# 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 4<sup>th</sup> 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

### **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:
    <a href="http://schoolipm.ifas.ufl.edu/doc/model\_contract.htm">http://schoolipm.ifas.ufl.edu/doc/model\_contract.htm</a>

### **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 <u>prevention</u>, 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.

# Transitioning to Organic Landscaping for Facilities

 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 <u>National Organic</u> <u>Program</u>.
- Crop and Turf Materials overlap

