April 2008
African honey Bee: Invasive Summary

PEST NAME: African honey bee, Africanized honey bee, Killer bee (*Apis mellifera scutellata* and associated hybrids).

PEST STATUS: Stinging threat to people and livestock. AHB are much more defensive of their colonies than either feral or managed European honey bee colonies. They will attack en mass any person, livestock, or wildlife that approaches too close to the colony. They have killed numerous dogs, a horse, and other livestock in Florida since 2005. . Although humans have been involved in stinging attacks, no human fatalities have occurred in Florida. They are a direct threat to the apiculture industry (honey production and crop pollination) in Florida. They have the potential to impact adversely Florida production agriculture from field preparation workers to irrigation and harvesting. In areas where Africanized honey bees are present, the loss of European hives due to nest usurpation (AHB taking over a managed colony) and supercedure (hybridization) is a great concern. Africanized feral colonies also compete with both European hives and native pollinators for nectar and pollen resources.

IMPACT OR POTENTIAL IMPACT: AHB reproduce faster, swarm 10 + times per year, and choose more and smaller nesting locations than European honey bees. They will even colonize below ground cavities such as water meter boxes, irrigation valve boxes, and animal burrows. This means AHB produce many more feral colonies in urban, agricultural, and natural areas. Without control of AHB colonies nesting in proximity to people, we could see 200-300 feral colonies per square mile or one colony every 2-3 acres, habitat permitting. AHB are more easily agitated and send out many more defenders than European bees. Furthermore, they remain ready to attack for up to 24 hours. They will sting everything moving within 150 ft. of the agitated colony and may go out to 150 yds. from the colony to attack unsuspecting people and pets. AHB will pursue a perceived threat for up to 300 m.(or about 1000 ft.).

WHAT IS IFAS DOING: With funding and cooperation from the Florida Department of Agriculture and Consumer Services, Division of Plant Industries, Dr. William Kern, Jr., Dr. James Ellis, Dr. Phil Koehler, and Mr. Mike O'Malley have created AFBEE (African Bee Extension Education Program). Dr. Kern is concentrating on training first-responders (fire rescue and police), outdoor workers (utilities employees, park staff and volunteers, right-of-way maintenance workers, lawn and landscape professionals), and along with Dr. Koehler, pest management professionals. Dr. Ellis and Mr. O'Malley have developed educational curricula, fact sheets, presentations, videos, and a web site (afbee.ifas.ufl.edu) for educating all Florida clientele groups (schools, pest control operators, county agents, first responders, etc.). Dr. Ellis and Mr. O'Malley are involved with hosting training programs for home owners, beekeepers, and the general public.

SUCCESS TO DATE: Through direct training and development of training materials distributed through the Florida Fire Chiefs Association, we have reached almost every fire and rescue department in Florida with the message of using 5% foam to kill agitated bees and the importance of personal protection equipment when dealing with an AHB incident. Dr. Koehler and Dr. Kern, with the help of knowledgeable industry volunteers, have literally educated the Florida pest management industry about dealing with AHB. Dr. Ellis and Mr. O'Malley have launched the AFBEE website (http://afbee.ifas.ufl.edu) to be a clearing house for Africanized Honey Bee information in Florida and the Southeastern US. Through the collective efforts of the group, thousands of Florida citizens have been reached via the website, training events, and generated curricula.

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