

THE HIVE TOOL

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HONEY BEE NIGHT AT THE MARCH 2 CMBA MEETING

President David Gill-Boucher extends a special welcome to new beekeepers, and those who want to learn about beekeeping at the annual Honey Bee Night meeting. Demonstrations of bee equipment and what beekeepers do at each season of the year will be featured. How to install spring packages will be included. The CMBA short course, which starts March 11 and ends in mid-April will be outlined. Audience participation and questions will be welcomed. New and old beekeepers are encouraged to come to share their experiences.

FIRST WINTER

Kitty Hensley



This is my first winter with hives. Boy! has it been a doosey. This picture was taken Feb.15, 2010. I had cleared a small amount of snow away from the bottom landing. The snow had melted slightly away from the exterior of the hives, so I am hoping for the best, and the bees are warm. Hopefully the bees will survive my experiment.

Late last fall, I wrapped landscape plastic around 3 sides and the top of my hives. The front was only partially covered, leaving the middle open from bottom to top. There are 2 openings at the top. One is hidden under the overhang of the outer cover. We stacked bales of hay as a wind break.

In September I had added a 3" extender frame, with a small hole in front, on top of the inner cover, allowing me to leave fondant and a small drip container of syrup by the opening of the inner cover.

When I peeked in the top, through the inner cover slot on a warmish January day, bees were in the hive. Much of the fondant was still there, a few bees had come up to eat.

TALKING BEES

David Papke

Visiting the bee yard in winter always makes me dream about spring when the colonies are at their height of activity. Wintertime is the other side of the yearly cycle. Yet the bees are active when the weather permits and you will sometimes see bees flying in surprisingly cool temperatures, especially if the hives are in the sun. Watch the entrance; one can get a pretty good idea of the strength of the colony by the activity at the entrance. I'd rather assess a winter colony by watching the entrance for awhile and lifting the hive from the rear bottom board to judge the weight than opening up a hive and breaking all the propolis seals the bees constructed last fall. If not satisfied, I'll take off the outer cover and peer in the vent hole or even remove the inner cover, but I rarely remove frames in the wintertime. My beginner's curiosity was satisfied years ago and I now see no need in disturbing a colony without good reason. So, if the entrance activity seems purposeful (foragers, guard bees, house-cleaning bees, cleansing flights, loafers-all present) and the hive feels sufficiently and comparatively heavy (not obviously light), I leave them alone until the next warm winter day, repeating the inspections until the weather moderates sufficiently to perform a complete inspection down to the bottom board.

Now, if a colony is light or the activity at the entrance is minimal, I want to see the size and position of the cluster; I want to assess their stores of honey. At this point I realize I'm dealing with a potential problem and not an "everything-seems-OK" situation, so I've learned to anticipate a few common winter problems. I have on hand fondant to feed colonies if I cannot move frames of honey from the periphery. (I prefer to feed bees their own honey if at all possible but do not hesitate to feed fondant if need be). If the cluster is situated just below the inner cover vent hole, I need to open the hive to assess the size of the cluster and honey stores. A quick look is usually sufficient to "read" the situation. If the cluster has shrunken to the size of a softball, it is most likely queen-less or too small to keep new brood warm so this is a colony I'll let go. One can go to great lengths to save (or try to save) a weak colony, but there is something to consider: without perfect knowledge or insight one cannot possibly tell why a colony has weakened (or died). So in my beekeeping practice I prefer to attend to the strong, healthy or "normal" colonies and let the weak ones go. You've read about raising queens from survivor stock to select for traits like mite resistance, vitality and adaptability to local conditions; well, letting the winter-weak colonies go accomplishes a similar purpose. And the equipment it frees up (after inspecting and cleaning) always comes in handy during swarm season. It's also an opportunity to cull old combs. I'm generally an optimist, I know, so I look for the possibilities in every catastrophe. I hate to lose a colony anytime, as much as any beekeeper (that let-down feeling appalls me), but it is a part of beekeeping and as fundamental as catching swarms.

