Address the root cause of pest problems by removing what attracts pests and deny access.
- Healthier learning environment for our children.
- Better long-term control of pests.
- Reduced liability of facility.
- Lower cost to facility administrator / lowers the budget.
- Promotes cooperation between staff.

# IPM Programs

- Not all insects, weeds, and other living organisms require control.
- Many organisms are innocuous, and some are even beneficial.
- The Goals of IPM:
  - Identify the pest accurately , monitor pest populations, and establish action thresholds to make appropriate control decisions.



# Why Use IPM?



- **Save money:** IPM may cost more up front but over time, you will need less pesticide and maybe fewer visits from your pest control company.
- **More effective:** Address the root cause of pest problems. By removing what attracts pests and deny access.
- **Safer:** IPM protects you, your staff and the children from unnecessary pesticide exposure.
- **It is easy:** Just change a few habits.

# Integrated Pest Management in Child Care Centers: Part 2 – Actions to Eliminate Pests





# Think like a Pest

- Pests - “Occasional Invaders”.
  - The more you know, the easier it will be to exclude them.
- The life cycles of pests:
  - Does a female lay eggs just once or numerous times?
- How do pests interact with the environment?
  - What foods do they eat?
  - Where do they like to hide?
  - Where are their water sources?
- How pests find their way into child care centers?
  - Do they burrow or travel through cracks and holes?

# Do we have a pest problem?

- Many facilities do not have a pest problem, only occasional invaders.
- Evaluate. What pests have you seen in the past year in your facility?
- Where?
- How many?



# Pesticide Use in Child Care



- Many child care administrators and staff have turned to pesticides first.
- Not all pesticides are created equal.
- Some pesticides are much less-toxic than others.
- Pesticides should **never** be applied as routine or "preventive treatments" in or around child care facilities.



# Pests that commonly sneak into child care:



- Cockroaches
- Ants
- Rats and Mice
- Head lice
- Bed bugs
- Termites
- Spiders
- Mold
- Flies and Bees
- Fleas





# To determine the extent of a pest problem: Monitor



- Observe trends and changes in pest activity.
- Monitors and Traps: Assessment tools to determine the degree of infestation.

# Integrated Pest Management

## (IPM)



- IPM is an effective way to reduce potential children's exposure to both chemical pesticides and allergen triggers.
- IPM includes less-toxic steps to control pests such as:
  - sticky traps to monitor pests
  - glue boards
  - baits in child resistant bait station.

# Traps & Baits



- Key ant, roach, and rodent management tool.
- Baits contain slow acting poisons mixed with a substance that attracts pests looking for food.
- Pests often carry the bait back to the nest.
- Use baits in bait stations.
- Place only where children do not have access to them.



# Inspect for Evidence



Examples:

- Droppings
- Urine
- Chewed boxes
- Chewed wires
- Chewed wood





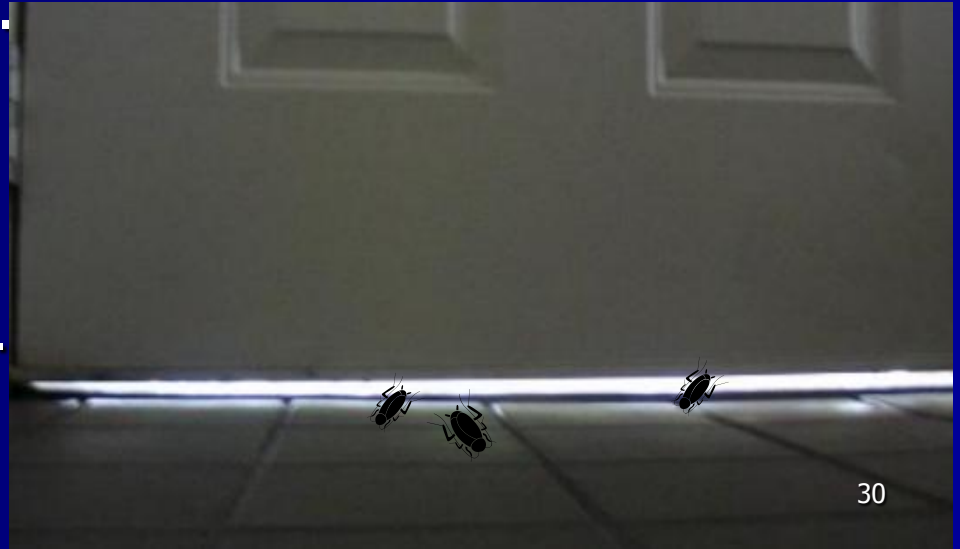
## A. Keep Pests Out

If pests can't get inside, then they won't be a problem.

# Keep Pests Out Install Door Sweeps



- Avoid propping doors open.
- Ensure that weather stripping and door sweeps are present and in good condition on exterior doors.
- Check all door moldings.



# Keep Pests Out: Exclusion

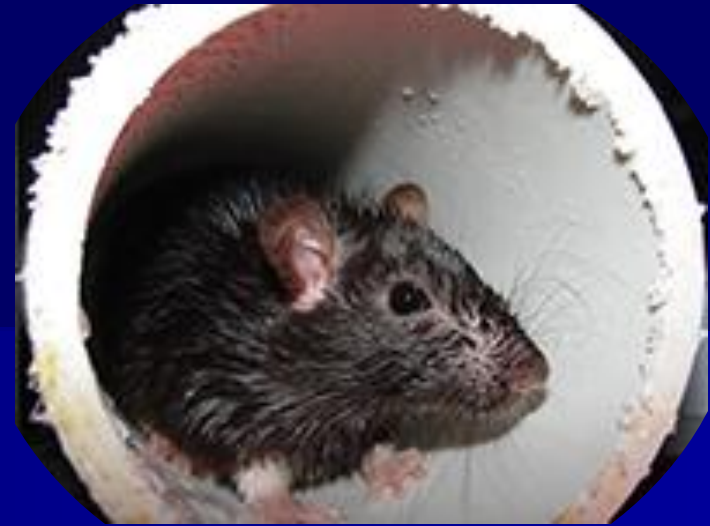


Windows, screens and vents should be maintained in good condition.

