



# THE **APIARY NEWS**



*A publication of the Worcester County Beekeepers Association*

## *The President's Message*

*By Bob DeBoer*

Summer is finally here! I hope everyone's hives made it through the spring and are well on their way to a good harvest. CCD (Colony Collapse Disorder) is the new buzz word this year and there is some good and bad that has come with it. For the bad, this means a new challenge for beekeepers which I am confident we (or I should say the bees) will overcome. But, there is some good coming from this and that is the news has caught the attention of the Government and has loosened up some badly needed funds for research, funny how politicians vote with both the wallet and their tummy.

We had a great outdoor meeting in May to kick off our summer outdoor workshops in Northbridge thanks to our gracious host Bob Clark and his wife. Our June meeting was held at Josh Anderson's home in Petersham, these great hosts made sure everyone was well fed, there was plenty to eat and lots of cool drinks on a very sunny hot afternoon.

July 21 we will meet at the home of Scott Malkasian in Princeton remember we will be meeting at 11:30 AM for a cook out, bring salads and desserts, Scott will supply the rest.

August 18<sup>th</sup> brings us to the O'Connor's in Boylston, Paul and Linda always have a great spot for an outdoor work shop. This will also be the club elections at this meeting.

This will be my last "President's Message" as I will not be running for a second term. It has been an honor to have served as your President for the past two years, and I want to thank all the members who have made this an enjoyment, as I step down from the Executive Board, I will still be involved in many aspects of the club, Bee School, Spencer Fair, and Shows. Speaking of Spencer Fair, we are in dire need of honey and products for the Fair, we are down to 1 1/2 cases of honey, and a few jars of



WCBA was recently featured in Worcester Living Magazine, including this picture of Mary Duane holding a block of beeswax

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## **“Working With the Bees”** *By Armand Provost*

We'll start by telling you where we left off from the last Spring news letter. Run down that ending in February. I lost a hive from the up and down weather we had. First it was warm and the bees were running all over the place. Then we got a real cold snap and the bees clustered around some brood, which was away from the stored honey. No food and the cold got the best of the cluster, which wasn't as large as it should have been in the first place. I'm left now with only 7 hives but that keeps me plenty busy at my age. Maybe I'll make some increases, we'll see.

On March 13th it was 55 degrees and I made a quick check. All hives are strong. Sugar candy was still on and each hive was given some pollen substitute. I also brushed on some honey on the top bars just to keep them happy.

April 24th - 70 degrees - was a beautiful day for checking the hives. All were very strong and I started feeding sugar syrup. The syrup I feed is a 2 to 1 ratio: 2 parts sugar and 1 part water.

This month of May, when the dandelions were in bloom, 2 honey supers went on each hive and that completed the late spring cycle. I hope you all do good with your bees and have a good honey crop.

At our pot luck supper you couldn't ask for a better banquet. Lots and lots of food and many people to share different bee experiences with. It's always a great time at all of the clubs meeting, indoor and out. It's nice to see many new beekeepers again this year.

As how the weather has been, I'm predicting a good honey flow this year. We've had a lot of rain and good warm weather and many plants blooming. I'll see you at the club's outdoor meetings and hope that you have a very nice summer.

I'll leave you with another saying from my desk calendar:

"ALL MY LIFE MY DESIRE TO VISIT THE BEAUTIFUL PLACES OF THIS EARTH HAS BEEN SO INTENSE, THAT I CANNOT BUT HOPE THAT AFTER MY DEATH I SHALL BE PERMITTED TO GO AND LOOK AT THEM"

### ***On a personal note...***

John Jennings, a long time WCBA member, has gone into a nursing home in Hyannis. He would really enjoy receiving a card from any of his WCBA friends to cheer him up. Be sure to sign your name in large letters as he does not have his glasses:

John Jennings  
The Pavilion  
876 Falmouth Road  
Hyannis, MA 02601

Make sure he knows it is from one of his beekeeping friends!

## The Worker *By Madeleine Blodgett*

It works so hard and so fast  
all day and night trying to please its master.  
It is strong and powerful the way  
It flies through the bright sky.  
Its wings can carry such a  
heavy load, like ants carrying away a picnic.

It has a small yellow and black body. With  
silver shiny wings. It is smooth and fuzzy all-  
over. The thing is a baby's blanket. Soft,  
warm, and silky.

