Kelley Bee News

Issue 20—February 2012

Modern Beekeeping

Photo courtesy of Jesse Lewis.

In This Issue

> "The happiness of the bee and the dolphin is to exist. For man it is to know that and to wonder at it.
>
> ~ Jacques Yves Cousteau

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The Buzz

Deep in your hives, bees are raising the cluster temperature into the low 90s. This reaction to the lengthening of days provides the proper heat for raising brood—those fuzzy newbees that will become spring's pollinators. Don't be fooled by the lack of external activity; inside the hive is a busy place.

We're weeks away in the very south, and (hopefully!) just months away in the north from seeing those wonderful newbees beelining for nectar in the sunshine. Are you ready to help your bees through the early start-up and build-up stages? Do you know what that entails?

In this issue and the next few, we'll be sharing information to help you in those extremely critical efforts—what to look for, when to look for it, how to help your bees, and in our May newsletter, ways to mitigate swarming in those colonies you helped strengthen such that they can't wait to swarm.

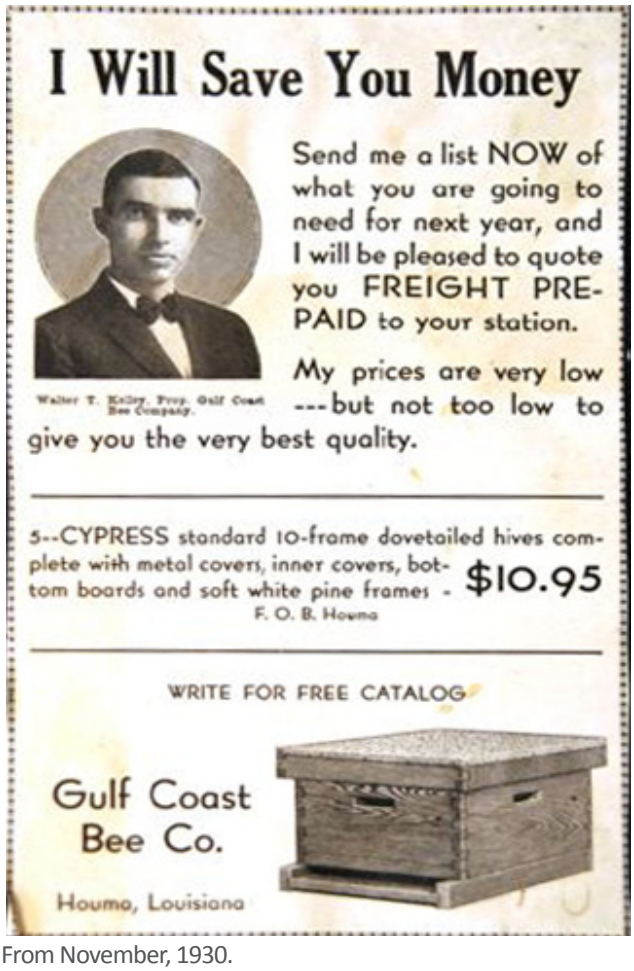
As the bees' activities increase, so do things here at Kelley's. We add seasonal staff to take your orders and answer your questions, because making sure you have the right foundation for the frames you've ordered, or 10-frame supers for 10-frame (and not 8-frame) deeps is a special part of our industry-leading customer service.

While we love to talk to beekeepers, we're increasingly processing orders via our website. Thanks for your patience and feedback as we've tweaked it, and for using this efficient means of ordering product when that works best for you. It allows us to save you money, and along with customer service, that's another important part of what Kelley's strives to do.

This newsletter has some great information, from a mouth-watering recipe to comb honey insights to how to pick the right kind of bee, among many others. Enjoy!

Thanks for your continued loyalty.

Jane Burgess
CEO/Partner
The Walter T. Kelley Company



From November, 1930.

Healthy Bees

Zombie Flies: A Potential New Threat to Beekeeping?

