

DRAFT MA Pollinator Stewardship Framework

Both native and managed (honey bees, bumble bees, etc.) pollinators are important parts of our natural and agricultural landscapes. Unfortunately, both have been experiencing significant challenges in their ability to survive and flourish. Native bees face challenges from habitat loss, introduction of invasive plants, climate change and pesticides. Managed pollinators face the same issues as well as a host of parasites and diseases, lack of funding for research and beekeeper education, lack of genetic diversity in honeybee populations, regulatory shortcomings, etc.

No one factor alone is responsible for periodic losses to honeybee or native pollinator species. Nor is sound protection of pollinators in the hands of any one party or group. Management of all pollinators requires education of, communication between, and the cooperation between many different parties:

- Farmers
- Beekeepers
- Pesticide applicators (home, lawn, garden, mosquito, etc.)
- Land managers (small and large, public and private)
- Homeowners
- Regulators (pesticide, apiary)
- Extension educators
- Legislators

With this in mind, The Massachusetts Farm Bureau established a Pollinator Stewardship group with the goal of putting together an outline of an integrated approach to pollinator stewardship in the Commonwealth. The group was formed with the intention of including representative of all the above groups. Where applicable, preference was given to those who represent a constituency and could represent a consensus opinion rather than their own. The group has met 4 times and this document represents the current working draft. Our initial goal is to identify key areas of concern and to outline areas for future efforts by all of the parties that impact pollinator health.

In order to effectively manage bees and other pollinators, there is need for an Integrated Pollinator Stewardship Program which should consist of the following:

Regulatory

- Apiary Inspectors and Pesticide Inspectors need to work together to investigate reported bee kills. The apiary inspection program needs to be rejuvenated. Inspectors should meet minimum requirements regarding skills and knowledge. A defined bee health investigation and reporting system should be enacted. A formal pesticide assay process should be devised that is responsive to the needs of beekeepers and pesticide applicators.
- There are regulatory barriers to beekeepers using Section 18/Emergency Exemption pesticides for control of mites. According to a recent EPA/USDA report, Varroa mites are considered by these agencies to be the number one health issue affecting managed European honey bees. These pesticides are needed both for effective control and for managing resistance to other commonly used pesticides for mites. EPA must address the availability of pesticide products which control both insect and disease issues in the hive.

- EPA must improve pesticide labels so that applicators have relevant information on the impact of these products to pollinators. Most pesticides have the ability to adversely impact pollinator health based on rate, timing, and proximity to the hive. This federal process has recently received increased attention by EPA through concern of the Executive Branch.
- Regulatory programs need to be flexible enough to allow knowledgeable beekeepers to participate in education and training programs for other beekeepers – even where there may be a perceived conflict of interest.
- A dynamic electronic registry of apiary locations should be established, and the location files be noted on database layers available to pesticide applicators and bee inspectors. It should be noted that a portion of the beekeeping population is leery of having the location of their hives recorded.
- The determination of when and where to spray pesticides by the publically funded Mosquito Control Projects should be based on science and should be as consistent as possible among the Mosquito Control Projects statewide.
- Regulations pertinent to requests to designate a property as “no spray” relative to state Mosquito Control Projects, needs to be made less cumbersome. Many Projects use informal methods now, which should be the basis of future regulation.

Beekeeper Education

- Hobby and new/small-scale beekeepers must be able to understand parasites, including mites, and pathogen control strategies and to implement better control programs.
- There is very good classroom training of beekeepers. There is a need for field-based training such as twilight meetings, visits to bee yards, demonstrations, etc.
- There needs to be honest discussion in beekeeping circles, based on sound science, of the efficacy of non-chemical controls of parasites and pathogens and the implications to bee populations as a whole.

Pesticide Applicator Education

- Pesticide applicators need expanded training on pollinators and understanding new pesticide labels geared towards improving pollinator safety. Pollinator safety should become part of the curriculum for obtaining both a pesticide license and certification from MA DAR.
- There is a need for applicators to understand best management practices relative to bees and other pollinators. There may be a need in some arenas for the development of best management practices.
- Beekeepers and pesticide applicators need to be aware of where each others activities are taking place. Note, however, that some beekeepers have expressed reservations about identifying the location of their hives.

Improvement/Expansion of Forage

- There is a need to expand populations and of plants suitable for bee/pollinator forage

- There is a need to create an updated list of appropriate plants that are not invasive, and that are appropriate to MA. Many beekeepers have expressed a desire to de-list certain invasive species such as purple loosestrife. DAR should look at the entire list to see if there is any flexibility in the current criteria for listing invasive plant species.
- There may be opportunities for the service industry (lawn care, landscaping) to promote homeowner planting of bee/pollinator forage material.
- There may be benefits and opportunities for farmers and other organizations which manage land (power lines, etc.) to plant forage plants.
- There is a need for a habitat assessment tool through research for native pollinators.
- UMass, the nursery/floriculture industry, landscapers, and others should work on improved forage for bees through research and education AND there should be research on the impact of this on bee health, i.e. how much forage and of what kind to positively impact hives.

Research

- Gov't may need to play a neutral role in putting studies in proper perspective for legislators, press, etc.
- UMass agricultural scientists need to evaluate the impact of various regulatory strategies on both pollinator health and crop production.
- Research by USDA, EPA, and others must continue on the impact of pesticides, environment, bee management practices, etc. on bee health.
- There needs to be research on the need and means to increase genetic diversity of domestic honey bee populations. Feral bee colonies may offer an opportunity for more diverse genetics.
- Research must be expanded on the potential the impact of sub-lethal doses of newer pesticide chemistries, including neonicotinoids on pollinator health. This research must include the impact of these doses not just on healthy bee populations but on those whose health has been compromised by parasites, pathogens, and starvation. EPA should be the clearing house on these studies and any changes to pesticide labels or on the continued registration on any pesticide product should be made at the Federal level by the US EPA.

Coordination

- Those whose activities have or may have direct impacts on bee health (beekeepers, gov't (state and Federal), UMass, pesticide applicators, land managers, etc.) should maintain ongoing discussion on:
 - Relevant studies – is there agreement? Disagreement? Is the study sound?
 - Legislation
 - Status of collaborative efforts

The results of these discussions should be made public so policy-makers and others understand the broader perspective on these issues.

Further roles of the Pollinator Stewardship Group

- DAR is active in discussion of pollinator protection through the State-FIFRA issues, Research and Education Group (SFIREG), a consortium of state and federal regulators. This is the group that is working to coordinate the White House mandate on pollinator protection, EPA's response to this, and the State's roles in this effort. DAR has agreed to report back to the Pollinator

Stewardship group on their efforts, and to consider the proceedings of this group. The group in turn will help educate their constituents on these efforts.

- The collaboration initiated by this group can act as the basis for continued discussion, education, advice, and implementation of pollinator health efforts.

Background on this Document

This draft framework was developed and put out by the undersigned individuals through a series of meetings convened by the MA Farm Bureau Federation. Comments and suggestions are being accepted on the framework until September 15, 2015. Please send comments to Dr. Richard Bonanno at rich@mfbf.net and copy Taryn Lascola at taryn.lascola@state.ma.us

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