

Originally presented as indicated below. Slides 2-27 can be used as desired to advance the goals of the National Stakeholder Team for PSEP Funding

Education: The Critical Bridge Between the Label and Judicious Pesticide Use

Challenges and Observations from the US

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**The Critical Bridge Between the
Label and Judicious Pesticide Use**

Overview

- There are a variety of challenges impacting pesticide safety education in the U.S. today
- The objectives of this presentation are to:
 - Review some of the major challenges
 - Explain some of the positive trends
 - Consider some key questions
 - Learn from the US experience

Training and Certification in the U.S.

The Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) requires anyone purchasing, using, or supervising the use of restricted-use pesticides (RUPs) to be a certified applicator.

- Certification by a state, tribal, territorial, or federal agency is the process by which a person qualifies to use pesticides for one or more specific categories of use (agriculture, forestry, aquatic, structural, etc.)

States and other certifying entities vary in their training and certification requirements for initial and re-certification of applicators, and in their requirements for certification beyond restricted-use pesticides.

A diverse network of educators provides training to individuals who want to obtain or retain certification.

There is a Diverse Network of Educators

- University Pesticide Safety Education Programs
- Extension Agents – County or Multi-County
- US Environmental Protection Agency (EPA)
- State Pesticide Regulatory Agencies
- US Department of Agriculture (USDA)
- Other University and Government Personnel
- Associations, Other Non-Government Groups
- Registrants
- Private Pesticide Safety Education Companies

**BUT...An Educational Network with
Challenges...**

Challenge 1

Large Numbers of Pesticide Applicators, Mixers, and Loaders who increasingly:

- a) can't read English
- b) can't read even their native language
- c) work under the direct supervision* of a certified applicator

“Unless otherwise prescribed by its labeling, a pesticide shall be considered to be applied under the direct supervision of a certified applicator if it is applied by a competent person acting under the instructions and control of a certified applicator who is available if and when needed, **even though such certified applicator is not physically present at the time and place the pesticide is applied.**”

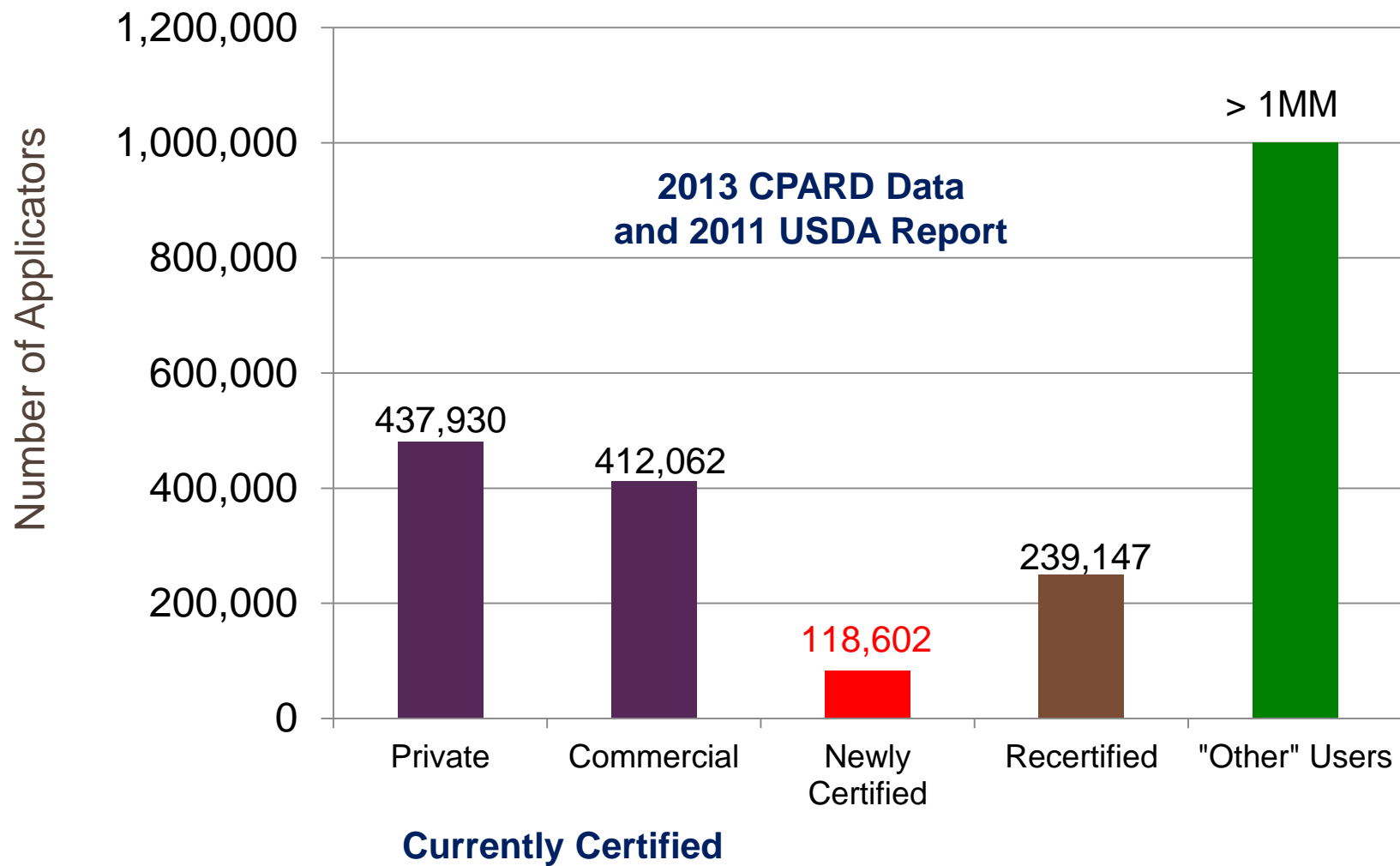
Source: Federal Insecticide, Fungicide and Rodenticide Act (FIFRA)

