Creating Incentives for IPM Adoption in California Schools and Child Care Centers

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Leadership is getting people to do what you want them to do because they want to do it.

—Dwight Eisenhower
Outline

• Overview
• DPR’s Schoolsite IPM training and resources
• Information gathering
• New Healthy Schools Act (2015)
• Future efforts
• Summary
“It’s so easy!”

—Tom Babb, 2015
1990s: informal program, grants

2001: HSA school IPM program established

2002: IPM workshops, website, HELPR, guidebook, SIPM AG

2003-2006: training videos, factsheets, calendar, tool box

2008: childcare IPM program established

2012-2014: turf grass workshops, new video series

2015: HSA amended, complete pesticide use reporting, required training, required IPM plans
Challenges

- IPM is voluntary
- Training is voluntary
- No enforcement provisions (for IPM)
- Large numbers - schools and child care
- Diversity in size and setting
Making IPM adoption easy (so they want to do it):

- Train-the-trainer workshops
- In-person specialized training
- Outreach & education resources
- School and Child Care IPM web sites
- Training videos
School & Child Care IPM Programs

Train-the-Trainer Workshops:
In-person, hands-on, interactive, entertaining, training workshops at schoolsites with a nice lunch and snacks!
IPM Training for Child Care Providers
53 Presentations
4,110 trained to date

IPM Training for School Districts
54 Hands-on Workshops
86% of School Districts trained in IPM, to date
In-Person Specialized Workshops

• ½ day, focused on single subject
  – Turfgrass
  – Other subjects planned

• For advanced IPM practitioners

• University of California presenters
Outreach and Education: Train-the-Trainer Tools

SIPM Resource Starter Kit AKA “Toolbox”
Outreach Materials

- Posters
- Recordkeeping calendars
- IPM curricula
- Pest fact sheets
- IPM guidebook
Video Series

• Focus on IPM training
• Extension of train-the-trainer
• Very similar to T2 workshops
• Audience-specific
  – Child Care IPM, series of seven
  – School IPM, series of ten
• Play short demo clip
Video Series Outreach

• The most ambitious and complex video project DPR has been involved in.
• More than 7,000 persons have viewed (more than 21,000 minutes or an average of 3 minutes / viewer).
• The average "view" is getting longer which suggests we are reaching the correct target audience.
• Demographics -- 63% male vs 37% female. This is different from DPR’s overall YouTube stats (approx. 60% female vs. 40% male). Ages 24-44.
Information Gathering

• Post-workshop phone survey

• Statewide school district surveys

• Statewide child care center surveys

• Pesticide use reporting
## Use of school workshop training resources

<table>
<thead>
<tr>
<th>Resource</th>
<th>Looked at</th>
<th>Used</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toolbox</td>
<td>97%</td>
<td>91%</td>
</tr>
<tr>
<td>Guidebook</td>
<td>83%</td>
<td>48%</td>
</tr>
<tr>
<td>Ant fact sheet</td>
<td>78%</td>
<td>49%</td>
</tr>
<tr>
<td>Ant DVD</td>
<td>47%</td>
<td>22%</td>
</tr>
<tr>
<td>Weeds of the West textbook</td>
<td>81%</td>
<td>65%</td>
</tr>
<tr>
<td>Consumable Tools (yellow jacket trap)</td>
<td>84%</td>
<td>57%</td>
</tr>
<tr>
<td>Durable Tools (Flashlight)</td>
<td>84%</td>
<td>72%</td>
</tr>
</tbody>
</table>
Is what we are doing working . . .
survey says . . .

• Schools
• Child Care Centers
<table>
<thead>
<tr>
<th>2010: Reported Barriers to Using IPM Practices in Schools</th>
</tr>
</thead>
<tbody>
<tr>
<td>Understaffing/staff turnover</td>
</tr>
<tr>
<td>Budget restrictions</td>
</tr>
<tr>
<td>Age and condition of school facilities</td>
</tr>
<tr>
<td>*Inadequate staff training</td>
</tr>
<tr>
<td>*Insufficient tool/equipment inventory</td>
</tr>
<tr>
<td>*Lack of technical information resources</td>
</tr>
<tr>
<td>Poor communication within district</td>
</tr>
<tr>
<td>*Contracting problems</td>
</tr>
</tbody>
</table>
Cost of IPM In California Schools

Percent of schools responding

Reduced cost
No difference
Uncertain
Increased cost

2002 2004 2007 2010
Perceived Effectiveness of IPM in California Schools

- 0%
- 20%
- 40%
- 60%
- 80%

2002 2004 2007 2010

Percent of schools responding

- More effective
- No difference
- Less effective
- Uncertain
But still . . .
IPM Programs in California Public K-12 Schools
## Ant Management

