Apiary Program Annual Summary 2015

Massachusetts is home to a large and diverse beekeeping industry as current estimates indicate the presence of 4-4,500 beekeepers managing 40-45,000 hives. Over 45% of agricultural commodities in Massachusetts rely on bees for crop pollination. In addition to pollination, honey is also an important agricultural commodity produced in the Commonwealth. In an effort to highlight the significance of this agricultural commodity and provide support to honey producers, the Marketing and Apiary Programs collaborated to launch a honey icon on the MassGrown map allowing beekeepers to be listed as local suppliers to the public. The Apiary Program also joined efforts with the Pesticide Enforcement Program to create a comprehensive "Bee Kill" evaluation process to investigate suspected incidences of hive related death due to pesticides. A total of 11 calls were taken and 5 investigations were performed in 2015. Of these, none of the cases were determined to be linked to pesticides based on the limit of detection for samples analyzed, but rather due to complications with Varroa mites, viruses and hive husbandry issues (i.e. starvation, etc.).

The Apiary Program promotes and sustains apiculture in the Commonwealth by providing support to honey beekeepers, pesticide applicators, farmers, land managers, educators, regulators, researchers, students and government officials. Inspectors are also responsible for providing technical assistance and continuing education to all audiences on topics related to honey bees. During 2015, Apiary inspectors provided a total of 11 outreach educational programs to a variety of stakeholder groups throughout the Commonwealth. In an effort to ensure honey bee health in Massachusetts, the Apiary Program team of 4 inspectors visited a total of 1,080 beekeepers (5,258 hives) situated across 12 counties (172 cities) during 2015. During these inspections, hives were examined for the common honey bee pest, parasites and pathogens. The following is a summary of the data. Values are listed as the total number infected hives with each issue (% infected of hives based on total inspected) and total number of apiaries where infection was detected.

- American foulbrood (AFB), *Paenibacillus larvae* – 24 hives (0.46%); 9 apiaries (detected in Essex, Middlesex, Barnstable, Hampden and Worcester counties)
- European foulbrood (EFB), *Melissococcus pluton* – 60 hives (1.14%); 50 apiaries
- Chalkbrood, *Ascosphaera apis* – 56 hives (1.07%); 49 apiaries
- *Nosema* spp. – 58 hives (1.10%); 11 apiaries
- Tracheal mite, *Acarapis woodi* – 21 hives (0.40%); 9 apiaries
- Varroa mite, *Varroa destructor* – 2900 hives (55.15%); 782 apiaries
- Idiopathic Brood Disease syndrome (IBDS) – 154 hives (2.93%); 75 apiaries
- Sacbrood virus, *Morator aetatulas* – 100 hives (1.90%); 80 apiaries
- Deformed wing virus (DWV), *Iflavirus* spp.– 68 hives (1.29%); 24 apiaries
- Small hive beetle, *Aethina tumida* – 6 hives (0.11%); 3 apiaries
- Wax moth, *Achroia grisella* – 2 hives (0.04%); 2 apiaries