

# **MASSACHUSETTS BEEKEEPERS ASSOCIATION**

## **BEST MANAGEMENT PRACTICES**

### **Disclaimer**

This document is intended solely as guidance. This document does not confer, and is not intended to create legal rights or impose legal duties or obligations. The general descriptions provided here reflect the Massachusetts Beekeepers Association's current views regarding reasonable considerations for safe and healthy management of honeybees in Massachusetts and may not apply to particular situations based on the circumstances. This document may be revised periodically.

### **Introduction**

It has often been observed that if you ask ten beekeepers the same question, you will get at least ten different answers. This adage reflects, in part, the great diversity of practice that has grown up around beekeeping.

For every beginning beekeeper, there is inevitably another beekeeper, whose enthusiasm to share his or her personal observations and techniques provides the spark for the new beekeeper's own venture into beekeeping.

Diversity of ideas and practices among beekeepers is essential to the continued success of honeybees and beekeeping. Yet, it must also be recognized that beekeepers do not exist separately and apart from the communities in which they live, and as beekeeping becomes more popular, particularly in suburban and urban areas, the potential for misunderstandings with neighbors and local officials also grows. Thus, responsible management of one's hives within the community in which they are located is also essential. For this reason, the Massachusetts Beekeepers Association has developed these Best Management Practices to provide a framework for determining appropriate, site-specific management practices to promote healthy bees and avoid potential conflicts between beekeepers and others.

### **Legal Considerations**

Mass. General Laws Chapter 128 §§ 32-36A and 38 address inspections, as well as the keeping, selling, transportation and control of diseases of honeybees. Apiary regulations are found at 330 Code of Massachusetts Regulations 8.00 and can be accessed on the Dept. of Agricultural Resources website at:

[http://www.mass.gov/agr/legal/regs/330\\_CM8.00.pdf](http://www.mass.gov/agr/legal/regs/330_CM8.00.pdf) .

Certain provisions of these regulations are referenced in this document, where applicable. However, beekeepers should be generally familiar with all of these regulations.

## Considerations Regarding Hive Placement

Proper hive placement is important both for promoting healthy colonies and for minimizing or avoiding conflicts with neighbors and others in the vicinity of your hives.

When determining where to locate hives, it is important to consider not only the square foot area under your control, but also natural features and surrounding land uses.

Wherever possible, consider placing the hive so that it faces east or south. Avoid placing the hive in a low-lying area as such areas tend to trap moisture. If the hive is proximate to a property boundary in an urban or built-up area, attention should be given to the bees' flight path. Locating hives near roads, sidewalks or other areas where people may frequently pass should be avoided. Consider using barriers, including solid fencing, hedges and shrubs six feet high or more, to redirect the bees' flight path so that they do not fly directly into adjoining properties or areas where people may frequently pass.

Strict rules regarding the number of colonies that may be placed on a given plot of land are of limited value because lot size is only one variable to be considered when locating one or more hives. For example, it may be possible to maintain a greater number of nucs than fully-established colonies in a smaller area, and in an urban setting, hives located on rooftops may not require the same amount of space as hives at ground level. Nonetheless, the following matrix illustrates a typical relationship between lot size and hive density

### **NUMBER OF HIVES IN RELATION TO LOT SIZE**

<b>Lot / Acreage</b> <b>up to 1/4 acre</b> <i>(1/4 acre = 10,890 sq. ft., roughly 50 ft. x 215 ft.)</i>	<b>Number of Colonies</b> <b>2 colonies</b>
<b>more than 1/4 acre, less than 1/2 acre</b> <i>(1/2 acre = 21,780 sq. ft., roughly 100 ft. x 218 ft.)</i>	<b>4 colonies</b>
<b>more than 1/2 acre, less than 1 acre</b> <i>(1 acre = 43,560 sq. ft., roughly 150 ft. x 290 ft.)</i>	<b>6 colonies</b>
<b>1 acre or more</b>	<b>12 colonies</b>

**Regardless of lot size:** If all hives are situated at least 200 feet in any direction from all property lines of the lot on which the apiary is situated, **no limit on the number of hives.**

**Regardless of lot size:** As long as all adjoining property that falls within a 200-foot radius of any hive is undeveloped property, **no limit on the number of hives.**

Finally, the beekeeper should also be mindful of any local zoning or health by-laws and ordinances that may relate to bees. Many cities and towns in Massachusetts publish their by-laws and ordinances on line for easy reference.

## **Considerations Regarding Hive Management**

### **Timing and Weather**

Hives should be checked periodically, the frequency depending on the time of year and condition of the hive. Hive openings should be performed as expeditiously as circumstances will allow, with minimal disturbance to the bees. Generally, warm, sunny days with little or no wind are more favorable for opening a hive. If hives are located in an area where neighbors may be outdoors, the beekeeper should also be mindful of neighbor's activities when deciding when to open a hive.

### **Swarming**

Swarming is a natural phenomenon that occurs generally in the spring and early summer months. Swarming is often associated with periods of high nectar flow, although swarming can also occur at other times, including later summer and fall. Swarming cannot always be prevented but hives should be managed to reduce the chances that swarming will occur. Techniques that can reduce the likelihood of swarming include brood chamber manipulation, colony division, adding supers for brood rearing and honey storage and replacing older or failing queens.

