

01/27/09

CATCH THE BUZZ

Finally, A Complete Description Of Colony Collapse Disorder Across Time and Location.

The logo for the Aiken Beekeepers Association is a shield-shaped emblem. It features the text "Aiken Beekeepers Association" in a serif font, centered within the shield. The shield is outlined with a thick, dark border. A mouse cursor is visible pointing at the website address "aikenbeekeepers.org" in the header above the logo.

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Jerry Bromenshenk has been involved with Colony Collapse Disorder from the very beginning. He and his colleagues at the University of Montana, the U.S Army's Edgewood Chemical and Biological Center, his own company called Bee Alert Technology, and BVS, Inc. have ferreted out an amazing amount of information on this Disorder and are close to understanding the answers to this problem. Because of their work the beekeeping community is more aware of the best management practices over time to combat the worst of the regular pests and diseases bees have, and this year the almond orchards should have an ample supply of bees for pollination, in part due to their efforts, and of course the work of many other researchers and scientists. Of course it's only late December and bees are fickle, fragile creatures...and in bee time, it's a long way to February.

Over the two years that Colony Collapse Disorder has been a recognized problem, this group has probably visited more beeyards suffering from CCD, in more locations, and over a longer a time than most of the people involved in this search. As a result, in a full report prepared by this team to be released in the February issue of *Bee Culture* magazine, Bee Alert's Scott Debnam and Jerry Bromenshenk from Missoula Montana, David Westerveld from Florida's Apiary Inspections Bureau, and Randy Oliver, a commercial beekeeper with significant honey bee research experience from Grass Valley, California detail the symptoms of CCD with respect to where it hits, and when it hits. This information is critical in making a diagnosis as symptoms do change as seasons progress and knowing what to look for and when to look for it is absolutely necessary in making correct decisions. So far, no better guidelines exist for diagnosing this disorder.

To review what's commonly known:

The symptoms of the final stages of CCD have been oft repeated:

In collapsed colonies

- Complete absence of older adult bees in colonies, with few or no dead bees in the colony, on the bottom board, in front of the colony, or in the beeyard.
- Presence of capped brood in colonies during time of year when queen should be laying.

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- Presence of food stores, both honey and pollen, unless a drought or time of year restricts availability of food resources.
- Absence of pest insects such as wax moth and hive beetle.
- Lack of robbing by other bees
- Robbing and return of hive pests is delayed by days or weeks.

In collapsing colonies

- Too few worker bees to maintain brood that is present.
- Remaining bee population predominately young bees.
- Queen is present.
- Queen may lay more eggs than can be maintained by workers, or is appropriate for the time of year.
- Cluster is reluctant to consume supplemental food such as sugar syrup and pollen supplement.

However, these are the terminal symptoms. By the time colonies reach this point it is far too late to do anything but bury the dead. Being able to spot colonies that are just becoming affected is a real plus because beekeepers can turn them around most times and keep them productive. Even though they still don't know the cause, proper and appropriate management techniques go a long way in helping. Here's what the team has found:

One year out: Colonies are "just not doing well" with few other visible symptoms. They seem healthy, but have lackluster honey production.

Six months out: Symptoms are vague and easily missed. Monthly inspections and careful comparisons are needed. Brood nests are slow to expand, with most in a single hive body. Mid-day inspections show bees dispersed in the colony, but this varies. Population growth slows to stops during growing season when compared to other colonies in the same yard. Honey stores remain untouched, bees are feeding on nectar recently collected. These symptoms are difficult to spot due to the careful comparisons needed.

Three months out: CCD colonies appear slow to grow and are outpaced by non-CCD colonies in the apiary. There is a noticeable population decrease going from 3 to 2 boxes, or 2 to 1, and often the bees are on only a few frames in the bottom box...and they appear restless. Brood is shot gunned because of dead brood removal, and honey stores begin to diminish if it's late in the season, but if early, the honey remains untouched. Routine maintenance goes undone and no propolis seals are noticeable.

One month out: Usually 8 frames of bees or fewer remain and they decline rapidly. Brood is produced, but can't be supported, queen replacement is often tried and abandoned brood is common.

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Stored honey depends on the season...in summer it may all be depleted, in winter untouched.

Finally: Remaining bees fail to eat supplied food or medications, and it's mostly young bees that remain now, as the older bees are gone. Queens continue to lay excessively, and the colony usually lacks any aggressiveness at all.



Visual Symptoms of a CCD Colony

1. **Just days before its collapse the colony seemed to be strong and fully functional**
2. **Mostly young bees remaining in the hive**
3. **Bees are not aggressive**
4. **Queen is present**
5. **Eggs are present**
6. **Full frames of brood may be present**
7. **Brood may show signs of "shotgun" pattern**
8. **Capped honey and fresh nectar are often present, although not in summer collapses, which are uncommon**
9. **Fresh pollen has been stored in the hive recently, if external resources are available**
10. **Supplemental feed (syrup and extender patties) if supplied, are ignored**
11. **No robbing occurs**
12. **No secondary pests (small hive beetles, wax moths or ants) are found**
13. **No dead bees are noted around entrance of the hive**
14. **Bees do not show any signs of winglessness, paralysis or other adult bee diseases.**

CCD tends to travel like a wave through a beeyard, and combining affected and unaffected colonies usually gives 2 dead colonies. Adding a package may help, and may not. There is a time until secondary pests will move in...using equipment before that time for more bees is risky and the colony may die again.