Challenge 2

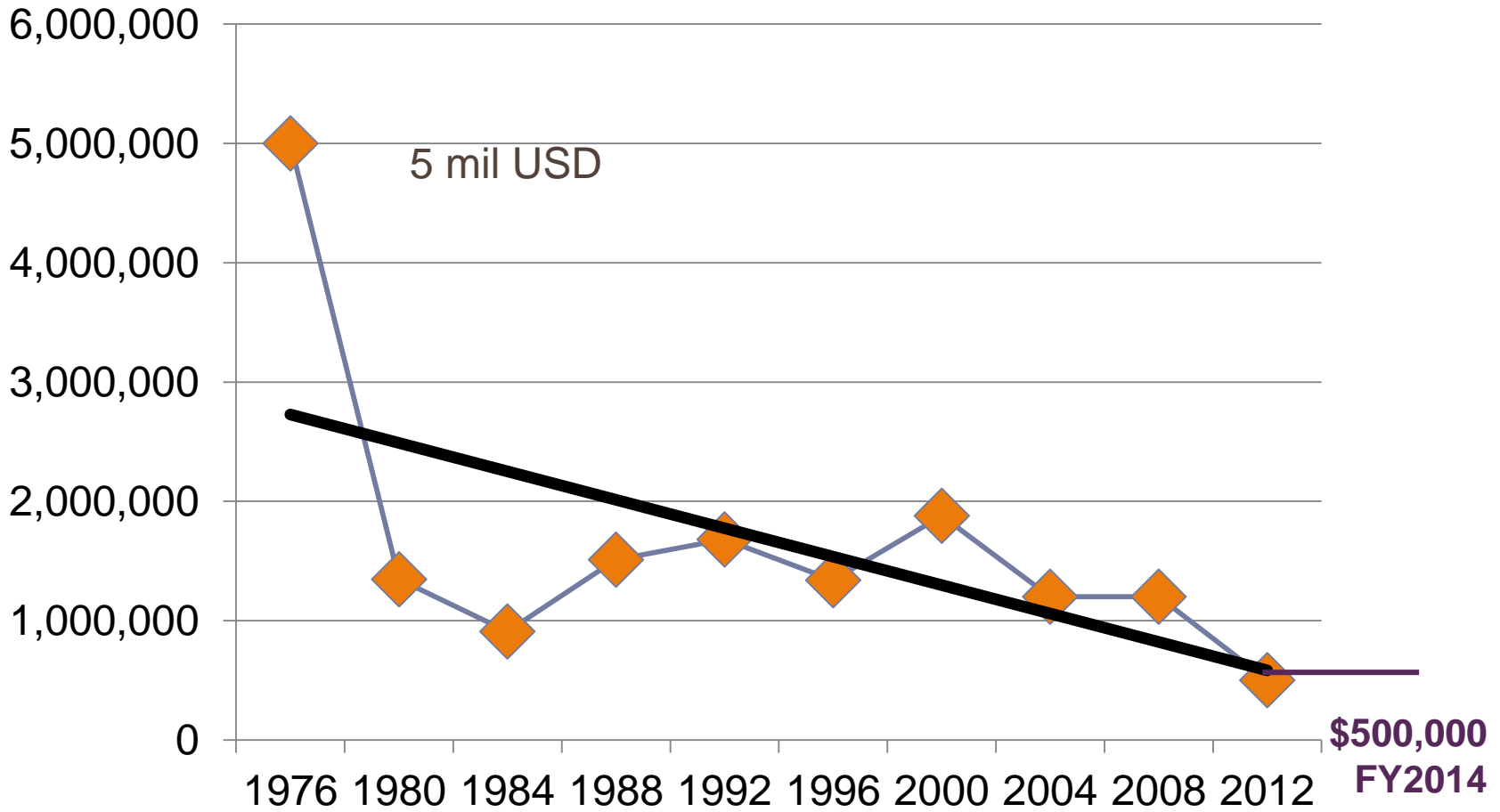
There is a University/Extension **Pesticide Safety Education Program (PSEP)** in all 50 states BUT:

- A) only ~18 strong PSEPs remaining
- B) diminishing financial support from federal/state government, Extension, and university sources
- C) diminishing time commitment allotted to pesticide safety education
- D) diminishing interest in championing pesticide safety education

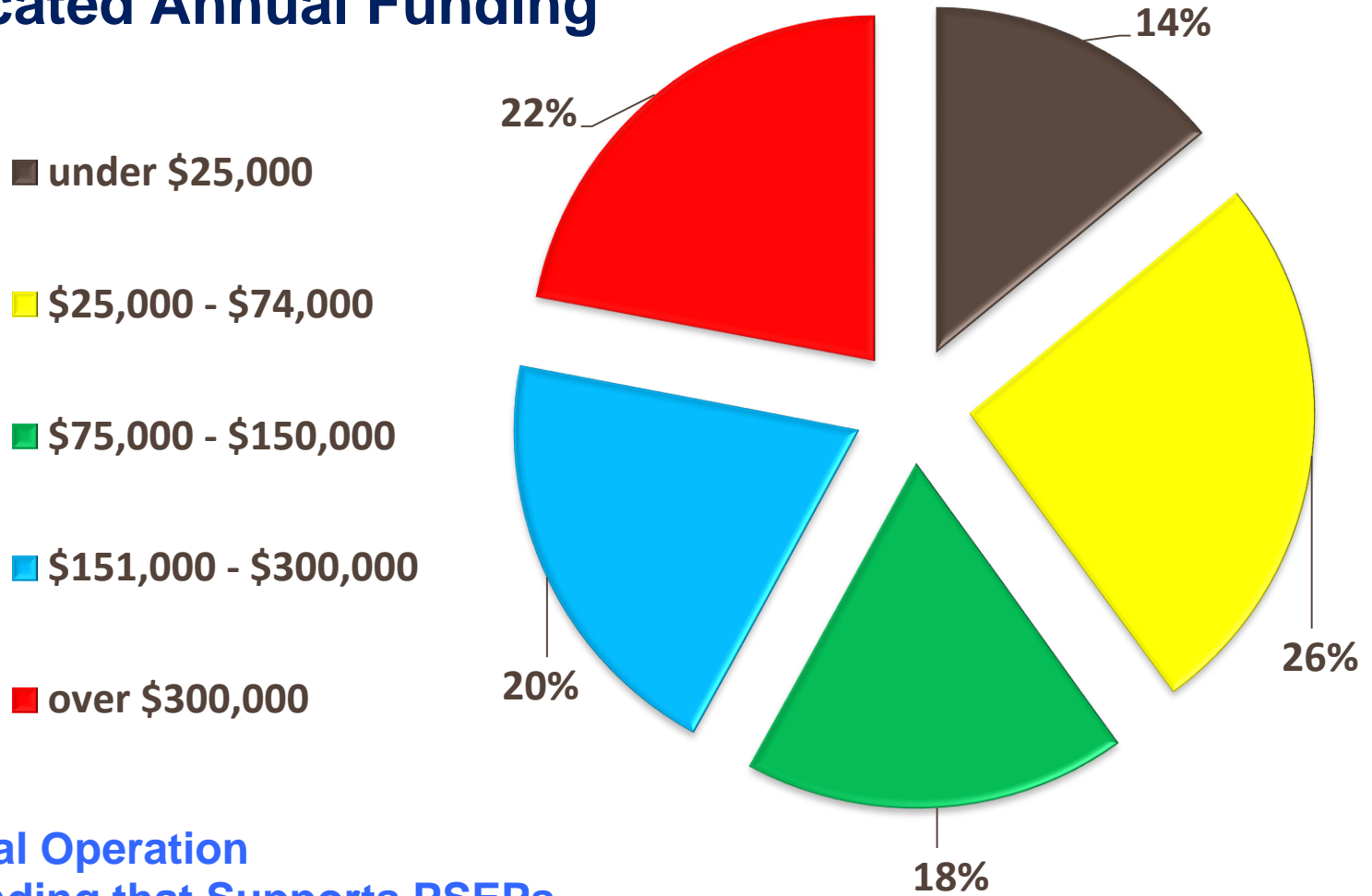
