

INTEGRATED PEST MANAGEMENT CHECKLIST



This *Integrated Pest Management Toolkit* was developed by the University of California (UC), San Francisco School of Nursing's California Childcare Health Program, UC Berkeley's Center for Environmental Research and Children's Health, UC Statewide IPM Program and the California Department of Pesticide Regulation.

INTEGRATED PEST MANAGEMENT CHECKLIST

The Integrated Pest Management (IPM) Checklist will help you inspect your early care and education (ECE) building and grounds for the presence of pests and conditions that provide them with food, water and shelter. This IPM Checklist will also help you monitor your IPM program annually, semi-annually, or more frequently as needed.

Read the full instructions before you complete the IPM Checklist. The tools you need to complete the checklist are listed along with the ways to identify evidence of pest or damage caused by pests. This list does not cover birds, termites and some other potential pests.

Each item in the IPM Checklist helps you remember to keep pests out and remove food, water and shelter that may attract pests. You may not be able to address all of the conditions you find right away. Start with easy-to-implement items and then address bigger challenges as you become more familiar with IPM.

The last section of the IPM Checklist has explanations for why some of the items are important to inspect.

Instructions

- Collect the helpful tools to complete the inspection.
- **2** Complete the *IPM Checklist*
 - ► Check the "yes," "no" or "N/A" (not applicable) box \Box beside each item. "Yes" means your environment is less likely to have pests. "No" responses require further attention.
 - ▶ Do not check "yes" unless the ECE facility meets all the parts of the item. For example, item #10 states, Window screens are free of damage (for example, holes); if one window doesn't have a screen, you should check "no" even if all the other windows have screens. Make a note in the comment section where the window is located.
 - ▶ The comment section after each item can include follow-up notes, things that need to be improved or changed, and things to be discussed with program staff or action plans.
- **3** Under each subsection, you will identify any evidence of pests and the damage they cause. Check the box "yes" if you notice evidence of pests (for example, mouse droppings). Leave the box unchecked if there is no evidence of pests.
- Review the completed *IPM Checklist* with the ECE director and IPM Coordinator.

Helpful tools for an IPM inspection

- Building map or floor plan to mark areas that may need follow-up management or regular inspection.
- Standard flashlight and UV flashlight (good for detecting rodent urine stains, which fluoresce under UV light).



3 Knife or flat spatula to

UV flashlight put into narrow cracks and crevices to reveal where pests like to hide and where they seek shelter and food. If a spatula fits in a crack in concrete, baseboards, wallboards or under-

Hand lens or jeweler's loupe magnifying glass for insect identification.

neath chalkboards, pests can hide there.

5 Vial for collecting collecting any pests you might want identified.

6 Telescoping mirrors lengthen from around 6 to

36 inches – perfect for seeing behind or under hard-to-reach places.

Pest information sheets from the IPM Statewide web site at www.ipm.ucdavis.edu.





Evidence of pests or damage they cause:

- Ants: Look for large trails of ants or just a few stragglers. Look for ant trails around windows, electrical or plumbing lines and building edges. Look for holes or cracks in the foundations or walls that provide entry points to buildings. Straggling ants are usually scouts randomly searching for food or nesting sites. When you spot ant trails, try to follow the ants to where they're entering the building and, if possible, to the nest.
- Cockroaches: Look for evidence of cockroaches such as droppings (dark spots or smears), cast skins and dead roaches. They especially like warm (70°-75°F), humid areas close to food and waste kitchens, bathrooms, food preparation and storage areas. Place traps in several locations and inspect them regularly. You'll need to identify the cockroach species you have.
- ► Fleas: If you suspect a flea invasion indoors, pull on some light-colored knee socks and walk around. Any fleas will hop on to the socks. Then get out a vacuum cleaner and vacuum the area 2–3 times daily until the infestation is controlled.
- Flies: Look for house flies around windows and signs of rotting food and garbage (where maggots thrive).
- Mice and rats: Look for burrows, gnawing on garbage receptacles and droppings. Look at packaged food, doors, windows, baseboards and electrical cords for chewed spots, tooth marks, woodchips or shavings. Check near walls, food supplies and pathways for droppings. Old droppings are hard, or gray and brittle. Fresh droppings are dark and soft, possibly a sign of a current infestation. Check for freshly dug earth near holes around foundations and walls. Check for rub marks along walls—these are dark smears where dirt and oil from rodent fur mark pipes, beams, hallways, edges of stairs or around gnawed holes. Fine, shredded paper or similar materials are common nest-building materials.

