



School IPM: Roles and Responsibilities

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Pest Prevention & Effective Management is Critical in Schools

Some Common Pests:

- Asthma triggers (mice, cockroaches, mold)
- Ants
- Lice & bed bugs
- Wasps, bees, ticks, mosquitoes
- Wildlife (bats, birds, snakes)
- Weeds & poisonous plants
- Turf & ornamental pests



Why Use Integrated Pest Management (IPM)?

- Reduce health risks
- Reduce energy costs
- Save time
- Protect property and the environment
- Solve pest problems sensibly, permanently, affordably



IPM is.....

- **Prevent:** Seal pest entryways
eliminate pest-friendly
conditions
- **Monitor and Identify** pests
- **Give Pests the 1-2 Punch:**
Use and coordinate combos of
anti-pest tactics
- **Keep Records and Evaluate
outcomes regularly**



IPM

IPM is a Team Effort

Sports Staff:
scheduling, turf
protection

**Contracted
pest
professional**

**Business
Manager:**
contracts,
budgeting

**Students
&
Teachers:**
education,
sanitation,
monitoring

IPM Coordinator is the Captain



Custodians:
Sanitation,
monitoring,
pest
reporting

Maintenance Staff:
pest exclusion &
monitoring

Office Staff:
communication,
records, scheduling

Kitchen Staff:
pest prevention
& monitoring

IPM Coordinator Must Take the Helm!

- Establish communication, reporting and action protocols for all school staff and contractors.
- Coordinate all pest management actions and record-keeping.



IPM Coordinator is Responsible for IPM even if you Have a Contracted Pest Management Service.....

- 90-100% of IPM is done by school staff
- Incorporate IPM into your custodial and maintenance programs
 - Have a response plan for common pests



Incorporate Pest Prevention into Custodial & Maintenance Routines

1. Pest-Proof Buildings and Grounds
 - Clean, sealed & moisture-controlled.
 - Pest-proof food storage in pantry, kitchen, teachers lounge, classrooms