Those Impacted by PSEP



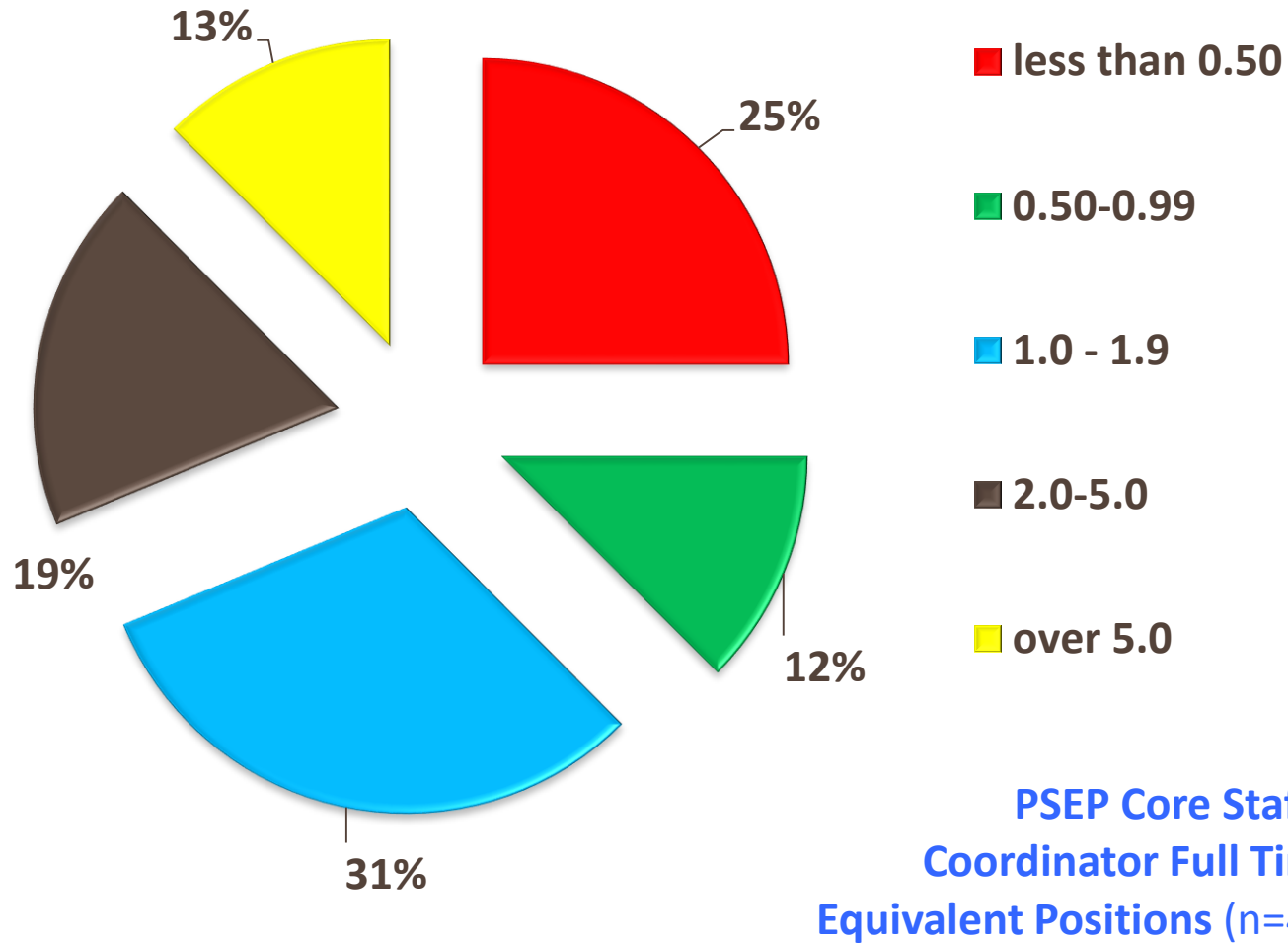
Downward Trend - Federal Funding of PSEPs



Percent of States with Indicated Annual Funding



**Total Operation
Funding that Supports PSEPs
(n=47)**



Percent of States With Dedicated Staffing

Challenge 3

The supporting infrastructure is shrinking...