It slices through the air. So fast and  
determined to get where it's going. Like a  
satellite pinpointing its destination. Jumping  
from one flower to the next. It fills its  
pockets to the brim, with a yellow substance  
that is used to make fine gold.

It's like an airplane cutting through the sky.  
You hardly get to see it because it's so fast.  
But even when you get a chance, I wouldn't  
get too close, because it has a pointed stinger.  
It's like a rose, so beautiful, but it could be  
dangerous to hold.

And who is this one who works night and  
day? It is merely a little thing, of which we  
give hardly any credit. This worker is  
nothing but a honey bee. Because work is a  
honey bee filling its hive with honey.

*Madeleine is 12 years old and a seventh-grader at Seven Hills Charter Public School in Worcester. She is a graduate of WCBA Bee School and works with her dad James to manage the family beehives. When she's not beekeeping or writing poetry, she enjoys playing tennis and golf, dancing, theater, and drawing.*

## Getting off the Treatment Treadmill *by Dean Stiglitz*

*“The only way to get off treatments is to stop treating”*

Laurie and I have been committed to keeping bees without chemical treatments for the last several years. With some success, some failure, and many hours of research, we decided to do things on a larger scale this year. Our priorities were to not use treatments, and to keep healthy bees.

### Chemical Free

When we attended Bee School several years ago, we were both surprised by the number of chemicals that were recommended for use inside the beehive. We did treat with Apistan and menthol our first year, experimented with both formic and oxalic acids for mite control a couple of times, and occasionally used unmedicated grease patties.

After joining the Organic Beekeepers email list last year, we became aware of a growing number of beekeepers that were successfully keeping bees without any treatments and without significant problems. They claimed that the key was to “regress” the bees and their comb down in size for “small cell beekeeping.” I’m skeptical by nature, and didn’t really believe this was the reason for their success.

What does make sense is that *any* treatment to reduce *any* pathogen or pest will prevent the selection of bees that can withstand the natural occurrences of these challenges, as the more susceptible bees reproduce successfully.

At the same time, parasites and hosts generally find an equilibrium (as a parasite that is too damaging or aggressive towards its host will kill its “meal ticket” without having the opportunity to reproduce, culling both its own genes, and those of the host, from their respective gene pools). Many of the “stress diseases” like chalkbrood and European foulbrood are present in the background of many, if not most colonies. When the bees are strong, the virus or bacterium

can survive and reproduce in peace without damaging the host. But when the colony is under stress and weak, it is no longer a good host (it can’t insure the survival of itself or the parasite). The parasite attacks the host aggressively, and the bees become, like any compromised organism, prey. By suddenly increasing the population of the infection, the parasite both dooms the colony, and increases its chance of spreading to another colony either on a flower, in the wind, by robbing, or by drift in a relative explosion. (Interestingly, the bees do a striking similar thing when hopelessly queenless, in that laying workers create a suicide flurry of drones, hoping to spread their queen’s genetics in one last burst of energy).

A strong host is a good host (likely to provide food and to spread)...but parasite populations, like all life, are always evolving into their changing environment. When treatments are added to the system in order to harm the pest, you increase the pressure on the parasite, and its evolutionary defenses push back towards equilibrium. This insures only that more and/or different treatments will be needed as the pest evolves, and it means that its population will likely explode if treatments are suddenly removed.

This is largely the situation we are in today. Bees are genetically coddled (and poisoned) with medication, and parasites and other disease organisms are being bred for strength. To us, it seems fairly self evident that the only

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Queen with attendants and brood on Honey Super Cell, 1 month after installation of a package

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way to get off treatments is to stop treating, and to be willing to take the loss of bees that can't survive without chemicals.

For over 100 million years, bees have been facing "new threats" and old ones. Bees have not been eradicated in all that time (not even by the asteroid blast that wiped out the dinosaurs), and are still the cornerstone and shapers of the ecosystem that we inhabit. Not using chemical treatments will not wipe out the bees, but artificially coddled stock that can't sustain itself without chemical intervention is (in our opinion) worthless....Mother Nature would never suffer such bees!

I have scrutinized much of the research done on the history of foundation cell size and have come to accept the following as accurate:

1. Before Gottlieb Kretschmer in 1842, there was no foundation, and bees made natural comb with no influence from humans as to cell size.
2. In 1893, Prof U. Baudoux advocated larger cell sizes in order to produce stronger bees that could forage further, and carry more nectar.
3. Baudoux was able to convince much of the industry that larger bees were better, and in the 20's through the 40's, foundation cell size was increased well above its natural size.

