

WISCONSIN POLLINATOR PROTECTION PLAN STAKEHOLDER MEETING

August 12, 2015

UW Arlington Agricultural Research Station N695 Hopkins Rd, Arlington, WI

Stakeholders Present

Representative	Organization
Jack Voight	Butterfly Gardens of Wisconsin
Doug Hauke	Commercial beekeeper
John Manske	Cooperative Network
Amy Winters	CropLife America
Dan Hopkins	Environmental Protection Agency-Region 5
Meg Domroese	Gathering Waters Conservancy
Thomas Green	IPM Institute
Randall Wollenhaup	Stockbridge-Munsee Community
Kurt Waterstradt	US Fish and Wildlife Services
Steve Bertjens	USDA-Natural Resources Conservation Services
Russell Groves	UW Extension
John Exo	Facilitator (UW Extension)
Christina Locke	UW-Madison
Mike Dummer	WI Agribusiness Association
Sara Ecker	WI Apple Growers Association
Karen Gefvert	WI Farm Bureau
Dr. Brad DeBels	WI Green Industry Federation
Ed Knapton	WI Green Industry Federation
Gordon Waller	WI Honey Producers Association
Mike Werner	WI Pest Control Association
Andy Wallendal	WI Potato and Vegetable Growers Association
Tom Lochner	WI State Cranberry Growers Association
Liz Meils	WI Dept. of Agriculture
Mike Murray	WI Dept. of Agriculture
Jay Watson	WI Dept. of Natural Resources
Rich Henderson	WI Dept. of Natural Resources
Christa Wollenzien	WI Dept. of Transportation
Thelma Heidel-Baker	Xerces Society-Midwest region

Welcome and Overview

The group was provided a brief overview of the importance of pollinator protection on the national and state level. The Wisconsin Department of Agriculture, Trade and Consumer Protection (DATCP) is leading the process to create Wisconsin's first pollinator protection plan because the department oversees the state apiary and pesticide programs. The department

also views the plan as an opportunity to support Wisconsin's agriculture, beekeeping and other industries by developing voluntary actions residents can take to protect managed and native pollinators. The plan will not be a regulatory tool.

Wisconsin Pollinator Protection Plan – Objective and Development Process

The purpose of the Plan is to act as an educational resource that is useful for Wisconsin residents interested in pollinator health and conservation. The goals for the plan are to:

- 1. Identify a voluntary set of actions that stakeholders can take to protect pollinators*
- 2. Improve stakeholder understanding of pollinator health issues and how their actions impact pollinators*
- 3. Increase communication among stakeholders*

Stakeholder input will guide the development of this plan. The purpose of the three stakeholder meetings are to provide a forum for focused input on the plan in a collaborative process with Wisconsin DATCP and the University of Wisconsin, Madison. Final decisions about plan content will reside with DATCP, yet the goal is for the stakeholder group to reach consensus support for the Plan prior to DATCP publication. The process will provide opportunity for stakeholders to reach agreement on the plan content and identify issues that remain unresolved. The public will also be able to provide comment on the draft plan content later this fall. Comment cards were available for the public to provide written comments/concerns. The public was also afforded a brief an opportunity to speak at the meeting. The goal is to complete the plan in December 2015.

Operating Rules

- Start and stop on time.
- Minimize disruptions e.g. keep cell phones away until breaks.
- One person speaking at a time.
- Stay focused on the task.
- All ideas valid for discussion.
- The group will use consensus decision making. This does not mean stakeholders must have complete agreement on every point in the plan. Rather, we expect that stakeholders will support the overall plan objectives and content, and will not work against the plan once complete.

Pollinator Overview

An overview of the complex factors impacting pollinator health was given by Christina Locke, UW Madison Department of Entomology. See the PowerPoint slides [linked here](#) (Note: Slides are for educational purposes only; photos are not to be reproduced.)

