

**Comments on School IPM 2015: A Strategic Plan for IPM in Schools in the United States**

<http://www.ipmcenters.org/pmsp/pdf/USschoolsPMSP.pdf>

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The following selected comments have been compiled since *School IPM 2015* was released in January 2009. The editors have compiled additional background information and commentary on each issue. Additional comments welcome to [school.ipm.pmsp@ipminstitute.org](mailto:school.ipm.pmsp@ipminstitute.org)

| Question/comment  | Background   | Updates to plan   |
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| 1. What is a Pest Management Strategic Plan (PMSP)?   | PMSPs are developed by stakeholders to identify their pest management needs. More than 90 have been developed to date. The need for a school IPM PMSP was first identified by Dr. Dawn Gouge, University of Arizona. Drs. Gouge and Thomas Green of the IPM Institute applied to USDA CSREES and the USDA IPM Centers for funding in 2006 and received grants totaling \$50,000 to develop this PMSP. Rick Melnicoe, director, and Linda Herbst, associate director, of the Western IPM Center served as USDA-designated facilitators. The plan was completed in 2008, released in 2009 and revised in 2010. | Foreword added describing PMSPs and providing link to IPM Centers website for more information.   |
| 2. <i>School IPM 2015</i> builds an effective case for the benefits of IPM in schools and has leveraged new funding for implementation. | One of the goals of Pest Management Strategic Plans (PMSPs) is to develop stakeholder-identified priorities for research, education and regulation to inform and aid decision making by funders and policy makers. For a list of benefits of PMSPs, see <a href="http://www.ipmcenters.org/pmsp/PMSP_CHECKLST.pdf">http://www.ipmcenters.org/pmsp/PMSP_CHECKLST.pdf</a>  | Several states without active school IPM programs are now engaged in new demonstration projects as a direct result of the plan and the efforts of the plan development team and others, including Louisiana, Montana, New Hampshire, Rhode Island and South Dakota. |

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| <p>3. Why were key stakeholders including professionals in Extension and industry with extensive experience in school IPM not included in the plan development process?</p> | <p>The number of participants in PMSP development is limited by both funding and by the need to keep the group size manageable. In this case, an initial team of grantees, facilitators and collaborators identified more than a dozen key sectors including Extension, research, public agencies, structural pest and landscape services, consultants, advocacy groups, and school administration, architectural and design, instruction, maintenance, operations and health. The team recruited more than 30 leading practitioners representing these sectors to participate as stakeholders in plan development.</p> | <p>An explanation and acknowledgement of those who were not invited to participate has been added to the Acknowledgements, page 2.</p> <p>A pre-release announcement was sent along with a copy of the plan in December 2008 to a list of several hundred individuals inviting comment and engagement. More than 200 individuals are now involved as members of the regional working groups or volunteers, shaping implantation of the plan. Links to working group membership are located at <a href="http://www.ipminstitute.org/school_ipm_2015/school_ipm_2015_Get_Involved.htm">http://www.ipminstitute.org/school_ipm_2015/school_ipm_2015_Get_Involved.htm</a></p> |
| <p>4. How can interested parties provide input on the plan?</p>   | <p>PMSPs are living documents. It is the responsibility of the grantees to review and revise PMSPs as needed to keep them current and relevant to their purpose.</p> <p>Page 3 of the plan invites comments at any time to <a href="mailto:school.ipm.pmsp@ipminstitute.org">school.ipm.pmsp@ipminstitute.org</a></p>   | <p>An explanation of PMSPs has been added to School IPM 2015 in a new Foreword.</p> <p>Comments and responses have been compiled here. A revisions log is posted at <a href="http://www.ipminstitute.org/school_ipm_2015/PMSP_Revisions_Log_022609.pdf">http://www.ipminstitute.org/school_ipm_2015/PMSP_Revisions_Log_022609.pdf</a></p> <p>Additional comments will be considered for incorporation future periodic revisions.</p>  |
| <p>5. How can I get involved?</p>   | <p>Individuals have opportunities to participate in four regional working groups or on volunteer committees with specific tasks outlined in <i>School IPM 2015</i>. More than 200 individuals are now participating.</p>  | <p>See <a href="http://www.ipminstitute.org/school_ipm_2015/get_involved.htm">http://www.ipminstitute.org/school_ipm_2015/get_involved.htm</a> for more details.</p>  |

