

FLORIDA MELITTO FILES

NEWS FOR BEE LOVERS

Joint publication:
Florida
Department of
Agriculture &
Consumer Services

University of
Florida/
Institute of Food
& Agricultural
Sciences

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DACS-P-01492



Now you see them, now you don't ... *Case of the disappearing bees*

An old enemy has surfaced in Florida and throughout the US. Known as 'disappearing bee disease,' 'dwindling disease,' and by other aliases, the outcome is always the same: empty colonies, abandoned brood, and no bees. This phenomenon has been recorded for decades, but we know little about its cause.

Here's what we do know: colonies appear healthy through the production season and into fall. Yet for unknown reasons, these colonies dwindle and die even when they were 'healthy' as little as three weeks earlier. Many people have offered explanations for the colony deaths: varroa mites, tracheal mites, small hive beetles, etc. Keep in mind though that disappearing disease has been reported for at least 50 years, long before many bee pests were present in the US.

The good news is that a number of investigators have accepted the challenge of identifying the culprit(s). These entomological sleuths are considering viruses, bacteria, fungi, chemicals, a protozoan (maybe even a new type of nosema), weather, food loss, and other stresses as causes. There is scant evidence to suggest that any one factor is causing the problem. Instead, all/some appear to play a role in making the victimized bees 'disappear.' Many of the sampled dead bees had compromised immune systems, allowing normally benign pathogens to kill them. What could cause a compromised immune system? The answer is all of the above.

Historically, the disease has disappeared as quickly as it appears. In fact, many people believe the term 'disappearing disease' was coined because it vanishes suddenly without a trace. Rest assured that many of the US's top bee scientists, state officials, and beekeepers are working on the problem in an effort to make the disease disappear permanently. In the meantime, it is important to minimize stresses in your colonies. Otherwise, your bees may vanish mysteriously right before your eyes.

Beekeepers Alert

Because of diseases including citrus canker and citrus greening, citrus growers have adjusted their management strategies. Please communicate with citrus growers to determine appropriate times and locations for placing bee colonies in citrus groves.



APRIL - JUNE 2007



FROM THE DESK OF JERRY HAYES

The Florida Department of Agriculture & Consumer Services is partnering with the UF/IFAS in the publishing of the **MELITTO FILES**, to keep beekeepers informed about current regulatory and education information. I am the Assistant Bureau Chief of Apiary Inspection for the state.

Florida beekeepers have been under considerable pest, parasite and disease pressure, as has every other beekeeper in the country. With the vast number of colonies brought into the state to over-winter, there is significant sharing of unwanted pests and diseases. This creates a dynamic control problem, and with our climate and constant brood recurring,

many beekeepers feel there are no effective treatment and management schemes. I think the situation is more hopeful. At present, we have enough regulatory-approved chemical, biological and mechanical controls to take care of varroa and tracheal mites, American and European foulbrood, small hive beetle, wax moth, and whatever else can negatively impact Florida honey bees.

Most beekeepers raise honey bees for pollination services - the fundamental, keystone outcome that agriculture expects. But, as the name suggests, honey bees are known for honey, and Florida produces some of the finest varietal and natural blends of honey in the world - such as tupelo and orange blossom that continue to be in demand. To protect this reputation, we need to assure our trading partners that we are vigilant about regulating every aspect of honey production.

Most Florida honey producers exercise sound management strategies and only use chemicals when necessary. Off label, illegal use of chemicals and antibiotics would severely damage Florida's reputation as a leader in honey production. Any known misuse of chemicals should be immediately reported to the FDACS/Division of Agricultural Environmental Services, who ensures that pesticides are properly registered and used in accordance with federal and state requirements. To protect the reputation and marketability of Florida honey products, it is essential to use only registered/approved products and methods. FDACS maintains set standards on the use of miticides, antibiotics, and comb sterilants. Countries that have set limits on chemical and antibiotic residues are enjoying a lucrative market for their product and a positive image that encourages additional sales.

Help maintain Florida's reputation as producers of top quality honey. Florida (Spanish for Land of Flowers) is the best place in the world to raise honey bees - and we can do even better, but only if we care about each other, honey bees, and the industry we represent.

Jerry Hayes, FDACS/DPI
Asst. Chief Apiary Inspection

FROM THE DESK OF DR. JAMIE ELLIS

As this is the inaugural edition of the **MELITTO FILES**, I feel that an introduction is in order. First of all, in the world of entomology, the word melitto means bee lover - thereby, our choice for the name of the newsletter.