Federal Level Pollinator Protection Documents

- [National Strategy to Promote Pollinator Health and related action plans](#)
- [State FIFRA Issues, Research, and Evaluation Group - Final Guidance for State Lead Agencies for the Development and Implementation of Managed Pollinator Protection Plans](#)

State Level Pollinator Protection Documents

- [North Dakota Pollinator Protection Plan](#)
- [Mississippi Honeybee Stewardship Program Brochure](#)
- [Minnesota Board of Water & Soil Resources Pollinator Initiative](#)

Identify Characteristics of a Good Plan

The stakeholders discussed the types of pollinator information and resources that will benefit them. There was general agreement on the broad concepts necessary to write the state plan. The group expects to amass additional details for specific actions to achieve the identified plan components.

Non-regulatory approach

- The plan must be based on voluntary recommendations and management practices
- Adaptable content
- User-friendly plan
 - Short
 - Stakeholder-based
 - Simple language
 - Engages the public
 - Educational for private and public land managers
- Provide resources for working with land managers, beekeepers, pesticide users and others around specific issue areas. Include items stakeholders should communicate with each other. Identify who to contact and how to do it.

Include recommendations appropriate for managed and native pollinators

- Account for the various stakeholder needs and viewpoints
- Flexible for different landscapes in the state. Must be sensitive to production agriculture and non-agricultural land management objectives
- Management practices should be useful from a policy standpoint
- Does not contradict other states' pollinator protection plans or available science
- Achievable and realistic
- Relate to economics (for motivation)
- Include best management practices for apiaries as well as for landowners

Recommendations must be based on credible resources

- Science-based research must be used. Link plan concepts to current research, e.g., University of Wisconsin publications. Avoid perpetuating misinformation or inappropriate public perceptions
- Quantitative information about the services provided by different pollinator species for:
 - Crops
 - Wild lands
 - Gardens
- Identify the utility of specific plants for pollinator habitat and forage needs
- Highlight effective practices that are currently used

Establish criteria for future updates to the plan

- The plan should only be updated with consent of the stakeholders
- Establish measureable goals/objectives
 - Idea: Provide award/recognition for good behavior (similar to what Croplife does)
- Determine the frequency of plan evaluation and revision by the stakeholder group. Specify the mechanism for feedback and tracking results
 - Idea: Should we formalize the stakeholder group's role to officially include bringing information to public, and bringing local knowledge to state level?

Standing questions and concerns

- The group is developing a set of voluntary pollinator protection actions, however there remains some uncertainty on how plan components may be used in the future. Will a government entity (federal, state, or local) or other group attempt to incorporate the plan content into rules or mandated requirements for their programs?

Action Item: At meeting 2 be prepared to discuss your vision for how your organization will utilize the state plan.

- It is important that stakeholders work with their membership to bring ideas and concerns for incorporation into the plan. Also feel free to contact others outside your organization to get their insight on topics covered during the meetings. If you know of groups that should be involved during the public comment period, provide their contact info to Christina Locke at clocke@wisc.edu.
- Placing honeybee hives on federal land. There is variation between federal land managers over allowing or prohibiting hive placement.

Major Topic Areas - Small Group Discussions

Small groups were organized around three topics: 1) Pollinator Habitat, 2) Managed Beekeeping and 3) Pesticides. The group identified several content areas and resources for each topic during small group discussions. Some issues are relevant to all three topic areas and are listed at the end.

Pollinator Habitat

The state plan should identify how to address these pollinator habitat concerns:

