

ARKANSAS APIARY NEWSLETTER
State Plant Board - Apiary Section
#1 Natural Resources Drive
Little Rock, Arkansas 72205
Telephone: 501/225-1598

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Sept. 2005

News and Clarifications Related to Africanized Bees in Arkansas

It has come to our attention that there is some confusion circulating among Arkansas beekeepers. This confusion seems to involve both how Africanization of honeybees spread and the role of the Plant Board in trying to minimize the negative effects of these unwanted pests.

Africanized Drones Breeding With European Queens

The first misunderstanding is coming from some beekeepers that are stating that European virgin queens do not mate with Africanized drones. To try to clarify this misunderstanding we will attempt to clearly lay out some scientific facts about the bees. These are documented facts as described by some of the top scientists in the field and they are facts that are not disputed by other scientists. Dr. James Tew wrote that, "Africanized Honey Bees is a result of the mating between African bees and European honey bees of North and South America".

Bees from South Africa were purposefully brought to South America. The African queen bees were brought over to Brazil for the purpose of mixing them into the European Honeybee populations that were present at that time. The reason was simple. European Honeybees never really adapted to the tropical conditions of South America. It was felt that bringing the bees from a tropical area to mix, through breeding, into the European stock, would enhance their abilities to be more productive. Dr. Kerr and other South American scientists believed that because both the European and African bees were closely related cousins of the family of *Apis Melifera*, there would be no problems in their interbreeding. They were doing this successfully in a controlled setting before twenty-six queens escaped. It has been not just the proliferation from the original 26 queens that we're dealing with in states across the southern U.S. It is through the subsequent drones and their mating with our European virgin queens that most of the spread has taken place.

The fact that sub-species of *Apis Melifera* can interbreed is known by all beekeepers in the US because we constantly see hybrid mixtures of Italian, Caucasian, Carniolan, etc. These, and all western honeybees are just varieties of *Apis melifera* as is *Apis melifera scutellata*, one of their cousins from Africa. The name "Africanized" is merely a name that describes the hybrid that results from that interbreeding. Like Africanized Bees, Buckfast, Starlite, Russian, etc. are the results of such cross breeding between *Apis melifera* "cousins".

Shortly after the arrival of the Africanized bees in Arizona, Dr. Gerry Loper and Dr. Justin Schmit, from the Carl Hayden, USDA Laboratories in Tucson, wrote scientific papers describing how the Africanized drones not only breed with our European Queens, but also actually out compete with European drones in the process.

About the same time, Dr. Orly (Chip) Taylor, University of Kansas, also published a related paper describing how the Africanized drones out compete with the European drones in their mating with European queens. His paper went farther to describe how, beyond the fact that the European drones are at a competitive disadvantage in this process, the subsequent Africanized queens have a definite preference to Africanized drones from that point forward.

Thus his paper described how this process, when not impeded, seems to be a one-way advantage toward africanization.

Subsequent papers have gone on to describe that that very process of Africanized drones mating with virgin European queens is the most common way of frontline, natural migration of Africanization in previously EHB territories. In fact, the first swarm of Africanized bees found in Miller County, Arkansas, was proven, through laboratory examinations, to be headed by a European queen that had mated with Africanized drones. That is to say that the offspring were found to be Africanized, by USDA's morphometric standards, while the mitochondrial DNA (the queen's line) remained European. Later swarms found in the SW region of Arkansas have been found to have Africanized mitochondrial DNA.

All this is not to say that spreading doesn't come also from natural migration of Africanized bees through swarming or by hitchhiking and migratory beekeeping as well. Another newer understanding of how the AHB is spreading, which is not well understood by beekeepers, is by usurping or taking over of entire European colonies through invasions. This was described in the last newsletter and, again, is based on research done and published by the USDA Lab in Tucson. Again, these are documented scientific facts. Not liking them doesn't make them go away. One of the things all this shows is that by allowing swarms to be caught in Africanized zones, Africanized drones will proliferate and beekeepers will be facilitating the Africanization process. Likewise, bees moving from an Africanized zone to a non-Africanized area by beekeepers, unchecked, will also promote and speed the process. This has been demonstrated in parts of central California, Arizona and Texas.

