



# Texas Apiary Inspection Service

## Best Management Practices for Honey Bee Health

### Disclaimer

These voluntary best management practices should be used by beekeepers as a tool to promote honey bee health and responsible beekeeping in Texas. This document is not legally binding, and is intended merely as a guide for Texas beekeepers. Regulations and rules regarding beekeeping in Texas can be found in Section 131 of the Texas Agricultural Code and Chapter 71 of the Texas Administrative Code, which can be accessed at <http://www.statutes.legis.state.tx.us/>.

### General Management

- Manage all colonies to promote bee health and prevent suffering due to pests and diseases.
- Abide by all beekeeping rules and regulations set forth by the State of Texas.<sup>1</sup>
- Check hives periodically, at least once a month, and keep good records to improve practices.<sup>2</sup>
- Properly dispose of any hive products removed during management (i.e. wax or propolis) after each inspection.
- Control tall vegetation around colonies and keep apiaries clean.
- Replace frames and comb every 3-5 years.
- Practice fire safety when the bee smoker is in use.
- Post a honey bee caution sign in or near apiary.
- Put unused equipment in a bee-proof location or seal your unused hives so that bees cannot enter.
- Requeen all overly defensive colonies with a European honey bee queen.
- Work with landowners to choose hive locations, and be cognizant of neighboring landowners when placing and moving hives.
- Take appropriate care when transporting hives of honey bees. Bees being transported should have entrance screens or be secured under netting. Maintain consistent temperature, ventilation, and hydration.
- Be aware of crop pest control practices near your apiary.
- Have a communication plan in place with nearby growers and applicators
- When possible, choose apiary sites that are relatively isolated from potential insecticide applications and drift.
- Work constructively with applicators when notified of upcoming pesticide applications.
- Report all suspected pesticide-related bee kills to the Texas Department of Agriculture Pesticide Program immediately at 1-800-TELL-TDA.

### Nutrition

- Ensure honey bee hives have sufficient resources throughout the year.
- Unless there are natural water sources adjacent to the apiary, establish a perpetual water sources near the apiary.
- Supplemental feeding of sugar syrup and/or protein may be necessary if natural resources are limited.

### Pest Management

- Use an integrated pest management (IPM) approach to pest and disease control.<sup>3</sup>
- Regularly conduct sampling of hives and document any pest sampling results and treatments.<sup>2</sup>
- Cull weak, collapsing colonies. Do not combine weak colonies with healthy ones as this may spread pests and diseases.
- Never switch frames from a hive that is suspected to have a pest or pathogen problem to a hive that is healthy.

- Check brood comb for symptoms of American Foulbrood, other pests and diseases, and the presence of a laying queen at least once a month.
- Varroa control should be a primary activity in your beekeeping operation. Monitor and control for Varroa mites using methods found in the [Honey Bee Health Coalition's Tools for Varroa Management guide](#).
- If American Foulbrood is suspected, contact the Texas Apiary Inspection Service at (979) 845-9713.
- Practice good hygiene with hands, gloves, and other equipment to reduce transmission of pathogens between colonies. Tools should be scrubbed with a sterilizing agent (i.e. isopropyl alcohol, bleach solution, etc.) and/or sterilized with flame before taken to another beekeeper's apiary.
- Do not purchase or accept used frames, boxes, or other beekeeping equipment unless you are certain they are free of disease.
- Requeen with pest and disease resistant genetic lines of honey bees.
- When pesticide use is necessary to manage pests within hives, use registered pesticides and comply with all restrictions, precautions, and directions found on the pesticide label. Failure to comply with label directions may decrease the efficacy of pesticides, increase the risk of adverse effects to bees, cause pesticide residues in honey and other products, and potentially lead to pesticide resistance.
- After in-hive pesticide application, resample to measure efficacy; don't assume your treatments are working.

## Urban Beekeeping

- Comply with all local municipality ordinances regarding beekeeping.<sup>4</sup>
- Do not place colonies in proximity of tethered or confined animals, children, the elderly, general public, drivers on public roadways, or next to utility right-of-ways (power lines, pipelines, or underground cables).
- Be neighborly. If you are considering keeping hives near property lines, communicate your intentions with neighbors and be sensitive to their concerns.
- If hives are located in an area where neighbors may be outdoors, be mindful of neighbors' activities when deciding when to open a hive.
- If water sources are limited, ensure bees are not watering at or near locations that could be bothersome for neighbors (i.e. visiting swimming pools, water features, or hot tubs that may be nearby).
- When placing hives on small lots or at locations within 200 feet of any developing portion of property, a solid fence, wall, or dense vegetative barrier should be used to redirect the bee's flight pattern and prevent a direct line of flight from the hives into neighboring properties. The flyway barrier should start at the ground, be a minimum of six feet in height, and should extend beyond the direct line of sight from the entrance of the hive to the neighboring or adjacent property.
- All properties, or portions thereof, where honey bee colonies are located should be fenced, or have a barrier to prevent access, and have a gated controlled entrance to help prevent unintended disturbance of the colonies.
- Honey bee colonies are recommended to be limited to the following colony per acre density in urban areas:
  - ¼ acre or less tract =3 colonies. Colony numbers may be increased up to 6 colonies as a swarm control measure for not more than 60-day period of time.
  - ¼ - ½ acre tract =6 colonies. Colony numbers may be increased up to 12 colonies as swarm control measure for not more than a 60-day period of time.
  - ½ - 1 acre tract =10 colonies. Colony numbers may be increased up to 20 colonies as a swarm control measure for not more than a 60-day period of time.
  - 1 - 2 ½ acres =15 colonies. Colony numbers may be increased up to 30 colonies as a swarm control measure for not more than a 60-day period of time.
  - 2 ½ -5 acres =25 colonies. Colony numbers may be increased up to 50 colonies as a swarm control measure for not more than a 60-day period of time.
  - 5- 10 acres =50 colonies. Colony numbers may be increased up to 100 colonies as a swarm control measure for not more than a 60-day period of time.
  - 10+ acres =100 colonies. The number of colonies shall be unlimited provided all colonies are at least 150 feet from property lines.

## Foot Notes

<sup>1</sup> Texas Agriculture Code Chapter 131 and Texas Occupations Code, Chapter 1951, Structural Pest Control, Section 1951.056

<sup>2</sup> An example of a record sheet can be found in the [Honey Bee Health Coalition's Tools for Varroa Management guide](#).

<sup>3</sup> A basic introduction to IPM can be found in the Honey Bee Health Coalition's Varroa Videos at: <http://honeybeehealthcoalition.org/Varroa/#videos> or on the Texas Apiary Inspection Service Website at <http://txbeeinspection.tamu.edu/beekeepers/integrated-pest-management/>

<sup>4</sup> Check with your local Code Enforcement Department, Animal Control Department, or Sheriff Department about local honey bee regulations.