

Tennessee Pollinator Conservation Plan

A program presented and adopted by the following stakeholders to foster cooperation among beekeepers, pesticide applicators and agricultural producers for the purpose of preventing honey bees and pollinators from the unreasonable exposure to pesticides through education and stewardship recommendations in the state of Tennessee.

Tennessee Beekeepers Association, Tennessee Farm Bureau Federation, Tennessee Aerial Applicators Association, Tennessee Department of Agriculture, Independent Crop Consultants, Tennessee Fruit and Vegetable Association, Tennessee Agricultural Production Association, Tennessee Soybean Association, and University of Tennessee Extension.

Mission Statement

Our mission is to develop and promote a voluntary program of cooperative standards among farmers, beekeepers, and pesticide applicators when bees are located in or near crop production areas to ensure the compatibility of crop production, apiculture, and pollinator health.

Communication & Education Starts With Everyone

The stakeholders listed above are committed to educate their respective members on the components of the Tennessee Pollinator Conservation Plan and the advancement of its goal and purpose. Farmers and beekeepers are encouraged to foster a strong level of communication with each other during any cooperative arrangement. Both the farmer and beekeeper should exchange some basic information including name, phone number, locations of hives on the farm property, commodities grown in the fields adjacent to hive locations, and general information concerning insecticides applied on these commodities and timing of these application during the normal growing season. Cooperators are encouraged to have open dialogue about this information every year to foster that strong level of communication that should exist in such arrangement. Both the beekeeper and farmer should generate and review a comprehensive list of all apiary locations that occur on the farm property or on adjacent property not owned by the farmer annually. This is especially important when hives are moved to new locations. Bees located near agricultural fields could be exposed to chemical drift during applications. Bees may forage on any flowering plant whether it is a crop plant or “weed” without regard to landowner boundaries. The presence of a yellow and black striped “*Bee Aware Flag*” will be used across the state to clearly identify the locations of honey bee hives that are on a farm property or near crop fields. These flags will serve as a visible reminder to farmers and pesticide applicators that honey bees and other pollinators are present in the area. All flags should be placed so as to be visible to applicators from both the ground and air.

Considerations for Beekeepers

- **Hive Identification:** The beekeeper should have a placard placed on a prominent hive within an apiary that clearly identifies the owner of the hives with emergency contact information. This placard should be highly visible from a distance.
- **Bee Aware Flag:** All parties should work together to select a prominent location for the Bee Aware Flag that will be visible to applicators from the air or ground.
- **Apiary Locations:** In any strong working cooperative agreement between farmers and

beekeepers, all parties will discuss proper hive locations on or adjacent to the farm property where the bees will be kept beforehand. It is encouraged that beekeepers provide GPS coordinates to the farmer and his applicator to show exact locations of hives on or adjacent to the farm property. The beekeeper knows the best honey bee habitats and can help select an apiary locations that (1) uses natural barriers such as tree lines to mitigate against exposure to insecticide drift, (2) will best facilitate the entrances to hives from directly facing fields, and (3) are not too close to the immediate edges of fields.

Considerations for Farmers and Pesticide Applicators

- **Notify Ground & Aerial Applicators of Hive Location(s):** The farmer should make his employees (or other contractual parties) aware of all apiary locations and the associated bee flags on the farm property or adjacent property and should notify his aerial applicator (if applicable) of apiaries on farm property as well.
- **Timing of Insecticide Applications:** When possible, especially when bees are actively foraging, farmers should consider applying insecticides as late in the afternoon as possible on fields that are near hive locations. Selecting this time to apply insecticides in sensitive areas near hives will help mitigate many risks of bee losses. Further, insecticides should always follow label guidelines and be made when pests reach economic threshold levels.
- **Wind Direction:** Insecticides should only be made when drift onto bee hives is not likely winds (e.g., when winds are blowing away from the hive location(s)).

Stakeholder Participation Process

Participation will be accomplished through the stakeholder organizations and agencies representing beekeepers, production agriculture, commercial crop protection product applicators, regulatory officials, and extension service. These stakeholder groups have defined governing bodies to speak on behalf of individuals within their respective organizations and agencies. Other stakeholder groups willing to take part in the plan will be added to broaden the scope of stakeholders involved. These groups will meet periodically to collectively carry out the mission of the Tennessee Pollinator Conservation Plan.

Public Outreach

There will be two forms of public outreach to carry out the mission of the Tennessee Pollinator Conservation Plan. **1.)** Each stakeholder group will communicate directly with membership of each respective group. Stakeholders will share information with their membership, customer base, and/or service patrons through newsletters, direct mail communication, workshops, field days, and employee training. **2.)** Outreach to the public at large will be accomplished through radio programs, social media, news releases, a website, and print media. Stakeholders have resources and access to each of these media to provide information throughout the state about the Tennessee Pollinator Conservation Plan.

Review and Modification

The Tennessee Pollinator Conservation Plan is considered a working and evolving document hinged upon the mission statement. The process for review and modification will be a collective effort of the stakeholders. The broad range of expertise within the stakeholder groups will provide feedback covering every aspect of the Plan. Stakeholders will meet annually to review the Plan. The collective input of

stakeholders will be used to modify or enhance the Plan.

Mechanism to Measure Effectiveness

Effectiveness will be measured by two components: **1.)** workability among beekeepers, farmers, and pesticide applicators, and **2.)** colony loss across the state where the Plan would apply. Cooperation among beekeepers, applicators, and farmers is a key component for the Plan to accomplish the mission statement. This cooperation must be measured to carry out the practical aspects of the Plan. Stakeholders will depend upon feedback from beekeepers, farmers, and pesticide applicators to determine if any modifications or enhancements should be made on an annual basis. Stakeholders will measure colony loss through instate surveys and research that are considered credible by state and federal agencies or stakeholders. Surveys such as the Bee Informed Partnership survey and other studies currently considered a recognized benchmark for colony loss will be used also.

Tennessee Aerial Applicators Association

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