- Mold and mildew: Look for mold in indoor places that smell musty, and in areas that are often wet or damp, such as bathrooms, laundry or utility rooms and basements. Moldy or damp odors should be noted because they suggest that water may be present and mold growth is likely. Also note staff complaints of odors and health problems. Mold comes in many colors, not just black, and does not need light to grow. It can grow in dark areas and on hidden surfaces, such as the backside of drywall, wallpaper and paneling; the top side of ceiling tiles; and the underside of carpets and pads.
- Mosquitoes: Where is there standing water? Water tends to accumulate in clogged gutters, buckets and other toys left outside. Look for mosquitoes resting on walls or hovering near people.
- Snails and slugs: Look for irregular holes with smooth edges in leaves and flowers. Look for their silvery trails to confirm slugs or snails caused the damage and not other garden pests.
- ► Spiders: Look for cobwebs and spiders in dark areas of the building. Spiders are almost always harmless. If you find a black widow spider, you can swat it with a rolled-up piece of paper and then step on it. Brown recluse spiders do not live in California.
- Weeds: Look for lawn weeds such as clover, which attracts honey bees. The bees could pose a problem if children use the lawn as a play area.
- Yellowjackets: Look for yellowjackets. Nests can be found in rodent burrows, in the ground, in voids in walls and ceilings of buildings.
- Other: Look for evidence for other pests—often in the form of droppings—such as raccoons, gophers, pigeons and squirrels.

IPM CHECKLIST

МО	NTH / DAY / YEAR	PERSON COMPLETING FORM
ECE	PROGRAM	
0	utdoor Areas	
Garbage Storage: Garbage Cans and Dumpsters		Comments
1.	Are sealed properly	
2.	Are located away from doors	
3.	Are located on hard, cleanable surfaces such as concrete	
4.	Area around garbage cans and dumpsters is free from spilled liquids or garbage	
5.	All recyclables are rinsed or cleaned	
6.	Pests (evidence of the pest, damage or the pest itself)	Ants Cockroaches Flies Mice, Rats Yellowjackets
Bu	ilding Exterior	
7·	Walls, roof and foundation are free of holes or cracks	
8.	Window trim is free of cracks	
9.	Windows close properly	
10.	Window screens are free of damage (e.g., holes or gaps)	
11.	Vents and other large openings are screened with < ¼ inch hardware cloth	
12.	Exterior doors have sweeps, weather- stripping or similar barriers	
13.	Roof gutters are clear of leaves and debris	
14.	Water sources are free of drips or leaks	
15.	Water drains away from building	
16.	Foundation comes up at least 12 inches above soil level	
17.	Pests (evidence of the pest, damage or the pest itself)	Ants Cockroaches Mice, Rats Yellowjackets

Lar	ndscape and Play Area	Comments
18.	Plants are at least 12 inches away from building	
19.	Tree and shrub branches are at least 6 feet away from building	
20.	Side of building is free of ivy and other vines	
21.	Wood, debris and thick mulch are at least 6 inches away from building	
22.	Water sources (faucets or sprinklers) do not cause standing water	
23.	Water sources are free of drips or leaks	
24.	Equipment and toys are free of standing water	
25	Water drains away from building	
26.	Garbage containers outdoors have dome lids	
27.	Garbage containers have plastic linings	
28.	Rodent bait stations, if present, are out of children's reach	
29.	Yellowjacket traps, if present, are away from play and eating areas	
30.	Pests (evidence of the pest, damage or the pest itself)	Ants Cockroaches Flies Mice, Rats Mosquitoes Snails, Slugs Spiders Weeds Yellowjackets
1		Other, specify
	door Areas	
	chen Areas around and underneath dishwasher and refrigerator are clean and dry	
32.	Countertops, shelves, cabinets and drawers are clean and dry	
33.	Food is stored in tightly sealed containers	
34.	Bulk products are stored off the floor and out of contact with walls	

