



What are Africanized bees? Africanized bees (sometimes sensationalized as “killer bees”) are the type of honey bees which have migrated from South America into some of the lower United States. Honey bees are not native to the Americas; prior to 1956, the only honey bees found in North and South America were European honey bees, which were brought to the New World as early as the late 1500’s. As the name suggests, European bees are native to Europe and are adapted to temperate climates. In 1956, some honey bees were brought from Africa to Brazil as part of a breeding experiment to produce a honey bee which was well adapted to tropical areas. Some of those African bees escaped from their apiaries and crossbred with the populations of gentle European bees found in Brazil. The resulting cross between those bees is the Africanized honey bee, or AHB, which retained the highly defensive behavior of the African strain.

Where are the Africanized bees now? At the present time, the Africanized honey bees have spread through parts of the southwestern states of Texas, New Mexico, Arizona, Nevada, and into California. The AHB moved into Texas from Mexico in October 1990, and migration since then has been through southern Texas and westward into New Mexico (11/93), Arizona (7/93), California (11/94), Nevada (8/98), and Utah (1999). The AHB also moved into the U.S. Virgin Islands (3/95) and Puerto Rico (9/94). The AHB is now found in several counties in central Florida (2005). It should also be noted that there have been isolated reports of AHB being found at various U.S. ports, but those bees have been destroyed (see *Beekeeping Note 1.01* for further information).

Haven’t there already been reports of Africanized bees in North Carolina? Yes, swarms of Africanized honey bees have been found and destroyed at the NC ports of Morehead City (1989) and Wilmington (1991). Those swarms of AHB “hitchhiked” rides on ships that entered those ports from areas that had Africanized honey bees. The bees were detected and destroyed by the joint efforts of the North Carolina Department of Agriculture and Consumer Services (NCDA&CS) and the Customs agents working for the U.S. Department of Agriculture (USDA).

Distributed in furtherance of the acts of Congress of May 8 and June 30, 1914. North Carolina State University and North Carolina A&T State University commit themselves to positive action to secure equal opportunity regardless of race, color, creed, national origin, religion, sex, age, or disability. In addition, the two Universities welcome all persons without regard to sexual orientation. North Carolina State University, North Carolina A&T State University, U.S. Department of Agriculture, and local governments cooperating.

What is being done to prevent Africanized bees from entering North Carolina ports?

The U.S. Department of Agriculture, through one of its agencies (APHIS), has a policy in cooperation with various state governments to monitor the movement of the Africanized bees into U.S. ports and to destroy such bees upon arrival. In North Carolina, the NCDA&CS and North Carolina State University have worked with the APHIS inspectors at the ports of Wilmington and Morehead City so that they are prepared to deal with the arrival of bees at those ports. In addition, both of those port areas have been declared “bee-free” zones and trap nests have been established to attract and monitor any bee swarms at the ports. Such bees will be destroyed and then examined to determine if they were Africanized.

Important facts about the AHB:

- Africanized bees can sting only once and then they die. You cannot be stung multiple times by the same bee.
- The sting of an Africanized bee is no more painful or harmful than that of an European bee.
- Swarms of Africanized bees and individual bees away from the hive are no more likely to sting than European bees.
- Near the nest or hive, the Africanized bees are likely to respond quicker, in greater number, and chase intruders (including people) for greater distances than European bees.

When will the Africanized bees arrive in

North Carolina? Earlier estimates predicted that the AHB would reach NC by 1995. However, the tropical bee’s progress slowed greatly since reaching the United States through Texas. The recent discovery of the AHB in Florida greatly increases the possibility that they may enter the state in the next few years, but it is difficult to predict their movement or when they may arrive. Experts suggest that the bees may arrive sooner by hitchhiking through the trucking system than by migration.

Do Africanized bees look different than regular honey bees? No. Africanized bees are closely related to European bees and detailed diagnostic techniques are used to identify them in the laboratory. If anything, they are slightly smaller than our common European bee.

Isn’t one sting by an Africanized bee fatal to a human? No. The sting and venom of an Africanized honey bee is nearly identical to that of a European bee. The venom from any honey bee may cause swelling, irritation, and temporary pain, but it is not fatal unless the person is allergic to honey bees. A small percentage of humans are allergic to various insect stings and for those individuals one sting may result in death if prompt medical attention is not received. The greater danger from Africanized bees results from the greater likelihood of receiving numerous stings by many bees.

How dangerous are they to people? The Africanized bees are more defensive than European bees; that is, their response in protecting their hive after being disturbed or threatened is much greater than that of the European honey bee. However, this defensiveness is only a problem in certain situations. Swarm clusters and individual Africanized bees foraging on flower blossoms are really no more dangerous than European bees. It is only near a nest or hive that the

defensiveness becomes a problem. Reported deaths have been limited to situations where animals or humans have disturbed an established hive.

How important is beekeeping to the U.S. and North Carolina? The primary value of honey bees to the nation's and the state's economy is crop pollination and not honey production. In the U.S., 90 cultivated crops with the value of over \$20 billion benefit from honey bee pollination. In North Carolina, the commercial production of such crops as cucumbers, apples, watermelons, squash, and berries would not be possible without honey bees.

What can beekeepers do about the Africanized bees? First, it is important to note that the U.S. beekeepers are not responsible for the Africanized bee situation and don't want the bees here either. Second, the beekeepers are the primary resource against the Africanized bees. The beekeeping industry is well organized and working on methods to reduce the aggressive nature of the bees and keep their populations low. North Carolina beekeepers, University personnel, and Government officials are already poised to assist the industry and the public if, and when, Africanized bees reach North Carolina.

Who do I call if I suspect Africanized bees in my area? It is important to note that *Africanized bees do not live in beehives* but rather in natural or man-made cavities. If you locate a suspect colony of honey bees, keep your distance and do not disturb the nest. Immediately contact your local NCDA&CS Apiary Inspector (919-233-8214), call the NC AHB Information Line (1-800-206-9333), or contact a licensed Pest Control Operator in your area (see *Beekeeping Note 1.02* for more information).

Prepared by:

John T. Ambrose, Extension Apiculturist

Revised 5/00/ebj/100/d:1

Updated 10/06 by David R. Tarpy, Extension Apiculturist