I started writing this partly as a diversion to being snowed-in. I'm wondering when I'll get to visit my apiaries. I have pollen patties

and fondant ready to go but am feeling thwarted by the weather. I've gotten a few calls from anxious beekeepers about their varied/buried hives. Not to worry. Yes, they can breath through the snow. And the snow is a great insulator so forget about the cold. Sit tight. Just be prepared for the next sunny day in the 40's and get out there to be sure there is an open entrance somewhere on the hive. When they finally break cluster they'll have some serious business to attend to and need to get out! Bee Well. Spring is just around the corner.

HANDS-ON BEEKEEPING LESSONS is a series of 6 sessions offered by David Papke at his home in Stewartstown. If you are interested contact David at DCPapke@aol.com or 717-246-2339. Each session costs \$15 or \$75 for all six sessions (pre-paid). The topics covered are March 27: Managing Colonies of Honey Bees; April 24: Manipulating Colony Reproduction; May 22: Dividing Colonies; June 26: Harvesting Products of the Hive; July 31: Maintaining Healthy Honey Bees; August 28: Preparing for the Winter.

FONDANT FOR SALE

David Papke will bring packages of fondant for you to buy at the March 2 meeting of CMBA. Please call him at 717-246-2339 to tell him to place your order for the amount of fondant you want to buy. The price is \$1.00 per pound.

THE GENETIC HERITAGE AND CHARACTERIZATION OF U.S. HONEY BEE POPULATIONS

(notes by B. Gruver)

The Maryland State Beekeepers' Association met February 20 at the Howard County Fairgrounds. Dr. Debbie Delaney, newly appointed Associate Professor of the University of Delaware, gave a presentation on "The Genetic Heritage and Characterization of U.S. Honey Bee Populations", comparing managed colonies with feral or unmanaged colonies. She is studying DNA characteristics of honey bees, and is looking for genetic diversification which is essential for survival in the face of multiple threats.

Honey bees were thought to be first brought to the Americas in the 1600's when they were part of the many provisions that the early settlers brought with them to establish their homes. These were the dark German bees. Then from 1859-1922 seven additional subspecies were imported to improve beekeeping, but this was put to a legal stop when it was realized that tracheal mites had been imported also. In the 1990's African bees were brought to the Americas and now the DNA of commercial bees produced in the west and south shows traces of this African heritage (even when the bees seem to have none of the fierce African tendencies—since the characteristics chosen by breeders may be even more important than their general subspecies characteristics). DNA tools also suggest that the bees of the southwest show their Spanish heritage from the bees brought to the Americas by the missionaries in the 1500's.

Dr. Delaney has studied honey bees collected in 1980-1991 (and preserved in formaldehyde) from unmanaged hives from eleven states in the south. These bees show much greater genetic diversity than those from managed hives. She is continuing to collect honey bees from unmanaged (feral) hives and if you know of hives that are surviving for years in trees and other places, she suggests that you look at the website www.savethebees.com to log in a street address or GPS coordinates about feral colonies that you

feel are worth investigating. You can also contact her at dadelane@udel.edu. She is investigating feral bees to learn their effective breeding populations, supercedure and swarming rates in the wild, and how they survive pests and pathogens. This can help to identify survivor stock. She is investigating genetic structure and behaviors in differing climates, dispersal rates of the many subspecies and also how to monitor for Africanized bees. Dr. Delaney is a fresh new voice in honey bee research in our area, and it was a pleasure to welcome her!

Better Choices to Help the Bees

A group of independent beekeepers are creating a public education project that would support honeybees by urging homeowners to use bee-friendly, non-toxic treatments on their lawn and gardens, to create bee friendly gardens and to take actions that support local beekeepers. This information is targeted toward educating homeowners who want to help the bees but don't know what to do.

This spring is an important opportunity to translate the widespread concern for CCD and honeybee plight into positive actions individuals can take in their own backyards. Never has public awareness been so high; we can either use this momentum or lose it.