- Building eaves, walls, gutters and roofs are sound.
- No evidence of water leaks or holes.
- If pests cannot get into the facility than you won't need to use pesticides to kill them.



# Keep Pests Out



- Mice can fit through a hole smaller than a dime.
- Prevent pests from getting into buildings by properly blocking the entry points.



**Be they large or small,  
pests can crawl through any hole.**





# Pipe holes properly sealed

Where can I go?  
There are no places  
to hide!



# HOW TO KEEP ANTS OUT



- Follow the ant trail
- Caulk cracks around foundations including wires and pipe entrances
- Keep plants and mulch away from foundations
- Remove garbage from buildings each day
- Change trash can liners when dirty

# Eliminate entry and harborage



- Adult cockroaches can fit into cracks only 1.6 mm wide (about 1/16 of an inch).
- Any small gap or hole that leads to a void is a prime cockroach living area.
- Replace any cracked floor, wall tile or moldings.
- Cracks and crevices should be sealed with caulk.

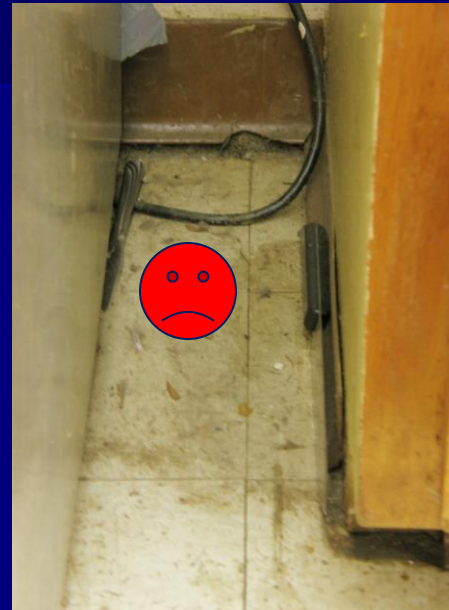
# Pest Prevention: Exclusion



- Inspect deliveries (pests hitch-hike).
- Unpack delivered items from cardboard boxes
- Remove cardboard as soon as possible.
- Scan all grocery items for cockroach and other pest evidence before putting them away.



# B. Starve them out: Remove pests' food and water



- Good sanitation is good pest management!
- Clean thoroughly and regularly.
- All foods products should be stored in plastic snap-lid containers or kept in the refrigerator after opening.

# Eliminate Water Sources



- Tighten loose pipes, patch plumbing leaks and replace used washers around water pipes.
- Periodically clean evaporation trays under refrigerators to eliminate water sources for uninvited guests.
- Dry sink at the end of the day.
- Cover or close drain.
- Insulate pipes to avoid condensation.

# Pest Prevention: Sanitation



- Empty sink strainer frequently.
- Wash dishes immediately after use.
- Do not leave dirty dishes overnight.







# Custodial Storage

# Remove Pest Food: Waste Management



Employ good trash management practices:

- Indoor trash containers should be emptied frequently.
- All trash cans should have lids.
- Do not leave trash cans full overnight.
- Keep trash cans clean both inside and out.
- Tie Plastic bags linings tightly.



# C. Take away their homes: Harborage/Shelter



- Caulk or seal cracks or holes in:
- interior walls,
- around pipes;
- behind sinks and
- along baseboards.



# Take away their homes



- Clutter hides evidence of pest infestation. Removing clutter eliminates pest harborage and breeding areas.
- Organize storage rooms and clean periodically.
- Clutter, cardboard and holes in walls provide places for pests to hide, sleep and reproduce.



# Take away their homes

- Recycle corrugated cardboard.
- Avoid using cardboard for storage.
- It is a favorite living-space for cockroaches.



# In CCCs, pest vulnerable areas include:

- Kitchen / food prep areas
- Eating areas
- Janitor Closets
- Nap time areas
- Blanket / matt storage areas
- Nursery / crib areas
- Closet/storage areas
- Classrooms / Play areas
- Coat / hat storage areas
- Bathrooms



# Kitchen / Food Prep Areas



- ❖ Ensure all cracks, leaks and moldings are sealed or caulked.
- ❖ All surfaces in food preparation and serving areas should be cleaned regularly and thoroughly.

# Kitchens and Food Prep Areas

- Clean hard-to-reach areas.
- Clean floor drains and ventilation screens.
- Seal gaps around pipes and fixtures.





# Remove pest food



- Kitchen appliances should be kept clean and free of food particles and grease.

# Kitchen Storage Areas



- ❖ Eliminate access to food or water by keeping food and beverages in designated areas, and in tightly sealed containers.
- ❖ Bulk stored products should not be allowed direct contact with walls or floors, allowing access for inspection and reducing pest harborages.<sup>50</sup>
- ❖ Store paper goods separately and away from food.



## Kitchen storage

Keep all storage at least 6" above floor.  
Mop down floor regularly.



# Kitchen Storeroom



- Use wire shelves
- Shelves should be 6-12" above the floor
- Avoid shelving with "kickplates"
- Avoid shelving with hollow spaces
- Eliminate most cardboard
- Never place cardboard boxes on bottom shelves or floor.
- Discard damaged goods.

Even in tight spaces, IPM can be practiced effectively.



MED SLICED LOW SODIUM CARROT

CANNED PEARS  
SLICED IN EXTRA LIGHT SYRUP  
6 NO. 10 CANS  
STORE IN COOL, DRY PLACE



VILLA D'ESTE  
MILD SALSA

106 oz Gio Low  
Packed on 09/11  
25811 L1

# Eating Areas



## Starve pests:

- Keep all eating confined to designated areas.
- Food serving tables and floor must be thoroughly cleaned after each use.
- Pest monitors should be installed in any classrooms where food is served on a regular basis.