“In reality, the quality of the **Pesticide Safety Education Program** is being impacted by the funding challenges of a group of associated entities that are critical to synergizing its impacts – the *State Lead Agencies* that enforce the law, the *universities* that provide indirect support, the *state extension services* that develop PSEP educational content and deliver the program, and the **county agent system** that maintains a county-level presence for anyone (rural or urban) who has questions relative to pesticide use, safety, and stewardship.”

Source: The Precarious State of the Pesticide Safety Education Program, **Weed Science Society of America**, Sept. 2011

Challenge 4

The content of each core/required topic is increasingly complicated...

- Selling and buying a pesticide
- Understanding the label and other federal and state laws
- Transport, storage, disposal, recycling
- Personal Protective Equipment
- Calibration and calculations
- Mixing, loading, application, cleanup
- Spills, emergency plans
- Prevention of drift, runoff, leaching
- Protection of non-target organisms
- Hiring a pest management professional
- Record-keeping, site-specific conditions, the list goes on....

Challenge 5

The target audiences require different educational content and different educational techniques...

- Certified commercial and certified private applicators
- Non-certified applicators
 - Registered technicians; supervised personnel
 - Maintenance applicators; service technicians
 - Handlers covered under the Worker Protection Standard (WPS)
 - Handlers not covered under the WPS
- The network of trainers (county agents, Master Gardeners, etc.)
- The general public
- State regulators
- Health care professionals
- Distribution and sales personnel.....etc.

Challenge 6

There is a changing emphasis in university curricula and in government grant support...

- ❑ Integrated Pest Management (IPM) curricula that downgrade the importance of course work on the chemical component of IPM, notably safe pesticide use
- ❑ A growing, erroneous attitude that pesticide safety education is synonymous with promoting pesticide use
- ❑ Increasing attempts to reduce pesticide safety education to short directives...
 - “Use pesticides judiciously”
 - “Follow the label”Or misguided advice...
 - “Use only least toxic pesticides”
 - “Use pesticides only as a last resort”

There are Some Positive Trends...

Positive Trends at the Federal Level

1. In 2011, US EPA requested comments on farmworker interest groups' request to require that pesticide products be labeled in English and Spanish. **A pilot to translate key safety and stewardship information is in progress.**
2. In 2014, **US EPA requested comments on various proposed changes/updates to the Worker Protection Standard**, which would impact the education of pesticide handlers employed by agricultural establishments.
3. In 2015, **US EPA is expected to propose changes/updates to the Certification of Pesticide Applicators Rule**, which would impact the education of certified applicators.

Positive Trends at the State Level

A growing number of states require certification of entire applicator groups*, for example:

- a) Anyone treating public places
- b) Those “for-hire”
- c) Applicators treating aquatic areas
- d) Anyone controlling pests in and around schools
- e) Public employees

***It is estimated that 40% of applicators now required to be certified in the US never apply a restricted-use pesticide.**

Some states have tightened “direct supervision” in their laws.

National Stakeholder Team for PSEP Funding

Formed in Oct. 2012 – Representatives from 89 Organizations, and Growing

Associations

Agricultural Retailers Association
American Association of Pesticide Safety Educators
American Farm Bureau Federation
American Mosquito Control Association
Association of American Pesticide Control Officials
Association of Public Land Grant Universities
Association of Structural Pest Control Regulatory Officials
Council of Producers and Distributors of Agrotechnology
CropLife America
Florida Fruit and Vegetable Association
National Agricultural Aviation Association
National Association of County Agricultural Agents
National Association of State Departments of Agriculture
National Corn Growers Association
National Pest Management Association
Professional Landcare Network, Inc.
Responsible Industry for a Sound Environment

Professional Societies

American Phytopathological Society
Certified Crop Advisors of the American Society of Agronomy
and Soil Science Society of America
Entomological Society of America
Weed Science Society of America