By Jon Zawislak, EAS Master Beekeeper and Program Associate – Apiculture, University of Arkansas, Division of Agriculture, Cooperative Extension Service

As though parasitic mites, hive beetles, a new strain of Nosema, and a legion of microbes weren't enough for beekeepers to contend with, scientists recently announced a potentially devastating new honeybee parasite in North America. The so-called "zombie" fly parasite, *Apocephalus borealis*, is a native species of phorid fly known to attack bumble bees and paper wasps, but not honeybees. Researchers in California caused a bit of a buzz when they suggested the case is changing.

Dr. John Hafernik, a biology professor at San Francisco State University, had collected a few honeybees to feed a captive praying mantis. After few days in a jar, fly larvae began to emerge from the bees' bodies. The discovery prompted him to identify the fly, which led to further investigations with other scientists.

A. borealis, emerging from a honeybee, photo courtesy of John Hafernik.

Genetic tests confirmed that the flies emerging from captured bumble bees and honeybees were the same species of parasite. Its ability to attack honeybees was previously unknown, and is believed to be a recent adaptation to a new host. Normally, dying honeybees remain in one place with little or no movement. Bees attacked by the fly parasite remained alive, but disoriented. They walked in circles or were unable stand. Researchers who observed the bees compared their uncoordinated movements to those of movie zombies.

The researchers noted that bees which left their hive at night, attracted to nearby lights, were more likely to contain the parasites than those foraging during daylight hours. The scientists studying the fly-bee interactions are hoping to shed light on similar hive-abandonment behaviors associated with Colony Collapse Disorder. While some have been quick to associate this discovery as a significant culprit behind CCD, there is no evidence that the fly is a major contributing factor.

So what does it all mean for beekeepers? Is this the dawn of the next major catastrophe for a struggling industry? Will it reach the epidemic scale of Varroa mites, or remain a minor pest like the bee louse, *Braula coeca*? None of us can predict the future, but the problem is far from epidemic. So far.

The presence of *A. borealis* is nothing new. Since the 1920s, specimens have been collected by entomologists from diverse habitats across the United States and Canada. It was not until 2008 that it was found killing honeybees in the San Francisco area. Some parasitized bees were also confirmed in samples from South Dakota, but so far, no other data concerning honeybee attacks have been confirmed. The fly itself is a widely distributed native species whose natural hosts include bumble bees and paper wasps. While the fly has presumably been here for ages, honeybees are relative newcomers in the new world. As *Apis mellifera* is among the most closely studied animals on the planet, if this relationship with the fly was not novel, it's reasonable to expect it would have been observed in hives before now.

A. borealis ovipositing, photo courtesy of Christopher Quock.

Beekeepers may view the discovery of another hive pest with trepidation. After all, many are still learning how to cope with small hive beetles. This time, though, a native species threatens our little honeybees, who are really the invaders in this part of the world.

Among insects, parasitism is a common strategy. Cuckoo bees, for instance, are cleptoparasites that lay their eggs in the nest of other solitary bees. Their larvae emerge quickly, kill the egg of the host bee, and consume its food provisions. Many insects among the wasps and flies are endoparasitoids, whose young develop inside another insect, feeding on and killing the host before they emerge. Many are considered beneficial in agriculture. These armies of tiny raiders go virtually unnoticed by most people, but play an effective role at reducing numbers of aphids, caterpillars, and other pests in our gardens and on our farms.

The genus *Apocephalus* is perhaps best known for a group of "decapitating flies" that parasitize many ant species. Other members of the genus may attack beetles, stingless bees, bumble bees, wasps and spiders, and can be found throughout the new world. *A. borealis* is far from the only species that preys on honeybees. In South and Central America, many species of bee-killing flies will attack honeybees, although none are generally considered great threats to beekeeping.