The Role of the Plant Board in Trying to Minimize the Negative Effects of Africanization.

Nobody wants anybody to get hurt by Africanized Bees (AHB). In an effort to be pro-active to the approaching problem, several of Arkansas' governmental agencies and other groups and individuals came together, starting in 1998, as a group which called itself The Africanized Honeybee Action Committee (AHBAC). The purpose of these meetings was to adapt to Arkansas the plans used in Texas, New Mexico, and Arizona when AHB arrived and moved through those states. The plans used by those states were adapted from a national plan that was drawn up at an early 1990's meeting in St. Louis. Participants at the St. Louis meeting were beekeepers, scientists and regulators.

Invitees and participants of these early AHBAC meetings in Arkansas included but were not limited to: The Arkansas State Beekeepers Association, Agricultural Experiment Station, Emergency Medical Treatment Association, The Farm Bureau, The Arkansas Game and Fish Commission, Arkansas Parks and Tourism Department, Plant Health Inspection Service, Public Service Organizations (Lions, Kiwanis, Rotary) State Association of Fire Departments, State Association of Veterinarians, Department of Emergency Management, Department of Transportation, The Univ. of Arkansas Cooperative Extension Service (the State Entomologist), The State Department of Education, The State Department of Health, The State Plant Board (the State Apiarist), The State Police, & The USDA.

The State Beekeeper's Association was represented at the early meetings and a couple of commercial beekeepers also participated. Over the duration of the first few meetings, the drafts from other states and that of the national meeting in St. Louis were adapted and the resulting plan was accepted to be the official action plan for Arkansas. This plan lays out the responsibilities of various agencies and groups with the purpose of minimizing the negative effects of the arrival and presence of Africanized Bees in Arkansas.

In the years following the adoption of the action plan, work and preparations have been consistent with the agreement of the AHBAC. Now that the AHBs have arrived in our state, we are proud that the action committee was proactive and therefore prepared.

In late August 2005, the Plant Board invited representatives of the regional and state beekeeping associations to go over the parts of the plan that would most affect beekeepers. The purpose of calling such a meeting was to see how we could best implement the plan that we'd all agreed upon while minimizing any adverse effects on the beekeepers. It is the strong belief of the Plant Board and the entire Action Committee that informed and diligent beekeepers are an integral part in our mission. Unfortunately, some of those present did not realize that they, as representatives of the state beekeepers association were virtually signers of a plan that is already in place.

Other AHB Up-dates

Since the last newsletter in August, there has been one positive confirmation of Africanized Bees in Lafayette County. There's been one confirmed positive DNA in Franklin County. And there are pending confirmation tests on-going for Miller, Lafayette, Sevier, and Union Counties. Beekeepers need to be seen as part of the solutions and not as facilitators of the problems.

Arkansas Beekeepers Announce Annual Meeting

The Arkansas Beekeepers Association has announced the date for their annual meeting. The annual meeting will be held October 21-22nd at the Ozark Folk Center in Mountain View, Arkansas.

Mountain View, Arkansas is located in the North Central Ozark Mountains. The town is host to folk music, town square pickin' and grinnin', world class trout fishing on the White River, and many Ozark music and craft festivals. More information about Mountain View can be found at www.ozarkgetaways.com

Topics for the conference will include: Queen Rearing for the Hobbyist, How to keep bees in an Africanized Honey Bee Area, "Old-Timey" Beekeeping, Fall Management of Bees, State Honey Bee Research updates from Dr. Don Steinkraus, Professor University of Arkansas, and other topics to be determined...

For those interested in attending please fill out the registration form on their website at www.arbeekeepers.org and mail to:

Arkansas Beekeepers Association
Howard Waddell, III, Treasurer
1838 Hwy 318 So.
Marvell, AR 72366

Room Rates are \$60.00/night. Room Reservations must be made by **October 15th** through the hotel directly at (800) 264-FOLK. Ask for the block of rooms under the Arkansas Beekeepers Association.