Kit	chen (continued)	Comments
	Stoves are free of food scraps, grease	Connients
	and sugary substances	
36.	Floors and molding are free of food	
	scraps, grease and sugary substances	
37.	Cardboard boxes and other unnecessary packaging are not present	
38.	Faucets and pipes do not drip or leak	
39.	Gaps between pipes, vents and walls are sealed or screened	
40.	Cracks, crevices around cabinets and molding are sealed or plugged	
41.	Garbage containers have plastic linings	
42.	Insect bait stations, if present, are out of children's reach	
43.	Pest monitoring traps, if present, are out of children's reach	
44.	Pests (evidence of the pest, damage or the pest itself)	Ants Cockroaches Flies Mice, Rats Mold, mildew Pantry Pests (moths, beetles) Other, specify
Bat	throoms	
45.	Free from mold	
46.	Walls, floor and tiles are in good condition without cracks	
47.	Faucets and pipes do not drip or leak	
48.	Gaps between pipes, vents, and walls are sealed or screened	
49.	Cracks and crevices around cabinets and mirrors are sealed or plugged	
50.	Pests (evidence of the pest, damage or the pest itself)	Ants Cockroaches Flies Mold, mildew

Common Space, Play Area, Eating Area 51. Furniture moves easily for vacuuming	Comments
52. Free of clutter (e.g., cardboard boxes, paper products, playthings, toys, dress-up clothes)	
53. Walls or baseboards are free of holes	
54. Area between wall and baseboard is free of space and cracks	□yes □no □n/a
55. Food items used for arts or crafts are in sealed containers	
56. Garbage containers have plastic linings	
57. Garbage containers have lids	□yes □no □n/a
58. Free of puddles and dripping faucets	
59. Insect bait stations, if present, are out of children's reach	
60. Pest monitoring traps, if present, are out of children's reach	
61. Pests (evidence of the pest, damage or the pest itself)	Ants Cockroaches Fleas Flies Mice, Rats Mold, mildew
Storage Area(s)	
62. Clean, organized and free of clutter	
63. Buckets are rinsed and mops are hung up to dry	
64. Dry and free of standing water or moisture	
65. Cracks and crevices around cabinets are sealed or plugged	
66. Items are stored in plastic bins that have sealed lids whenever possible	
67. Pests (evidence of the pest, damage or the pest itself)	Ants Cockroaches Flies Mice, Rats Mold, mildew Spiders

Sta	ff Area	Comments
68.	Free of clutter (e.g., cardboard boxes of	
	paper products	
69.	Free of beverage containers, crumbs or debris	
70.	Food is stored in sealed, rigid plastic containers	
71.	Cracks and crevices around cabinets and baseboards are sealed or plugged	□yes □no □n/a
72.	Garbage containers have plastic linings	
73.	Pests (evidence of the pest, damage or the pest itself)	Ants Cockroaches Fleas Flies Mice, Rats Spiders
Pesticide Use and IPM Practices*		
74.	Written pest management policy is in place and includes IPM practices implemented by facility	
75·	Written records of pesticide applications are kept	
76.	IPM coordinator is designated	
77·	Parents are notified 72 hours before pesticides are applied	
78.	Warning signs are posted 24 hours before and stay in place 72 hours after pesticides are applied	
79·	Tracking system is used for follow-up when pests are reported	
80.	Tracking system is used for cleaning and sanitizing	
81.	Garbage is taken out at the end of each day	
82.	Floors are mopped daily	
83.	Garbage containers are emptied regularly	
84.	Refrigerator drip pan is emptied and cleaned every six months	
85.	Garbage containers have lids	

*Examples of written policies and warning signs can be found in the IPM Curriculum

Questions about an item?

Look for the corresponding number below for an explanation of the reasons for and importance of some of the *Checklist* items.

OUTDOOR AREAS Garbage Storage

- Garbage cans and dumpsters are sealed properly Garbage cans and dumpsters are metal or heavy-duty plastic and have lids that make a tight seal.
 WHY? Garbage cans and dumpsters that don't seal properly, or can be gnawed through by rats, provide access to food for rodents, birds, flies and other pests.
- 2. Garbage cans and dumpsters are located away from doors

WHY? Garbage cans and dumpsters located too close to doors can attract flies and yellowjackets, which then can enter the building.