# Food in Classrooms



- Food in classrooms must be carefully stored in pest-proof plastic containers or sealable plastic storage bags.
- Don't overlook food manipulatives such as beans or pasta.
- Store food manipulatives in pest-proof containers.

# Classroom sinks



- Keep sink areas clean and dry.
- Wall pipes should be tightly sealed with escutcheon plates ("pipe collars") and leak free.
- Cabinets under classroom sinks should be clutter free.

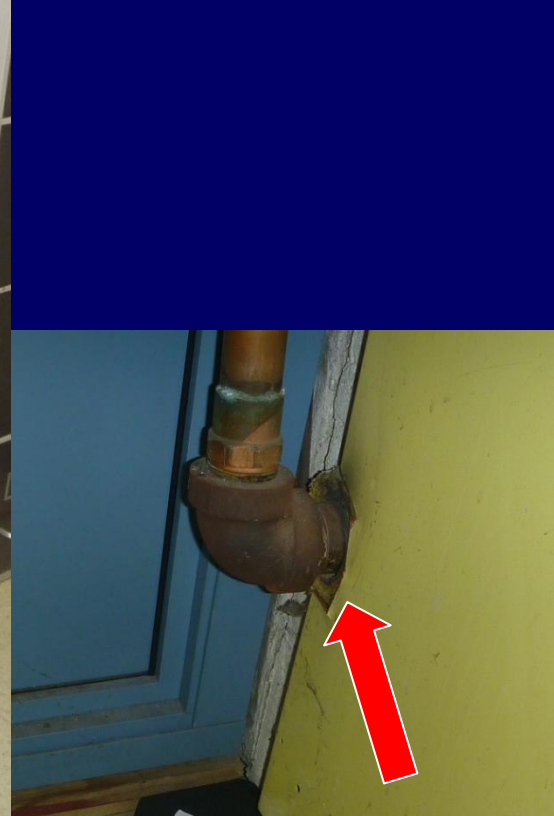






# Classroom Areas

Sort paper and classroom materials in plastic see-through boxes, and store at least eight inches off of the floor to allow proper access for cleaning.



**Why does this classroom have mice and roaches?**



# Clutter and pests



- Clutter control is essential in classrooms to reduce potential habitats for pests.
- Clutter enables pests to hide and reproduce undisturbed.
- Store materials in plastic storage boxes with lids.
- Store items several inches away from walls to enable easy inspection for pests.

# Eliminate Clutter / Harborage

- The pest's ability to hide is one of the main reasons why they are a formidable opponent.
- Clutter removal is an essential part of pest elimination.





# Pets in classrooms



- Keep all pet food stored in plastic containers with tight-sealing lids.
- Clean up any spilled foods promptly.
- Pet cages and aquariums must be kept clean.
- Check aquariums for water leaks.



# Nursery & Crib Areas



- Clean all surfaces
- Empty trash
- Vacuum daily
- Confine eating

# Nap Time Areas



- Vacuum floors daily.
- Mattresses / cots should be cleaned weekly.
- Personal items sent home or laundered in-house regularly (weekly).

# Bed Bugs in Child Care Centers?

- Bed Bugs can hide in tiny cracks or crevices, or they may hitch a ride on backpacks, coats, shoes, clothing, or other objects in the backpack.
- Following a regular stringent cleaning and monitoring regiment, will keep bed bugs from becoming established in your facility.





# Nap Blanket / Cot Storage Areas



- Walls and storage bins cleaned and inspected weekly.
- Safely store all blankets, bedding, clothing and stuffed toys in individual plastic boxes with lids.



# Coat / Hat Storage Areas

- Cubbies and child storage emptied and cleaned at least once per season.
- Sufficient space between coat hooks provided so that each child's hat and coat do not touch those of another child to prevent spreading of head lice or bed bugs.
- No food should be stored in cubbies.

# Restrooms

- Clean rooms daily
- Removed trash daily
- Keep plumbing in good repair
- Keep sink areas clean and dry
- Fill all holes around pipes





# Custodial Mop Room



To reduce pest harborage in custodial closets:

- Keep mop sinks and buckets empty and dry when not in use.
- Hang all mops, allow to dry.
- Repair plumbing leaks.
- Keep floor drains clean.
- Seal gaps around pipes.

# Custodian's Closets and Storage



- Utilize appropriate shelving and storage practices
- Keep clean and clutter-free
- Remove all cardboard
- Do not store boxes or cardboard on the floor

# Integrated Pest Management

- Manage waste areas, playgrounds, lawns and other areas to prevent pests from becoming a threat.
- These control methods can be very effective and cost-efficient and present little or no risk to people or the environment.



## Outdoors

Use sanitation, maintenance, traps, and other cultural methods to prevent pests.

# Outdoor Pest Issues



- Garbage disposal areas
- Outdoor areas where water may collect
- Neighboring properties
- Outdoor pest harborages
- Tires
- Structural areas where pests can enter facility
- Wood play structures



# Pests found outside at child care centers

- Mosquitoes
- Bees, Wasps
- Yellow Jackets
- Rats, Mice
- Snakes
- Canada Geese
- Weeds
- Ants / Fire ants
- Ticks





# Outdoor Areas



- Garbage containers, should be placed away from building entrances.
- Dumpsters should have close-fitting lids and be kept closed.





# Keep Dumpster Areas Clean

Empty indoor  
garbage promptly  
into dumpsters.  
Keep area around  
dumpsters clean  
and free of  
debris.

