SolvePestProblems.edu

Statement of purpose- Draft

January 2018

SolvePestProblems.edu will help people quickly and easily diagnose non-agricultural pest problems and determine effective Integrated Pest Management (IPM) strategies for preventing and managing specific pests in homes, buildings, landscapes, gardens, natural areas, and other non-agricultural locations. Recommended strategies will pose the least possible risk to people, property, resources, and the environment, while preventing intolerable levels of pest damage. The information provided aims to reduce the use of pesticides by eliminating the unnecessary use of pesticides. SolvePestProblems.edu will address inequities in access to unbiased, science-based pest management information and be offered in both English and Spanish.

SITUATION
Currently, there is no unified strategy or comprehensive educational resource to help Oregonians diagnose pest problems and determine effective, low-risk IPM strategies for homes, buildings, landscapes, natural areas, and other non-agricultural locations. There is a confusing array of information online and on store shelves, which makes it difficult for people to diagnose problems and determine their best solution. There are also diverse communities who have been historically underrepresented in contributing to and accessing IPM information, and who are disproportionately impacted by pests and pesticides.

HISTORY
Beginning in 2014, numerous stakeholders from across Oregon have requested that OSU develop a science-based information service to address this gap in public information delivery. OSU has responded to this opportunity/challenge by creating a plan to develop a new, comprehensive IPM decision-making tool. This planned IPM resource is at the core of the mission, values, and goals of OSU Extension Service, and will produce unprecedented cooperation and support from hundreds of government agencies and community organizations and thousands of individuals in Oregon and beyond.

The plan calls for existing content to be mined from OSU’s extensive research publications, with additional content to be developed in consultation with a range of stakeholders, including, but not limited to, culturally specific organizations that serve Spanish-speaking communities. Pesticide risk reduction, protection of water quality, and pollinator health will be among the priority topics.
A proof of concept for the website is anticipated to be completed by January 2019, with full website launch scheduled for fall 2020. Stakeholders have already identified at least 750 pages of high-priority content to develop as part of this statewide information delivery system.

AUDIENCE
SolvePestProblems.org will serve broad and diverse groups, including:
- Urban and rural residents who manage pests in their own homes or yards
- Public and private landscape and facilities management professionals
- Retail nursery workers
- OSU Master Gardener, Master Naturalist, and Master Beekeeper volunteers
- Communities historically underserved by OSU’s urban IPM resources including Spanish-speaking audiences
- Communities facing disproportionate risks from non-agricultural pesticide exposure

PRINCIPLES
The information in SolvePestProblems.edu will be:
- Based on science
- Protective of human and environmental health
- Highly accessible to all key audiences in English and Spanish
- Addressing gaps in communicating effective non-chemical pest management methods
- Providing information regarding efficacy, costs, and human and environmental risks of recommended chemical and non-chemical pest control strategies for managing specific pests
- Adhering to Integrated Pest Management strategies
- Acknowledging uncertainty and data gaps in risk assessment information

DEFINITION OF INTEGRATED PEST MANAGEMENT (IPM)
The following strategies represent the process and purpose of Integrated Pest Management (IPM) and will underlay all content on SolvePestProblems.edu:
1. Manage sites to prevent pest problems
2. Identify pests and learn their potential for damage and their life cycle
3. Set site management goals and tolerances for damage
4. Select and implement integrated methods that consider efficacy, cost, and risk
5. Monitor and evaluate results to inform future action

FRAMING
The following goals will frame the development of, and all communications made through, SolvePestProblems.edu:
- Provide access to effective, low-risk, scientifically based IPM information for preventing intolerable pest damage
- Promote an emphasis on prevention of pests through an ecological approach to property management; emphasis will be given to effective non-chemical methods, including cultural, physical, and biological management techniques and practices
- Reduce risks to people, property, resources and the environment from pests and pest management practices
• Reduce the use of pesticides by eliminating the unnecessary use of them
• Advise users about the known risks of inaction for pest problems, particularly with regard to human health disease vectors and invasive organisms
• Facilitate access and adherence to product labels, personal protective equipment, and pesticide use record-keeping
• Advise users about the known risks of specific management techniques and pesticides, and provide information to help avoid/minimize the risk
• Identify practices that experts recommend for management of specific pest problems, including efficacy information as available