3. Garbage cans and dumpsters are located on hard, cleanable surfaces such as concrete

WHY? Hard, cleanable surfaces such as concrete or asphalt pads help prevent rats from making burrows beneath them. Hard surfaces are easier to clean when spills occur. Flies, yellowjackets and other pests are attracted to spills.

4. Area around garbage cans and dumpsters is free from spilled liquids or garbage

Overflowing containers indicate the need for more containers or more frequent garbage pickup. WHY? Spilled liquids and garbage attract pests.

5. All recyclables are rinsed or cleaned WHY? Food or drink residues in bottles or cans can attract pests that are looking for food.

Building Exterior

- 7. Walls, roof and foundation are free of holes or cracks WHY? Ground-level building seals, electrical and plumbing service entryways, roof entryways and windows are entryways for pests.
- 10. Window screens are free of damage (for example, holes or gaps)

WHY? Pests commonly enter a building through holes, cracks, gaps and crevices in between pipes, vents, roofs, floors, windows, walls, baseboards, cabinets and mirrors. If you can fit a dime or pencil into the hole, then a mouse or rat can fit through the gap, too. 11. Vents and other large openings are screened with < ¼-inch hardware cloth

WHY? Vents and large openings covered with ¼-inch hardware cloth will keep rodents, birds and yellow-jackets out and make it harder for them to burrow back through the hole.

12. Exterior doors have sweeps, weatherstripping or similar barriers

If light is visible under or around doors, sweeps or weatherstripping should be installed. WHY? If light is visible under doors mice, crawling insects and spiders can enter the building. All exterior doors need sweeps, weatherstripping or similar barriers, especially doors near the garbage receptacle area.

13. Roof gutters are clear of leaves and debris WHY? Clogged gutters allow water to drip down the side of a building, damaging outside walls and increasing the chance of mold, mildew and wood rot.

15. Water drains away from building

WHY? Even small leaks or sources of water keep the wood or soil underneath a building continuously moist. These are ideal conditions for termites. Pests require water to survive.

16. Foundation comes up at least 12 inches above soil level

WHY? Elevated foundations provide a barrier to keep pests from entering.

Landscape and Play Area

21. Wood, debris and thick mulch are at least 6 inches away from building

WHY? Rodents and some insects, such as ants, like to live in wood piles, debris and thick mulch. Ivy is a favorite shelter for rats. You should be able to see the building foundation to inspect for pests. Keeping shrubs and plants away from buildings increases light and air circulation and reduces moisture.

25. Water drains away from building

Water drains should slope away from building to prevent standing water next to buildings. WHY? Standing water in lawns, toys and containers provides ideal conditions for mosquitoes to breed. Moisture allows mold and mildew to grow and provides water necessary for pests to survive.

- 26. Garbage containers outdoors have dome lids WHY? Dome lids prevent yellowjackets, rodents and other pests from searching for food. Unlike other types of lids, dome lids are convenient to use and always fit the container snugly.
- 27. Garbage containers have plastic linings
 WHY? Plastic linings help keep garbage containers
 clean. They make garbage easier to toss into larger
 receptacles
- 28. Rodent bait stations, if present, are out of children's reachWHY? Bait stations may contain sharp edges and

pesticides that can harm children.

29. Yellowjacket traps, if present, are away from play and eating areas

WHY? Monitoring or lure traps can attract yellowjackets into play areas.

INDOOR AREAS

Kitchen

34. Bulk food products are stored off the floor and out of contact with walls

WHY? Allows inspection under and behind containers, and reduces pest shelters and available food.

36. Floors and molding are free of food scraps, grease and sugary substances

WHY? Food that's left out attracts ants, cockroaches, flies, mice, rats, and other pests.

37. Cardboard boxes and other unnecessary packaging are not present

WHY? Cardboard provides hiding places for pests, especially cockroaches.

39. Gaps between pipes, vents and walls are sealed or screened

WHY? See # 10.