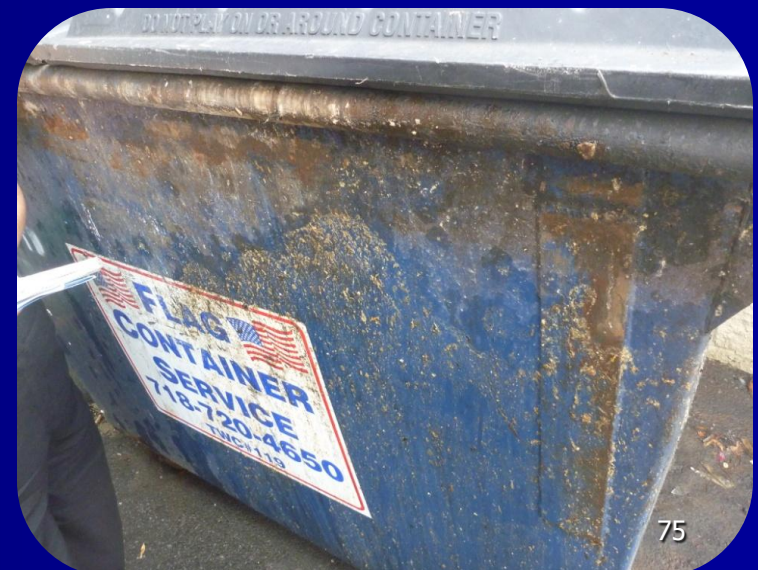


# Garbage Disposal Areas – Indoors and Out



**Manage trash and waste properly by:**

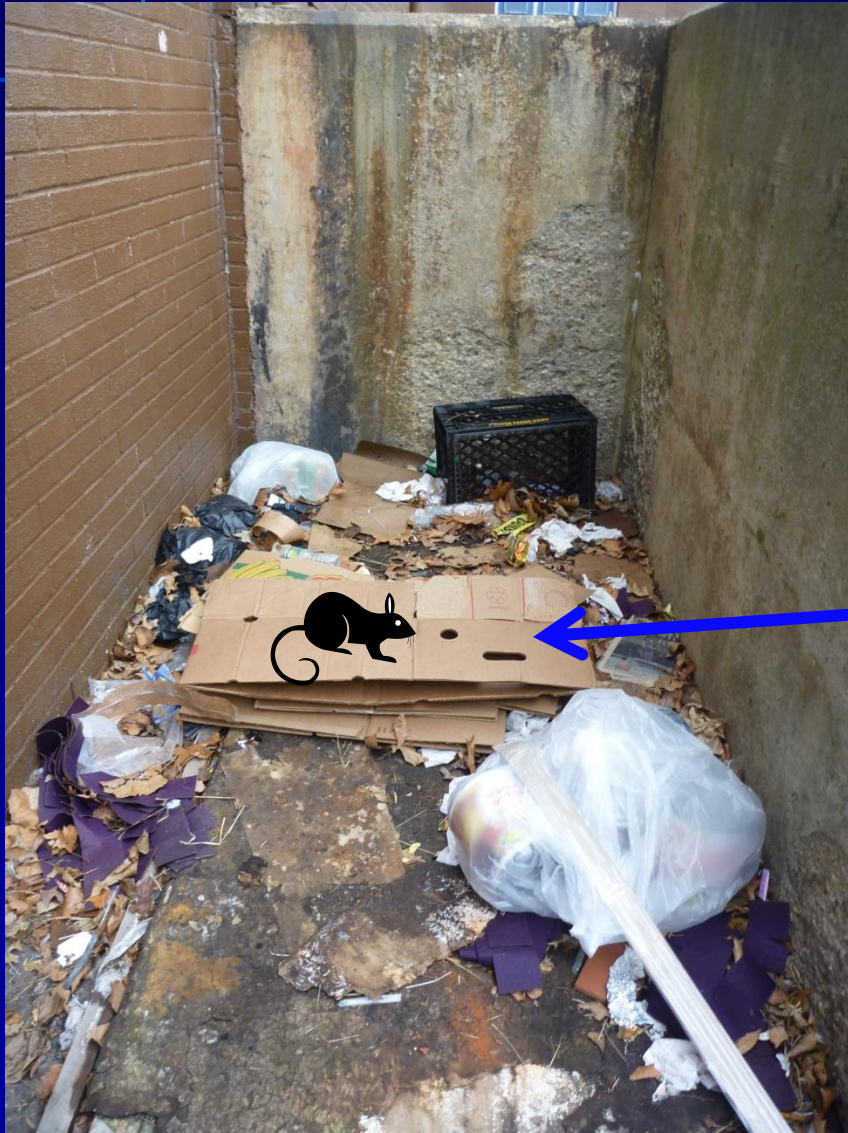
- not overloading trash bags,
- tying bags tightly,
- emptying trash receptacles daily,
- keeping both garbage cans and dumpsters lids on securely,
- clean of food.



# Pest Prevention: Keep your recycling area clean.



# Recycling Areas



Rats enter the facility here.



Rats: Hang out here. Why?

# Rodent Management



- Trapping is an important component of rodent control.
- Rats are trap-shy and will avoid traps.
- Put the traps out with bait, but do not set them for several days until the rats are used to them.
- Only use baits within a child resistant bait station.
- Never use loose baits – **it is illegal.**

# Wasps and Garbage



Garbage containers should:

- have tight fitting lids at all times.
- be emptied frequently enough to prevent the contents from keeping the lid from closing.
- be cleaned of food wastes regularly.

**Place** garbage into container – do not throw it in.

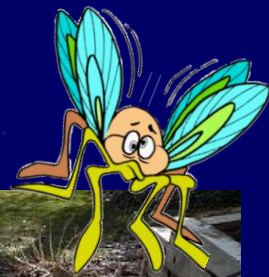
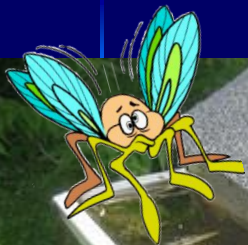
# PLAYGROUNDS: BEES AND YELLOW JACKETS



- Avoid swatting.
- When a wasp is squashed, a chemical (pheromone) is released which attracts other nearby wasps.
- Avoid bright colors or floral patterns.
- Minimize sweet smelling hair rinse, lotions or soaps.



# Eliminate Standing Water



- All mosquito species require water to breed.
- No standing water means no mosquitoes.
- Eliminate the places where the mosquito lays her eggs.
- Keep yards and patios free standing water.

# Standing Water



- Major mosquito breeding habitats.
- An item as small as a bottle cap can serve as a mosquito breeding area.
- Gutter cleaning, storm sewers, catch basin cleaning, are all an important parts of IMM.
- Discuss pesticide options with your local DPW.