Endoparasitoids generally have a limited host range because they must be specially adapted to developing inside of their hosts while overcoming their internal defenses. The tendency to change from one host to another is uncommon for such specialized organisms. *A. borealis* already has the ability to successfully attack multiple species of hymenoptera, while honeybees do not have especially complicated immune systems. Individual honeybees are short-lived, with behaviors that compensate for their lack of immunities. A bee hive is a meticulously clean environment, and the bees fly, rather than crawl along the ground, among any number of soil-borne pathogens. If honeybees become sick, they often leave the hive voluntarily or may be forcibly expelled by nest mates. This behavior sounds harsh, but effectively protects the rest of the hive from contamination.

Bumble bees live in relatively small nests with just a few hundred members. Colonies die out each winter except for new queens, which hibernate and start new colonies in the spring. Paper wasps, the other known host group for *A. borealis*, follow a similar season pattern. Perhaps this is why the researchers in California detected higher numbers of parasitic flies in the fall. Population growth of parasites necessarily follows that of their hosts. We see the same trend with Varroa mites, which are more numerous in the hive after a

long period of brood rearing than they are in the early spring. As bumble bee and paper wasp populations decline in the fall, the fly parasites may be looking harder for suitable hosts, such as honeybees. Perhaps their meeting was inevitable.

Setting beekeeper concerns aside for a moment, this apparent host-switching is a fascinating phenomenon from a biologist's perspective. It's truly example of evolution while-you-wait. Many species of bees are in decline, both in terms of population numbers and in diversity. *A. borealis*, as a species, depends on locating suitable hosts. Perhaps a few individuals have begun expanding their host range to ensure the survival of their own kind. Who can blame them?

The "zombie" flies have captured the spotlight for a moment, but should not be a cause for alarm. These flies have been among us all along without our noticing. Beekeepers should continue caring for their colonies as before, but should be aware and remain vigilant for strange bee behavior. A team of researchers behind the website www.phoridproject.org is gathering the latest information on new fly-bee interactions. They hope to expand our knowledge of *Apocephalus borealis* parasitism on bees by enlisting citizen scientists to collect data on its distribution. They plan to publish information and sampling protocols on their website as soon as it becomes available.

Nosema?

By Charlotte Hubbard, Michigan beekeeper

Following a major winter storm, I ventured out to my hives to "shovel their walks" and see if anything was amiss.

Unfortunately, I saw this.

I emailed the helpful beekeepers at Kelley's, who said it definitely looks like Nosema, and suggested I have some medication ready for feeding when the cluster breaks—if medicating is part of my hive management plan. However, Sean Burgess did emphasize that the only sure way to determine if you have Nosema, and what type it is, is via a microscope. He's seen what the picture shows, and it never developed into full blown Nosema.

There are things you want to see in the snow around your hives, (like a million dollars or chocolate), or small brown or yellow spots showing the bees have had a chance to answer nature's call, indicating that they're alive. Even seeing an occasional dead bee in the snow is a bit reassuring—you know they've been out, and one or two didn't make it back in.

"Big drips of brown stuff" is not on that "good" list of things to find, although it may not necessarily be bad unless it is Nosema.

No, it's probably not maple syrup.

Bee-Havior

Frame Spacing That's More Natural

By Greg Aubel, a beekeeper in Coatesville, Pennsylvania

Greg Aubel, when he was a totally green beekeeper-to-be. Photo courtesy of G. Aubel.

Why I'm a Beekeeper

I was with a group that stopped by an ice cream shop; they had an observation hive that fascinated me. I thought "why do they do that," and "how do they do that." Hm. I'll have to look into this a little. Well that started me out as a beekeeper.

My wife said something like "if you want to start you need a coupon." So I researched, looked around, talked, read etc. and found that Kelly's offered free shipping over Thanksgiving week. So can we say "coupon?" My dad lives in Ohio and had a vacant house next to him with a hive in the banister. Can we say "coupon?"

Learning, and a Few Key Lessons

As a totally green, excited beekeeper-to-be, I went to get "my bees." I know that there is a TON to know about beekeeping and often beeks don't agree on most things, (if you ever find something that most agree on then make sure you write it down and remember it). One thing they agree on is to start out you need at least two hives. I found out why when I found the queen from the cut-out just about dead.