<table>
<thead>
<tr>
<th></th>
<th>2001</th>
<th>2002</th>
<th>2004</th>
<th>2007</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ant baits</td>
<td>37%</td>
<td>58%</td>
<td>69%</td>
<td>69%</td>
<td>80%</td>
</tr>
<tr>
<td>Soapy water sprays</td>
<td>14%</td>
<td>38%</td>
<td>45%</td>
<td>51%</td>
<td>64%</td>
</tr>
<tr>
<td>Caulking</td>
<td>19%</td>
<td>36%</td>
<td>50%</td>
<td>69%</td>
<td>79%</td>
</tr>
<tr>
<td>Improved sanitation</td>
<td>NA*</td>
<td>63%</td>
<td>80%</td>
<td>88%</td>
<td>93%</td>
</tr>
</tbody>
</table>
### Weed Management

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Spot treatment with herbicides</td>
<td>68%</td>
<td>61%</td>
<td>82%</td>
<td>80%</td>
<td>92%</td>
</tr>
<tr>
<td>Mulches</td>
<td>25%</td>
<td>26%</td>
<td>55%</td>
<td>60%</td>
<td>70%</td>
</tr>
<tr>
<td>Physical controls</td>
<td>61%</td>
<td>69%</td>
<td>91%</td>
<td>94%</td>
<td>95%</td>
</tr>
<tr>
<td>Irrigation management</td>
<td>NA*</td>
<td>17%</td>
<td>41%</td>
<td>50%</td>
<td>73%</td>
</tr>
</tbody>
</table>
# Reported Reasons for Pesticide Use in Child Care Centers

<table>
<thead>
<tr>
<th>Reason</th>
</tr>
</thead>
<tbody>
<tr>
<td>Effective</td>
</tr>
<tr>
<td>Recommended/decided by pest control company</td>
</tr>
<tr>
<td>Safety</td>
</tr>
<tr>
<td>Cleanliness</td>
</tr>
<tr>
<td>Required</td>
</tr>
<tr>
<td>Convenient</td>
</tr>
<tr>
<td>Don't know/not sure</td>
</tr>
<tr>
<td>I didn't know what else to do</td>
</tr>
<tr>
<td>Inexpensive</td>
</tr>
</tbody>
</table>
Child care centers with a written policy for use of environmentally friendly pesticide methods

- Yes
- No
- Not sure
Pesticide Use Reporting

• Since 2001, Pest management professionals report use of all registered pesticides

• Starting in 2015, schools and child care center employees report use of most pesticides
  – Pesticides exempt from reporting are self-contained baits and traps, gels & pastes used in cracks & crevices, pesticides exempt from registration, and antimicrobials
Top Ten Pesticides By Weight

Used by licensed pest management professionals in California schools, 2013

<table>
<thead>
<tr>
<th>Rank</th>
<th>Pesticide</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>PERMETHRIN</td>
<td>insect</td>
</tr>
<tr>
<td>2.</td>
<td>PIPERONYL BUTOXIDE</td>
<td>insect</td>
</tr>
<tr>
<td>3.</td>
<td>BIFENTHRIN</td>
<td>insect</td>
</tr>
<tr>
<td>4.</td>
<td>IMIDACLOPRID</td>
<td>insect</td>
</tr>
<tr>
<td>5.</td>
<td>GLYPHOSATE</td>
<td>weed</td>
</tr>
<tr>
<td>6.</td>
<td>CYFLUTHRIN</td>
<td>insect</td>
</tr>
<tr>
<td>7.</td>
<td>PYRETHRINS</td>
<td>insect</td>
</tr>
<tr>
<td>8.</td>
<td>LAMBDA-CYHALOTHORIN</td>
<td>insect</td>
</tr>
<tr>
<td>9.</td>
<td>FIPRONIL</td>
<td>insect</td>
</tr>
<tr>
<td>10.</td>
<td>DIURON</td>
<td>weed</td>
</tr>
</tbody>
</table>
• IPM Plan
• Pesticide use reporting (school site employees)
• Required IPM training for anyone applying any pesticide, even those pesticides exempt from the HSA
Future Efforts

- Peer-to-peer information transfer
  - Sharing survey/pesticide use data between similar schools
  - Recognize the best, motivate the rest
  - School IPM Honor Roll
- Online IPM training courses
  - Basic, intermediate and advanced
- More pest fact sheets . . .
- Still a few surveys . . .
Summary

• Change is slow, despite incentives
• Required vs. mandated IPM adoption
• Stay tuned for post HSA 2015 updates: will IPM adoption in CA increase?
• It is really about giving people the knowledge and tools to do what they want to do – protect children’s health.
Thank You!