# Garbage Cans and Dumpsters



- These are the most common and overlooked mosquito breeding habitats.
- Drill a series of 1/4" holes (about 6) in the bottom of the can for water drainage.
- Holes also facilitate regular washing of the sticky buildup that accumulates on the bottom and sides of these containers.



# Playground Equipment and Toys



- Monitor for puddles and other standing water issues.
- Some play equipment may need to have drainage holes added.
- Play structures and toy interiors can double as prime mosquito breeding habitat if water is left to sit for more than 4 days.



# Tires: A Health Hazard



- Tires collect and store rainwater, thus are another breeding habitat for mosquitoes.
- A single tire can harbor tens of thousands of potentially disease carrying mosquitoes.
- Drill ¼" holes in tires for drainage.

# Outdoor areas where water may collect



- Are there any signs of standing water on neighboring properties?
- Eliminate or report any standing water that may collect.



# Outdoor Areas



- Landscape plantings offer pests access to buildings.
- Keep vegetation, shrubs, and bark mulch at least 18 inches from building.
- Keep shrubs trimmed and not touching the structure.
- Keep tree limbs at least 6 ft away from building and not overhang playgrounds.
- Be aware of hazardous tree conditions<sup>87</sup>.

# Other Playground Pests



- Thoroughly inspect grounds on a routine basis for evidence of pests such as yellow jackets, fire ants, snakes, ticks and rodents.
- Pests may overwinter in playgrounds, especially in sand, or wood-chipped areas.
- Limit pesticide use on playgrounds.



# Wooden Playground Equipment



- Take precautions around older wooden playground structures as they may be a source of pesticide exposure.
- Many decks and older wood playgrounds have been treated with chemicals, such as chromated copper arsenate (CCA), which repels water and insects **but** these chemicals may leach out over time, becoming contaminants on the surface of the play structure and in surrounding soil.

# Integrated Pest Management in Child Care Centers: Part 3 – Developing an IPM Program

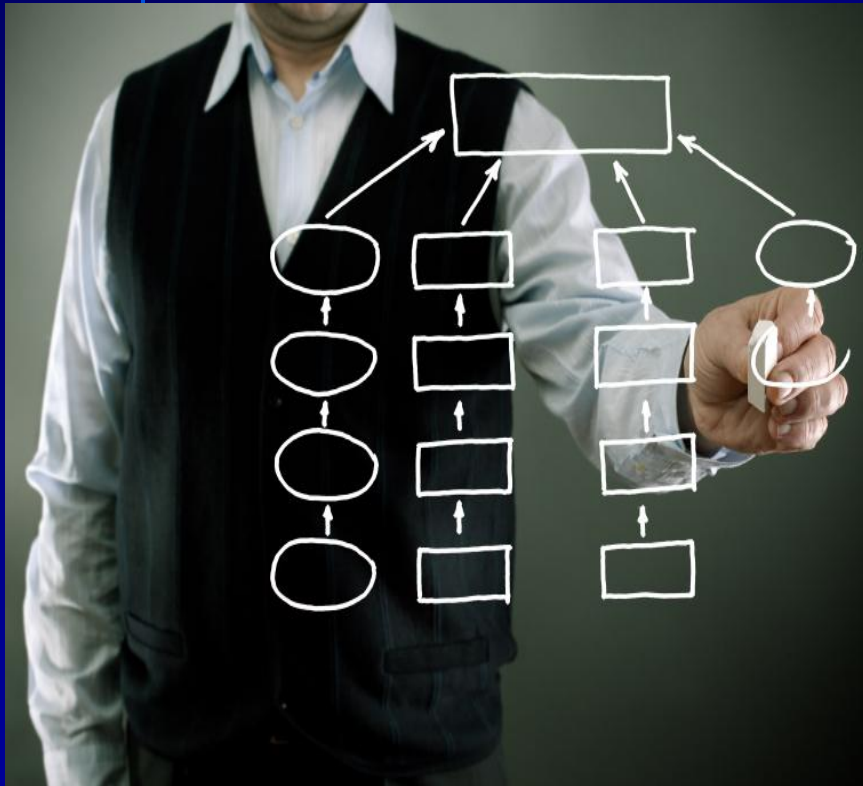


- Applying IPM principles prevents unacceptable levels of pest damage or annoyance, by the most economical means, and with the least possible hazard to people, property and the environment.



# IPM Implementation

# Essential Ingredients for a Child Care IPM Program:



- IPM Plan
- IPM Coordinator
- Staff involvement
- Assessment of Pest Issues
- Inspection and Monitoring
- Pest Identification
- Managed Treatment
  - Determine and use a pest threshold.
  - Use multiple control tactics.
- Education

# Evaluate Pest Management Options



- Consider all pest management options, including:
- No action at all.
- Non-pesticidal pest management methods.
- Consider using low impact pesticides first.
- Use pesticides as a last resort.

# The Facility IPM Coordinator:



- Is responsible for overseeing day to day pest problems.
- Is responsible for maintaining the facility so that pests cannot move in.
- Relies on facility employees to report repairs or pest problems.
- Maintains all pesticide application records.
- Ensures notice of pesticide treatments to parents and staff.
- Is the main pest management co. contact.

# Staff Involvement: See Something, Say Something.



- Remember Child Care IPM is everyone's job.
- Everyone has a role to play with pest control issues:
  - Report broken doors, leaky pipes and faucets, cracks in walls or windows.
  - Pick up clutter in your room.
  - Don't leave food, crumbs, candy and other items around.
  - Store food items in locking plastic containers.
  - Report /clean up food and drink spillages when they occur.

# Sightings



- Conduct daily inspections
- Check monitors
- Make sure staff knows to inform the IPM coordinator of any and all sightings of:
  - Corpses, shed skins, droppings, actual live insects, or animals, damage, debris, or urine stains.