OUTPUTS
• Engage stakeholders from across the state to guide the development of this information resource through a steering committee, advisory council, and focus groups.
• Develop dynamic online problem-solving tools for the identification and management of key pest problems that occur in Oregon.
• Provide accessible science-based Integrated Pest Management (IPM) information for both professional and lay audiences in both English and Spanish.

OUTCOMES

Short term (learning objectives)
• 100,000+ Oregonians per year will be able to make more informed pest-management decisions and be empowered to manage their non-agricultural pest problems more effectively.
• Audiences previously underserved by IPM resources will be served by 716 mobile-accessible content pages available in both English and Spanish-languages.
• A wide range of Oregon stakeholders will collaborate in new ways to promote human and environmental health.

Medium term (behavior change)
• Site users make decisions based on IPM principles because of the information provided.
• Master Gardener volunteers use the site to find and communicate IPM and pesticide risk-reduction information to the general public.
• Site users are motivated to read and follow pesticide label information.
• Site users are motivated to minimize risks to human health and the environment by employing IPM decision-making.
• The decision to use pesticides is based on the efficacy and cost of meeting specific tolerances for pest damage, with full knowledge of the pesticide use risks to people and the environment, and consideration of non-pesticide use treatment alternatives of similar efficacy and cost.

Long term (societal impact)
• The human health impacts associated with the use of pesticides will be reduced by promoting risk-reducing behavior.
• The quantity of commonly used non-agricultural pesticides in waterways will be reduced by promoting practices that reduce the risk of materials that enter waterways.
• The unnecessary use of pesticides will be eliminated by helping users select the right tool(s) for the situation.

EVALUATION
An outcomes-based IPM education and evaluation model will guide evaluation using a range of methods and data streams. Key research questions will include:

- Do site users make decisions based on IPM principles because of the information provided?
- Do site users adopt recommended management practices, including sustainable gardening and facilities management techniques?
- Do Master Gardener volunteers use the site to find and communicate IPM and pesticide risk-reduction information to the general public?
- Do site users reduce or eliminate unnecessary pesticide use?
- Do site users better understand and follow the guidance from pesticide labels?
- Are site users motivated to minimize pesticide risks to human health and the environment?

The OSU team will conduct social science research with a suite of evaluation methods/materials, including surveys and interviews to assess if and how this information resource affects users’ knowledge, skills, attitudes, and behavior toward pest management activities.

This research will also use Pesticide Stewardship Partnership data to establish a baseline of water quality in urban areas. Over the course of the project (at least 10 years), the baseline will provide a basis for comparison to determine changes in the types and amounts of materials detected in water samples. Though this data stream will not necessarily indicate causation, the other research methods for this project could corroborate trends in water quality data.

ORGANIZATIONAL STRUCTURE
In response to stakeholder feedback, the following structure is recommended:

OSU project leadership
OSU faculty and staff are responsible for managing the development and maintenance of SolvePestProblems.org. Though all final decisions related to this service rest with OSU, OSU will be responsive, transparent, and accountable to stakeholders and the public.

Steering committee for content development
A small group of key stakeholders will provide strategic, tactical, and operational guidance throughout the content development stage. OSU will strive to ensure this important core committee is well-balanced and reflects the differing perspectives held by the advisory group. Members will be selected by OSU, with at least one of each of the following member categories represented: OSU staff, funders, and other stakeholders. Members must commit to attending monthly meetings via online connection. Steering committee members are asked to participate for a minimum of two years.