Contact Bonnie Raindrop 410-404-3808 bonnieraindrop@gmail.com or Beth Passavant 410-444-9644 epassavant@mindspring.com if you would like to help this campaign. Resource materials can be mailed to Beth Passavant, 2805 Forest View Ave., Apt. B-3, Baltimore, MD 21214. Many thanks!

The Modern Beehive

By Jim Tew

Reprinted from Bee Culture January 2010

Elemental beekeeping

The fundamentals of modern beehive management are built on: (1) a protective veil, (2) a smoke generator, (3) a pry bar, and (4) a "standard" beehive. Every beekeeper has these four basic pieces of equipment - every single one of them.

Veils

To protect face and eyes from painful stings, a coarse cloth was roughly wrapped around the head of the early beekeeper. Apparently, somewhere in time, someone stitched in piece of black screened wire in the front of the cloth. Though many veil designs exist today, the veil is essentially unchanged since its early evolution. It was only in the early 70s that fiberglass screened wire was used to replace the older metal screening which would seriously rust when it came in contact with beekeeper perspiration.

Smokers

The bee smoker was designed and patented by Moses Quimby in 1875. T.F. Bingham modified Moses' design a bit, but beyond that, the design of the beehive smoker has changed little in 135 years. They are still smelly - even obnoxious - but modern beekeepers continue to look for the best fuel that will generate the best smoke from these time-tested devices.

Pry bar (hive tool)

Who knows what different objects have been used to pry frames from propolis-filled beehives? Screwdrivers and knives are certainly the most commonly improvised hive tools. Today, different designs exist, but after all is said, they are still just pry bars. A scraper device has become our classic hive tool.

The Modern Beehive

Of the four pieces of beekeeping equipment I have mentioned, only the modern beehive captures the very essence of beekeeping. I know, I know, the popular media insists on using the skep as the perpetual symbol for a beehive, but in the U.S., that picture is just plain wrong. The common wooden beehive is the pure image of beekeeping. It is the classic trademark of our industry and historically, we thank L.L. Langstroth for this foundation stone. Future *Bee Culture* authors will address the history and evolution of Langstroth's hive far better than I am able to, so I leave that to them. My interest in this piece is the modern-day use of a device that has been little changed since it was patented 158 years ago. Was Langstroth's idea that good or have subsequent beekeepers just punched themselves out experimenting with new hive designs?

An imperfect relationship

I only speak for myself, but I have an imperfect relationship with our beehive design. On one hand, I love it and my very life is anchored by this simple wooden box. Just a few hours ago, upon returning home from a day trip, I noticed a beehive behind a house that I drive by at least twice a day. Has it been there all this time with foliage masking it? I don't know and the answer is not important here. The point is that "I was looking." In fact, on the entire one-hundred mile ride I took, I was looking for unseen bee boxes. My entire family knows to sound a cry when a beehive is spotted. I may not know or even particularly care for the hive owner, but I feel that I know that hive and the bees in it. Anywhere in the world, when I see a beehive, it's like seeing a friend - a familiar face. But here's the oddity - this device that has been used for so long a time has been imperfect for all that time.

Oscar Wilde said, "*When the gods wish to punish us they answer our prayers.*" "What if I suddenly had access to a radically new hive design - truly new, not just a tweaked adaption of Langstroth's concept? Would that make me happier? I think not. You people are a clever lot. If there was truly a simpler design to be had, someone would have come up with it during the past 158 years. I suspect that a truly new hive design would have to be more technical, more complex, more chemically founded than the simple unit we all use now. As a young man, I loved to tinker with cars. As an older man, I would not touch today's computer-laced vehicles. Such cars require a "technician" to repair them. My beehives are not perfect, but they are "the devils I know" and I want to keep them at my level of ingenuity.