# Reporting Pests

Service Complaint Log

PEST SIGHTED	AREA PEST WAS SIGHTED	PERSON REPORTING PEST	CORRECTIVE ACTION BY BOWCO	BOWCO TECHNICIAN	DATE COMPLETED
Brown Bugs in Caterio Staps	slot sink in cafe stop sink	J. Porter Sr. cust	Treated w/ Gel	B. McMickle	01/25/12
Bedbug	Rm. 323 on student	J. Porter	Inspection	B. McMickle	01/25/12
Bugs looks like brown house roaches	4 <sup>th</sup> floor 3 <sup>rd</sup> floor stop sinks	J. Porter	INSPECTION	B. McMickle	02/03/12
Bedbug	419 412	J. Porter	Inspection Booths + B9 323	B. G. fel	2-7-12
Said bedbug was in student bag	323	Teacher Rm 323			
		J. Porter			

- Contact the IPM Coordinator.
- Create a sequential system to report pest complaints and building problems.

Pest sighting logs should be placed with food service and IPM coordinator. Make accessible to inspectors, staff, and others.

Date: 01/25/2012 Time In: 09:25 Time Out: 09:56

Description of Services Performed: *Beet Bug inspection of Rm # 323 - None found - Had specimens. Also treated custodian closet in Cafeteria for Roaches.*

School Integrated Pest Management Plan For the

# Record Keeping

Was a low-impact pesticide applied? YES NO

If yes, for what reason: *Roaches*

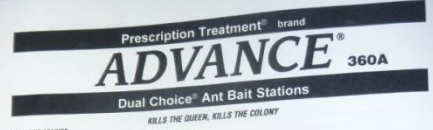
Was a non low-impact pesticide applied? YES NO

If yes, for what reason:

### PESTICIDE APPLICATION LOG

Product Name	MIX APPLIED (conc./diluent)	(total diluent applied)	APPLIED (use)
	6%	0.6%	6-7

- Maintain Facility plan
- Pesticide application log
- MSD (Mfg. Safety Data ) sheets
- Pesticide Company Code Sheet
- All Application Receipts



**FOR USE IN AND AROUND:** Apartments, Campgrounds, Food Storage Areas, Homes, Hospitals, Hotels, Meat Packing and Food Processing Plants, Mobile, Nursing Homes, Resorts, Restaurants and other food handling establishments, Schools, supermarkets, Transportation (Airport Buses, Buses, Ships, Trains, Trucks, Planes), Utilities, Warehouses and other commercial and industrial buildings.

**ACTIVE INGREDIENT:** Cyfluthrin 0.011%  
**OTHER INGREDIENTS:** 98.89%  
**TOTAL:** 100.00%

EPA Reg. No. 499-406  
**DO NOT ALLOW CHILDREN OR PETS TO PLAY WITH THE BAITS**  
**CAUTION**

**FIRST AID:**  
**IF ON SKIN OR CLOTHING:** Take off contaminated clothing. Wash skin thoroughly with soap and water for 15-20 minutes. Call a poison control center or doctor for treatment advice.  
**IF IN EYES:** Flush eyes with clean water. Remove contact lenses, if present, after the first 5-10 minutes. Then continue rinsing eyes. Call a poison control center or doctor for treatment advice.  
**IF SWALLOWED:** Do not induce vomiting unless instructed by a healthcare professional. Call a poison control center or doctor for treatment advice.

**HAZARDS TO HUMANS AND DOMESTIC ANIMALS:**  
**CAUTION:** Harmful if absorbed through skin. Causes moderate eye irritation. Avoid contact with eyes, skin or clothing. Wash thoroughly with soap and water after handling.

**DIRECTIONS FOR USE:**  
**IT IS A VIOLATION OF FEDERAL LAW TO USE THIS PRODUCT IN A MANNER INCONSISTENT WITH ITS LABELING.**  
 Advance® 360A Dual Choice Ant Bait Stations contain a slow acting insecticide. For best results placement of the bait should be into or near insect harborage.



NOTE: This specimen label is for informational purposes only. All uses may not be approved in all states. See labeling which accompanied product for Directions for Use or call 1-800-421-2222 for more information.

*A.*  
 License #: *502546*

ent Professional for the school or school district, back of this form.