The meeting notes of the steering committee will be shared with the Advisory Group.
Advisory group
Advisors will provide strategic and tactical guidance throughout the development, launch, and maintenance phases. Anyone can join the advisory group, as long as they support these project agreements and commit to constructive participation in quarterly meetings and related duties. The advisory group will include representatives of the following key stakeholder categories: content area experts, industry practitioners, public sector practitioners, communications specialists, community members, education specialists, the Oregon Department of Agriculture, and other agencies.

Stakeholders
Anyone can participate as a stakeholder in annual stakeholder meetings and comment on quarterly updates and key deliverables.

DIVERSITY, EQUITY, AND INCLUSION
In order to succeed in creating an equitable and inclusive process, we are committed to the principles of Diversity, Equity, and Inclusion as stated in Oregon State University’s DEI vision and principles (see http://main.oregonstate.edu/equity-inclusion-and-diversity-oregon-state-university).

This project will invite stakeholder feedback through a facilitated and equitable process as we develop and maintain the content. Community members, especially those historically excluded from participation and those who experience greater risks from pesticide exposures and from non-agricultural pests, will be sought, invited, and supported to help make the resource relevant, accessible, and responsive. We will be open to using novel strategies for being inclusive and equitable. We will also work to implement the recommendations that come out of the engagement process.

By its nature, this project aims to address inequities in access to unbiased, science-based information. It will promote and enhance environmental justice by empowering individuals and communities to tackle site-specific challenges, mitigate pest damage, and minimize environmental health risks. SolvePestProblems.org will fill a gap that commercial/advertising/advocacy information cannot fill.

Non-Discrimination Statement
Oregon State University Extension Service prohibits discrimination in all its programs, services, activities, and materials on the basis of race, color, national origin, religion, sex, gender identity (including gender expression), sexual orientation, disability, age, marital status, familial/parental status, income derived from a public assistance program, political beliefs, genetic information, veteran’s status, and reprisal or retaliation for prior civil rights activity. (Not all prohibited bases apply to all programs.)

TRANSPARENCY AND ACCOUNTABILITY
OSU will be responsive, transparent, and accountable to stakeholders and the public. All key deliverables will be easily accessible at SolvePestProblems.org during the development phases, with various methods for easily providing feedback. Project progress, including funding, staffing, technology development, content development, results, and responses to stakeholder engagement outcomes, and evaluation will be reported annually.
THANK YOU TO OUR SPONSORS
Project planning has been made possible through the generous support of our community partners, including OSU Extension Service, OSU Pollinator Health, and OSU College of Agricultural Sciences, as well as Metro, East Multnomah Soil and Water Conservation District, West Multnomah Soil and Water Conservation District, and City of Gresham.

Additional financial contributions have been provided by Clackamas County Water Environment Services, Clackamas Soil and Water Conservation District, Oregon Association of Clean Water Agencies (ACWA), Oregon Master Gardener Association, Multnomah County Master Gardener Association, Washington County Master Gardener Association, and Statewide Master Gardener Program.

OSU LEADERSHIP
OSU Extension Service has assembled a team of content experts from the Department of Horticulture and the Department Environmental and Molecular Toxicology, and a team of communications specialists to develop this educational resource in both English and Spanish. The team includes faculty and staff, and contractors as well as in-kind and administrative support from the College of Agricultural Sciences and Clackamas Extension Department.

OSU PROJECT TEAM
- Project manager: Weston Miller, Community and Urban Horticulture Faculty
- Content developer for pesticide information: Kaci Buhl, Pesticide Safety Education Program Coordinator
- Content for developer for pollinator information: Andony Melathopoulos, Pollinator Health Specialist
- Other content experts in the Department of Horticulture are excited to contribute to the project

Advisory and administrative support
- Sam Angima, Assistant Dean, Outreach & Engagement
- Bill Braunworth, Head of Department of Horticulture
- Mike Bondi, Regional Administrator for Clackamas County Extension
- Paul Jepson, Director for Integrated Plant Protection Center
- Gail Langellotto, Statewide Master Gardener Program Coordinator
- Extension and Experiment Station Communications

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