Baudoux's theories have been disproved...yet we are still stuck with the large cell size.

What is somewhat ironic is that Baudoux was a Lamarckian, and believed that environment and activity directly affected the traits of the next generation. (The classic example being that a giraffe has a long neck because when a giraffe stretches its neck to get the higher leaves, its offspring have longer necks. This is in contrast to the Darwinian/Mendelian explanation that individuals with long necks are the ones to survive and reproduce and that mutations that lead to a longer neck are beneficial). I can't think of many other populations on which one could appear to demonstrate Lamarckian theory successfully, as bees raised on large comb will use surrounding comb and their own body size as gauges when building new comb....so Large Cell (LC) bees will make LC comb when shaken down into an empty box or when given empty frames. Given a number of years, they will slowly regress back to natural size, but in the short term, the offspring seem to have been changed in a way that they pass on to the next generation. This is demonstrably not a genetic change.

### **So, why should cell (and bee) size impact anything?**

Proponents of Small Cell (SC) make claims ranging from the well documented to the almost mythical. Certainly there are beekeepers that use SC, don't use any chemicals or treatments whatsoever, and don't have any significant disease problems (despite others in their areas having the usual laundry list). Claims are made that once regressed, SC bees forage in a wider variety of flowers, thoracic spiracles are too small for tracheal mites to enter the bees easily, smaller drones fly faster and are more successful at mating, SC bees get capped a day earlier, and emerge a day earlier...giving varroa less time to reproduce inside the capped cell. SC bees are more likely to chew out varroa...and the list goes on. I'm not convinced of every claim, but some things have become clear enough that we feel we can say with confidence:

1. LC bees are artificially overweight bees. Overweight organisms are not successful, and LC bees seem to require some treatments from beekeepers in most cases.
2. LC bees are genetically identical to SC bees (although there may be some evolutionary pressure from the number of LC bees kept, or the mating success of SC bees).
3. The flight muscles ("the engine") are the same size in SC and LC bees. If you picture putting a car en-

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gine in a truck, you would not imagine the result to be a very good truck...and trucks don't fly!

4. Natural cell size varies with latitude and altitude, but seems to center at about 4.9mm. Common foundation in the U.S. is 5.4, and I've heard reports of almost 6mm foundation in Russia.
5. The difference between 4.9 and 5.4mm is huge, especially when considering 3 dimensions (volume).

Beekeepers whom we trust are successfully doing what we want to do (managing a large number of hives successfully without any treatments), and they are attributing their success to SC practices.

## **Tried and True Methods for Regression**

Most people reading this use foundation, and probably wire it. You may have noticed that in the last few years SC foundation has been available from some of the major beekeeping equipment suppliers. LC bees will not be able to properly draw out 4.9mm foundation (their bodies are too big). The 4.9mm foundation can be used, and just accept that the first box of comb will be a little irregular. An intermediate size is also available, 5.1mm, and one can do the regression in 2 stages. It's generally recommended that bees be "shaken down" onto SC foundation rather than replacing it over time. I would say that the faster you can regress your bees, the better, and that a shakedown is not overkill.

There are almost no drawbacks to doing either of the above methods. Until regression is complete, however, the bees are not getting the advantages from SC, and drawing out all of that foundation takes time. It's also worth considering that foundation is made from wax processed from other beekeepers with unknown management practices. Chemical and pathogen contamination is a real concern here, and some who use no chemicals make their own foundation for this reason.

Another way to accomplish the regression is to install or shake down bees onto small cell comb. Honey Super Cell (HSC) makes a fully drawn plastic comb that is excellent for this purpose. We installed all of our packages onto 5 frames of HSC and they are doing wonderfully. Once the first generation emerges from the HSC, either start adding SC foundation, or, as we do, start adding foundationless frames and really let the bees go natural!

Much of the information presented here (especially things that are not from my first hand experience) come from the Organic Beekeepers list (with 1500 members), Michael Bush, and Dee Lusby (who, along with her late husband Ed, did most of the sleuthing into unraveling the history of cell size, and pioneered SC beekeeping. She manages 900 hives by herself in Arizona). All of these are valuable resources for anyone interested in "getting off of the treatment treadmill". There is a conference scheduled for February 15-17 in Arizona for the Organic Beekeepers list. Laurie and I will be attending, and we would be happy to talk with anyone who would like to know more about the conference, or anything we have discussed here.

