

# Honey Bees & Beekeeping in San Diego County

Honey bees play a valuable role in our food system and environment by providing pollination services to plants and producing honey and related products. Beekeepers support pollination activity and honey production by managing European honey bee (EHB) colonies, and it has been estimated that the vast majority of the nation's beekeepers are backyard beekeepers.

To promote healthy and successful colonies and to provide optimum safety for beekeepers, neighbors and communities, it is important that local beekeeping issues and best management practices are understood and followed.

## BENEFITS

Honey bees are a primary pollinator for approximately one third of human-consumed food in North America. Managed honey bee colonies well-contribute to this production. Honey and products containing honey are frequently promoted for nutritional and personal health and care uses. **USDA reports the value of annual honey production in the United States to be more than \$315 million and research has shown managed honey bees contribute over \$14.6 billion to crop production.** Bee pollination supports flowering plant growth contributing to the natural and landscaped environment, which creates valuable habitat for other insects, birds and animals.

## AFRICANIZED HONEY BEES

Africanized honey bees (AHB) are closely related to the European honey bee (EHB); however, unlike managed EHB colonies, the Africanized honey bee colony behavior is more unpredictable. While all colonies swarm as a part of their reproductive cycle, the AHB has a tendency to swarm more frequently. AHB colonies can perceive a threat at greater distances and can take defensive action more quickly, in greater numbers and for longer distances from the hive – up to a quarter mile. This behavior increases the risk of stinging incidents by AHBs to people and animals. **EHB queens can mate with AHB drones potentially causing AHB behavior of the colony. Proper maintenance of managed honey bee populations is our best defense against bee Africanization.**

The entire San Diego County region is considered colonized by AHBs; therefore, one should always be vigilant about reporting unmanaged nests or swarms and cautious when bees are performing natural foraging for nectar and pollen from flowers.

## HONEY BEE HEALTH

Healthy and prosperous colonies require proper management practices and consistent monitoring. Malnutrition, lack of water and disease are frequent causes of colony decline. Placing hives in locations near plentiful and diverse flowering plant resources will help bees naturally obtain the nutrients they need to stay healthy. **Supplemental feeding of sugar and pollen substitutes may be necessary if natural floral resources are unavailable and may improve colony performance. Ensure bees have plentiful and safe landing access to clean water sources, especially when temperatures are warmer and/or during periods of drought.** Beekeepers should inspect apiaries monthly for pests, diseases, undesirable bee behavior and colony condition, and treat accordingly followed by close monitoring during subsequent hive inspections. **Colonies exhibiting overly defensive behavior should be re-queened with a queen of known European background.** Requeening a colony will support vigorous hives and honey production and limit AHB impacts. If the re-queening attempts fail, colony elimination might be desirable.

[www.sdcountybees.org](http://www.sdcountybees.org)

Bee Hotline 1-800-200-BEES

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## BEEKEEPING BEST MANAGEMENT PRACTICES (BMPs)

### MAINTENANCE

Implementing beekeeping best management practices provide higher levels of safety and success for the beekeeping industry. Beekeeping equipment and protective gear should be kept clean and maintained in good working order to limit transfer of pests and diseases and avoid harmful stinging incidents. If bee removal services are provided as part of the beekeeping business, be sure that proper insurance and pest control licenses are secured and kept current.



### REGISTRATION AND LABELING

California state law mandates that all beekeepers, regardless of number hives, must annually register with the County Agricultural Commissioner, providing information on the number and location of colonies. Additionally, hives must be labeled with beekeeper's name and telephone number. Registration and hive labeling support communication with the beekeeper regarding bee health and public safety concerns, and hive thefts.

### HIVE PLACEMENT

Safety measures for beekeeping have been incorporated into many state, county and municipal ordinance codes. **Be sure to check applicable ordinances for where you plan to locate your hive(s) to ensure you are following all regulatory requirements.** In most areas within the San Diego County region, hives must be placed at proper distances from residences, public right-of-ways and sensitive sites (locations deemed as having a higher risk of harm).

Some ordinances determine apiary distance requirements based on the number of hives (e.g. the County of San Diego) and others may be determined by pre-established zoning setbacks for the property (e.g. the City of San Diego). **Place hives so that the entrance is facing away from public right-of-ways and in a secure area that is not readily accessed by the general public.** Ensure there is a six foot flyover barrier (vegetative or structural) around the hives to force bees to fly up and away, limiting their dispersal from lower elevations and potential for contact with the public.



### FIRE SAFETY

**Following required guidelines for use of bee smokers in hive management is critical in San Diego County where much of the region has a high risk of wildfire.** Depending on location, beekeepers may be required to have adequate fire breaks around the hives with reduced vegetation that could fuel a wildfire. Fire safety tools and equipment should be readily accessible near the hives.

### EDUCATION

If hives are located near residences, speak with the residents about your apiaries and/or beekeeping interests. **This is a good opportunity to educate and promote benefits honey bees provide, the value of the beekeeping industry, and strategies to keep themselves, their pets, and bees safe.** Finally, stay informed of current honey bee health research and recommendations to expand your beekeeping and honey producing knowledge.

*The University of California Cooperative Extension has partnered with University scientists and educators, the County of San Diego Agricultural Commissioner, the San Diego Beekeeping Society and other stakeholders to develop and extend a honey bee outreach and education program.*

*The program is designed to provide research-based information and training to beekeepers and those interested in learning more about honey bees for the sustainability and improvement of honey bee health and the beekeeping industry.*

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