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| <p>6. The plan states a goal of “high-level IPM” in all public schools by 2015, implying that “ordinary” IPM is inadequate and failing to define “high-level IPM.”</p>                      | <p>Scientists have long recognized IPM as a continuum<sup>1</sup> from basic practices such as incorporating monitoring and inspection along with pesticide applications in a “combination of methods” approach to a comprehensive, prevention-based system for identifying and eliminating pest-conducive conditions, greatly reducing pest complaints and the need for intervention with pesticides or other measures.</p>                  | <p>An explanation of the IPM Continuum including references has been added to the Executive Summary and Introduction. Indicators of high-level IPM are clearly identified in School IPM 2015 in a table that has been moved from Chapter 4 to Chapter 2 (Table 2.1).</p>  |
| <p>7. Children are more vulnerable to pesticides, so the focus on prevention and long-term methods is critical.</p>   | <p>Preventive measures can reduce pest problems, and reduce the time and cost associated with addressing persistent pest issues. For example, door sweeps can reduce pest complaints in schools by up to 65%.</p>   | <p>School IPM 2015 cites peer-reviewed publications reporting on in-school projects that have documented the effectiveness of the prevention-based approach. Additional documented case studies are anticipated as the plan is implemented.</p>   |
| <p>8. The plan recommends against use of specific registered pesticides. EPA already considers toxicity and exposure making all pesticide products appropriate for school IPM programs.</p> | <p>EPA recognizes both that children are at greater risk to pesticides (<a href="http://www.epa.gov/opp00001/ipm/">http://www.epa.gov/opp00001/ipm/</a>), and that certain pesticides pose less risk to human health and the environment. EPA operates several systems to indicate reduced-risk to users, including pesticide product label signal words (Caution, Warning, Danger) and EPA’s Conventional Reduced Risk Pesticide Program</p> | <p><i>School IPM 2015</i> lists example pesticide active ingredients and formulated products and sorts them into categories according to toxicity and potential for exposure. The plan recommends against the use of certain types of pesticides, for example, spray applied liquids which can leave residues on exposed surfaces in schools<sup>2</sup> and other buildings. Lower risk, effective alternatives to</p> |

<sup>1</sup> Balling, S. 1994. The IPM Continuum. In *Constraints to the Adoption of Integrated Pest Management* A. Sorensen, ed. National Foundation for IPM Education. Jacobsen, B.J. 1997. Role of Plant Pathology in Integrated Pest Management. *In Annual Review of Phytopathology* 35: 373-391. American Phytopathological Society, St. Paul, MN.

<sup>2</sup> Williams, G.M., H.M. Linker, M.G. Waldvogel, R.B. Leidy and C. Schal. 2005. Comparison of conventional and integrated pest management programs in public schools. *J. Economic Entomology*. 98: 1275-1283. [www4.ncsu.edu/~coby/schal/Williams2005JEEv98.pdf](http://www4.ncsu.edu/~coby/schal/Williams2005JEEv98.pdf)