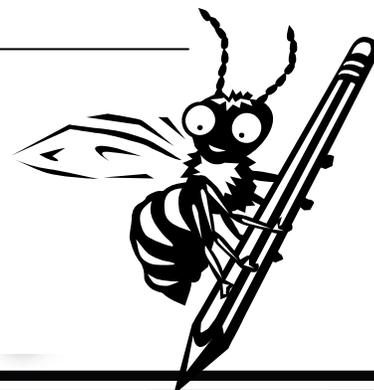
The Cause of Colony Collapse Disorder remains unknown, but the diagnosis, and thus the opportunity to administer remedial treatments is getting better all the time.

EDITOR'S NOTES

Please Help, I need people to contribute to the newsletter!

I would love for the members of the Association to suggest ideas, questions, articles, know-how, etc. that you would like to possibly see in the newsletter.

This is a way for EVERYONE to get involved. You can e-mail your contribution to Janice at buzz4bees@yahoo.com.



SC & NC Joint Spring Mtg.

The South Carolina Beekeepers Association will host a joint spring meeting with the North Carolina State Beekeepers Association at York Technical College in Rock Hill, South Carolina, on 6-7 March 2009. The meeting will be held at the Baxter Hood Conference Center at York Technical College.

Out of state speakers for the meeting include Kim Flottum, editor of Bee Culture magazine; David Tarpy and Debbie Delaney, N.C. State University; Bart Smith, USDA/ARS Beltsville, Maryland Bee Lab; Stanley Schneider, UNC-Charlotte, Jerry Hayes, Florida Department of Agriculture; and Jennifer Berry, University of Georgia.

The meeting will begin at 2 PM on Friday, 6 March, with a general session followed by a panel discussion. An evening dinner will be held on Friday and will be followed by a keynote speaker. A wire grass band will perform during the evening dinner. Another general session will begin at 8:30 on Saturday morning and several workshops will be offered in the afternoon. The meeting will end at 5 PM.

Contact Mike Hood at 864-656-0346 or email mhood@clmson.edu for more information.

Florida Nucs

Tommy Thompson, of Midstate Beekeepers Association, is going down to Florida the second/third week in March to pick up five-frame nuc Carniolans. He is generously offering to pick up some for any interested members of our club. This is a great opportunity for those people who are interested in expanding their 'stock' and want to see what other races of bees have to offer.

Carniolan traits (*Apis mellifera carnica*):

It has been said that Carniolan and Italian bees are the most chosen by beekeepers of the world. Some reasons for this are the similarities between the two. The Carniolan is the closest to the Italian of all the bee varieties. It is a fairly dark bee but maintains the gentle traits we value in the Italians. It also has a proboscis (tongue) of similar length to the Italian so is able to work the same forage. Some differences between the two types of bees: Carniolans generally produce the paper-white wax capping so desired for cut comb, propolize less than other races of bees, are not inclined toward robbing, and overwinter in a much smaller cluster (which means they need fewer stores to survive, thus provide more honey for the beekeeper). A downside to Carniolans is that they build up very fast in the spring, in proportion to the availability of pollen. This leads to an increased tendency to swarm but that tendency can be off-set with proper actions (splits, etc.). ('The Hive and the Honey Bee', 2005 edition, pgs. 56 - 57, were the source material for this). Queens are also smaller and darker than their Italian counterparts but any person interested in purchasing nucs will have the option of getting their queens marked.

Contact information:

Tommy Thompson - (803) 957-3295

Prices are as listed in the brochure.

This Month in the Bee Yard

January

There are many different techniques used in managing honey bee colonies. If you have a system that works for you, then keep using it. If you have a system that you would like to improve on, then read, talk to other beekeepers and study various other methods. The methods and suggestions outlined in these monthly articles are merely additional inputs that you may want to consider.

During the month of January, about the only thing that can be done in the bee yard is to check and make sure that the entrance reducer is still in place on each colony and that each entrance is open and not clogged with dead bees.

With nothing happening in the bee yard, this is an ideal time to order supplies, make repairs, assemble new equipment and get everything ready for the season ahead.

On a warm sunny day with calm winds, walk around the bee yard and observe the activity at the entrance of each hive. Examine more closely those hives with no activity. Close the entrance of any hive that has died out and check for brood diseases before moving that equipment to another hive for clean up. If the bees are flying and carrying pollen, then that colony is alive and most likely raising brood.

Cooks Corner: *HONEY CARAMEL CHEWS*

- 1 cup undiluted evaporated milk
- ¼ cup butter
- 1 ½ cups sugar
- ½ cup honey
- ¼ tsp salt
- 1 tsp vanilla
- 1 cup coarsely chopped nuts



In a saucepan, heat milk & butter until butter is melted. Set aside. Mix sugar, honey & salt in a heavy 2-qt saucepan. Cook & stir constantly until over medium heat until mixture comes to a boil & sugar is dissolved. Boil, stirring often, until firm ball stage (250*). Continue boiling & very slowly add hot milk & butter so that sugar mixture does not stop boiling. Cook & stir until candy again reaches the firm ball stage (250*). Remove from heat; stir in vanilla & nuts. Pour into well buttered 8X8 " pan. When cool, cut into 40 squares. Wrap each caramel in wax paper.

The Association promotes and encourages good beekeeping practices, enhancement in the knowledge base of novice, intermediate and expert beekeepers, production of honey bee products, and public education concerning the honey bee and honey. Any person who has an interest in honey bees and beekeeping is encouraged to become a member of ABA. Membership is open to anyone; novice or expert, hobbyist or commercial beekeeper, and you are encouraged to join us.

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Catch the Buzz



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