Another thing most beeks agree on is that you need to know your stuff. I remember reading on Beesource some time ago, someone (I don't remember who) had said: "Knowledge isn't better than wisdom and experience, but it is a whole lot better than ignorance. As a Novice I read, study, learn. The wisdom will come." I thought this was great.

Also agreed upon is: spring build-up is very important. You want them to be strong enough pre-flow to capitalize on the flow when it starts.

Learning that "Standard" Isn't Standard

So, I continued learning. One thing I found is that the common measurements we use for "standard" equipment aren't actually as accurate as they could be. I've seen frames that bees have drawn out where they've capped some stores on the upper and outer portion of the frame, and yet the brood surface is in slightly from the capped stores, meaning that the capped portions of the cells were perhaps 1/16" to 1/8" deeper than were the brood cells. In another cut-out of this all-natural hive, upon examining the comb, I found it to be about 1" deep on one side or about 2" thick overall. They wanted their honey stores deeper than the brood.

Toward More Natural Spacing

It honestly didn't dawn on me that bees make their spacing "non-standard" until I read others saying that they cut their frames down in the brood nest to accommodate the bees' preferences. I found some great

This interior shot of a top bar hive demonstrates that, left to their own, bees will build comb of varying thicknesses, and cells of various sizes. Photo courtesy of M. Beachler.

reasons and thoughts on Michael Bush's website regarding frame spacing[1]. He and others cut the end bars down to 1-1/4" from the standard 1-3/8", allowing for 11 frames in a 10-frame box or 9 frames in an 8-frame box.

So why would you want more frames? Well there are several reasons, not in any particular order:

- Earlier spring build-up (the cluster is a cubic foot or so regardless of what frames / comb is in there) so if the bee-space was right in the brood nest, they could raise more bees sooner and therefore build-up faster. I thought that this would be best for those that may be using foundationless frames, however, it really doesn't matter. The principle applies to both.
- More natural spacing for smaller cells which helps / encourages them to think of the comb as worker comb.
- Less drone comb.
- More frames of brood in a box.

Have Others Considered This?

The concept of more-natural frame spacing has been around for quite a long time. Here are a couple of older references, as found on Michael Bush's website[2]:

"Frame—As before mentioned, each stock hive has ten of these frames, each 13 inches long by 7-1/4 inches high, with a 5/8 inch projection either back or front. The width both of the bar and frame is 7/8 of an inch; this is less by 1/4 of an inch than the bar recommended by the older apiarians. Mr.Woodbury—whose authority on the modern plans for keeping bees is of great weight—finds the 7/8 of an inch bar an improvement, because with them the combs are closer together, and require fewer bees to cover the brood. Then too, in the same space that eight old fashioned bars occupied the narrower frames admit of an additional

1 I am so thankful that we don't stand on our own feet. There are so many that have gone before us that we can glean from their hours of research, study, and experience.

2 www.bushfarms.com/beesframewidth.htm

bar, so that, by using these, increased accommodation is afforded for breeding and storing of honey."—Alfred Neighbour, The Apiary, or, Bees, Bee Hives, and Bee Culture...

"... with frames 7/8 of an inch wide, spaced just a bee-space apart, the bees will fill all the cells from top to bottom with brood, provided deeper cells or wider spacing is used in the storage chamber. This is not guesswork or theory. In experiments covering a term of years I have found the same results, without variation, in every instance. Such being the fact, what follows?