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|   | <p>(<a href="http://www.epa.gov/opprd001/workplan/reducedrisk.html">http://www.epa.gov/opprd001/workplan/reducedrisk.html</a>). EPA and other authorities also recognize that pesticides are often misused, increasing risk.</p>  | <p>residual-active, spray-applied liquids are readily available for all of our major pests. Schools working to qualify for LEED Certification can use the PMSP to help identify lower risk pesticide alternatives to earn credit.</p>  |
| <p>9. Certain volatile pesticide active ingredients may be readily vaporized, increasing inhalation hazard, but volatility may be greatly reduced when contained within a bait matrix. The plan does not make this distinction and contains errors on the relative volatility of specific active ingredients.</p> | <p>Published data on the volatility of volatile compounds in bait formulation are lacking. Unpublished data on fipronil from an EPA study indicate no detections of fipronil in air samples from a structure treated with bait. Published and unpublished data do suggest that baits are readily translocated by insects consuming bait and excreting bait ingredients.</p> | <p>Version 2.0 references new findings and addresses related issues including the potential for insecticides in baits to be redistributed in insect feces and the importance of improved sanitation, when using baits.</p>   |
| <p>10. <i>School IPM 2015</i> includes regulatory priorities and seems like a lobbying document.</p>  | <p>Stakeholder-identified regulatory priorities are an important part of the PMSP process. These priorities are intended to inform policy makers and others of stakeholder-identified needs. Informing and educating legislators does not constitute lobbying, which is the promotion of specific legislation not yet approved by Congress.</p>                             | <p>The plan was revised slightly in February after US EPA Office of Pesticide Programs expressed concern about the mention of specific legislation not yet approved by Congress including the School Environmental Protection Act. Those references have been removed. EPA currently posts on its website stakeholder-identified regulatory priorities throughout documents developed during the Bed Bug Summit EPA hosted in April, 2009, including references to creation of new legislation.<br/> <a href="http://www.epa.gov/pesticides/ppdc/bedbug-summit/">http://www.epa.gov/pesticides/ppdc/bedbug-summit/</a></p> |
| <p>11. The plan references an</p>   | <p>There is an extensive bibliography of peer-reviewed</p>  | <p>The next revision will cite the original references as</p>  |

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| <p>association between pests, pesticides and asthma and cites a review article published by an advocacy group rather than peer-reviewed articles.</p>                             | <p>publications addressing environmental asthma triggers.</p>   | <p>well as the fully referenced review article.</p>   |
| <p>12. The plan is not a consensus document and should not be represented as such. The plan should be modified into a consensus-based document.</p>                               | <p><i>School IPM 2015</i> is not a consensus document and is not intended to be represented as such. Our stakeholder group did not reach consensus on a limited number of issues. For example, several participants felt that organic methods should be the preferred approach to turf management, others felt insufficient information and technical assistance were available to make an organic approach successful in all parts of the U.S.</p> | <p>The grantees take responsibility for the document's contents in the Acknowledgements and have further clarify the nature of PMSPs, ownership and responsibility for maintenance in the Foreword. The disparity of views expressed in comments received to date, such as the objection to recommending against specific higher risk pesticide uses in schools, indicate consensus will not be reached going forward.</p>  |
| <p>13. <i>School IPM 2015</i> references IPM STAR, a program of the IPM Institute which because offers a service to schools for a fee should not be included in the document.</p> | <p>IPM STAR is a voluntary program (<a href="http://www.ipmstar.org">www.ipmstar.org</a>) operated by the IPM Institute of North America, a non-profit organization. School participation has been funded by grants, contracts and in some cases by nominal fees covering time and travel paid by schools for the on-site evaluation, reporting including prioritized recommendations for reducing pest complaints and pesticide risk.</p>          | <p><i>School IPM 2015</i> lists priorities and recommendations identified by the stakeholder development group, not the IPM Institute. The plan also references Quality Pro Schools, Green Pro and EcoWise, other voluntary fee-based programs. References to IPM STAR are not dissimilar to references to Quality Pro, a fee-based program offered by the National Pest Management Association, throughout the Bed Bug Summit materials posted on the US EPA website, which also reference EcoWise and Green Shield Certified.</p> |
| <p>14. The plan is unrealistic, creates huge new bureaucracies,</p>   | <p><i>School IPM 2015</i> references peer-reviewed publications that document reductions in pest</p>  | <p>The proof will be in the pudding. The more than 200 individuals representing all sectors are now</p>   |

