DRAFT

Guidance for State Lead Agencies for the Development and Implementation of Managed Pollinator Protection Plans

Introduction

Pollinator health is a high priority national issue to due significant colony losses experienced by U.S. over the past decade. In his memo, "Creating a Federal Strategy to Promote the Health of Honey Bees and Other Pollinators" in June of 2014, the President called attention to the issue of pollinator health and directed federal efforts to reverse pollinator losses and help restore populations to healthy levels. In particular, the memo directed the U.S. Environmental Protection Agency (EPA) to engage state agencies in developing state pollinator protection plans as a means of mitigating the risk of pesticides to bees and other pollinators.

This guidance is provided by the Association of American Pesticide Control Officials (AAPCO) through the State FIFRA Issues Research and Evaluation Group (SFIREG) and EPA's Office of Pesticide Programs as a resource for state lead pesticide regulatory agencies (State Lead Agencies or SLAs) as they develop and implement state managed pollinator protection plans. The term "managed pollinators" includes any species of pollinators that are managed by humans, be it for pollination services or the production of honey, beeswax, and other products. Managed pollinators are primarily honey bees, but could include alfalfa leaf cutter bees and some species of bumble bees. It should be noted, however, that many of the strategies to mitigate risk of pesticides to managed pollinators should reduce risk to native pollinators as well.

The purpose of a state Managed Pollinator Protection Plan (MP^3) is to establish a framework for open communication and coordination among key stakeholders, including beekeepers, growers, pesticide applicators, and landowners. Open communication will not only help build relationships and increase mutual understanding, but also ensure peaceful co-existence and allow all parties to operate successfully.

The primary benefit of an MP^3 is a reduction in pesticide exposure to bees through timely communication and coordination between beekeepers and pesticide applicators, as well as establishing clear expectations when a pesticide application needs to be made near managed hives. Pesticide exposure can be minimized if pesticide applicators and beekeepers can communicate prior to pesticide applications to coordinate activities and allow crop protection products to be used without unreasonable adverse effects to managed pollinators. For example, this could involve an opportunity for beekeepers to move or net their hives prior to a pesticide application, thereby reducing the chance that managed bees are found in the treatment area. In concert with this guidance, EPA is working with SFIREG to explore how to incorporate state MP^3's into pesticide label language as a way to mitigate risk of certain pesticides to managed pollinators.

The purpose of this guidance document is to identify the key elements of an EPA-accepted state MP^3. A number of pesticide state lead agencies have developed MP^3s in recent years to encourage communication and cooperation among stakeholders. These proactive approaches

have demonstrated success in reducing unacceptable losses to bee production while allowing crop producers to use the tools needed for crop protection. The experience of these SLAs is incorporated into this guidance.

Need for State Flexibility

State approaches may vary greatly depending on each state's agriculture, the local beekeeping industry, state pesticide and apiary laws, and other factors. Therefore, it is essential to allow sufficient flexibility for state approaches to address pollinator health and meet the goals of a state MP^3. Some states may adopt a regulatory approach, while others may develop plans built on voluntary best management practices. State plans can include regulatory or voluntary approaches as long as the plans address the key elements found in this guidance. In addition, states are free to expand a state plan to include other elements beyond the required elements described in this guidance if they see a need to address other issues.

Required Elements of State Managed Pollinator Protection Plans

1. Public stakeholder participation process

The state plans that have been developed to date are a result of direct discussions among beekeepers, crop producers, pesticide applicators, and other stakeholders. Public participation is essential to gain buy-in from stakeholders, build relationships and trust, and identify key issues affecting pollinator health at the state level. Existing state pollinator plans originated from stakeholder meetings initiated and facilitated by the SLA, providing opportunities for stakeholders to offer input and recommendations.

Therefore, EPA-approved MP^3's must include opportunities for public stakeholder participation when plans are developed and updated. This is best done by face-to-face public meetings involving broad stakeholder involvement, as well as opportunities for the public to offer comments prior to the plan being finalized.