In answer, I will say that the brood is invariably reared in the brood chamber—the surplus is stored, and at once, where it should be, and no brace-combs are built; and not only this, but the rearing of drones is kept well in hand, excess of swarming is easily prevented, and, in fact, the whole matter of beekeeping work is reduced to a minimum, all that is required being to start with sheets of comb just 7/8 of an inch thick, and so spaced that they cannot be built any deeper. I trust that I have made myself understood; I know that if the plan indicated is followed, beekeeping will not only be found an easier pursuit, but speedy progress will be made from now on."—"Which are Better, the Wide or Narrow Frames?" by J.E. Pond, American Bee Journal: Volume 26, Number 9 March 1, 1890 No. 9. Page 141

If you go to Bush's website there will be more info and thoughts. Here's a bit more, quoted (with permission):

Note: 7/8" plus 3/8" (max bee-space) makes 1-1/4"; 7/8" plus 1/4" (min bee-space) makes 1-1/8"

The standard frame width on Hoffman frames is 1-3/8". That means that, from center to center, combs are spaced 1-3/8" apart. This makes a comb about 1" thick and a bee-space between the combs about 3/8". This spacing works pretty well as an all-around spacing and yet beekeepers usually space the frames in the supers further, like 1-1/2" or more.

The 1-3/8" was already a compromise between honey storage, drone brood comb and worker brood comb—natural worker brood comb being spaced 1-1/4" while natural drone comb is more like 1-3/8" and honey storage typically is about 1-1/2" or more. (1-1/4"=32mm, 1-3/8" = 35mm and 1-1/2"=38mm). Spacing frames 1-1/4" has a number of advantages, among them:

- Less drone comb.
- More frames of brood in a box.
- More frames of brood can be covered with bees to keep them warm as the layer of bees is only one bee deep instead of two.
- According to some research back in the 70s in Russia, there was less Nosema.
- It's more natural spacing for smaller cells.
- It incites the bees to build smaller cells. The smaller spacing contributes towards them viewing the comb on it as worker comb.

Personally, I'd like to make some money from bees, have fun in the process, and supply my local area with some good hives / queens / nucs etc.

So Now What?

So some may ask: Why is this so important and what are your goals in keeping bees?

I think the information explains things enough as to why this is important for all of us.

Personally, I'd like to make some money from bees, have fun in the process, and supply my local area with some good hives / queens / nucs etc. The issue I have now is I want to use 1-1/4" wide frames to be more natural and gain these benefits, but there's no one that makes them.

Knowing that 1-3/8" is good for drone comb and is slightly small for honey stores, what do I do now?

Well I'm making a jig to trim the end bars down on a router, and going to run the top bars through the table saw to get them to the right dimensions. That's a lot of extra work in my opinion. Doable, but not most productive.

A consideration against 11 frames in the brood box and if someone would space all 1-1/4" frames tight in the hive: in the supers you'll actually get less honey then if you had 1-3/8" spacing. This is true mainly because of the extra bee-space that the 11th frame causes.

But, once the frames are drawn out you can use 9 in a 10-frame and perhaps even 8 if they're evenly spaced and already drawn out, thus saving on frames purchased, and gaining honey storage space (putting less frames in the supers means 1 less bee-space, or 3/8" that's being used.) One caution: if the frames aren't drawn out don't space them away. The bees will mess up any foundation that you may put in, or if you're going foundationless, you'll have a major mess on your hands.

That seems to be what the bees want to do anyway from my very small research, experience, and reading. Not just Michael Bush, but many others also prefer 1-1/4" frames. I know that Kelley's sells a spacer tool that you could use for the supers. Would that make it easy enough? I'm not sure, but I plan on finding out.

Feedback Please

Editor's Note: Have you tried a more-natural frame spacing? We'd love to share your results, experiences and thoughts. Would you be interested in more-natural frames (thinner) for the brood box if Kelley's produced them? Please let us know, email me at KelleyBeesEditor@gmail.com. Thank you in advance for your input.

What Kind of Bee?

By Kim Flottum, Editor of Bee Culture magazine and author of The BackYard Beekeeper, The Honey Handbook, and Better Beekeeping. All are available from Kelley's.

