EPA IPM Update

Frank Ellis

Biopesticides & Pollution Prevention Division

Ellis.Frank@epa.gov | 703-308-8107

Nikhil Mallampalli
Bill Chism

Biological & Economic Analysis Division

Mallampalli.Nikhil@epa.gov | 703-308-1924

Chism.Bill@epa.gov | 703-308-8136

October 18, 2016

Overview

- IPM in Schools
- Integrated Vegetation Management
- Biopesticides

School IPM Strategic Plan

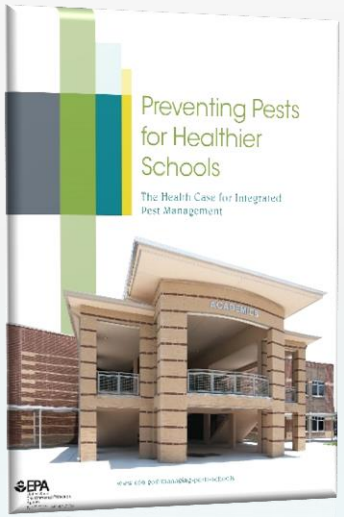
- Issue
  - Most schools receive regular pesticide treatments yet still struggle with pests and asthma-related absences
- Overall Goal
  - A smart, sensible, and sustainable approach to pest control, Integrated Pest Management (IPM), will be the standard in all schools
- Getting There
  - **Emphasize wholesale strategies** that create demand for school IPM programs, provide the information and tools schools need to start and grow their IPM programs, leverage resources, and expand our school IPM allies

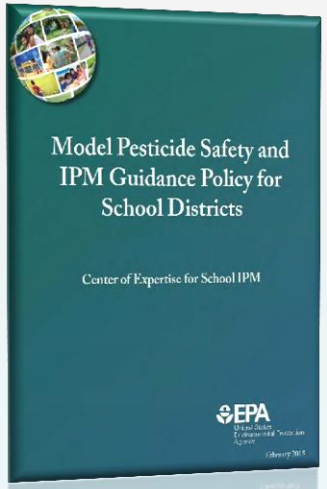
Historic School IPM Approaches

- Pilot projects
- Center for School IPM
- Training / Information
- Technical Assistance
- Webinars
- Roundtable
- Recognition