I am the new honey bee researcher and extension specialist at UF/IFAS. I have responsibilities in honey bee instruction, extension, and research. My primary obligation is to Florida citizens. I serve as a conduit of information to citizens who have questions about honey bees, wasps, and just about anything else that buzzes by them on a typical day.

My second obligation (and a very important one!) is to Florida beekeepers. It is with pleasure that I was granted this opportunity to serve your interests and help you become better beekeepers. It is my hope that you view me as a resource. I am here for you, so don't be afraid to use me! I want to keep you updated on progress made in three areas:

♦ **Instruction:** As a UF employee, I am fundamentally an educator. I do not have teaching obligations currently, but I do supervise graduate students. My first graduate student, Jason Graham, began in January. Jason discovered honey bees through a course taught by Dr. Dewey Caron at the University of Delaware. Jason is a Masters student and will be studying behavioral and biological relationships between honey bees and their nest invaders. I am excited to have Jason on board and hopefully you will be able to meet him at beekeeping events in the future.

♦ **Extension:** You will encounter me most through my extension efforts, including: a UF honey bee short course, local/state bee meetings, a Florida Master Beekeeper Program, a UF website with 'all' the answers to your most vexing bee questions, publications, videos, etc. I plan to develop a rigorous and diverse extension program to help all of you, commercial and hobbyist beekeepers alike, become better beekeepers.

♦ **Research:** I am responsible for conducting and publishing quality, relevant research. My research interests are diverse. I already have plans to conduct research on varroa mites, small hive beetles, pollination ecology, and African honey bees. I will make my research findings available to you on my lab's website (up-and-coming), at local and state bee meetings, and through extension publications.

Remember, I am a resource for you. Invite me to speak at your local bee meetings. Call or email me if you have questions. Keep in mind that diverse, strong programs take time to build. However, I am dedicated to having one of the best honey bee programs in the country. So let me know how I am doing and how I can help you achieve your beekeeping goals. I look forward to meeting you in the future. Happy beekeeping!



Dr. Jamie Ellis
UF Asst. Professor

FDACS/DPI

UF/IFAS

MORE HELP ON THE WAY

FROM AMANDA ELLIS, BIOLOGICAL SCIENTIST

Florida Department of Agriculture and Consumer Services
Division of Plant Industry
Bureau of Plant and Apiary Inspection

My name is Amanda Ellis. I recently joined the Apiary Section at Florida Department of Agriculture and Consumer Services' Division of Plant Industry as a biological scientist. I have a Bachelor of Science degree in wildlife biology from the University of Georgia and a Master of Science degree in zoology from Rhodes University, South Africa. I am currently pursuing my PhD in entomology at the University of Georgia. My dissertation focuses on the effects of honey bee pests on pollination efficacy.

Our apiary team has planned several projects for 2007 to address the current needs of the beekeeping industry in Florida. These include the control of honey bee pests and honey bee nutrition. Overall, our proposed projects are designed to assist the beekeeping industry in developing successful, long-term management practices. Our goal is to recommend strategies to improve overall colony health by reducing pest populations and other health problems. Our methods will help reduce the industry's dependency on chemical controls, which will, in turn, reduce costs and ensure hive product quality and consumer safety.

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FLORIDA STATE BEEKEEPERS ASSOCIATION

The Clay County Extension Center and the Northeast Florida Honey Bee Association are co-hosting the state mid-year meeting on Saturday, June 9, 2007, 8-4 p.m. This year's theme is "*Beekeeping: An Alternative Agricultural Enterprise: The Hobbyist and the Sideliner.*" The event will also feature vendors, Beekeeper's Yard Sale, and a "Gizmos & Gadgets" table. Registration is \$20. For information, contact Elmore Herman, FSBA president, 850-557-3409, elmoreherman@gtcom.net, or Nancy Gentry, NEFHBA president, 386-684-3433, farmbees@windstream.net.

CONTINUING EFFORTS

FROM JERRY HAYES, APIARY CHIEF

Florida Department of Agriculture and Consumer Services
Division of Plant Industry
Bureau of Plant and Apiary Inspection




I think the leadership of the State of Florida in all aspects of the Honey Bee Apiculture Industry will only improve now that we have Dr. Jamie Ellis on board as the Honey Bee Research and Extension Specialist at the University of Florida. What a great addition to our team. The team is the Citizens of Florida, the Florida State Beekeepers Association, the Florida Farm Bureau, the Florida Department of Agriculture and Consumer Services' Division of Plant Industry's Apiary Inspection Section and every registered beekeeper in Florida.