Incorporate Pest Monitoring & Reporting into Preventive Maintenance Schedule

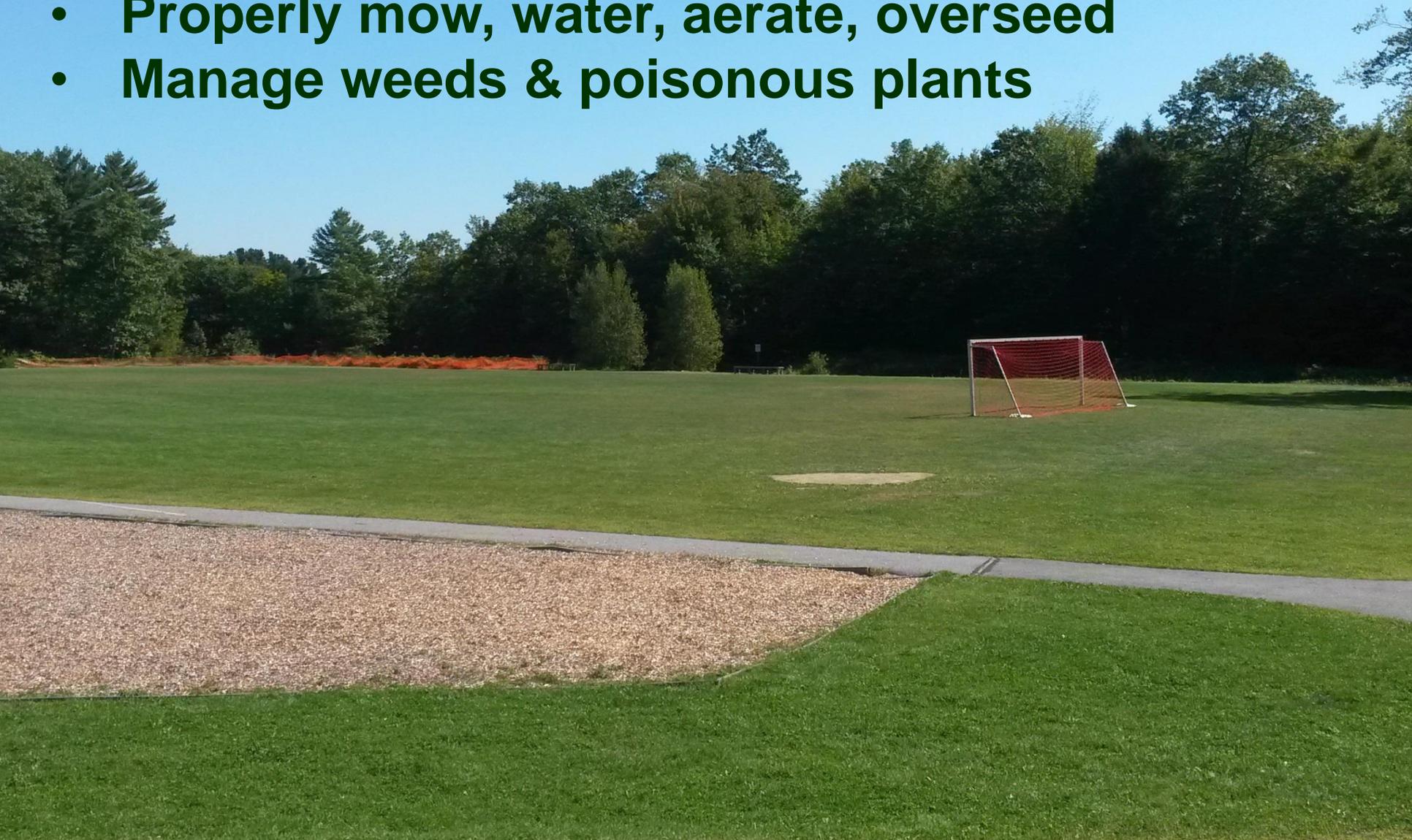
2. Monitor and Manage

- ❑ Look for and report pests & pest-friendly conditions
- ❑ Have & use an action plan for common pests
- ❑ Follow up & keep monitoring to ensure actions were effective!



Grounds Crew Must be Trained:

- **Monitor and report pests and damage**
- **Properly mow, water, aerate, overseed**
- **Manage weeds & poisonous plants**



Incorporate Planned Pest Response into Buildings & Grounds Management Protocols

3. Give Pests the 1-2 Punch

- ❑ Manage pests with combos of methods
- ❑ Coordinate with contracted service provider if have one
- ❑ Address the cause of the problem



Incorporate IPM into Regular Facilities Inspections & Assessments

4. Record and Evaluate Outcomes

- Use work scheduling system and pest logbooks to record and follow up
- Periodically review work orders and pest management logbook to evaluate and update IPM program



If Contracting for Pest or Turf-care Service..

- Record, review and follow up on each service ticket.
- Establish timely communication protocols
- Authorize each pesticide application in writing
- Ensure recommended remediation is followed by school staff