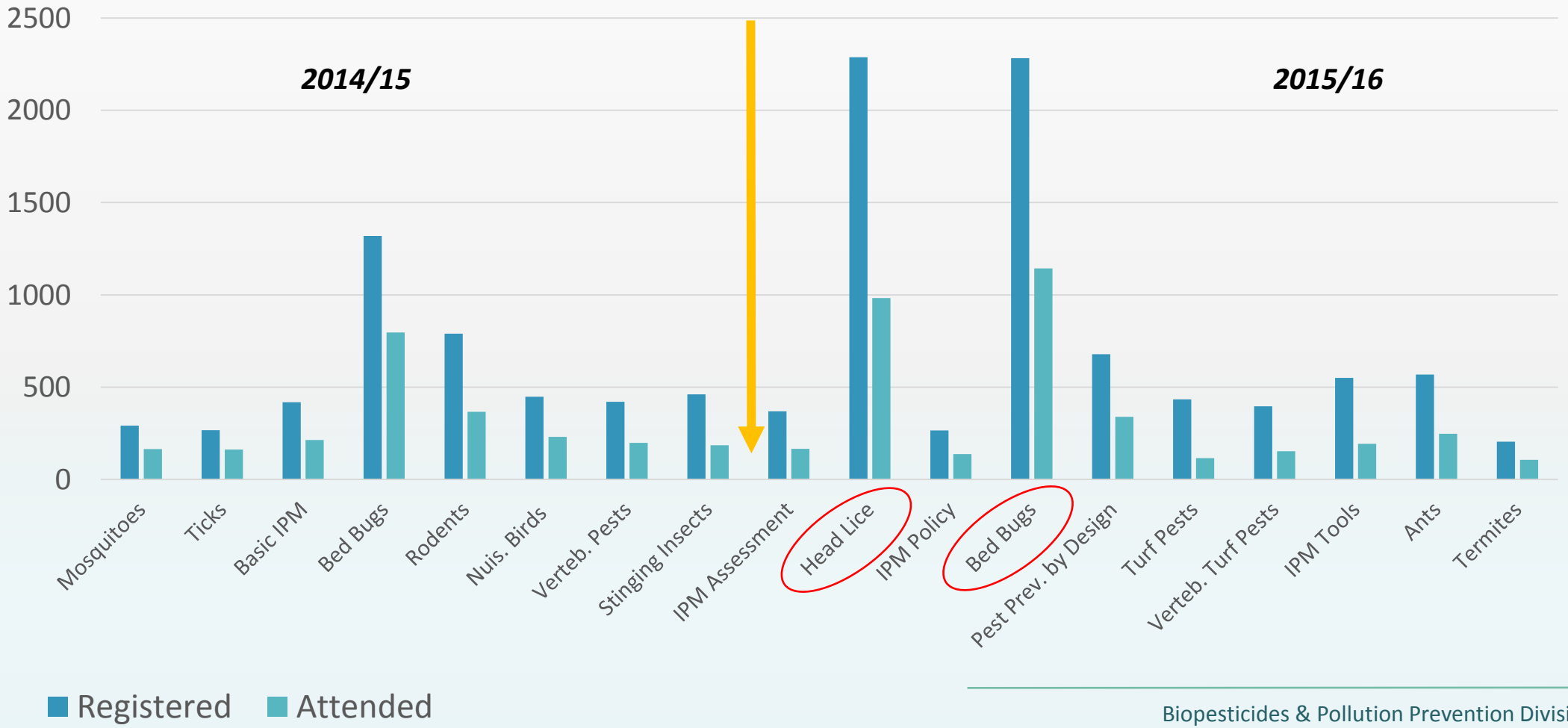
iSchool PEST MANAGER

STOP SchoolPESTS





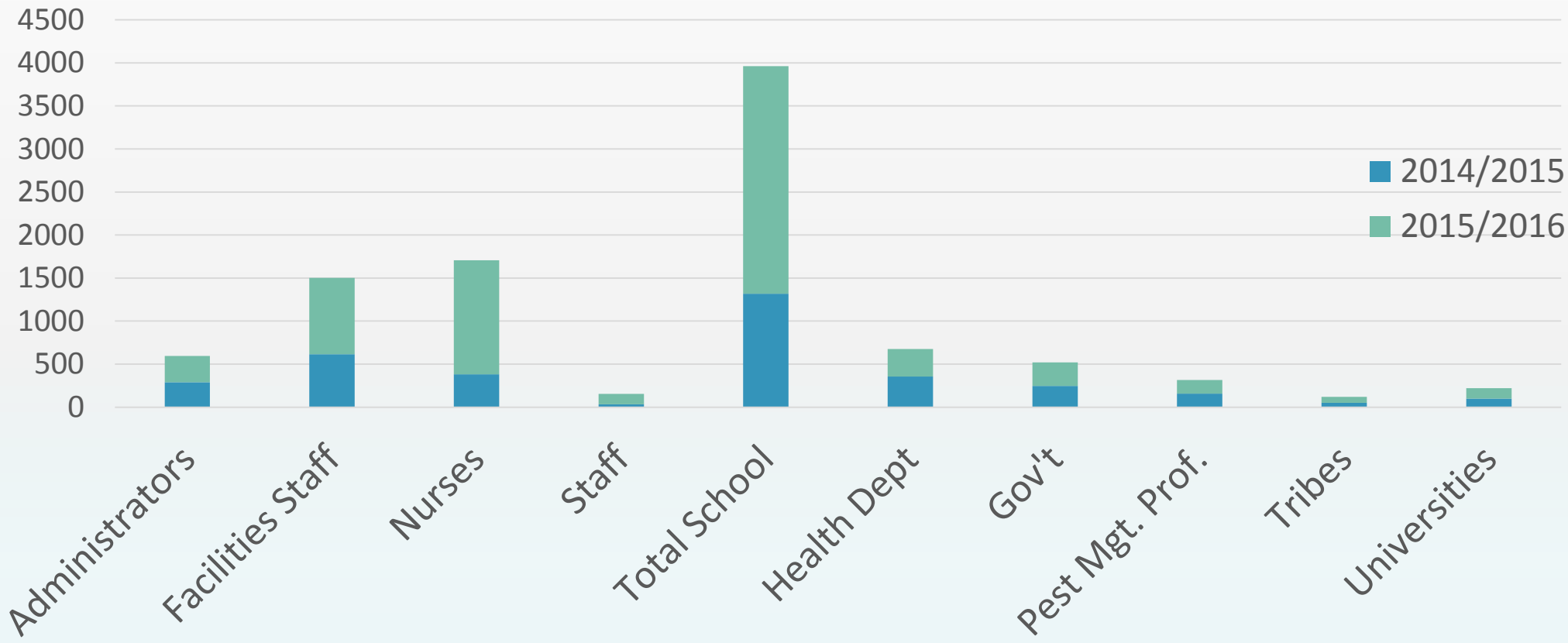
Webinars: Participation by Topic



Webinars: Participation Summary

	Year 1	Year 2	Total
Registered	5,380	8,036	13,416
Attended	2,318	3,583	5,901
Attendance Rate	52%	44%	48%
Students Represented by Attendees	14.1 M	17.1 M	31.2 M
Information Requests	603	2,010	2,613

Webinars: Demographics



Increasing Demand

Endorsers → **Influencers** → **Audience**

School Integrated Pest Management Initiative

The U.S. Environmental Protection Agency convened the undersigned national organizations to pursue a voluntary effort to make Integrated Pest Management (IPM) practices the standard in all schools over the next three years. These organizations met in May 2016 and will reconvene in a year to review progress toward this shared goal.

IPM is a science-based approach to pest management that seeks to control pest problems proactively, avoiding the unnecessary use of and exposure to pesticides while achieving acceptable control of pests indoors and outdoors.

Principles of Agreement

- We understand that children are uniquely vulnerable to environmental hazards due to their developing systems and greater exposures
- We support and will promote and communicate making sound IPM practices the standard in all schools
- We will encourage implementation of school IPM policies and practices and will encourage our members to routinely re-evaluate and improve their practices, as needed

Recommendations for Schools and School Districts

- Assess current pest management practices and recurring pest problems
- Designate and train an appropriate staff person to coordinate IPM activities
- Adopt and implement an IPM policy or plan to prevent and effectively address pest problems
- Conduct regular inspections and monitoring for pests and pest conducive conditions
- Adopt in-house IPM pest prevention and control practices indoors and outdoors and/or contract with pest management firms to perform IPM services
- Provide IPM education corresponding to the roles of those in the school community
- Visit epa.gov/managing-pests-schools for free tools and information