- 40. Cracks and crevices around cabinets and molding are sealed or plugged WHY? See # 10.
- 41. Garbage containers have plastic linings WHY? See # 27.
- 42. Insect bait stations, if present, are out of children's reach

WHY? See # 28.

43. Pest monitoring traps, if present, are out of children's reach

WHY? See # 29.

Bathrooms

45. Free from mold

WHY? Mold can irritatepeople with asthma and trigger other health problems.

46. Walls, floor and tiles are in good condition without cracks

WHY? See # 10.

- 47. Faucets and pipes do not drip or leakWHY? Moisture allows mold and mildew to grow and provides water necessary for pests to survive.
- 48. Gaps between pipes, vents and walls are sealed or screened WHY? See # 10.
- 49. Cracks and crevices around cabinets and mirrors are sealed or plugged
 WHY? See # 10.

Common Space, Play Area, Eating Area

51. Furniture moves easily for vacuuming WHY? Crumbs may collect under furniture. If you have a roach or flea infestation, vacuuming thoroughly is important.

52. Free of clutter (e.g., cardboard boxes or paper products)

WHY? Cockroaches and mice can hide in cluttered spaces. Roaches feed on cardboard and glue. Store playthings (e.g., puzzles, blocks, dress-up clothes) in sturdy plastic boxes with lids.

- 53. Walls or baseboards are free of holes WHY? See # 10.
- 54. Area between wall and baseboard is free of space and cracks WHY? See # 10.
- 55. Food items used for arts or crafts are in sealed containersWHY? See # 36.
- **56.** Garbage containers have plastic linings WHY? See # 27.
- 57. Garbage containers have lids WHY? See # 26.
- **58.** Free of puddles and dripping faucets WHY? See # 47.
- 59. Insect bait stations, if present, are out of children's reach WHY? See # 28.
- 60. Pest monitoring traps, if present, are out of children's reach WHY? See # 29.

Storage Area

- **62.** Clean, organized and free of clutter WHY? See # 52.
- 63. Buckets are rinsed and mops are hung up to dry WHY? Keeping mops and buckets dry prevents mold growth.
- 64. Dry and free of standing water or moisture WHY? See # 47.
- 65. Cracks and crevices around cabinets are sealed or plugged WHY? See # 10.
- 66. Items are stored in plastic bins that have sealed lids whenever possible WHY? See # 52.

Staff Area

- 68. Free of clutter (e.g., cardboard boxes or paper products) WHY? See # 52.
- 69. Free of beverage containers, crumbs or debris WHY? See # 36.
- 70. Food is stored in sealed, rigid plastic containers WHY? See # 36.
- 71. Cracks and crevices around cabinets and baseboards are sealed or plugged WHY? See # 10.
- **72.** Garbage containers have plastic linings WHY? See # 27.

Pesticide Use and IPM Practices*

The following items show compliance with the Healthy Schools Act (HAS).

- 74. Written pest management policy is in place and includes IPM practices implemented by facility WHY? A written IPM policy gives a standard set of rules that ECE programs can follow to protect children and staff from harmful pests and pesticides using IPM practices.
- 75. Written records of pesticide applications are kept WHY? ECE programs can track their pesticide use. For some pesticides, keeping records is required by HAS.
- **76. IPM coordinator is designated** WHY? An IPM coordinator makes sure IPM practices are being followed at their ECE programs.
- 77. Parents are notified 72 hours before pesticides are appliedWHY? The HSA requires ECE programs to notify

parents 72 hours before a pesticide is applied.

- 78. Warning signs are posted 24 hours before and stay in place 72 hours after pesticides are applied WHY? Post warning signs where pesticides are applied to comply with the HSA.
- 79. Tracking system is used for follow-up when pests are reported

WHY? Keeping a record of where pests are and when they've visited will help you if you need to take some action later.

- 80. Tracking system is used for cleaning and sanitizing WHY? Regular cleaning and sanitizing will help keep pests out.
- 82. Floors are mopped daily WHY? Spilled food will attract pests.
- 84. Refrigerator drip pan is emptied and cleaned every six months WHY? (See #25).
- 85. Garbage containers have lids WHY? Garbage containers with lids keep pests from finding food.

*Examples of written policies and warning signs can be found in the IPM Curriculum



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