### **Provision of Water**

Unless there are natural water sources adjacent to the apiary, beekeepers should establish water sources near the apiary to discourage visits to swimming pools or hot tubs that may be nearby. Bees prefer sunny places with surface moisture such as wet sand or gravel or the edge of a birdbath. A nearby water source is especially important during hot weather when honeybees use large amounts of water to control temperature and humidity within the hive.

### **Colony Temperament**

In any instance that a colony exhibits unusual defensive characteristics, for example, stinging or attempting to sting without provocation, or persistent defensive behavior some distance from the hive, the beekeeper should check for skunks and take steps to prevent skunks from disturbing the hive, such as laying chicken wire down in front of the hive entrance. If there is no evidence of skunks or if the problem persists, the beekeeper should requeen the hive from european stock.

## **Robbing Behavior**

When bees are engaged in robbing, the resulting frenzy can be frightening and potentially dangerous to unprotected people and animals. When it involves a weakened hive, robbing can also lead to the spread of disease. For these reasons, Massachusetts apiary regulations state,

### 8.03: Maintenance of Apiaries

- (1) Beekeepers shall maintain their apiaries in such manner that the same shall not become a public nuisance through "robbing" in any form or at any season.
- (2) Honey or hives, combs and other bee material not actually occupied and not used by bees shall not be exposed out of doors or in open buildings, subject to the entry of robber bees. The exposure of such material shall be considered to constitute a public nuisance and a danger to bees and a possible source of the spread of infectious bee disease.
- (3) Where such conditions or other unsanitary conditions and methods are found, they shall be abated in accordance with instructions issued by the inspector or his deputy and an agreement shall be made between the beekeeper and the inspector for this purpose.

When nectar is scarce, honeybees may rob honey from other hives. Under such conditions, beekeepers should work hives for only a very short time, if at all. Exposing honey (especially sticky honeycombs) outdoors often encourages robbing, regardless of whether nectar is scarce. All spilled honey should be cleaned up immediately. Similarly, if a hive is being fed sugar syrup, care should be taken not to spill syrup or leave jars of syrup exposed.

Entrance reducers should be used on hives with small populations to reduce the threat of robbing by bees from stronger hives.

When removing honey supers for extraction, frames should be covered with a towel or other heavy cloth to prevent robbing, and buildings and trailers used for honey extraction must be made bee proof, as far as is practicable. Honey extraction should not be performed outside or in an open area that is accessible to bees.

## **Disease control**

There are a number of honeybee diseases and pests, ranging from parasitic mites to nosema and American Foulbrood (AFB), which a beekeeper should be aware of and able to identify. A number of methods exist for disease control and treatment, including the use of integrated pest management methods (IPMs) and medications. Information about diseases and pests affecting honeybees in Massachusetts, as well as treatment methods, can be found online such as:

<http://www.ars.usda.gov/is/np/honeybeediseases/honeybeediseases.pdf>

and in reference books such as The Beekeeper's Handbook, D. Sammataro and A. Avitabile, Comstock Publishing Associates; 4 edition (May 13, 2011).

. While the decision to use a given control or treatment method lies with the individual beekeeper, a beekeeper nonetheless should monitor the hive closely enough to be able to identify and control the spread of disease and maintain honey quality.

Beekeepers should be extremely cautious about mixing hive equipment or using old equipment from questionable sources. Generally, any cost savings that may result from using second-hand equipment, particularly boxes, frames and drawn comb, are far outweighed by the risk of disease. Before using such equipment, irradiation is strongly recommended. Beekeepers should also be familiar with the Massachusetts regulations relating to the control of disease within an apiary, including disease reporting requirements and the role of the apiary inspector. 330 CMR 8.02 and 8.07.

### **Transportation of hives**

The interstate transportation of bees (as well as used or second-hand equipment, honeycombs, frames and other used beekeeping equipment) is subject to the requirements set out in 330 CMR 8.06.

Beekeepers must also take appropriate care when transporting hives of honeybees locally. Hives that are to be relocated should be closed up at night or before the bees begin to forage in the morning so as not to leave foraging bees behind. Hives being transported should have entrance screens to prevent the escape of bees and hives should be strapped and secured to avoid tipping. Transportation of hives through populated areas during midday, particularly during warm months, should be avoided whenever possible.

### **For more information:**

Massachusetts Beekeepers Association  
[www.massbee.org](http://www.massbee.org)

Most Massachusetts counties have beekeeping organizations that provide grass roots support for local beekeepers and people interested in beekeeping.

Barnstable County Beekeepers Association  
<http://www.barnstablebeekeepers.org/>

Northern Berkshire Beekeepers Association  
<http://nbba.wordpress.com/>

Bristol County Beekeepers Association  
<http://www.bristolbee.com/>

Essex County Beekeepers Association  
<http://essexcountybeekeepers.org/>

Franklin County Beekeepers Association  
<http://www.franklinmabeekeepers.org/>

Hampden County Beekeepers Association  
<http://hampden-county-beekeepers.org/>

Middlesex County Beekeepers Association  
<http://www.middlesexbeekeepers.org/>

Norfolk County Beekeepers Association  
<http://www.norfolkbees.org/>

Plymouth County Beekeepers Association  
<http://plymouthcountybeekeepers.org/>

Worcester County Beekeepers Association  
<http://worcestercountybeekeepers.com/>

### **Acknowledgement**

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