Hotel Information:
Ozark Folk Center
1032 Park Avenue
Mountain View, AR 72560
(800) 264 - FOLK
www.ozarkfolkcenter.com

Arkansas Beekeepers Association 2005 Membership Application & Conference Registration

Name: _____
 Address: _____
 City: _____ State _____ Zip _____
 E-mail address: _____

Membership Dues:

Associate:	Owning no Bees	\$5.00	_____
Hobbyist	1-25 Colonies	\$10.00	_____
Sidelineer:	26-300 Colonies	\$25.00	_____
Commercial	>300 Colonies	\$75.00	_____

2005 Conference Registration:

Conference Per Family, Includes 1 banquet Ticket	\$40.00	_____
<u>Register prior to September 30th and receive a \$5.00 Discount</u>		
Banquet – per each additional person	\$10.00	_____
	Total Paid	_____

Please return and make checks payable to:

Arkansas Beekeepers Association
 Howard Waddell, III, Treasurer
 1838 Hwy 318 So.
 Marvell, AR 72366

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 Ozark Folk Center
 1032 Park Avenue
Mountain View, AR 72560
 (800) 264 - FOLK
www.ozarkfolkcenter.com

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 Association

Tentative Agenda
Arkansas Beekeepers Association
2005 Annual Conference – Oct 21- 22nd
Ozark Folk Center
Mountain View, AR

Friday October 21

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| 11:00 a.m. | Registration Opens
(Executive Committee Meeting) |
| 1:00 p.m. | Welcome – (General Session Begins) |
| 1:15 p.m. | Report from Resolutions Committee |
| 1:30 p.m. | Arkansas State Plant Board Apiary Section Update – Mark Stoll |
| 2:00 p.m. | How to keep Bees in an Africanized area – Paul Younger Centennial Bee Company |
| 2:45 p.m. | BREAK, Door Prizes and Visit Vendors |
| 3:15 p.m. | “Old-Timey” Beekeeping – Dr. Don Steinkraus Professor, University of AR |
| 4:15 p.m. | BREAK, Door Prizes and Visit Vendors |
| 4:30 p.m. | New Innovative Smoker for your bees – Paul Younger Centennial Bee Company |
| 5:30 p.m. | Dismiss for Evening activities |
| 6:30 p.m. | Evening banquet, Entertainment on your own |

Saturday October 22

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| 7:30 a.m. | Registration Opens |
| 8:00 a.m. | Swap Shop – Buy, Sell, & Trade New & Used Beekeeping Equipment |
| 8:10 a.m. | Queen Rearing for the Hobbyist – Tim Tucker, President Kansas State Beekeepers Association |
| 9:00 a.m. | BREAK, Door Prizes and Visit Vendors |
| 9:15 a.m. | Update on Honey Bee Research – Dr Don Steinkraus, Professor, University of AR |
| 10:15 a.m. | BREAK, Door Prizes and Visit Vendors |
| 10:30 a.m. | Fall Management of Bees - Tim Tucker, President Kansas State Beekeepers Association |
| 11:30 a.m. | Lunch on your own. |
| 1:00 p.m. | Arkansas Beekeepers Assoc. Annual Business Meeting |
| 3:00 p.m. | Adjourn |

Beekeeping Classes Remain Popular

The participation of beekeeping classes has been increasing. Preliminary arrangements are now being considered for the up-coming season. Most classes will take place in the late Fall and late Winter. If you, or others in your area are interested in taking a class this Fall, don't hesitate to contact the Plant Board to find out where the nearest classes are planned.

Notice to Out of State Migratory Beekeepers

Beekeepers from Arkansas or other states who are planning to move bees in and/or out of the state later this year or in the coming year are advised to contact the Apiary Section of the State Plant Board with your intentions. This will allow us to advise you of any regulations concerning intra-state movement that may affect you. Depending on destination or origin, this may relate to Fire Ants, Africanized Honeybees, Small Hive Beetles or others.

Buying Package Bees and Queens

Because it has become extremely difficult to find package bees and queens in areas where Small Hive Beetles are not present, the Plant Board has lifted its restrictions on where packages and queens can be purchased. We are requesting beekeepers to use care when buying and installing packages, especially if they are located in a beetle-free area of the state. Most of the northwest, north central and central parts of the state are apparently still beetle-free. There are also some smaller areas where beetles have yet to show up.