



Recommendations from the Pollinator Protection Plan Metrics Workgroup

November 1, 2017

MP3 Metrics PPDC Workgroup Summary

- ▶ Workgroup Charge and Member Representatives
- ▶ Process - Evaluation of MP3s
 - ▶ Problem Definition
 - ▶ MP3 Review
 - ▶ National Level Metrics Guidance
 - ▶ Implementation
- ▶ Feedback from PPDC
- ▶ Backup Slides
 - ▶ Survey Questions

Workgroup Charge

- ▶ The expectation for the workgroup was to develop:
 - ▶ 1) Recommendations for EPA to use in evaluating the effectiveness of pollinator protection plans at a national level; a means to monitor how well they are doing overall
 - ▶ 2) A strategy to communicate that effectiveness to the public. We will refer to 'public' in a broad definition.
 - ▶ The Agency views the outcomes of this work as a long term effort to look at trends versus a specific target.
- ▶ The WG commenced in November 2016 to report a proposal to the PPDC by November 2017.

Workgroup Member Representatives

- ▶ There are 24 members on the workgroup representing a wide range of stakeholders including: beekeepers, growers, States, tribes, industry, NGOs and consultants.
- ▶ American Beekeeping Federation, Apiary Inspectors of America, Beyond Pesticides, Cheyenne River Sioux Tribe, CO Professional Beekeepers Association, CollaborateUP, Coy Bee Company, DOW AgroSciences, EPA Region 8, Florida Department of Agriculture and Consumer Services, Keystone Policy Center, Mississippi Farm Bureau, NASDA, National Cotton Council, North Central Cooperative Extension Association, NPMA, Oregon Department of Agriculture, Pollinator Partnership, Pollinator Stewardship Council, Inc., Responsible Industry for a Sound Environment (RISE), Syngenta, University of Idaho and Invertebrate Ecology Inc., USDA, USGS Patuxent Wildlife Research Center

Process - Evaluation of State & Tribal MP3s

Problem Definition of Plans

- States & Tribal Nations - Working with stakeholders to promote pollinator health.
- Plans: Reduce exposure of bees to pesticides & develop local mitigation measures.
- EPA to develop metrics for evaluating the efficacy of these plans on a national basis.

MP3 Review

- What is the scope of each MP3?
- What are the areas of commonality across MP3s for national-level metrics?
- Do the MP3s identify metrics for evaluating success?

National-Level Metrics Guidance

- Identify metrics that can be used for a national-level evaluation of MP3s.
- Identify specific metrics to recommend to the PPDC.
- Identify processes for gathering information for national-level evaluation.

Implementation

- Identify process for providing states/tribes feedback on metric process.
- Develop strategy to communicate national-level metrics to the broader public.
- Identify possible time line for evaluating metrics.

MP3 Review



MP3 Review Summary

- ▶ **All available MP3 plans were reviewed**
- ▶ **Common Themes Identified**
 - ▶ Focus on enhancing communication between stakeholders
 - ▶ Focus on enhancing education & knowledge
 - ▶ Pollinators, Pesticide Stewardship, Pollinator Forage & Habitat
 - ▶ Best management practices
- ▶ **Differences**
 - ▶ Recognized great diversity among plans
 - ▶ Recognized differences in local stakeholders
- ▶ **Other Themes**
 - ▶ Some MP3 are very comprehensive, some focus more on beekeepers and pesticide applicators/users
 - ▶ State plans are voluntary and rely heavily on local cooperation between and across stakeholders

National-Level Metrics Guidance

- ▶ Developed a 5 Step process for national metrics
- ▶ Steps 1 to 4 - Presented today
- ▶ Step 5 - Take place post survey



National-Level Metrics Guidance

Step 1: Considerations



Step 2: Assessment Categories



Step 3: State MP3 Survey



Step 4: Survey Assessment



Step 5: Data Collection & Results

National-Level Metrics Guidance

Step 1: Considerations

- ▶ Need to have a mechanism to evaluate effectiveness of MP3s at a national level.
- ▶ Need to have comparable measures across states.
- ▶ Assessments will be at a national level and not compared between states.
- ▶ Survey tool will be used and there is a need to have a group to conduct the survey and collect results.
- ▶ Communicate effectiveness of the plans to the “public”

Step 2: Assessment Categories

- ▶ These categories were common across majority of MP3s
 - ▶ Communication
 - ▶ Best Management Practices or Standard Operating Procedures
 - ▶ Stakeholders
 - ▶ Education
 - ▶ Progress Measures or Behavior Changes

Survey Review



Step 3 - State MP3 Survey

- ▶ Worked with State Lead Agencies (SLA) on development of survey. This survey can be modified for use by tribes and territories.
- ▶ EPA will receive information on which states completed the survey and the responses will be transparent

