



Africanized Honey Bees: Prevention and Control

For the past 50 years, the Africanized honey bee, sometimes referred to as the “killer bee” by sensationalist news reports, has been a public health concern in South and North America. Initially imported to Brazil in the mid-1950s to improve its bee stock, this invasive species spread northward to the United States by the early 1990s. While Africanized honey bees (AHB) have **not** yet become established in North Carolina, they have been detected recently in Florida and other Gulf Coast states, and their arrival here in the coming years is fairly likely.

To prepare for the introduction and possible establishment of AHB, residents of North Carolina must become familiar with means of prevention and control of nuisance bee colonies. Here are some recommendations on how to reduce the chances of encountering AHB and suggestions about what to do if they are encountered.

For homeowners and the general public

Africanized honey bees can be a public health concern because they are more likely to sting than “typical” European honey bees (EHB). Like their European counterparts, however, AHB usually become defensive only when provoked or guarding their nest. Thus, to prevent stings, it is important to do two things. First, do not swat at bees flying around you, since it will likely provoke them and increase the chances they will sting you. Second, reduce the likelihood that an AHB colony will become established on your property by removing potential nest sites.

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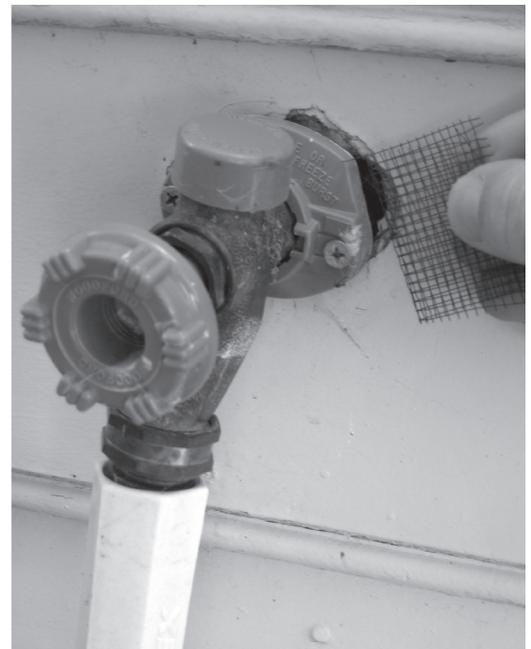


Figure 1. A “bee gap” around a water pipe. Seal the crack with wire mesh to prevent Africanized honey bees from moving in.



Figure 2. Water meters make good homes for AHB.



Figure 3. Inverted pails or flower pots should be removed to eliminate potential nesting sites for AHB.

Means of prevention

➤ **“Bee-proof” your house.** Most AHB do not live in boxes managed by beekeepers, but rather in structures (houses, barns, etc.) or manmade cavities. With a little know-how, these potential nest sites can be removed or made unsuitable for bee habitation. Carefully inspect your house and other structures for holes or cracks that could potentially lead to an internal cavity, wall space, attic, or crawl space, as bees can build nests in any of these places. Prevent access to these areas by sealing the cracks with wire-mesh screen, caulk, or an expanding

foam such as “Great Stuff” (Figure 1). Any gap greater than 1/8 inch could possibly provide access to bees, so be sure to seal such gaps sufficiently to prevent bees from moving in.

Inspect the area around your house for other potential nesting sites. In other regions of the country, AHB have been known to inhabit such manmade cavities as tool sheds and water meter boxes (Figure 2), since they often have small entrance holes and provide an ideal space for a nest. Be sure to clean up any junk piles or other debris that may create sheltered nesting sites. Pay particular attention to abandoned tires, overturned flower pots, or inverted metal cans (Figure 3).

➤ **Check for unusual honey bee activity.** A few dozen bees visiting your flower beds are typical and indeed beneficial to your garden. Bees can also collect water from bird baths or swimming pools, particularly during the heat of the summer. However, if hundreds of bees are clustered together or seen entering and exiting a single hidden location, it may be a sign that a colony has become established. If you are unsure, call a local beekeeper to investigate. Contact your Cooperative Extension office for a list of beekeepers.

Established colonies are different from exposed “swarms,” which usually hang from a tree limb. Swarm clusters are bees in search of a new nesting site and are

usually much less defensive than those protecting a hive. As such, swarm clusters (either African or European) are not very defensive, and they will likely fly off to their new home within a couple of days. Again, contact a local beekeeper if you find a bee swarm.

- **Don’t keep pets tied or tethered.** If you have pets, livestock, or other animals living outdoors, you may consider taking precautions for them as well. Mass-stinging incidents of pets by AHB have occurred in other parts of the country, particularly when the animals had no opportunity to escape or find shelter from pursuing bees.
- **Know the difference between honey bees and wasps.** Many people mistakenly believe that anything that flies and potentially stings is a “bee.” As a result, many wasp species—such as yellow jackets, European or Japanese hornets, and bald-faced hornets—are often mistaken for honey bees. In fact, some of these wasps can be even more defensive than Africanized honey bees, and many of the preventative measures outlined above can help reduce the chances that they, too, may become established on your property.

Means of control

➤ **Keep your distance.** If you locate a nest on your property, note its location but don’t approach it. Bees and wasps are much more likely to react in defense of their hive, so do not pose a threat to them.



Figure 4. Most Africanized honey bees do not live in boxes managed by beekeepers, like these, but beekeepers can do much to prevent the spread of AHB.

- **Call a professional.** Contact a licensed Pest Control Operator in your area. They will assess the problem, determine if the insects are honey bees or another species, and take appropriate action. If possible and appropriate, they will send a sample of the bees to the N.C. Department of Agriculture and Consumer Services for identification as Africanized honey bees or typical European honey bees. We do not recommend that you attempt to exterminate the bees or insects yourself.
- **Remove the combs to prevent further damage.** Fermenting honey and spoiling wax can harm the structure in which the nest was located, so it is important to remove the combs

as well as the bees. This often involves removing walls from a building to excise the nest, as well as additional repair work after the combs are removed. Because larger nests can do greater harm, *it is best to deal with the issue sooner rather than later.*

- **For mass stinging incidents or allergic reactions, call 911.** In an emergency, seek immediate medical assistance. The fire department may respond with foam or surfactant spray to calmly and safely kill the stinging bees.

For beekeepers

Again, *AHB do not live in beehives* but rather in natural or manmade cavities. Because of this, beekeepers are on the front lines in

our attempts to reduce the impact of AHB. In short, ***beekeepers are part of the solution, not the problem.***

Means of prevention

- Mark all queens with paint or numbered tags, no exceptions.
- Regularly check hives; don't let them "feralize."
- Properly store all bee equipment.
- Don't let swarms move into empty hives.
- Be on the lookout for parasitic swarms. AHB can invade a colony of European honey bees and take over the nest.

Means of control

- Requeen any unusually defensive colonies and call your local NCDA&CS apiary inspector so that he or she can take a sample.
- Soapy water in a spray bottle, rather than an aerosol insecticide, is usually a better, safer, more environmentally friendly method of killing suspect bees if they become a nuisance.
- Educate the public and other beekeepers about the benefits of honey bees and about how to avoid contact with Africanized honey bees.

CONTACT INFORMATION IN NORTH CAROLINA

More information on the AHB in N.C. may be found at: www.NCAHB.com

If you believe you have Africanized honey bees, contact:

North Carolina Department of Agriculture and Consumer Services, Apiary Inspection
<http://www.agr.state.nc.us/plantind/plant/apiary/apiarymp.htm>

North Carolina State University Apiculture Program
<http://entomology.ncsu.edu/apiculture>

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