Ticket No.	Name, Active Ingredient, and Concentration(s)	EPA Reg. No.	Signal Word	Precautions	Precaution Statements:
122	565 Plus XLO (0.5% Pyrethrins plus Synergists)	499-292	Caution	A,C,D,E,F,M	A. Harmful if Inhaled
124	Advance Dual Choice 360A (0.011% Abamectin B1)	499-496	Caution	C,D,E,F,M	B. Harmful if Absorbed Through Skin
20	Advance Granular Ant Bait (0.011 Abamectin B1)	499-370	Caution	A,G,D,E,F,M,N	C. Harmful or Fatal if Swallowed
20	Boric acid - Boric 88% [ 1 Orthoboric Acid	9444-728	Caution	A,B,D,I,M	D. Avoid Eye Contact
300A,C,D	Mop Up 98% I (DOT)	9444-132	Caution	A,D,I,M	E. Avoid Skin Contact
128	Contract Blox, Meal, and Rodenticide (0.005% Bromadiolone)	12455-79, 88, 89	Caution	A,I,M	F. Avoid Breathing Vapors or Mist
37	Cy-Kick Crack and Crevice Flusher (0.15% Cyfluthrin)	499-470	Caution	C,D,E,F,M	G. Harmful or Fatal if Swallowed
38	Deltagard Granules (0.1% Deltamethrin)	432-772	Caution	C,D,E,F,M	H. Harmful or Fatal if Inhaled
42	Ditrac Tractor Powder (0.2% Diphacinone)	432-836	Caution	A,D,I,M	I. Harmful or Fatal if Absorbed Through Skin
55A,B	Final Blox, Rodenticide (0.005% Brodifacoum)	12455-89, 90	Caution	A,G,D,E,F,M,N	J. Harmful or Fatal if Swallowed
58	Genitor IGR Concentrate (9% Hydrogrenne)	2724-271	Caution	A,I,M	K. Don't Tamper With Bait Placement
101	Golden Mahlin (1.1% Malathion)	12455-81	Caution	C,D,E,F,M	L. Avoid Clothing Contact
84	Liqua Tox II (0.05% Diphacinone)	432-1252	Caution	A,E,L,M	M. Wash Hands Thoroughly with Soap and Water after Handling
65C	Maxforce Ant Killer Bait Stations (1% Hydramethylnon)	432-1264	Caution	C,D,E,F,M	N. Avoid Breathing Dust
65A	Maxforce Carpenter Ant Bait Gel, Ant Killer Bait Gel (0.001% Fipronil)	432-1259	Caution	A,D,E,F,M	
65B	Maxforce FC Ant Bait Stations (0.01% Fipronil)	432-1259	Caution	A,D,E,F,M	
67A	Maxforce Fine Granular Insect Bait (1% Hydramethylnon)	432-1259	Caution	A,D,E,F,M	
68A	Maxforce Roach Killer Bait Gel (2.15% Hydramethylnon)	432-1254	Caution	C,D,E,F,M	
68B	Maxforce FC Select Roach Killer Bait Gel (0.01% Fipronil)	432-1259	Caution	A,I,M	
69C	Maxforce Roach Killer Small Bait Stations (2% Hydramethylnon)	432-1251	Caution	A,C,D,E,F,M	
70	Niban - Granules I Fine Granules I (0.5% Orthoboric Acid)	64405-2	Caution	A,C,D,E,F,M	
83	Phantom Termiticide Insecticide (0.125% [ 1, 0.25% [ 1 Chlorfenvinpyr)	241-392	Caution	A,B,C,D,E,F,M	
104	Pharoid Ant Growth Regulator (1.5 ml/ounce of bait) (Methoprene)	2724-420	Caution	D,E,L,M	
112	Proso IGR Concentrate (0.008% Methoprene)	2724-362	Caution	C,D,E,F,M	
117	Sanitrol Recruit IV, Recruit IV AG (0.5% Novafurumuron)	82719-456, 454	Caution	I,M	
76	Suspend SC 0.01% [ 1, 0.03% [ 1, 0.06% [ 1 (Deltamethrin)	432-763	Caution	B,F,M	
103	Talstar EZ (0.02% Bifenthrin)	278-3189	Caution	C,D,E,F,M	
102	Talstar One (Bifenthrin) .06% [ 1, 0.12% [ 1	278-3209	Caution	A,B,C,D,E,F,M	
117	Tempo 1% Dust (1% Cyfluthrin)	432-1273	Caution	A,B,C,D,E,F,M,N	
15	Termidor SC, (Fipronil) 0.06% [ 1, 0.125% [ 1	7969-210	Caution	A,B,C,D,E,F,M	
15	Termidor 80 WG (Fipronil)	7969-209	Warning	D,E,F,G,H,J,L,M	
8	Timbor - Disodium Octaborate Tetrahydrate 10% [ 1, 15% [ 1	94405-8	Caution	A,B,C,D,E,F,M	
27	Ultracide (0.05% Pyrethrin, 0.04% Permethrin, 0.1% Pyriproxyfen)	490-404	Caution	A,B,C,D,E,F,M	
23	Wasp Freeze (0.126% d-trans Allethrin/0.120% Phenothrin)	499-632	Caution	A,B,C,D,E,F,M	

Caution: Keep all products out of reach of children. Do not permit humans or animals to contact treated areas until dry. Keep away from humans, domestic animals and pets.

# Record Keeping

Keep all pesticide application records for 2 years or longer, if state regulations require.

Proposed Date	Time	Target Pest	Technician		
12/07/11			BRIAN MC MICKLE		
Purchase Order	Terms	Last Service	Map Code		
	C.O.D	12/05/11			
SEE HEAD CUSTODIAN JAMES PORTER 973-332-7995 OR 973-202-7564					
<i>Had Bed Bug in closet of Rm # 418.</i>					
Service	Description	Price			
35 01BBI	MICE CONTROL BED BUG INSPECTION				
MICE IN THE CAFETERIA BY FREEZER - HEALTH DEPT. INSPECTION					
DB-- ALSO INSPECT FOR BED BUG ON WAS TAKEN OFF A STUDENT HEAD IN CLASSROOM 418 THE BUG IS IN THE REFRIGERATOR IN					
Technician	Date: 12/07/11				
Brian McMickle					
Chemical Code#	Amt. Used	%	Method	Where Applied	I hereby acknowledge the satisfactory completion of all services rendered, cost of services as specified above. Charges outstanding over 30 days from date of service are subject to a 11/2% finance charge per month or annual percentage rate. Customer acknowledges that they have received a copy of the consumer information.
1 36	1 pes	0.005x	RTU	Rm # 418	
2					
3					
4					

Time	Target Pest	Technician	Time In	
Order	Terms	Last Service	Map Code	Time Out
<i>Bed Bugs</i>				
<i>Rm 208 +</i>				
<i>Am 309</i>				
<i>No evidence found in classrooms</i>				
<i>88</i>				
Date: 1/18/12				

# Post Pesticide Policy and Application Records

Carol Anderson  
 State Director  
 Steven M. ...  
 ABC, 123 Child Care Center  
 Annual Integrated Pest Management Notice  
 For School Year 2011 - 2012  
 September 23, 2011  
 Dear Parents, Guardians and Staff Members:  
 This notice is being distributed to comply with the New Jersey School Integrated Pest Management Act. The Newark Public School District has adopted an Integrated Pest Management (IPM) Policy and has implemented an IPM Plan to comply with the law. IPM is explained in the school IPM Policy included with this notice.


All schools in New Jersey are required to have an Integrated Pest Management Coordinator (IPM Coordinator) to oversee activities related to IPM and pesticide use in schools. The IPM Coordinator for the Newark School District is Michele Johnson, Facilities Management, who can be reached at 973-733-7827. The local custodian in each district school is the designated person charged with record keeping, surveillance and tracking of the local program under the principal's direction.

