Improving Environmental Health and Literacy through School IPM Partnerships

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School IPM Depends on Effective Partnerships!

Photo credit: School Nutrition Foundation, a member of Partners for Breakfast in the Classroom, a partnership of the Food Research and Action Center, National Association of Elementary School Principals Foundation, National Education Association Health Information Network, and School Nutrition Foundation.
School IPM Partnerships

- Northeast School IPM Working Group
- Midwest Pesticide Action Center and IKE
- U.S. EPA Region 5

Goal: Excellent Environmental Health and Safety that Supports Learning
Northeast School IPM Working Group

• 45 members: wide representation of organizations, gov. agencies, universities, consultants, schools from 12 Northeast states and District of Columbia.

• Funded 2009-2013 by NE IPM Center. Leveraged additional funding from various sources.

• Continues to collaborate and network via listserv, website, and ongoing projects.
School IPM Demos, Workshops, Assessments

**Demos:** RI, NH, VT

**Workshops:**
- RI, CT, MA, ME, NY, PA, VT, NH, MD

**Assessments:**
- National School IPM Survey (IPM Institute of N.A.)
- IPM and Asthma Metrics Demo (IPM Institute of N.A.)
- CT Turf Quality Assessment Tool
- NYSIPM 8 School IPM Metrics Demo
- Workshop participant surveys
- Working Group Impact Assessments (NE IPM Center)
Developed and Piloted Tools for School IPM Implementation

Environmental Management System
IPM Planner

We have provided the following framework to assist you in this process. It is based on the Environmental Management System (EMS) model which is a comprehensive, systematic way to identify, prioritize, and manage environmental issues. The EMS model provides the framework for schools to develop policies and training, identify regulations and compliance issues, assign roles and responsibilities, enhance record keeping systems, implement standard operating procedures, etc. to accomplish this. Our goal is to assist your efforts to keep your schools healthy, within budget, and in compliance with state requirements.

Within an EMS, we use environmental management plans (EMP) to address specific environmental issues. We have provided the following guidance documents and tools below to help you easily develop a customized EMP Plan or enhance your existing EMP system, regardless of whether you have an EMP.

We have organized the following information using the EMP framework on the left. There are several types of document to aide you. Some documents provide reference and background information, while others are tools that you can customize for your own use. We recommend that you review the Environmental Management System document first to understand how we organized the information and the framework that we suggest using it in.

Please click on the links below to download and access the documents.

<table>
<thead>
<tr>
<th>EMP Component</th>
<th>Type of Document or Information</th>
<th>Document</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental Management System</td>
<td>Description</td>
<td>EMP Overview</td>
</tr>
<tr>
<td>Regulations</td>
<td>State TPM</td>
<td>EMP Overview</td>
</tr>
<tr>
<td>Policy</td>
<td>Statement — Provides Points to Address, Language to Customize</td>
<td>EMP Overview</td>
</tr>
<tr>
<td>Team</td>
<td>Structure — Types of People and Their Roles</td>
<td>EMP Overview</td>
</tr>
<tr>
<td>Roles and Responsibilities</td>
<td>Matrix Sample — Vendor, Municipal Dept, District, School Departments, Staff</td>
<td>EMP Overview</td>
</tr>
<tr>
<td>Communication and Notifications</td>
<td>Notification Requirements by State — NPMA State School Pest Management Regulations (PDF)</td>
<td>EMP Overview</td>
</tr>
<tr>
<td></td>
<td>School Notification Template (DOCX)</td>
<td>EMP Overview</td>
</tr>
<tr>
<td></td>
<td>Request to Be Notified Form (DOCX)</td>
<td>EMP Overview</td>
</tr>
<tr>
<td></td>
<td>Pesticide Application Notice (DOCX)</td>
<td>EMP Overview</td>
</tr>
<tr>
<td></td>
<td>Pesticide Application Poster (DOCX)</td>
<td>EMP Overview</td>
</tr>
<tr>
<td></td>
<td>Sample Request for Notification (DOCX)</td>
<td>EMP Overview</td>
</tr>
</tbody>
</table>

Best Management Practices for School IPM

This online resource provides easy to use information to assist implementation of Integrated Pest Management on school property and facilitate reduced dependence on pesticides. Integrated pest management, or IPM, is a science-based approach to dealing with pests, and uses sensible methods to both protect human health and the environment, and generally reduce the cost of traditional pest treatments. Pests can be insects, plant diseases, weeds or animals.