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| <p>requires excessive funding and sets goals that are impossible to achieve. EPA and USDA should not fund this plan.</p> | <p>complaints and pesticide use of 70-90% in school systems throughout the US with no increase in cost. The document provides action steps and timelines to achieve those reductions in all public schools over the next six years.</p>   | <p>actively working to achieve these goals in the regional working groups, and success in obtaining funding to implement new demonstrations and coalitions tastes pretty good so far. New proposals submitted to fund implementation of elements of the plan will undoubtedly be judged on their merits.</p>  |
| <p>15. The plan optimizes efficient use of limited grant resources.</p>  | <p>By developing a coordinated national effort with region-based leadership and decision making, duplication of effort and learning curves can be reduced. A major thrust of the plan is to end the cycle of funding projects coming and going by integrating school IPM into the existing infrastructure of professionals and organizations working in schools, so that school IPM becomes a way of life in schools just as security and food safety have in recent years.</p> | <p>One goal of priority setting on a regional basis is to help ensure states do not fall through the cracks. We are succeeding in engaging professionals from all walks of school life in our regional working groups, volunteer committees, demonstrations and state-wide coalitions and recruiting them to recruit their peers, form IPM committees within their professional organizations and educate through publications and professional meetings.</p> |
| <p>16. The plan includes roles for advocacy groups. Those sections should be removed from the document.</p>              | <p>Advocacy groups and other non-governmental organizations play an important role in identifying opportunities for improvement in pest management in schools, increasing awareness and appreciation for IPM, developing useful resources and developing, promoting legislation and other activities.</p>   | <p>Members of advocacy groups are participating effectively in the working groups, on volunteer committees and in demonstrations and coalitions.</p>  |
| <p>17. A meeting is needed to allow participation by stakeholders excluded from the development process.</p>             | <p><i>School IPM 2015</i> includes periodic meetings to update the plan and make progress on implementation.</p>  | <p>In 2008, a national full day workshop was widely publicized and hosted by US EPA immediately following the Entomological Society Annual Meeting in Reno with 29 participants. A 90-minute open session was held at the IPM Symposium in Portland, Oregon, in March 2009, with 42</p>   |

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|   |   | individuals attending. The four regional working groups convene regular conference calls with broad participation. Within time and funding constraints, additional periodic opportunities will be developed for broad participation and open discussion, including in conjunction with national meetings. |
| 18. The Annual School Report Card is too long, too time consuming and expensive to collect accurate information.  |   | The Report Card has been revised to reflect periodic rather than annual circulation, with the next circulation planned by 2012.   |
| 19. The priorities listed in Chapter 3 do not reflect regional differences.   | Priorities have also been developed by the four regional working groups as well as some individual states.  | References have been added to regional priorities.  |
| 20. The plan refers to educating students about IPM which is not part of implementing IPM in schools.   | All building occupants have a role to play in implementing IPM within any facility. Understanding that role, including keeping individual work and storage areas clean, improves outcomes. Educating students helps educate tomorrow's teachers, facility managers, administrators, pest management professionals, etc. to be better IPM practitioners. |   |
| 21. The plan repeats redundant information about avoiding routine pesticide use in each pest-specific section throughout Chapter 8. This information should be removed and included | <i>School IPM 2015</i> is unlikely to be read from cover to cover but rather used as a reference including when specific pest problems arise. Including specific and general cautions in each section ensures the reader will encounter this information.   |   |

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| only in the beginning of the chapter.  |   |  |
| 22. Head lice is a medical issue and not a structural pest management issue and so should not be included.   | <i>School IPM 2015</i> addresses IPM in schools. Head lice are a pest often encountered in schools. High-risk practices persist despite the availability of effective, reduced-risk alternatives.   |  |
| 23. Pesticide products should not be identified by name.   | Naming formulated products and active ingredients is a common practice in USDA-commissioned PMSPs. Failing to name specific example products would lessen the utility of the document to users who will likely use the document to help guide product selection and are not likely to be as familiar with active ingredient names and generic formulation descriptions. Products named are clearly identified as examples throughout. |  |
| 24. The document is too long with too much detail.   | <i>School IPM 2015</i> is a comprehensive compilation including references to resources for additional information. It is not intended to be read cover to cover but rather as a reference document.  |  |
| 25. Provide more information on why and how to do specific things, e.g., how to dry mops, how to clean drains. Provide more information on pesticide application methods and technologies. | <i>School IPM 2015</i> includes references to resources for additional information. It is not intended to provide the level of detail required to implement all of the strategies listed due to space and time limitations.   |  |

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| <p>26. Avoid using technical terms and jargon.</p> |  | <p>We've attempted to replace jargon and unfamiliar technical terms, or to explain these terms where they occur. The document also includes a glossary. Additional terms have been added to the glossary in this second edition</p> |
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