The Apiary Section office is fundamentally regulatory in nature. This is a prime component of keeping a healthy, vibrant and secure honey bee industry in Florida. But, we do so much more. We do more face to face field extension work than anyone else. If a beekeeper of any size needs to know about current management trends, they come to us. Our web site is www.doacs.state.fl.us/pi/plantinsp/apiary/apiary.html. Take a look at our site, and visit the featured links at the bottom to see who we really are and the vast topics we cover.

We are very fortunate to have 'soon-to-be Dr.' Amanda Ellis as a biological scientist to oversee and direct many of our ongoing research projects to help our industry. I'll let Amada, who is now part of the team, introduce herself.

As chief apiarist, I would like to share with you that the Apiary Inspection Section is fully utilizing our African honey bee laboratory, monitoring and over-seeing apiary research projects, and helping the beekeepers of Florida on a daily basis with all their needs, and we're always here as a resource for you. We are the best in the nation and we are glad to be on your team.

FLORIDA BEEKEEPER MANAGEMENT CALENDAR – SPRING 2007

REGION	MONTH	MANAGEMENT CALENDAR	BLOOMING PLANTS
North Florida 	April	T Disease and queen problems should be remedied	sweet clover, wild blueberry, haw, fetterbush ^M , orange, Spanish needle ^{MJ} , gallberry ^M , dog hobble ^{MJ} , palmetto ^{MJ} , Mexican clover ^{MJ} , blackberry ^M , butter mint ^{MJ}
		T Make splits/nucs – new queens available	
		T Control swarming	
T Add supers, the primary nectar flow begins this month!			
May	T Continue to inspect for colony maladies, but don't treat for diseases while producing honey	palm ^J , gopher apple ^J , joint weed ^J , sandhill prairie clover ^J , spiderwort/day flower ^J , partridge pea ^J	
	T Continue swarm control		
	T Super as necessary		
June	T Remove and process honey - main flow stops	mangrove, red bay	
	T Varroa populations begin to grow – monitor colonies closely. The economic threshold is 60+ mites/day on a sticky screen or 17+ mites in an ether roll. Treat if you exceed these numbers.		
	T Disease and queen problems should be remedied		
Central Florida: similar to North FL but 2-3 weeks ahead 	April	T Make splits/nucs – new queens available	orange, sweet clover, wild blueberry, haw, fetterbush ^M , Spanish needle ^{MJ} , gallberry ^M , dog hobble ^{MJ} , palmetto ^{MJ} , Mexican clover ^{MJ} , butter mint ^{MJ}
		T Control swarming	
		T Add supers, the nectar flow began in late March	
		T Continue to inspect for colony maladies but don't treat for diseases while producing honey	
May	T Continue swarm control	palm ^J , gopher apple ^J , joint weed ^J , sandhill prairie clover ^J , spiderwort/day flower ^J	
	T Super as necessary		
	T Remove and process honey - main flow stops		
June	T Varroa populations begin to grow – monitor colonies closely. The economic threshold is 60+ mites/day on a sticky screen or 17+ mites in an ether roll. Treat if you exceed these numbers.	mangrove, red bay, cabbage palm	
	T Disease and queen problems should be remedied		
	T Make splits/nucs – new queens available		
South Florida 	April	T Control swarming	orange ^M , Spanish needle ^{MJ} , gallberry ^{MJ} , Mexican clover ^{MJ} , primrose willow ^{MJ} , smart weed ^{MJ} , clover ^{MJ}
		T Flow began in March – continue to add supers as necessary	
		T Orange blossom honey can be extracted (late April)	
		T Disease and queen problems should be remedied	
May	T Continue to remedy colony maladies, especially queen problems	palmetto ^J , mangrove ^J ,	
	T Continue swarm control		
	T Super as necessary		
June	T Move bees from orange to other locations	palm, melaleuca	
	T Super as necessary for late flows		
	T If flow is over, remove and process honey		
June	T Varroa populations begin to grow – monitor colonies closely. The economic threshold is 60+ mites/day on a sticky screen or 17+ mites in an ether roll. Treat if you exceed these numbers.		

^MContinues to bloom in May. ^JContinues to bloom in June. ^{MJ}Continues to bloom in May and June.