- A clear definition of what comprises good pollinator habitat. The plan must differentiate among quality, quantity, location and orientation of habitat in recommendations
 - To determine: The level of detail for habitat recommendations. Should the plan be more informational or prescriptive, i.e., should the plan provide external informational resources or lay out specific instructions for land managers, or both?
 - To determine: Should the focus be limited to a few pollinator species that provide the most critical pollination services?
 - Question: Should we set a numeric goal for creating pollinator habitat (e.g. acres)?
- Multiple types of habitat must be considered
 - Nesting sites for native bees
 - Forage plants for native and non-native pollinators
 - Question: do we need to clarify habitat goals for maximizing pollinator services?
- Based upon the location of habitat, different requirements for habitat creation and maintenance are needed. Urban, rural, agricultural, rights-of-way (utility lines and roadsides). Outlining benefits to these varying sites is needed e.g. specific crop systems, residential lawns. Differences in ownership must be accounted for (private vs. public, owned vs. rented land).
 - Residential land. Opinions on the need for weed free yards and minimizing the removal of clover and dandelions. Conversion of lawn grass to nectar/pollen plants. Retaining bare areas for ground nesting pollinators. Mowing and other cultural practices.
 - Agricultural land. Inclusion of pollinator needs in hedgerows and fencerows, grazing and cover cropping systems
 - Consider habitat placement to minimize risk of pesticide drift. Question: should the plan suggest a buffer distance? NRCS cost share programs use 100 yards.
- Multiple incentives for creating pollinator habitat need to be encouraged. Bee and butterfly conservation efforts can also provide erosion control, invasive plant species control, water retention, biological control for pests, and economic benefits from all these things
- Varying timescales for different habitat contexts need to be considered. A multi-step approach may be needed to address both the long term goals for increased diversity of native ecosystems, as well as shorter term goals for cultivated cropping systems.

Challenges - Habitat

- Balancing pollinator habitat with cultural preference, e.g. manicured green lawns
- Tempering expectations about fast native plant restoration and the reality of intensive maintenance for multiple years
- Appropriateness of intensely managed areas (e.g., interstates) for pollinators? In general, what are the pros and cons to putting in pollinator habitat in different settings?
- Removing habitat e.g. hedgerows, an issue: no incentive programs to keep what's already present (NRCS can only incentivize new actions)

Existing Resources - Habitat

- Federal programs
 - NRCS programs for habitat and cover crop cost-share: EQIP, CREP, CRP, CSP
 - US Fish and Wildlife Partners programs (in some cases may be more appropriate than NRCS programs for small landowners)
- Project Apis m. (nonprofit collaboration with Marla Spivak, Monsanto/Bayer/Syngenta, Costco) working on plant list for honeybees (not public yet)
- Assessment tools: Xerces, NRCS, Monarch Joint Venture
- State of Minnesota recommends various bee habitats for creating economic products and by-products
- For cranberry, go-to resources are UW and UWEX (Prof. Guedot, Hannah Gaines-Day)
- Pollinator plant lists:
 - NRCS/Xerces, www.americasbestflowers.com
 - WisDOT seed mix: two examples where they planted seed mixes for monarch butterflies: 1) Zoo Interchange project in Milwaukee, 2) Proposed seed mix for I39 corridor from Madison to IL state line
- NASA Bee Net tracks bee forage, native flowering plants

Resources/efforts that would be helpful if developed - Habitat

- How do habitat requirements (orientation and quantity) vary by pollinator species?
- Websites to go to for information
- Provide bee friendly plant seeds
- Evaluations of NRCS and Xerces-supported pollinator enhancement programs (what works?)
- Lower tax rate for land with habitat
- Map of monarch butterfly nesting/habitat/migratory areas would be helpful
- UWEX Master Gardener program – a good partner for creating pollinator habitat
- Adopt-a-pollinator right of way
- Scenic Byways/Rustic Roads may be prime target areas for roadside habitats

Managed Bees

The state plan should identify how to address these concerns about managed bees:

- Define hive health. A standardized set of hive inspection criteria is desirable. Identification of at-risk populations and specific management strategies that can be implemented to reduce risk are needed, for professional, sideliner and hobbyist beekeepers
- Factors affecting colony health
 - The source of queen, the breeding stock characteristics and mating failure
 - Methods of production
 - Bee diet: protein, carbs, probiotics, commercial diets and wild forage
 - Parasites and disease can be spread among honeybee colonies, and also spread from domesticated bees (honey and bumble) to wild bees
 - Bees are sometimes lost in transit
- Beekeeper certification and apiary registration. Identifying hive location is discussed later in this document.
- The plan should identify practices to have effective crop management near bee hives. Actions that promote crops and healthy bees, including methods to reduce exposure of managed bees to pesticides, must be encouraged.