46 Land-Grant University Pesticide Safety Education Programs

Government

Environmental Protection Agency
USDA National Institute of Food and Agriculture
USDA Office of Pest Management Policy
Arizona Department of Agriculture
Idaho State Department of Agriculture
Michigan Department of Agriculture
Minnesota Department of Agriculture
Mississippi Department of Agriculture and Commerce
Montana Department of Agriculture
Nevada Department of Agriculture
New Mexico Department of Agriculture
North Carolina Department of Agriculture & Consumer Services
Office of the Indiana State Chemist
Oregon Department of Agriculture
Tennessee Department of Agriculture
Virginia Department of Agriculture and Consumer Services

Pesticide Registrants

BASF Corporation
Bayer CropScience
Dow AgroSciences
DuPont Crop Protection
Monsanto
Syngenta

The Stakeholder Team is Exploring Every Sustainable and Supplemental Funding Opportunity

- EPA and State Supplemental Environmental Projects (SEPs)
- State Pesticide Fee Increases
- Federal/State Pesticide Fines
- State Lead Agency Support
- PRIA – New/Maintenance
- EPA/USDA/State Line Items
- Fees for classes & manuals
- IPM grants from NIFA, IPM Centers, and State IPM Coordinators
- EPA and other agency grants
- University overhead caps
- NGO support
- Commodity check-offs
- Contracts, gifts, endowments
- Other funding ideas/sources...

One Important Spin-Off of the Stakeholder Team...
**The Pesticide Safety Education Program Improvement
and Modernization Initiative (PSEP-IMI)**

PSEP-IMI Steering Committee operates under CropLife Foundation

Current Steering Committee Representatives from:

- American Association of Pesticide Safety Educators
- Association of American Pesticide Control Officials
- Association of Structural Pest Control Regulatory Officials
- CropLife Foundation
- Dow AgroSciences
- DuPont Crop Protection
- Extension Administration
- Syngenta
- USDA Office of Pest Management Programs
- US Environmental Protection Agency

PSEP-IMI Created in Aug. 2013 Key objectives include:

- To strengthen the Pesticide Safety Education Program (PSEP) throughout the US.
- To improve the quality, consistency, and accessibility of pesticide safety education opportunities for all audiences

Wide range in sponsorship levels; additional partners desired



150 Years
Science For A Better Life

The Critical Need for IPM Support of Pesticide Safety Education

- A Statement of the National Stakeholder Team for PSEP Funding (Nov. 2013)
- 24 recommendations in five major IPM areas
- Pesticide safety education teaches applicators to use pesticides properly, and re-certification is the only existing mechanism that guarantees this ongoing training
- Strong IPM support of pesticide safety education translates to strong support of IPM
- **The requested national dialogue on these recommendations is targeted to begin in 2014.**

Emphasis
Leadership
Procedures
Grants
Education

Some Hard Questions We Must Ask...

1. What happens if pesticide safety education becomes more costly for the applicator?
2. What happens if the only access to pesticide safety education becomes self-directed for many?
3. What happens if there is not more attention to on-line education? Distance education? Education geared to Spanish-speaking audiences who may not be able to read Spanish?
4. What happens if the university/extension Pesticide Safety Education Program continues to weaken in many states, or disappears in a number of states?

Lessons to be Learned

1. Pesticide safety education can face a variety of challenges, even in a country with a large network of perceived and potential educators.
2. Pesticide safety education can be diluted, weakened, re-directed, or ignored, if it is not championed by committed stakeholders from government, academia, industry, etc.
3. Registrants must become particularly vigilant in understanding and supporting opportunities to advance pesticide safety education in efficient and far-reaching ways.

Acknowledgments

The National Stakeholder Team for PSEP Funding <http://psep.us>

Certification Plan and Reporting Database (CPARD)
<http://cpard.wsu.edu/reports/menu.aspx>

EPA – Spanish Labels Docket No. EPA-HQ-OPP-2011-0014

Dept. of Labor National Agricultural Workers Survey
<http://www.doleta.gov/agworker/naws.cfm>

EPA Worker Protection Standard Docket No. EPA-HQ-OPP-2011-0184

Why Good IPM is not Least Toxic Pesticides Applied as a Last Resort. Weed Science Society of America, American Phytopathological Society, and Entomological Society of America/Plant-Insect Ecosystems Section – Nov. 2012

The Precarious State of the Pesticide Safety Education Program. Weed Science Society of America – Sept. 2011