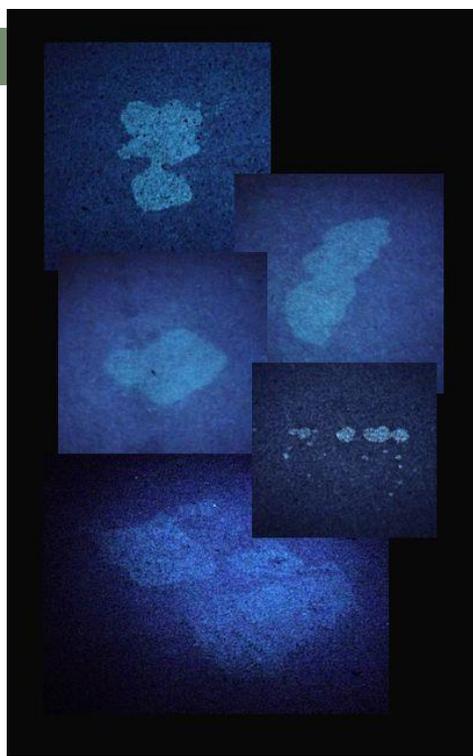
Asthma-trigger Pests



- Mice, cockroaches, and dust mites are asthma triggers.
- Academic performance is lower in schools with higher asthma rates.
- Mouse allergens can be 4-5x higher in schools than in homes!



Mouse urine is detectable with black light.



What we see and what we don't see (except with a black light) poses risk of human disease!



Keep Schools Rodent-free

- House mouse urine triggers asthma
- Deer mouse feces carries hantavirus (hemorrhagic fever).
- Rats: carry diseases. Bite humans. Chew wires.

House
Mouse



Deer Mouse

Norway Rat



Excellent Cleaning is Essential

- Keep equipment well maintained
- Use microfiber dust cloths, dry and wet mop heads.
- All surfaces scrupulously clean
- Inspect regularly



Inspect Thoroughly and Often

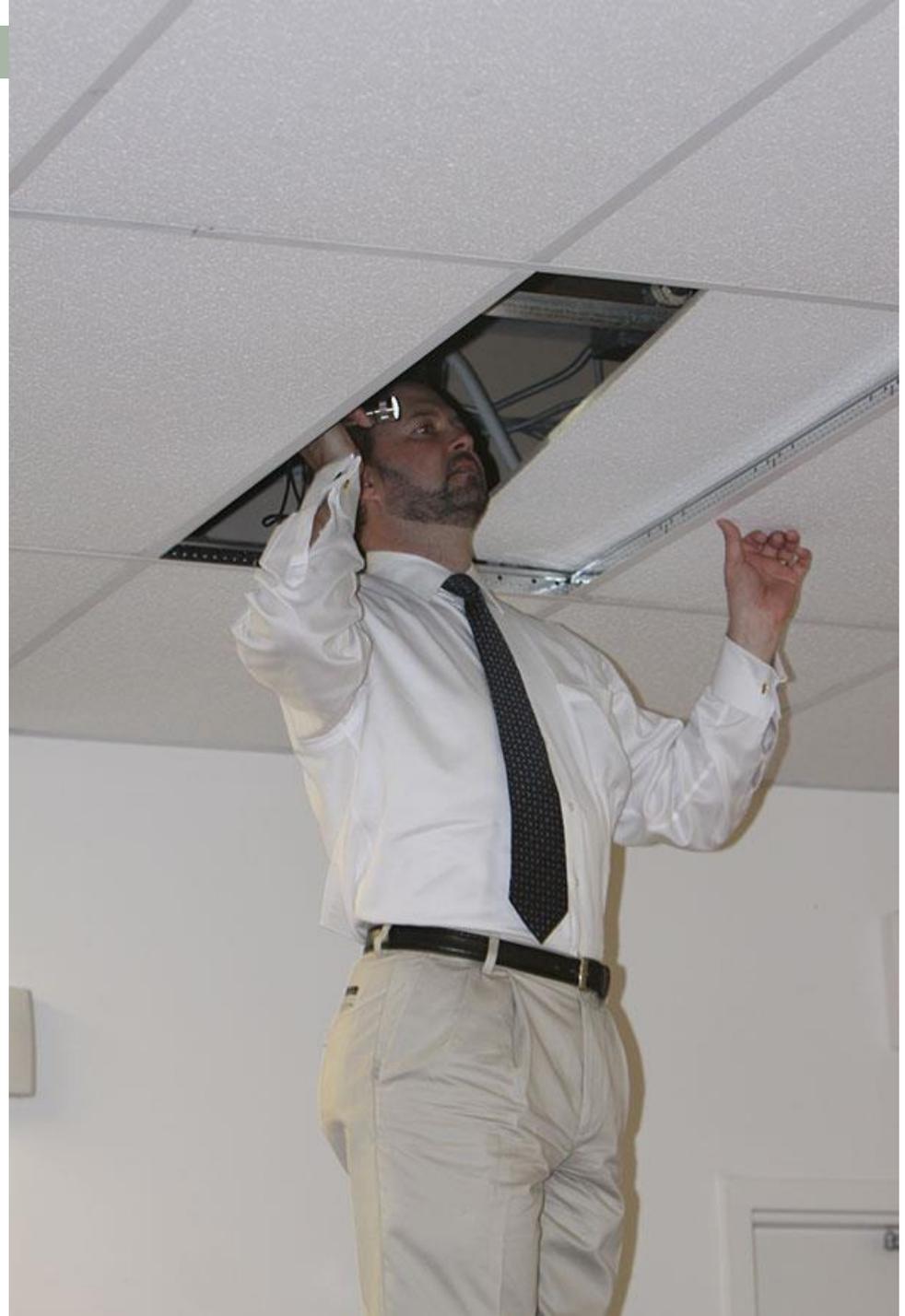
- flashlight, checklist, clipboard to inspect
 - under, around, over equipment where there is food, water, pest harborage
 - Look for food, spills, grease, soda cans, clutter, droppings, cracks, gaps, moisture