2. A method for growers/applicators to know if there are managed pollinators near treatment sites

A key element of state plans is the ability for an applicator to contact beekeepers near a treatment area to alert them of a pending treatment and to allow the beekeeper to move or net their hives to prevent managed bees from entering the treatment area. In order to adequately coordinate and communicate with beekeepers, growers and applicators need accurate and timely information on the location of nearby colonies that could affect application decisions. This includes stationary colonies as well as contract services colonies (whether owned by a local beekeeper or a migratory beekeeper).

MP^3s must indicate information on how a pesticide user will be able to identify the location of managed bee colonies near sites to be treated. Methods for accomplishing this include mandatory or voluntary hive/apiary registration systems that identify location of colonies geographically or other strategies to visually identify hive/apiary locations (*e.g.*, bee flag). In

some cases, the geographic location information is very specific (e.g., GPS coordinates), while in others the location is within a township, section, range and the grower/applicator must directly contact the beekeeper to determine the exact location.

Some states with state apiary registration requirements provide information on the locations of registered colonies (https://apps.nd.gov/ndda/mapping/). Other states utilizer self-registry sites such as the "Fieldwatch" specialty crop site self-registry system (http://www.fieldwatch.com/), and such sites may be adapted to provide apiary location information. Florida's "Apiary-Citrus Industry Link Mapping Service" is another example. (http://www.freshfromflorida.com/Divisions-Offices/Plant-Industry/Agriculture-Industry/Apiary-Inspection/Florida-Apiary-Citrus-Industry-Link-Mapping-Service).

3. A method for growers/applicators to identify and contact beekeepers prior to application.

Once growers and applicators identify managed hives near sites to be treated, there needs to be a means for growers and applicators to contact those beekeepers to notify them when a pesticide application needs to be made. Beekeepers, in turn, need a reasonable period in order to take action to protect their colonies if necessary. This is often done by moving colonies temporarily to a protected location. Growers who have pollinators under contract at the treatment site are encouraged to obtain beekeeper contact information and make predetermined agreements with the beekeeper regarding conditions and steps that must be followed before a pesticide application can be made, such as providing holding areas for bee colonies.

Plans should clearly describe how pesticide applicators and/or landowners will be able to obtain contact information for owners of managed colonies near a pesticide treatment area. States have utilized a variety of strategies in the plans that have developed to date to provide applicators with beekeeper contact information. These include web-based apiary registration databases or self-registry websites in which an applicator can quickly and easily obtain beekeeper contact information for a given colony. Other states have utilized requirements for beekeepers to prominently display beekeeper contact information via signage at the colony location. Regardless of the approach, there needs to be a means for pesticide applicators to obtain timely contact information for beekeepers when there is a need to do so.

A common notification period for state plans is a 48-hour notification to the bee keeper prior to an application, although states are free to designate or recommend a notification period that best fits their local needs.

It should also be stressed that pesticide applicators are bound by label restrictions, even if they contact beekeepers in the area prior to a pesticide application. For example, many pesticide labels have prohibitions against making applications if bees are foraging in the treatment area. Contacting beekeepers prior to application does not exempt applicators from complying with such restrictions.

4. A clear defined plan for public outreach

State MP^3's will only be successful if there is robust adoption of the plan. In order to be successful, there needs to be adequate outreach to publicize the state plan and its recommendations/requirements. This typically involves meetings with organized stakeholder groups, such as trade associations, commodity groups, and bee keeping organizations. States should clearly describe how they will provide outreach to the public on their plan.

5. Recommendations for more formalized agreements between beekeepers, crop producers, and property owners, especially in situations with contracted pollination services.

In some situations, beekeepers place hives on private property without contractual agreement or landowner compensation. However, there are other cases in which there is a financial agreement between the beekeeper and landowner, either for contracted pollination services or when the beekeeper compensates the landowner for use of their property.