Not perfect for either bees or beekeepers

The oddity is that our beehive design seems to be a truce of sorts between bees and beekeepers. Honey bees *can* live in "modern" hives, but they just as often will live in any suitable empty cavity. Beekeepers and regulatory specialists feel that a "removable" frame is needed to keep the colony healthy. Through the years, whether or not we have actually helped the bees is an ongoing debate. I sense that the modern beehive is convenient for beekeepers to use and to manage, but apparently, it is not anything special to the bees. Bees persist in building combs their way. Either they have not read our bee books or there are biological reasons why bees want the contorted, twisted combs they naturally build.

The photo screams something, I don't know what.

Are the bees unable to build straight combs or do they just not want to build straight combs? In the photo, the bees had access to wood frames, plastic frames, and no frames. They were able to do some- thing with all three options. Clearly, bees are resilient. No doubt, that adaptive behavior has helped honey bees essentially colonize the world. Are the bees thriving in my Langstroth hive or

do they simply exist in my hive?



The bees' way and our way. Which is right?

In our early bee management years, we tried to manage "gum" yards. It was an early type of U.S. beekeeping, but we could do better. There must still be such yards somewhere in the U.S. today; but I don't know of a single such yard. Been there - done that. They've all been transferred to Langstroth equipment and for good reason.

The plain truth

The "modern" albeit 158 year-old Langstroth-designed hive is too heavy for one person to lift, is built around clumsy dimensions, tends to be top heavy when fully supered, requires wide blemish-free pine boards and without hive-top-rocks, the outer cover will blow off in a storm. But the removable framed hive design allows beekeepers to make splits, hive swarms, equalize colonies, monitor queen activities, share food stores and check for brood diseases. It's not perfect for either beekeepers or bees but no one has been able to improve on the Reverend L. L. Langstroth's concept. It continues to be genius.

Dr. James E. Teui, State Specialist, Beekeeping, The Ohio State University, Wooster, OH 44691, 330.263.3684, Tew.1@psu.edu; <http://beelab.osu.edu>

Central Maryland Beekeepers Association Presents

Honey Bee Night

March 2, 2010 – 7:00 to 9:00 PM

Oregon Ridge Nature Center

- Learn about the life of a honey bee
- Understand the importance of honey bees
- Learn the basics about bee keeping
- Discover how they make honey
- Check out other products of the hive (wax, pollen, etc.)
- Discuss "Killer bees" v. honey bees. Are "killer bees" a threat in Maryland ?
- Answer the question: Is it safe to keep bees in my yard?

Bring the whole family, including the kids.

Jerry Fischer, the Maryland State Apiarist, will be presenting.

Refreshments and snacks will be available.

IMPORTANT PHONE NUMBERS

David Gill-Boucher, President 410-357-9476
Jeanne Deignan-Kosmides V. Pres. 410-833-6067
Alex Flanagan, Secretary 410-472-1702
John Harmon, Treasurer 410-771-1701
Jerry Fischer, State Bee Insp. 410-562-3464
Oregon Ridge Nature Center 410-887-1815
David Papke, Past Pres. 717-246-2339
Lloyd Snyder, Editor 410-329-6671
Editors E-Mail - Irsnyder@zoominternet.net

Be sure to check out CMBA's web site at www.cmbeea.org

Please check the "Dues paid through" line above your name on the mailing label below. If it says "Dues paid through 2009" fill out the included form and remit your dues for 2010.

Lloyd Snyder – Editor
4747 Norrisville Road
White Hall MD 21161

DATES TO REMEMBER

General Meeting – March 2, 2010 – at Oregon Ridge Nature Center. 7:30PM. Honey Bee Night come out and bring anyone that you know that maybe interested in becoming a beekeeper.

Board Meeting – March 15, 2010 – 7 PM at Oregon Ridge Nature Center.

Beekeeping Short Course – The 2010 Short Course begins on March 11 this year at 7 PM. The classes will be held in the auditorium of the Oregon Ridge Nature Center. For more information, the complete class schedule and class application form go to www.cmbeea.org.