For more information on some of our cost saving measures, some very old beekeeping literature (including 1912 and 1913 WCBA programs) and the ins and outs of foundationless frames and regressing with HSC, see our website:

<http://www.beeuntoothers.com>

Dean Stiglitz  
deknow@beeuntoothers.com

<http://www.beesource.com/pov/lusby/index.htm>

<http://www.bushfarms.com/bees.htm>

<http://pets.groups.yahoo.com/group/Organicbeekeepers>

<http://www.honeysupercell.com/>

## Spencer Fair August 31 to September 3, 2007

### SPENCER FAIR RULES AND CLASSES

The cooking rules have changed a bit this year as noted below. See <http://www.spencerfair.org> for drop off times.

#### RULES

A person shall not offer for exhibit any item **NOT** produced and/or prepared by the owner.

Honey must be produced in Massachusetts during this current year.

New classes may be added and judged, provided there are 3 or more entries.

An exhibitor shall make only one entry in a given class.

Undesirable quality exhibits will not be accepted.

Placings will be awarded on basis of quality of exhibit and the decision of the judge will be final.

No labels or identification on any entry until judged.

#### COOKING

Entries must be accompanied by the recipe as used, typed or printed on an index card.

Items C-1 through C-12 will be judged in two separate divisions:

**Division One Class C entries:** Sweetener to be used **must be 100% Honey**; no sugar, white or brown or ingredients containing any type of sweetener other than Honey.

**Division Two Class C entries:** Sweetener to be used **must be a minimum of 50% honey**; sugar, white or brown or ingredients containing any type of sweetener including chocolate may be used.

**Bakers must specify which Division their baking item is to be entered in.**

All entries to be covered with transparent wrap.

If you wish, pies may be entered in pan in which they are baked.

#### WHAT THE JUDGES WILL LOOK FOR

Classes A-100 through A-105 to be judged on appearance. Classes A-106 through A-110 to be in queen-line or gamber type jars.

All honey to be in leak-proof containers.

Frames of honey must be in bee tight cases with transparent faces.

#### MEAD AND HONEY BEER

Entries must be accompanied by the recipe as used, written on 3 X 5 cards.

All mead and honey beers will be judged according to the American Homebrewers Association mead and beer competition score sheets.

#### CLASSES

A-100. Best two sections round comb honey.

A-101. Best two sections square comb honey.

A-102. Best two packages cut comb honey (4"sq).

A-103. Best shallow extracting frame of honey.

A-104. Best shallow cut comb frame of honey.

A-105. Best full depth frame of honey.

A-106. Best two 1-lb. jars of light honey.

A-107. Best two 1-lb. jars of light amber honey.

A-108. Best two 1-lb. jars of amber honey.

A-109. Best two 1-lb. jars of dark amber honey.

A-110. Best two 1-lb. jars of dark honey.

A-111. Best two 1-lb. jars of chunk honey.

B-1. Articles made of beeswax.

B-2. Best pair straight plain, tapered, molded candles of pure bees wax.

B-3. Best pair straight plain, tapered, dipped candles of pure bees wax.

B-111. Best pieces of beeswax, 2 lb. or more.

C-1. Creamed honey.

C-2. Crisp cookies (1 dozen).

C-3. Soft cookies (1 dozen).

C-4. Bars or brownies (1 dozen).

C-5. Cakes (one cake).

C-6. Yeast bread (1 loaf).

C-7. Yeast rolls (6 rolls).

C-8. Fancy yeast breads (1 loaf).

C-9. Quick breads (1 loaf).

C-10. Candy (1/2 lb. or 12 pieces).

C-11. Muffins (6).

C-12. Pie (1 pie).

D-1. Live bee exhibit.

E-1. Crafts related to beekeeping.

E-2. Gadgets related to beekeeping.

F-1. Still Mead (1 bottle)

F-2. Sparkling Mead (1 bottle)

F-3. Beer made with honey (2 bottles)

## *WCBA Monthly Meetings*

### Saturday, July 21, 2007

**Saturday July 21, 2007 11:30 AM**

**Place: Home of Scott Malkasian  
51 Dowds Lane  
Princeton, MA  
978-464-5042**

**Topic: Evaluating your hive at  
midsummer**

We will evaluate Scott's hives at mid summer including the queen and honey production. We will also have a bee smoker contest at this meeting. You should bring your smoker and favorite fuel. The prize will be dinner for two at our Thanksgiving Banquet. Scott will then give us a tour of his large mansion which is under construction on this beautiful property with its breathtaking view.