State plans should encourage use of written contracts or other written agreement between beekeepers and growers when there is a financial relationship, especially in situations involving contract pollination services. These agreements should include elements such as contact information; expectations, roles, responsibilities, and notification requirements when pesticide applications need to be made; expected crop protection needs and practices; specifications regarding hive location; specifications regarding time frames for placement and removal of colonies, and specifics related to financial arrangements and compensation. Verbal agreements are made in many cases, but exchange of contact information is still critical, and should be documented.

6. A process to periodically review and modify each plan

Plans need to be periodically reviewed, again using a public stakeholder process, to evaluate plan effectiveness and to make modifications as needed. These periodic reviews, preferably on an annual basis, also provide opportunities to assess the effectiveness of the plan in improving communication and mitigating risk of pesticides to pollinators. State MP^3's should clearly describe a process and timeline for how the plan will be periodically reviewed and modified.

Optional/Recommended Elements of State Managed Pollinator Protection Plans

States are free to expand a state plan to include other elements beyond the require elements described above if they see a need to do so. State plans that have been developed to date have included additional elements, and states are encouraged to address them, either in public stakeholder discussions or in their managed plans. These include the following:

1. A strategy to deal with unknown colonies

The placement of colonies by a beekeeper without a formal agreement with the landowner is a problem in some areas. Even after a state has developed a plan to allow applicators to identify beekeepers in the area and obtain beekeeper contact information, there may be instances in which an applicator or landowner encounters a colony with an unknown owner. States are encouraged to develop strategies to address these types of situations in a way that does not penalize the landowner or pesticide applicator. Strategies will likely depend on a state's laws and regulatory authority. States are encouraged to explore their authority to seize or remove unidentified colonies, and to seek stakeholder input on reasonable approaches that can be taken when unidentified colonies are found.

2. Recommendations on how to minimize risk of pesticides to bees

Some state plans include recommendations on how growers and pesticide applicators can mitigate risk of pesticides to bees while adequately managing pests. Examples of recommendations include controlling flowering weeds in a crop, making applications when bees are less active (such as after dusk or before dawn), using application methods that are more targeted (such as drip irrigation), using products less toxic to bees when possible, minimizing or reducing pesticide drift, utilizing Integrated Pest Management (IPM), and other approaches. These recommendations can be developed with the assistance of university researchers and extension specialists, and should include the input of crop producers and bee keepers. States are encouraged to include such recommendations in state plans.

3. Communication with crop advisors

Many landowners utilize crop advisors for input on cropping and pest management decisions. Crop advisors are often aware of pest pressures and crop protection needs not only at the field level, but also at a landscape level. Therefore, crop advisors are an important partner in integrating crop protection and pollinator protection beyond just the individual field. Therefore, crop advisors are critical parties to managing potential pesticide risk to managed bees. States are encouraged to explore and develop strategies on how the expertise and input of crop advisors can be utilized in pollinator protection efforts.

4. Clear information as to the applicability of the plan

Because different crops may have different crop protection needs and different pollinator risk mitigation solutions, separate or modified plans can be developed for specific cropping systems. Managed pollinators are primarily honey bees, but could include some species of bumble bees, and alfalfa leaf cutter bees. States are encouraged to clearly define the agricultural production/beekeeping system to which their MP^3 applies, including timeframes of applicability. States are also encouraged to develop crop-specific approaches if they see a need to do so.

Process for EPA Review and Acceptance of State Plans

-Placeholder for EPA to add language for this section

Resources

State MP^3s are available for review from the following states (with links)
North Dakota: http://www.nd.gov/ndda/files/resource/NorthDakotaPollinatorPlan2014.pdf
California: http://www.cdpr.ca.gov/docs/legbills/calcode/030203.htm
Mississippi: http://www.mdac.state.ms.us/departments/bpi/index.html
Florida: http://www.freshfromflorida.com/Consumer-Resources/Florida-Bee-Protection
Colorado: http://www.cepep.colostate.edu/Pollinator%20Protection/index.html