- Dropped ceilings are rodent highways.

Inspect above the ceiling tiles

Look for droppings, greasy rub marks, nests, debris



Find, Report and Seal Pest Entryways

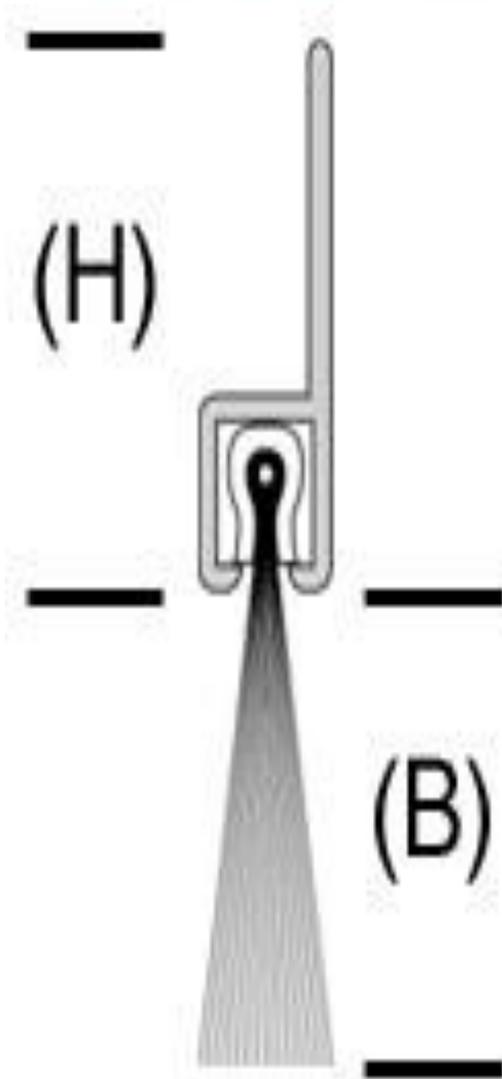


Critter entryway. Seal this up to keep critters out!

Install and maintain door-sweeps to keep mice and insects out



Install and Maintain Brush Door Sweeps



Install and Monitor Mouse Traps in Kitchen, Food Storage, Inside Doorways



Exterior Rodent Bait Stations

- Poison bait **rarely needed**
- Never use rodent poison baits indoors



Non-toxic 'Rodent Detection' Baits in Locked Exterior Rodent Station

- Useful for detecting and locating rodent activity



Rodent droppings glow under black light!