Challenges & knowledge gaps – Managed bees

- Do managed bees compete with native pollinators?
- How can this plan be used to increase public awareness? To match beekeepers with landowners and have the public more aware of hives?

Known existing resources – Managed bees

- First Detectors training for native pollinators
- California is currently doing hive health inspections
- Identify standard ways to measure bee health – universal standards
 - BVS – Dave Wick, bee virus testing lab in Montana
 - BIP teams expanded to assess bee health
- California Almond Board has standard inspection protocol and BMPs for beekeepers in almonds

Resources/efforts that would be helpful if developed – Managed bees

New outreach tools need to be developed as well as funneling information via existing programs. Mobile phone ready material must be available.

- Within cities, fed. lands, private farms, prairie restoration, city-owned lands
- Part of Master Gardeners certification could be why honey and native bees are important
- Work with USDA on database for EQIP practices that benefit pollinators – need public awareness of practices

- Have industry developed BMPs for beekeepers in Wisconsin. Criteria to identifying the potential for apiary locations should be developed. The best practices for overwinter survival must be amassed
- Work with queen bee producers to produce healthy queens/colonies
- Industry-developed BMPs for crops and beekeepers for specific crops

Pesticides

The group agreed pesticides are tools that need to be available for responsible land and pest management e.g. agriculture, wild land restoration, and public health reasons. Equally important that current pesticide laws are enforced. Likewise the evolving nature of pest management must be addressed.

- Pesticide users must understand that they have to follow pesticide label directions
Applicators need to be educated on responsible use and become informed about the best practices to reduce impacts on pollinators.
- Variations in the pesticides applied and pesticide use patterns need to be addressed in the plan. The needs of rights of ways maintenance will differ greatly from those of production agriculture. Identify acceptable risk by major crops and sites
- Integrated Pest Management (IPM) techniques must be stressed. Techniques to control pests, reduce pest resistance and also protect pollinators need to be acknowledged. Biocontrols and other alternatives to insecticide/herbicide have a place
- The timing of pesticide applications can significantly change the impact on pollinators. Data about pollinator species peak flight/emergence and other biological factors can influence decision about application timing. Similarly, biological data about important plant species should be identified e.g. bloom time and attractiveness to pollinators.
- Not all pesticides are equally toxic to pollinators. Information should be collected to describe which pesticides are more toxic to bees, the length of time pesticides applied to plants remain dangerous to pollinators in light of plant metabolism and residue photodegradation. Differences between pesticide effects on managed bees and native bees need to be considered.
 - Systemic pesticides such as the neonicotinoids remain active long after application and therefore use of these products does require different management techniques when compared to contact pesticides. Systemic pesticides may be applied as foliar, soil or seed treatments, each with their own risk to pollinators.
 - In hive pesticide use must be addressed, e.g. mite control. The impact of bees bringing pesticide residues to the hive must also be considered.
- Recommendations for treated seed are needed, including a review of why and how seeds are treated and planted
- Proper disposal of pesticides must be encouraged. The Clean Sweep program is an option.

Challenges & knowledge gaps – Pesticides

- If neonics or other pesticides are banned, growers may be forced to use more toxic materials for insect control
- New low risk chemistries in fields and hives (what's out there? What's needed?)
- What is the research on pesticide effects? Sublethal effects? What is the state of the science? More research is needed on the longevity of pesticides in treated plants. Cumulative risk of tank mixes (fungicide/herbicide/insecticide mixes) to pollinators
- Risk of reporting bee kills. Beekeepers fear losing locations to place their bee yards if neighbor relations are not good.

