

# The Differences between European and African Honey Bees: A Fact Sheet

African honey bees and European honey bees are the same species (*Apis mellifera*), but the two are classified as different races or sub-species. European honey bees were brought to the U.S. by old world Spanish explorers. For centuries, these European bees have been selected by beekeepers for their robust honey production and storage behavior, their reduced regular swarming/absconding tendencies, and their gentleness. The African honey bee (*Apis mellifera scutellata*) was brought to Brazil in the 1950's in an effort to increase honey production in Brazil. However, it was accidentally released into South America's feral environment. Since that time, it has spread through South America, Central America, and into the U.S. The bee is considerably more defensive than its European cousin. Consequently, it is important to understand key differences between it and the docile European honey bee.

## Hive Defense and Stinging

European Honey Bee	African Honey Bee
<ul style="list-style-type: none"><li>• May send out 10-20 guard bees in response to disturbance up to 20 feet away</li></ul>	<ul style="list-style-type: none"><li>• May send out several hundred guard bees in response to disturbance up to 40 yards away</li></ul>
<ul style="list-style-type: none"><li>• Once agitated, will usually become calm within 1-2 hours</li></ul>	<ul style="list-style-type: none"><li>• Once agitated, may remain defensive for much longer--perhaps several days</li></ul>
<ul style="list-style-type: none"><li>• Disturbed colony will result in 10-20 stings</li></ul>	<ul style="list-style-type: none"><li>• Disturbed African colony may sting 6-10 times more than a disturbed European colony</li></ul>



Figure 1: A 2 x 2 inch patch of suede baited with honey bee alarm pheromone was waved in front of a colony of European honey bees with little response from the bees (photo: Ian McGuire)



Figure 2: The same patch of suede was waved in front of an African honey bee colony with a much more defensive response from the bees (photo: Ian McGuire)

## Swarming and Absonding

for more information about swarming, see *Resources* section for *Frequently Asked Questions about the African Bee in Florida*

### European Honey Bee

- Swarm 1 or 2 times per year
- Swarms are larger and need larger volume to nest
- Rarely abscond (or completely abandon nest) from nesting location



Figure 3: European swarms are usually much larger than African honey bee swarms

### African Honey Bee

- Can swarm 10 or more times per year
- Swarms are much smaller, some not larger than a coffee cup or a softball--can nest in smaller area
- Abscond often and relocate to more suitable nesting location



Figure 4: A swarm of African honey bees (photo: W.H.Kern, Jr.)

## Selection of Nesting Site

### European Honey Bee

- Look for large cavity about 10 gallons in size
- Typically nest in cavities that are above ground, clean and dry
- Look for protected locations
- Due to larger amount of bees starting colony, nests are easier to detect



Figure 5: Managed honey bee hive--the best size and protection for European honey bees (photo: M. K. O'Malley)

### African Honey Bee

- Will nest in much smaller cavities about 1-5 gallons in volume (e.g. water meter boxes)
- Often nest in underground cavities, do not discriminate between moist and dry locations
- Will nest in completely exposed locations (i.e. hanging from a tree branch)
- Due to smaller amount of bees starting colony, nests are more difficult to detect until they are disturbed



Figure 6: Exposed two month old African honey bee colony on tree branches (photo: W.H.Kern, Jr.)

## ***Additonal Resources***

*Bee Proofing for Florida Citizens*

<http://edis.ifas.ufl.edu/IN741>

University of Florida, IFAS Extension publication that instructs homeowners and property owners in the specifics of bee proofing and its importance

*Frequently Asked Questions about the African Honey Bee in Florida*

<http://edis.ifas.ufl.edu/IN738>

University of Florida/IFAS Extension EDIS document that addresses questions frequently asked about the African bee in Florida

*What to do About African Honey Bees: A Consumer Guide*

<http://edis.ifas.ufl.edu/IN739>

University of Florida/IFAS Extension EDIS document that offers recommendations and precautions to Florida's general public about the African honey bee

*AFBEE Program*

<http://afbee.ifas.ufl.edu>

The African honey bee Extension and Education Program was established by the Florida Department of Agriculture and Consumer Services and the University of Florida, and it serves to educate all Floridians about the presence of African bees in Florida. The AFBEE Program website is a clearing house of information on African bees. In the resources section, customers can find fact sheets, presentations, videos, and educational documents catered specifically for their needs. The downloadable list of trained PCOs is available under the Bee Removal tab.

*Florida Department of Agriculture and Consumer Services' Division of Plant Industry*

*Bureau of Plant and Apiary Inspection, African Honey Bee Page*

<http://www.doacs.state.fl.us/pi/plantinsp/ahb.html>

This website includes links to videos, fact sheets, press releases, and more. It also includes a list of trained PCOs.