If you get one of the beekeeping magazines, and you should get one of the beekeeping magazines, and casually flip through the pages you see all kinds of bees for sale when reading the ads. You'll see Italians, 3-banded Italians, Buckfast, Carniolans, New World Carniolans, Russians, Hygienic, gentle, VSH, All American, Survivors, Cordovans, Russian hybrids...good grief, isn't a honeybee a honeybee? Nope.

Think of them like this. Think of the differences in dogs. There's sporting dogs, hounds, working animals, terriers, toys, non-sporting dogs, and herding dogs. Yes, all dogs. Nope, not at all alike. They have been seriously bred and selected to perform certain tasks efficiently and with ease. You won't see a peke jumping out of a boat to retrieve a downed goose, and you won't see a blood hound sitting at the feet of a king, being waited on hand and foot.

Bees are the same. Last time we explored what kind of beekeeper you were, where you lived and what you wanted from your bees. If you've forgotten then go back and reread it, it's still in your inbox somewhere; search for editor@kelleybees.com, it'll come up. (Or, go to www.kelleybees.com and look at the back issues under the Education tab.)

Let me tell you a bit about some of these bees. There are basically three varieties. Think hounds, working, and herding dogs. These varieties of bees are significantly different from each other. Of course there are sub-categories within each of those that are more alike than different, but they are different. And then there are traits that all have...think short hair.

Let's start with Italians. They are the most commonly produced, which is unfortunate, but we are at the mercy of those who produce the bees we can buy. You'll see why in a moment. Italians developed on the southern portion of the Italian peninsula, essentially a subtropical location similar to Georgia, northern Florida. Workers and drones have yellow stripes on their abdomens, and the queen has a long, fat golden abdomen; she's easy to spot. The only other bees that have yellow are Africans. Remember that.

Their genetics say no winter, forage all year round, brood production all year round, eat all year round. Good if you live in Georgia or Florida, not so good if you live in, say Ohio. But they are programmed to do one thing; make honey. That, and to make honey they make bees. And it takes food to make bees. If you know that going in you'll be OK, because you'll be feeding a lot but at least they won't starve. But when there's honey to be made get your supers on early, and keep adding them.

They wake up early, early in the spring and begin raising brood. Commercial beekeepers love them for making packages, raising queens and pollination, so, that's what most everybody gets. They have some other traits you should be aware of. They tend to be short distance foragers, they rob like mad, they focus more on the color of their hives rather than the location so drifting is an issue. If you're not careful, they'll build on the flow with population peaking after it...so they'll eat it all. They make moderated amount of burr comb and collect small amounts of propolis, they have a temper, and unless programmed artificially, they aren't resistant to anything.

Italians, they'll make you honey, but they are pretty high maintenance. Be careful.

Next, Carniolans. No yellow. Black. Queens are small, black and look somewhat like workers. Drones have large, black abdomens. Workers are gray/black. If there's yellow, that queen mated with an Italian somewhere. You can bet on that.

Carniolans evolved in the Austria, Yugoslavia area, north and east of Italy, so they know winter. Because of that they have to build fast in the spring to take advantage of all of the forage they can. If you're a day late, they've already left; swarm management starts early, fast, and hard. But this fast buildup has a good side because they'll shut down if there's a dearth in the summer. No honey, no brood. And they eat a lot less food. They are the calmest, gentlest bee we have, and tend to drift hardly at all so less robbing. Good bees to have, especially if you are in a populated area, and can get going in the spring.

Russians. NOT TO BE CONFUSED WITH RUSSIAN HYBRIDS. The pure Russians you see advertised in the journals aren't a pure breed; they are a hybrid of several varieties, selected over time in eastern Russian. They have significant resistance to Varroa, mostly because of hygienic behavior but other traits as well. The Russian Hybrids you see advertised in the journals are pure Russians, open mated with local stock. You end up with a mean, non-resistant, unproductive, poor wintering, mad, swarming bee. Don't get them. But pure Russians, that's a different story. But they are mixed colors so you can expect various markings...black, yellow, mixed. They have traits unlike anything you've seen before though.