How to Practice Integrated Pest Management

IPM Basics
- Find Your Pest
- State Regulations (PDFs)

Why Is IPM So Important in Schools?
- Common IPM Terms

How Can Your School Benefit from Using IPM?
- Related IPM Websites

The Use of Pesticides on School Property
- IPM Resources

IPM Policies and Protocols
- Pesticide Use and IPM Laws by State

Site Specific Best Management Practices for School IPM

**INSIDE**
- Cafeteria, Kitchen, Storage Area
- Classroom, Office, Staff Lounge, Hallway
- Locker Room, Gym, Pool Area, Bollater, Crawlspace
- Structural: Walls, Windows, Roofs, Eaves

**OUTSIDE**
- Athletic Fields
- Fencelines
- Hardscapes: Parking Lots and Sidewalks
- Low-maintenance Turf
- Planting Beds and Gardens
Teaching IPM to the Next Generation of Earth’s Stewards

- IPM education offers:
  - STEM (Science, Technology, Engineering, Math) education
  - Environmental education and stewardship
  - Project-based learning and service-learning opportunities
  - Career training
  - Supports IPM implementation on properties
  - Community engagement
How Can we Improve IPM Literacy?

- Established regional stakeholder advisory group
- Conducted regional survey of teachers (N = 387)
- Opportunities:
  - Teachers felt IPM is relevant and important
  - Want hands-on activities and lessons
- Barriers:
  - Unaware that lessons were available
  - Lack the necessary knowledge to teach IPM
  - Standards-driven teaching schedule allows little flexibility
Provide Easily Accessible Lessons and Resources
Developed Lessons

- Five Greenhouse IPM lessons (grades 9-12)
- Bed bug lesson (grades 3-5)
Teacher Training and Classroom Demonstrations
Outreach to Teachers and Youth at Events

• Sustainability and Stewardship Events
• Science Education Events
• Gardening/Agriculture Events
• Community Events
### Surveyed Teachers Again

In what type of school do you teach?

<table>
<thead>
<tr>
<th>School Type</th>
<th>2009 %</th>
<th>2013 %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Private K-12 school</td>
<td>4.7</td>
<td>4.8</td>
</tr>
<tr>
<td>Public K-12 school</td>
<td>76.0</td>
<td>72.0</td>
</tr>
<tr>
<td>Environmental or outdoor education school or center</td>
<td>4.9</td>
<td>6.0</td>
</tr>
<tr>
<td>Technical education school</td>
<td>2.1</td>
<td>3.0</td>
</tr>
<tr>
<td>other</td>
<td>12.4</td>
<td>14.3</td>
</tr>
</tbody>
</table>

**Number Responding**: 387

168
Survey Results

Should young people be introduced to IPM concepts?

How Many IPM Lessons are you willing to teach?
Have you Recently Taught IPM?

<table>
<thead>
<tr>
<th>Grade Level</th>
<th>2009</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grades PreK-5</td>
<td>15</td>
<td>25</td>
</tr>
<tr>
<td>Grades 6-8</td>
<td>10</td>
<td>20</td>
</tr>
<tr>
<td>Grades 9-12</td>
<td>20</td>
<td>30</td>
</tr>
</tbody>
</table>
Teacher Training is Critical

Have you Recently Taught IPM?

Trained  Untrained

0  10  20  30  40  50  60

%
Partnerships to Engage Educators

Literacy Plan

Integrated Pest Management Literacy Plan
For K-12 Education

Like us on Facebook!

Promo Video
K-12 Education Project Collaborators

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