Known existing resources – Pesticides

- DATCP and EPA pesticide resources
- Timing: crop consultants, National Pest Management Association (NPMA)
- www.Agrian.com, www.cdms.com, IPM Prime
- Pesticide tolerance and maximum residue Level (MRL) and research may be a source of information to understanding how long pesticides remain active in plant tissue.
- UWEX Services for each county, i.e., Master Gardeners disclosure product list
- IPM Institute
- FFA and Ag in classroom could be utilized to educate youth about pollinators
- Xerces lists of pesticides toxic to pollinators – conventional and organic-approved
- Bee pesticide toxicity resources:
 - MSU BeeTox chart (existing)
 - IPM Prime Pollinator Matrix (soon)

Resources/efforts that would be helpful if developed – Pesticides

- WI pollinator resource website – put plan there
- Prioritize pesticide uses (crop, pest) by risk – focus efforts on high risk uses, e.g. how to reduce exposure
- Need cheat sheet/database for climate and insects, time of year, flights, etc.
- Speak at Trade Assoc. meetings
- Public radio announcements

Communication between stakeholders

- Strengthening relationships between beekeepers and landowner needs to be promoted. Ideas range from gaining permission to locate hives on the most productive sites, establishing rapport with neighboring landowners, discussing neighbors management activities (e.g. pesticides, mowing) and communicating the needs of honeybees.
- Communication between the bee industry and pesticide users must be increased. A reliable way for people applying pesticides to know about the location of bees/hives, and to communicate anticipated actions to beekeepers in a timely manner is needed.

Beekeepers also need to know the circumstances when to protect/remove bees from harm

Location of hives

- Recording the locations of hives can provide benefits. DATCP currently encourages the use of DriftWatch. Land managers can use DriftWatch to identify if hives are located near their property, and then communicate with the beekeeper about land management activities. This may prove beneficial for notifying apiary owners near rights-of-ways.
- The DNR Natural Heritage Inventory (NHI) portal and the Historical Society's cultural significant resources tool may be models for locating apiaries while maintaining anonymity. Users type in a location and are informed if endangered plants/cultural significant sites are within a specific buffer area of the location.
 - Question: Why don't bee hives fall under premise registration?
- The DATCP Landscape Registry can be used by urban beekeepers to obtain advanced notice of pesticide applications to adjacent properties.
- Arrangements can be made between beekeepers and neighbors (or third parties such as co-ops) to identify that beekeeping is occurring in an area and to foster communication
- A challenge is the mindset of beekeepers that want their apiary locations kept secret. Ultimately a comprehensive database of hive location (that includes hobby beekeepers) and habitat locations is desirable.

Policy Considerations

The plan must acknowledge how various policies affect beekeeping. Decision makers need to be educated on the unintentional impact that their decisions have on pollinators.

- Role of governments
 - Improve pollinator habitat on government lands by identifying how changes to current land management policies can be adjusted to benefit pollinators. Encourage habitat plantings, update mowing schedules, invasive species control techniques, (for numbered highways, current DOT mowing policies consider invasive species control but not pollinators)
 - Promote government programs for habitat creation e.g. Federal cost-share programs for landowners. Question: How can localities implement habitat initiatives with farmers, beekeepers, community groups, and businesses?
- Conflicting policy goals must be addressed
 - Land management policies and regulations do not always consider pollinators. Examples include those for erosion control, invasive species management, and protecting ground nesting birds.
 - Municipal beekeeping ordinances regulate the location and number of hives on private property. Likewise some governments prohibit hives from being placed on their land

- Some plant species provide good forage for honeybees but may not meet goals of landowner programs or public policies. This is particularly true of some exotic/invasive plant species that are good nectar plants for honeybees
- Clarify the role of industry for promoting pollinators and their habitat. Pollinators are only one of many issues industry must deal with. Identify opportunities for partnerships with governments and other entities
- DNR should consult commercial beekeepers when assessing potentially invasive plant species.
- DOT could write policy to check Driftwatch for apiaries along rights-of-way
- The plan could encourage beekeepers to participate in creation of government and non-governmental organizations IPM plans (e.g. cooperative weed management areas)

Next steps and meeting wrap up