



BUG BIZ

Pest Management and Insect Identification Series



Africanized Honeybees

History

Africanized honeybees were brought to Brazil in 1956 to improve local strains. In 1957, several colonies escaped. Once established in Brazil, the Africanized honeybees (AHB) moved north up the east coast of South America and into Central America. Since then they have moved up the east and west coasts of Central America into Mexico, crossing the border between Mexico and Texas in 1990. During the next few years, they increased their northward expansion through central Texas, New Mexico and Arizona, reaching southern California in 1994.

In the fall of 2001, the AHB had reached the border of Caddo Parish in north Louisiana. In 2005, colonies collected in a Louisiana Department of Agriculture and Forestry trap were identified as Africanized honeybees. AHB swarm captures in Caddo, Calcasieu and Cameron parishes indicate that these areas are infested. State trap lines have now been moved farther east to monitor the movement of the Africanized honeybees through Louisiana.

Differences

No obvious visible measurements distinguish European honeybees from African honeybees, but the AHBs are slightly smaller.

The most notable difference is the defensive behavior. The AHBs are much more aggressive when disturbed. They defend their colonies with much more zeal and pursue the intruders for greater distances and for longer

periods. This defensive behavior is responsible for the attacks leading to deaths in South and Central America. The defensive attacks have earned the AHB the title "killer bees." Several deaths in the United States have been related to AHB defensive attacks.

Learn what to expect from an encounter with a honeybee nest; it may be Africanized. To avoid bee attacks, never disturb a nest. Where bees are a problem, get help from qualified personnel in removing them. A list of beekeepers who will remove bees can be found on the LSU AgCenter Web site, www.lsuagcenter.com.

Individually, the Africanized honeybee does not produce more venom or more toxic venom than that of the European honeybee. The danger is in the large number of Africanized honeybees that respond to being disturbed, exposing victims to more stings and thus giving a larger dose of venom than would normally be received from our domestic European honeybees.

Report multiple bee sting incidents. Reports should be made to the county agent's office in your parish or to the nearest regional office of the Louisiana Department of Agriculture and Forestry. These incidents will be investigated to determine if the bees involved are Africanized. Not all bees exhibiting aggressive behavior are Africanized. It is important, therefore, that all beekeepers who find their hives to be aggressive should change the queen to eliminate aggressive behavior.

Precautions Needed

Now that the Africanized honeybees are in Louisiana, we need to be more aware of honeybee nests and leave them alone. We must also remember that most honeybee nests are European honeybee colonies and that their presence is our first line of defense against Africanization. Where colonies or nests of bees are observed, they should be left alone unless they are in areas that could be dangerous for the general public. Feral and commercial European honeybee colonies will be a source of genetic material that will possibly alter the aggressive nature of the Africanized honeybees.

In general, honeybees are an important source of pollination for many Louisiana crops valued at more than \$400,000,000 annually. If we randomly remove wild and commercial honeybee colonies from an area, crop pollination will suffer. We also create an open invitation for the Africanized bees to move in and take over.

Bees vs. Wasps

Many people, in the excitement of being stung, do not carefully observe the attacker.



Honeybee and Yellow Jacket



Bumble bee and Carpenter



Paper Wasps

When a honeybee stings, its stinger (Figure A) is imbedded in the skin or clothing (figures B, C). The venom sack, which is also lost, pumps the remaining venom into the wound. It is important to note that, because the venom sack remains attached to the stinger in the wound, the stinger should never be pulled out. It should be scraped out so the remaining venom in the sac is not forced into the wound. The stinger of wasps and other bees is not barbed, so it doesn't remain in the wound or clothing.

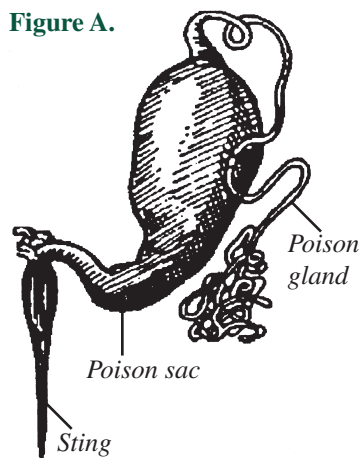


Figure B.
Bee stinger with venom sacs.

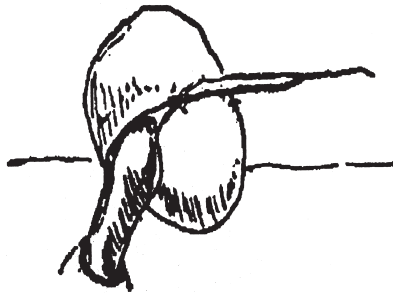


Figure C:
Bee stinger without venom sacs.



Reactions to Stings

Although some people are allergic to insect stings or bites, people can receive several stings with only a slight swelling or reddening and itching occurring. If one is allergic, the reaction from one sting is excessive swelling that could reach the throat and cause anaphylactic shock and death. If you have noticed more than the usual slight swelling from an insect bite or sting, contact your doctor for a test. If you are found to be sensitive, you will be advised to carry an EpiPen antidote injector to help relieve symptoms resulting from such a bite or sting. You should know that just because you have not been allergic in the past does not mean your system will

not change. A large gain or loss in weight, taking strong medicine, surgery or a serious injury may cause your body's physiology to change and become susceptible.

In Case of Attack

If you are stung by bees or wasps, seek cover immediately. Run away quickly and get inside a building or a vehicle if available but get as far away as possible in the shortest amount of time. Once in a secure place, tend to your injuries.

Beekeepers and Bee Products

Beekeepers are our first line of protection against Africanization of an area. The management of European honeybee colonies offers a degree of reproductive competition with Africanized bees. This competition leads to hybridization of the feral colonies in an area and a possible lessening of their defensive behavior. Plus, beekeepers have the knowledge to help you with bee problems.

Beekeepers also provide us with a service to agriculture and several products produced by honeybees. Honeybees help provide us with most of the food we eat, either directly by pollinating food crops or indirectly by pollinating food sources consumed by domestic animals and wildlife. They produce honey and pollen that can be used as food or supplements in food. They also produce beeswax used in candles, cosmetics, wood and masonry sealers, and as a lubricant or rust preventive on metal.

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