Work with Kitchen and Custodial Staff Implement Pest Prevention, Monitoring and Management Protocols



- Promptly inspect, unpack, discard cardboard boxes
- Store food in pest-proof containers, up off floor on wire shelving
- Keep floors and all surfaces scrupulously clean
- Install and monitor mouse and insect traps

Work with Principal, Coaches, Teachers and Booster Clubs to Eliminate Pest-Friendly Conditions

- All food stored in pest-proof containers
- No clutter! Organize storage! Clean and dust regularly
- Monitor for pests regularly



Store food in pest proof containers. Clean scrupulously. Manage waste properly. Install and check pest traps.



Prevent and Monitor for Roaches



Seal cracks and crevices in kitchens and breakrooms

Seal gaps with sealant to eliminate potential hiding places

Place, check & replace sticky traps regularly



Place monitoring traps behind equipment & in cupboards

Inspect food shipments on arrival and recycle cardboard boxes promptly



Clean Floor Drains Regularly

Flies and Roaches Live in Dirty Drains!

Use:

- Enzyme cleaners eat the gunk
- Long-handled brush to clean inside drain
- Flush with hot water



Drain Fly



Ant Management

Vacuum them up!



Clean up spills, crumbs and food



Wipe up ants and their invisible trails with soapy water.



Rinse and recycle beverage bottles promptly.

Ant Management

- Follow ants to find entryways
- Seal cracks/crevices & entry points w flexible sealant
- Licensed pesticide applicator may apply pesticide bait in areas inaccessible to children.
- Avoid sprays and granular pesticide applications.





Building Exterior

- Shrubs, grass, bark mulch at least 1 ft away
- Limbs 6 ft away
- Cracks and gaps sealed

Inspect Building Exterior Regularly

Check for:

- Wasp nests
- Unscreened vents
- Gaps around utility penetrations
- Damaged/disconnected gutters and downspouts
- Poor drainage
- Damaged/missing window screens
- Bird roosting



Stinging Insects

- Inspect eaves, playgrounds, sheds, etc, 2x/mo May-Oct.
- Destroy wasp nests if location poses risk of stings
- Seal openings on buildings & playgrounds **before** warm weather or after nest destroyed
- Control food, beverages, trash outdoors that attract wasps and bees.



Underground Yellow Jacket Nests (late summer-fall)

- Spray entrance holes with over-the-counter wasp spray **or**
- Hire professional **or**
- Cordon-off until hard frost



Ground-Nesting Solitary Bees (Apr-June)

- Beneficial pollinators
- Not aggressive but can sting if provoked
- Nest has 1 queen and a few offspring
- Pencil-sized holes in sandy areas where grass is sparse



Ground-nesting Solitary Bees



- Cordon off area when bees are active
- Spread grass seed to thicken turf

Weeds Around Buildings

- Heat: propane flamer, ceramic weed burner
- Mechanical: weed-wacker, hoe, hand-pull, weed-puller
- Herbicide by licensed applicator only
- Smother them: landscape fabric covered with crushed rock or gravel.



Key Elements for Success

- **Establish a written IPM Plan**
- **Collaborate and Communicate with** administrators, custodial/maintenance staff, teachers, students, contractors, community.
- **Provide Good Training for staff.**
- **No unauthorized pesticide use.**
- **Regularly Inspect and Monitor for Pests and Pest Prevention Needs**
- **Keep Records and Track Complaints**
- **When Pest Control is Needed: Select least-risk IPM solutions.**
- **Recognize and Reward** staff, classrooms for job well done



Maine School IPM Program

ME Department of Agriculture, Conservation and Forestry

- Templates
- Training
- Tools
- Guidelines
- Newsletter
- Consultation
- Pest Identification

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www.maine.gov/schoolipm

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School IPM: Dedicated to reducing risks of pests and pesticides in Maine Schools

Done Trusted sites