INTEGRATED PEST MANAGEMENT AT YOUR FACILITY:

An example of applying Environmentally Preferable Purchasing to your operations
The EPP and Facility Management Connection

- EPP includes purchasing and contracts
- Many structural (building) pest control and landscaping operations present an opportunity for toxics use reduction (*pesticide use reduction*)
- Safer pest management and organic land care are toxics use reduction strategies that can be utilized or specified in contracts with vendors.
Buildings and Grounds Management

What is being used?

- **Structural pests (termites, carpenter ants, mice, rodents, cockroaches)**
  - insecticides, rodenticides

- **Landscaping (insects, weeds, fungus)**
  - weed and feed, grubicides, insecticides, herbicides, fungicides
Buildings and Grounds Management

Impacts

- Pesticides have impacts on:
  - Indoor air quality
    - Residues can remain in air and on surfaces in dust
    - Residues are tracked in and persist from lawn
    - Several pests and pesticides trigger asthma
  - Body Burden
    - CDC’s 4th Annual Report on chemical body burden
    - Pyrethroids, common insecticides, and metabolites found in >50% population.
  - Chronic Disease
    - EPA classifies both permethrin and cypermethrin (pyrethroids) as possible human carcinogens.
Integrated Pest Management (IPM) Definition

- IPM is an approach to reducing pests and pesticide risks including:
  - An understanding of pest biology and ecology;
  - Effective monitoring and inspection to detect pest problems and correct inadequate conditions;
  - Action to control pest problems only when necessary;
  - Choosing effective options with the least risk to health and the environment; and
  - Use of long-term, preventative solutions to prevent and avoid pest problems.

Source: IPM Institute of North America
Structural IPM Basics

Pest are attracted to ...

(1) Food—Easily found in offices

(2) Water—Found wherever there’s plumbing leaks

(3) Access—Pests enter under doors, through improperly sealed exterior electrical, telephone, or gas lines, through cracks and holes in walls.

(4) Harborage—Pests live in cracks and crevices; behind posters, in appliances; inside closets, cabinet bases, suspended ceiling spaces

Source:
IPM Program Elements

- Inspection
- Identification — know pest biology
- Monitor — know the level of infestation
- Preventative practices - Physical controls, sanitation, trapping, maintenance, least toxic controls as last resort
- Record keeping and Evaluation
Contract Specifications

- Utilize IPM Vendors on State Contract

- New England Pest Control Industry recognizes IPM trained members through a registry, QualityPro Green Program.
  
  http://www.nepma.org

- Modify your facility contract with pest control or landscaping vendors
  
  School IPM contract example:
  
  http://schoolipm.ifas.ufl.edu/doc/model_contract.htm
Contract Specifications

- Designed for Procurement Agent
- Provides definitions and a description of IPM Services to be provided:
  - Qualifications of service provider
  - Areas to be serviced, pests included
  - Regularly scheduled inspections, monitoring, identification, treatment consistent with IPM Principles, methods of reporting and communication (notifications), recommendations for future prevention, evaluation -- continuous improvement

- Source, PA School IPM Program
Contract Specifications

- Materials use and timing specification
  - Use of non-chemical methods are the first consideration
  - No EPA Category I or II pesticides

- No applications while a room is occupied, or person(s) on the grounds
Benefits of IPM

- Root cause analysis results in long-term suppression of pests.
- Pesticide use reduction – environmental and health benefits
  - IAQ benefits, pesticide residues can persist
  - Several pests and pesticides can trigger asthma, reduction contributes to asthma-friendly workplace.
- Sustainable control and reduction in “calendar” spraying and unneeded applications reduce costs
- Green business marketing
Transitioning to Organic Landscaping for Facilities

- Healthy soil is the key to healthy turf
- The problem with traditional practices:
  - High nitrogen fertilizers can disrupt the nutrient balance, accelerate turf growth, increase the need for mowing and contribute to thatch buildup.
  - Pesticides can harm the microorganisms, beneficial insects, and earthworms that are essential to maintaining healthy soil, and therefore, healthy turf.
Organic care is not just chemical substitution, it is a change in cultural practices (process modification!).

Eliminates the conditions that promote weeds:
- Compaction - Poor watering
- Soil pH - Poor drainage
- Mowing height - Fertility (slow release)
Contracting Organic Land Care Services

- Massachusetts has extensive training in organic land care through the Northeast Organic Farmers Association

- NOFA Certified Landscapers list

  http://www.organiclandcare.net/aolcp-search
What are Acceptable Materials?

- Materials should not be:
  - Carcinogens
  - Neurotoxins
  - Developmental/Reproductive Toxins
  - Endocrine Disruptors
  - Groundwater Contaminants
  - Toxic to Bees, Aquatic organisms and other non-targets
What are Acceptable Materials?

- The Organic Materials Review Institute (OMRI) determines which input products are allowed for use in organic production.

- OMRI Listed—or approved—products may be used on operations that are certified organic under the USDA National Organic Program.

- Crop and Turf Materials overlap
If MLB can go organic!!!