Participants

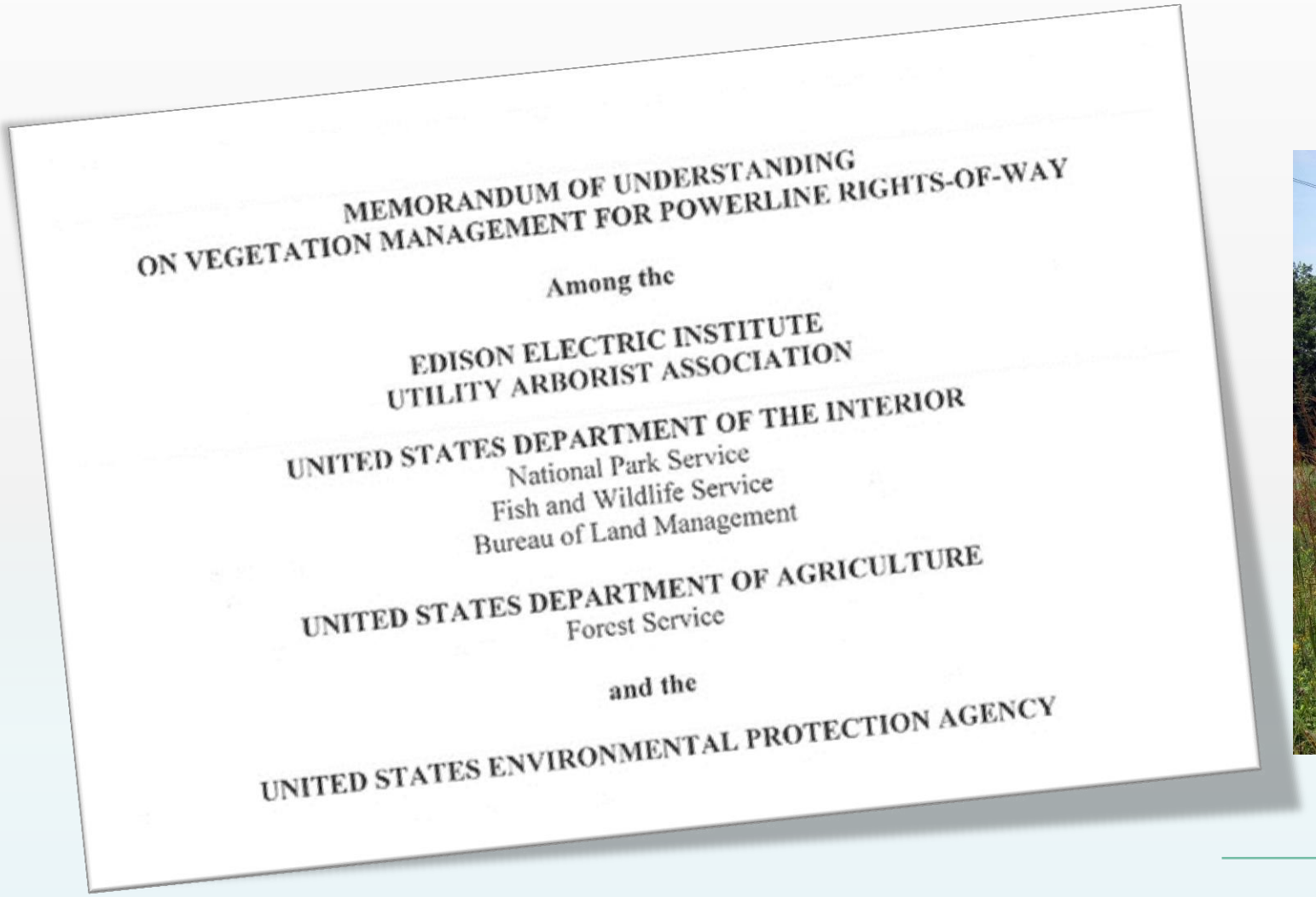
School IPM Roundtable

- Goals
  - Consensus document endorsing School IPM
  - Agreement to convey to memberships along with EPA resources
- Participants
  - National organizations with influence in schools
- May 2016

Reward Success: Recognition Program

- Awards for School Districts
  - Great Start
  - Leadership
  - Excellence
  - Model of Sustained Excellence
- Award for Individuals / Organizations
  - Connector

Integrated Vegetation Management



MEMORANDUM OF UNDERSTANDING
ON VEGETATION MANAGEMENT FOR POWERLINE RIGHTS-OF-WAY

Among the

EDISON ELECTRIC INSTITUTE
UTILITY ARBORIST ASSOCIATION

UNITED STATES DEPARTMENT OF THE INTERIOR
National Park Service
Fish and Wildlife Service
Bureau of Land Management

UNITED STATES DEPARTMENT OF AGRICULTURE
Forest Service

and the

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Biopesticides

- EPA's vision is to be a world leader in biopesticide regulation and pollution prevention
- Division dedicated to registering biopesticides
- Registered 400+ biopesticide active ingredients with 1,500+ active product registrations
- Challenge – Incorporating them into IPM programs

Biopesticides: Growth and Trends

- Biopesticides represent $2-3 billion of the $56 billion pesticide market
- Used on ~18 million acres in US
- Growth projected to outpace conventional pesticides with compounded annual growth rate >15%
- Increasing global population necessitates producing more food more sustainably

Biopesticides

- Good fit within IPM systems

EPA's Perspective on Resistance Management for IPM Coordinating Committee

Nikhil Mallampalli & **Bill Chism**
Biological and Economic Analysis Division
Office of Pesticide Programs

October 18, 2016

Waterhemp in corn

What is EPA Doing to Address Resistance?

