Sonoma County Beekeepers' Association

Recommended Best Management Practices for Sustainable Beekeeping

Purpose

The purpose of this document is to establish a reference guide and standard for honey bee management in Sonoma County for the public and for beekeepers.

Our Mission and Values

Our goal is to increase interest in and knowledge of bees and beekeeping for the hobby beekeeper and the general public.

The SCBA supports and encourages sustainable beekeeping practices. As a community we learn and share our knowledge of the honey bee and all beekeeping methodologies, without discrimination or judgment.

We advocate protecting the bee's habitat and the planting of pollinator friendly flowers, trees, shrubs and cover crops to provide pollen and nectar for all bee and pollinator species.

We are mindful that the use of many pesticides, chemicals and treatments are detrimental to bee health and long term species sustainability.

As an association we provide a public service not only of caring for precious pollinators but of educating the public through school presentations and at public events. We maintain a Swarm List of beekeepers ready to collect bees that have left their hive in search of a new home and settled in a less than ideal place.

We advocate continuing education – beekeeping is both art and science with a variety of theories and practices.

- Attend classes, conferences, workshops and seminars
- Subscribe to Bee/Beekeeping periodicals
- Access the Internet, join beekeeping social media and chat groups
- Join local, state, regional and national organizations

We encourage voluntarism and involvement – beekeeping needs new ideas and leadership to build a sustainable future.

- Mentor new and young beekeepers
- Support and contribute to independent bee research to expand our knowledge

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BEEKEEPING MANAGEMENT

1. Location and Placement of Hives

Hive placement is one of the most important decisions for a beekeeper.

- Comply with all Homeowner Association and local city ordinances and regulations pertaining to beekeeping
- Avoid placing a hive in an area where people will walk directly in front of the hive entrance; use screening if necessary to redirect the bees' flight path
- Provide year round forage , both pollen and nectar sources
- Assure a source of safe water
- Colonies benefit from full sun (with partial shade during extreme hot spells)

2. Hive Density

The following hive densities are suggested for maximum benefit for both bees and beekeepers to minimize potential conflict between the public, honey bees and their keepers.

Suggested maximum number of hives in relation to lot size:

Lot /Acreage	# Colonies	*Important: Some locations may not support the suggested maximum number of hives. Hive densities are ultimately limited by available safe forage. Local agricultural practices and the current number of neighboring apiaries should also be taken into account. Vigorous, well nourished colonies are best able to withstand bee diseases and parasites.*
Up to 1/4 acre (1/4 acre = 10,890 sq ft)	3 colonies	
More than 1/4 acre, less than 1/2 acre (1/2 acre = 21,780 sq ft)	5 colonies	
More than 1/2 acre, less than 1 acre (1 acre = 43,560 sq ft)	7 colonies	
1 acre or more	10 colonies per acre maximum	

3. Hive Management

Practice fire safety when using a smoker – keep a lit or hot smoker in a metal can, a water source or fire extinguisher nearby for emergencies

Practice good hygiene to reduce the transmission of pathogens between hives – regularly clean/scorch equipment, use hand sanitizer and a dedicated hive tool for each colony

Perform hive manipulations only when necessary and as quickly as possible to minimize disturbing the bees.

- Work hives when forager activity is at its height
- When weather conditions are warm and calm
- The bees are not defensive

4. Hive Maintenance

Regularly check equipment for damage and replace defective or ill fitting supers and frames. Assure that hive stands are level and sound.

Develop a comb replacement schedule – replace old comb every 3-5 years to minimize bee exposure to residual chemical buildup in wax.

5. Swarming

Sometimes swarms arrive and land on farm land or in vineyards. Sometimes established honeybee colonies are discovered in inconvenient locations such as outbuildings, owl boxes, pumps, compost bins, and other places. Swarms and established colonies can be removed and relocated by experienced beekeepers.

Swarming is a natural response to lack of space or other factors. Beekeeper's colonies should be managed to minimize swarming (80% of swarms fail to survive.)

There are several techniques to minimize swarming:

- Adding a super with additional frames
- Checker-boarding, where frames of either drawn or undrawn comb are added between existing frames
- Adding clustering space between the bottom board and first super
- Making a split

6. Colony Temperament

Bee colonies may become defensive for various reasons and beekeepers should be aware of the triggers for such behavior in order to minimize its negative effects. These include:

- Lengthy or ill-timed hive inspections -
- Mishandling of the hive
- Odor on protective gear from previous stings
- Time of year i.e. nectar dearth
- Genetic make up
- Disturbances from predators
- Queenlessness
- Overcrowding

Beekeepers must be prepared to act effectively to prevent bees from becoming a nuisance or a risk to others. In addition to avoiding the above-mentioned causes of defensiveness in bees, some of the ways to prevent and control such situations include:

- Avoid bringing bees or queens that may be of unknown lineage, unproven stock, which may be Africanized or other naturally excessively defensive stocks, or bees that are not adapted to the local conditions.
- When confronted with a situation, close the hive and relocate it to an isolate area as soon as possible. If the colony is moved during the day, another hive that contains some brood should be left at the original location of the defensive colonies in order to receive the returning foragers.
- Re-queen hives and destroy all drone brood that are inherently defensive (change of genetics).
- Inspect hives that are more defensive than others last.
- Keep protective gear clean (The odor of previous stings on clothes and gloves can trigger defensive behavior.)
- Destroy colonies that present an acute and immediate danger, when they cannot be relocated (5-gallon of soapy solution poured into the hive will do.)

7. Disease Control

It is a beekeepers responsibility to monitor and manage diseases and pests to ensure colony health. The health of your hives can effect neighboring apiaries.

Take remedial action to prevent spread of disease. Avoid synthetic miticides and pesticides. Honeybees have a limited capacity to metabolize toxins, including beekeeper applied varroacides, and some toxins accumulate in beeswax.

- Destroy diseased colonies that present an acute and immediate danger to neighboring colonies

Sonoma County Beekeepers' Association members are the stewards of the precious honey bee, for more information visit sonomabees.org

Contact president@sonomabees.org for more information