Scott is having a cookout starting at 11:30am. He will provide the burgers, dogs and drinks. Members should bring salad (any kind) and desserts.

**Directions:** Take Route 122 North out of Holden Center toward Rutland. Take a right onto Route 68 North. Go 4 miles to Glenwood Road. Take a right onto Glenwood Road and follow it for a short distance where it splits. Go left onto Dowds lane which is a dirt road. Follow it to the dead end which is Scott's house on the left. Even though the map shows a road coming in from the opposite side, you cannot go through that way. This is the only way to Scott's house.

### Saturday, August 18, 2007

**Saturday August 18, 2007  
1 PM**

**Place:  
Home of Paul and Linda O'Connor  
192A Main Street (Route 70)  
Boylston, MA**

**Topic: Preparing your hive for the  
long winter season—Fall Manage-  
ment the Ken Warchol Way**

This program is a must for all new beekeepers in order to keep your hives alive through the winter months. Ken will demonstrate how to administer the needed medications and evaluate your hives for successful wintering. Topics to be covered are: The old queen versus the new queen, food stores and placement, pollen stores and hive manipulation, feeding, medication versus integrated pest management, and honey removal. This will be a valuable experience because of the hands-on demonstration. This is also the meeting at which we have a plant swap. Anybody who brings a plant will swap and take one home in return. This is also our annual meeting when club dues are paid.

**Directions:** Take I-290 to exit 23B Route 140 North. Follow Route 140 down the hill (about a mile) until you come to a set of lights at Route 70. Take a left at these lights. Follow Route 70 for 9/10 of a mile. You will come to a Speed Limit 35 sign. The driveway is on the left directly opposite the sign.

*Save the date! Saturday, October 13, 2007 8am to 4pm  
Mass Bee Fall Meeting and Honey Show hosted by WCBA at the Leicester K of C.  
Details will be in the fall newsletter*

## WCBA Monthly Meetings, cont'd

**Saturday September 15, 2007**

**September 15, 2007 1 P.M.**

**PLACE: Keown Orchards  
McClellan Road  
Sutton, MA**

**TOPIC: Last minute management  
for the winter blues**

We will focus on the final fall evaluation of the hive. We will evaluate 3 or 4 hives and take final emergency measures to get the hives prepared for the winter. This will be followed by Artie's famous hay wagon tours of the orchard. Bring the kids, take the hay wagon tour and pick some apples as this is prime time apple picking season.

**Directions:** Route 146 South. Take the Central Turnpike/Oxford exit. Go left at end of exit and follow for approximately 1/2 mile. Take a left on Dodge Hill Road and proceed 1/2 mile to McClellan Road. Keown Orchards is approximately 100 feet on the right.

## ***HONEY JAR ORDERS are due by July 15***

*Please use the order form from the spring newsletter. Make your check out to WCBA.*

## ***Membership Renewal***

*Don't forget to renew by August 31! Dues are now \$15 as of the vote at the April meeting. Please make your check out to WCBA and mail to:*

*Worcester County Beekeepers Association  
c/o Bob DeBoer  
654 Central Turnpike  
Sutton, MA 01590*

*You can also renew at any of the club functions or meetings.*

Name (please print) \_\_\_\_\_

Address \_\_\_\_\_

City, State, Zip \_\_\_\_\_

Telephone \_\_\_\_\_

E-mail \_\_\_\_\_

Worcester County  
Beekeepers Association  
C/O Bob DeBoer  
654 Central Tpke.  
Sutton, Ma. 01590

THE APIARY NEWS  
A quarterly newsletter of the  
Worcester County Beekeepers Association

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**U.S. POSTAGE**  
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**HONEY**  
**NATURALLY**

Buy Local Honey!



“ BEES PROTECT THE ENVIRONMENT, PROTECT THE BEES”

Summer 2007

**THE APIARY NEWS**  
Is published quarterly by the  
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Feel free to contact any of the above directors or committee chairs with questions relating to the Worcester County Beekeepers' Association or beekeeping in general. The APIARY NEWS is published quarterly by the Worcester County Beekeepers Association for its members. All submissions are welcome and should be sent to:

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