Step 3 - State MP3 Survey Questions Summary

▶ Communication

- ▶ Methods to increase communication between pesticide users and beekeepers

▶ Best Management Practices or Standard Operating Procedures

- ▶ Developed to reduce pollinator exposure to pesticides.
- ▶ List of BMPs and SOPs - i.e. - Communication, Pesticide Risk, Crop Producers, Beekeepers, Pollinator Forage & Habitat

Step 3 - State MP3 Survey Questions Summary

▶ Education

- ▶ Coordination with other agencies, extension, NGOs, etc.
- ▶ Outreach on honey bee exposure to pesticides, proper crop & pest product selection and pesticide label comprehension
- ▶ Methods used for outreach, i.e. - Websites, Educational Materials etc.

▶ Stakeholders

- ▶ Groups reached - Agricultural and Non-agricultural
- ▶ Yearly stakeholder meeting

Step 3 - State MP3 Survey Questions Summary

▶ Progress Measures or Behavior Changes

- ▶ Reduction on pesticide related verified bee kills
- ▶ Measure of direct pesticide exposure to bees - collecting data in pollen or other substrate
- ▶ Methods to assess pesticide exposure, increase communication or educational efforts
- ▶ List of measures states are using to actively track success
 - ▶ Examples - National honey bee surveys, state surveys, increased adoption of BMPs, increase in communication and education on pesticide exposure
- ▶ Funding for the listed measures

Step 4 - Survey Assessments

- ▶ Background Information - State MP3s
 - ▶ Each state had flexibility in developing MP3s & are very diverse
 - ▶ Aggregate assessment of the success of MP3s is an attempt to normalize the plans diversity and present information to the public.
- ▶ States will not be assessed on the individual surveys
- ▶ States responses will be transparent
- ▶ Survey tool will be utilized by state lead agencies
- ▶ Assessment Measures of Questions
 - ▶ Total percentage of tallied responses

Step 4 - Survey Assessment

▶ Assessment System

- ▶ Based on total number of responses for each question
- ▶ Based on percent of total of responses for each question
 - ▶ Mechanism to capture current and future effectiveness
- ▶ Comments and Examples - Summarized and tagged
- ▶ Example of Assessment Sheet

Category	Question Responses Yes, No etc.	Score: (Number) % of Total	Comments Tagged Phrases
Communication	1a. ◇ Yes ◇ No	1a. (#), % (#), %	
Communication	1b. ◇ SOPs or BMPs ◇ Online Mapping ◇ Flags ◇ Meetings ◇ Website ◇ Other _____	1b. (#), % (#), % (#), % (#), % (#), % (#), %	

Step 5 - Data Collection & Results Proposal

- ▶ AAPCO is offering to utilize SFIREG to facilitate the distribution and return of the survey.
- ▶ SFIREG to electronically distribute the survey (via Survey Monkey) to the 10 Regional SFIREG Representatives.
- ▶ The Regional Representatives would in turn work with the States in their respective regions to complete the survey.
- ▶ AAPCO will assist with data collection.
- ▶ Survey results would then be forwarded to EPA.

Conclusion

- ▶ The Charge to the Workgroup was to develop:
 - ▶ 1) Recommendations for EPA to use in evaluating the effectiveness of pollinator protection plans at a national level; a means to monitor how well they are doing overall.
 - ▶ 2) A strategy to communicate that effectiveness to the public.
- ▶ Workgroup Summary
 - ▶ Utilize existing mechanisms for development of a survey, data collection and results sharing with the EPA.
 - ▶ Survey and data collection will be an ongoing process.
 - ▶ EPA has an existing structure to communicate results.
 - ▶ Collaboration between EPA and Co-regulators

Feedback from PPDC

Thank You

Backup Slides - Survey Questions

Communication

- ▶ 1a. Does your state have a method to increase communication between pesticide users and beekeepers?
 - ▶ Yes, No
 - ▶ If "no", please explain

Communication

▶ 1b. If you answered “yes” to 1a, what method(s) is (are) being used to increase communication? (Please check all that apply)

- ▶ SOPs or BMPs
- ▶ Online mapping program
- ▶ Flags
- ▶ Meetings
- ▶ Website
- ▶ Other_____

Best Management Practices or Standard Operating Procedures

- ▶ **2a. Have Best Management Practices (BMPs) or Standard Operating Procedures (SOPs) been developed to reduce pollinator exposure to pesticides?**
 - ▶ Yes, No, Somewhat
 - ▶ Please give examples of what has been shared