The law requires the superintendent of the school district for each school in the district, as appropriate, to implement Integrated Pest Management (IPM) procedures to control pests and minimize exposure of children, faculty and staff to pesticides. The Newark Public Schools has therefore developed and maintains an IPM plan as part of the school districts policy. There are aspects of this law that speak directly to the school building administrator (the Principal). Principals should be aware of their legal responsibilities with regard to IPM in their school building. Principals have been made aware of what must be done before a pesticide may be applied in a school and each school has a customized IPM manual to guide the Principal accordingly.

The IPM Coordinator maintains a central file of the pesticide product labels and the Material Safety Data Sheets (MSDS) of each pesticide product that may be used on school property. Copies of the product labels and MSDS's are located in the main office of each school and are available for review by a parent, staff member or student. The IPM Coordinator is available to parents, guardians, staff and students for information, to discuss comments about IPM activities and pesticides used at their school.

As part of the District's Pest Management Plan, schools may use pesticides to control pests with proper notification, unless an emergency exists. The United States Environmental Protection Agency (EPA) and the New Jersey Department of Environmental Protection (DEP) register pesticides to determine that the use of pesticide in accordance with the instructions printed on the label does not pose an unreasonable risk to human health and the environment. Nevertheless, the EPA and the DEP cannot guarantee that the registered pesticides do not pose any risk to human health, thus unnecessary exposure to pesticides should be avoided. The EPA has issued the statement that where possible, persons who are potentially sensitive, such as pregnant women, infants and children, should avoid unnecessary exposure.

A copy of the IPM Act and the Newark School District's IPM Policy are attached for your information. Also attached is a list of pesticides that are approved for use with proper notification for the past 12 months on school property.

Sincerely yours,  
  
 Steve Morfio  
 Executive Director Facilities Management

NEW JERSEY  
 For your protection pest control services are performed here. Pesticides which may be used are listed on the back of this form. The exact pesticide(s) used is listed by code number on the calendar below (see the code list on the back). For further information contact our office between the hours of 8:00 AM and 5:00 PM, Monday thru Friday. The dates checked below show past and proposed applications.

O=PROBABLE APPLICATION DATES      X=ACTUAL APPLICATION DATES

MONTH	CHEMICAL CODES	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
JAN				X															X													
FEB																																
MAR																																
APR																																
MAY																																
JUN																																
JUL																																
AUG																																
SEP																																
OCT																																
NOV																																
DEC																																

CONSUMER INFORMATION NOTICE  
 The following information on this posting is being provided to you in conjunction with the New Jersey Department of Environmental Protection, Pesticide Control Programs regulation, N.J.A.C. 7:27-12. It is designated to inform you of important information concerning safety and treatment history of the establishment's pesticide usage.

Sanitation as well as physical and biological control measures should be considered as another part of a good pest control program. Pesticides may be used as another part of a good pest control program. Pesticides are substances used to control living organisms and vary in a degree of toxicity.

Parties interested in general health information, may contact the National Pesticide Information Center at 800-858-7378. For emergency situations, contact the New Jersey Poison and Education system at 800-222-1222. The New Jersey DEP, Pesticide Control Program Information number is 609-984-6507. (This number is for pesticide regulations information, complaints and health referrals.)

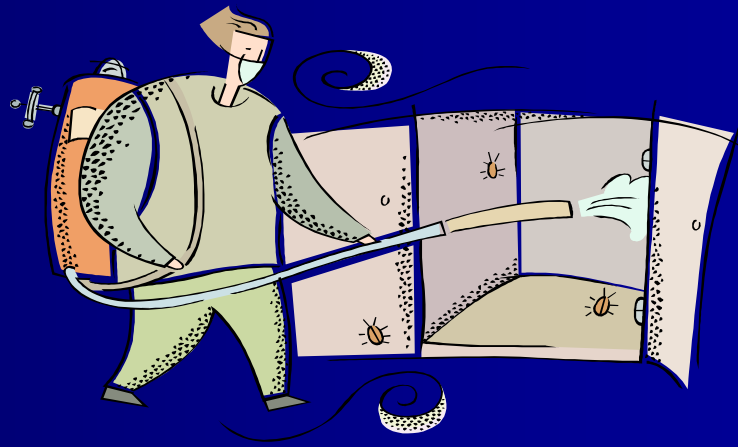
Upon request, a copy of the pesticide label for any of the pesticides listed above will be provided by Bowco Laboratories, Professional Pest Management.

## Pesticide Application Notification

- Notify parents or guardians and staff prior to application of any non-low impact pesticide treatments at the center.
- A Restricted Entry Interval (REI) must be posted and adhered to, if applicable.

# How often should a pest control company apply pesticides?

- Only when needed?
- Should they apply on a regular basis? Weekly? Monthly? Why?
- Should they applying to prevent pest problems?
- How do you determine the frequency of visits / applications?





# What are your pest thresholds?

- **At what point does a child care center administrator determine if there is a real pest problem?**
- **When is it time to call a pest control company?**
  - 1 ant found?
  - 5 ants found?
  - 20 ants found?
- **Was a source for entry found?**
- **Was the entry source blocked?**
- **Are ants still entering?**

# How to Hire a Pest Management Professional

- Call several companies.
- Insist on references.
- Check the references.
- Do they offer an Integrated Pest Management solution to the problem?
- Do they perform an inspection and give a check-list of issues?
- Do they offer both chemical and non-chemical treatment options?
- Are they licensed and insured?

# Integrated Pest Management



- IPM is a way to think and react to everyday actions.
- IPM is a commitment to using safer, low-impact pest control methods to keep facilities pest free.
- IPM is about people working together for the common goal of safer environments for our children.





# Benefits of Child Care IPM

- Reduced pesticide use.
- Healthier learning environment for our children.
- Better long-term control of pests.
- Reduced liability of the facility.
- Lower costs for pest management.
- Promotes cooperation between staff.



Questions?

For more information on IPM and pest reduction go to:  
<http://www.epa.gov/pesticides/controlling/resources.htm>