- Beginning to embark on a more widespread effort aimed at combating and slowing the development of pesticide resistance.
- Two draft Pesticide Registration Notices (PRNs) were issued this summer that provide non-binding guidance to pesticide registrants and EPA personnel regarding pesticide registration activities and decisions.
  - "Guidance for Pesticide Registrants on Resistance Management Labeling" - Updates an existing PRN (2001-5) and recommends additional resistance management information for pesticide labels.
  - "Guidance for Herbicide Resistance Management Labeling, Education, Training, and Stewardship"- Focuses on the overall strategy to manage herbicide resistance during registration and registration review.

1st Draft PRN - Guidance for Pesticide Registrants on Resistance Management Labeling

- Updates an existing PRN (2001-5)
- Focuses on label language for all conventional agricultural pesticides
  - Intention is to include all products except homeowner pesticides (PIPS are already covered separately)
- Has three categories of updates:
  - Provides additional guidance, and a recommended format, for resistance management statements or information to place on labels
  - Includes references to external technical resources for guidance on resistance management
  - Updates instructions on how to submit changes to existing labels in order to enhance resistance management language.
- Updates developed in collaboration with Canada's Pest Management Regulatory Authority (PMRA), which has a very similar regulatory directive already in place.

2nd Draft PRN - Guidance for Herbicide Resistance Management Labeling, Education, Training, and Stewardship

- Applies only to herbicides
  - No new MOA's in 30 years
  - The most widely used type of pesticide
  - Herbicide resistant weeds are increasing rapidly
  - Consultants, grower groups, and researchers asked the Agency to address the problem
- Provides strategy to address resistance during registration and registration review
- Promotes use of 11 key elements (*adapted from Weed Science Society of America*) that focus on:
  - Clear label information and directions
  - Training and education
  - Locally-developed resistance plans
  - Early detection, investigation, and remediation

Glyphosate resistant Italian ryegrass

Elements for Herbicide Resistance

1. Place Mechanism of Action on label.
2. List seasonal and annual maximum pounds.
3. Place resistance management language on label to remind user (from PRN on labeling or Best Mgt Practices or Herb Res Action Committee).
4. Remind (not require) users to scout before and after application
5. Define likely and confirmed resistance on the label.
6. Farmer report lack of performance to registrant or its agent.
7. List confirmed resistant weeds in a separate table (or website) and list effective or recommended rates for these weeds with the table
8. Registrant report new cases of likely and confirmed resistance to EPA and users yearly

Elements for Herbicide Resistance (cont.)

9. Provide growers with: Resistance Management Plan, Remedial Action Plan, Educational materials on resistance management
10. For combination products with multiple MoAs, list which herbicide is controlling which weed and minimum recommended rate (could be on a website – user can check that they have more than 1 effective MOA for the weeds in their fields)
11. Any additional specific requirements (e.g. crop rotation, unique agronomic aspects, additional training, time limited registration, etc.)

Current Status of the PRNs

- BEAD is in the process of finalizing these PRNs and will adapt the language to acknowledge substantive comments received. PRNs, once final, will be used as guidance both by registrants and OPP during registration and registration review.
- About 20 to 30 comments were received, from NGOs, USDA's OPMP and IPM Centers, Resistance Action Committees (RACs), registrants, and grower organizations such as CropLife.
- While generally supportive of our efforts, some comments suggested changes to guidance that will be considered while finalizing the PRNs.

Questions?

Palmer amaranth in soybean