Best Management Practices or Standard Operating Procedures

- ▶ 2b. If you answered “yes” or somewhat for BMPs or SOPs, please check all that apply.
 - ▶ Communication between beekeepers and pesticide applicators
 - ▶ Pesticide Risk to Pollinators
 - ▶ Stakeholder Engagement
 - ▶ Crop Producers
 - ▶ Pesticide Applicators
 - ▶ Beekeepers
 - ▶ Landscape / Nursery Industry
 - ▶ Urban / Homeowners
 - ▶ Pollinator Forage and Habitat
 - ▶ Other_____

Best Management Practices or Standard Operating Procedures

- ▶ **2c. Has your agency or another entity evaluated your state plan based on metrics or another tool?**
 - ▶ Yes - Self Evaluation or Yes - Another Entity
 - ▶ If yes, what were some of the key learnings as related to the MP3 process and utilization?
 - ▶ No
 - ▶ Comments_____

Education

▶ 3. Are you coordinating activities or trainings with other agencies, university-extension or NGOs within your state?

▶ Yes, No, Somewhat

▶ Comments_____

Education

- ▶ 4a. Has there been outreach on how honey bees are exposed to pesticides and/or proper crop & pest product selection and/or pesticide label comprehension?
 - ▶ Yes, No, Somewhat
 - ▶ Please explain which of the above topics have been addressed via outreach.

Education

- ▶ 4b. What methods were used for outreach? (Please check all that apply)
- ▶ Websites
- ▶ Webinars
- ▶ Educational Materials
- ▶ Training Sessions - Extension etc.
- ▶ Radio
- ▶ Farm shows, county fairs, beekeeper meetings etc.
- ▶ Other_____

Stakeholders

- ▶ **4c. Has there been a yearly stakeholder meeting?**
 - ▶ Yes, No
 - ▶ Please explain or provide comments

Stakeholders

- ▶ 4d. Stakeholder groups reached: (Please check all that apply)
 - ▶ Agricultural
 - ▶ Certified applicators
 - ▶ Noncertified applicators
 - ▶ Crop Consultants
 - ▶ University Extension
 - ▶ State Apiarists
 - ▶ Commercial Beekeepers
 - ▶ Others_____
 - ▶ Non-agricultural/Urban
 - ▶ Certified applicators
 - ▶ Noncertified applicators
 - ▶ Homeowners
 - ▶ Mosquito Control
 - ▶ State / Local Beekeeping Associations
 - ▶ Others_____
 - ▶ Comments _____
 - ▶ Number of people reached: _____

Progress Measures or Behavior Changes

- ▶ 5. How is your state documenting the impact of changes in behavior on reducing pesticide exposure? (Please check all that apply)
 - ▶ Changes in pesticide incident reporting
 - ▶ Participation of stakeholders in relevant training/webinar/other
 - ▶ Incorporation of MP3 content into continuing education
 - ▶ Downloading of materials from the website
 - ▶ Others_____
 - ▶ N/A - Please explain
- ▶ Comments_____

Progress Measures or Behavior Changes

- ▶ **6. Has there been a reduction in pesticide-related verified bee kills?**
 - ▶ Yes, No, Unknown
 - ▶ Comments_____

Progress Measures or Behavior Changes

- ▶ 7. Is your state (SLA or university) attempting to measure potential pesticide exposure to bees, by collecting data documenting the frequency or level of pesticides detected in pollen or other substrate; or by some other means?
 - ▶ Yes, No, Unknown
 - ▶ Comments_____

Progress Measures or Behavior Changes

- ▶ **8. If applicable, please comment on methods to:**
 - ▶ Assess pesticide exposure
 - ▶ Increase communication
 - ▶ Increase educational efforts
 - ▶ Comments_____

Progress Measures or Behavior Change

- ▶ 9a. Which of the following measurements of success does your state actively utilize to track success? Check all that apply.
 - ▶ Relying on the results of existing and currently collected honey bee data by federal agencies and national organizations. Data from the USDA-NASS report and the Bee Informed Partnership report.
 - ▶ Relying on the results of state initiated pollinator health surveys.
 - ▶ Increased adopted of BMPs and SOPs by pesticide applicators and beekeepers.
 - ▶ Increase in communication between pesticide applicators and beekeepers
 - ▶ An increased level of understanding of how bees are exposed to pesticides
 - ▶ An increased level of understanding of how product selection can protect pollinators
 - ▶ An increased level of understanding of pesticide label comprehension by pesticide users
 - ▶ Reduction in pesticide-related verified bee kills
 - ▶ Reduction in the frequency and level of pesticides detected in pollen or other substrates.
 - ▶ Other_____

Progress Measures or Behavior Change

- ▶ **9b. Please describe funding sources for any of the above checked categories.**
 - ▶ Comments_____