Pure Russians are incredibly good at wintering, consume very little food, and have slow, slow build-up in the spring. They wait and wait until spring is here and then absolutely explode. You have time to get ready, but you better be ready when they go. Then they need lots of room, more than you'd think. They have no tracheal mites, at all, and if left to themselves, do OK with Varroa. Mixed in an apiary with other varieties they'll have trouble, but not as much as the others. But they produce queen cells. They spend a lot of time on them, and swarming is an issue, but not as much as you've heard. But enough room is an issue. They are gentle, easy on the comb, and productive because they very carefully use their resources; no food, no brood.

If they give us room next month, we'll talk about how these bees deal with Varroa. Actually all of them are getting some of these valuable traits. But for now, what kind of beekeeper are you, where do you live, what do you want from your bees? Know all this; you can get the bee that's best for your operation.

2012 Package Bees and Queens

Package with Queen

- We are offering No. 3 packages, which contain approximately 3 lbs of bees.
- Shipping and Pick-up begin on Saturday, April 7th and continues every Saturday through May 12th.
- Place orders as early as possible to ensure desired date for shipment or pick-up.
- Packages are sold on a first-come-first-serve basis.

Type	Price
3-Lb Package with Italian Queen	$85.00
3-Lb Package with Marked Italian Queen	$87.00
3-Lb Package with Russian Hybrid Queen	$88.00
3-Lb Package with Marked Russian Queen	$90.00

Package Bee Pick-up

- We have reserved each Saturday from April 7 through May 12 for pick-up at our Clarkson, Kentucky plant.
- We will have breakfast and hive installation demonstrations each Saturday for those picking up bees.
- To avoid the risks involved when bees are shipped through the postal service, consider picking them up. Keep in mind, however, we must charge 6% KY sales tax on all goods, including bees, picked up at our plant.

Payment

- Payment is required when order is placed. Credit cards are charged at time of order entry.
- Checks are accepted, but due within one week of order placed.
- There is a $5.50 charge for all date changes and cancellations.
- Outstanding balances greater than 14 days may be cancelled due to non-payment.

Damage or Losses

- Loss or Damage Claims on dead/damaged bees must be filed the same day shipment is received.
- If the queen in your package arrives dead or in damaged condition, have your postmaster begin the claim process by filling out Post Form 2856 (damage report), then call us immediately for replacement. You must call the day your package(s) arrive.
- If you experience a problem with your bee package or queen, please notify us the day your package arrives so we can resolve your issue.

Postage and Handling - Package Bees

All package bee shipments are shipped through the US Postal Service. There is NO insurance for package bees shipped **BEYOND ZONE 4**. We can ship ONLY AT CUSTOMER'S RISK.
Use the postage chart below to figure your postage, handling, and insurance. Look up your zone with the first 3 digits of your zip code in the shipping zone chart in this catalog.

Qty	Zone 1 & 2	Zone 3	Zone 4
1	$19.00	$22.00	$25.00
2	$26.00	$32.00	$37.00
3	$33.00	$39.00	$45.00
4	$37.00	$41.00	$52.00

Nucleus Colonies with Queen in Nuc Boxes

Orders will be taken beginning January 1, 2012. Nucs are only available for pick-up at our Clarkson facility.

Description	Pick up	Cat #	Price
5-Frame Nuc with Italian Queen in plastic Nuc Box	April 14	N-41412	$137.50
5-Frame Nuc with Italian & Carniolan Cross Queen in lightweight wooden Nuc Box	April 28	N-42812	$137.50

Queens and Speciality Queens

We will begin shipping queens on April 9.

		Qty		
Type	Cat #	1-9	10-24	25+
Italian	501	$21.00	$19.50	$19.00
Russian	502	$24.00	$22.50	$22.00
Cordovan Italian	503	$26.25	$26.00	$22.00
VSH	505	$26.25	$26.00	$25.75
Carniolan	507	$26.25	$26.00	$25.75
Kelley Hygienic	509	$24.00	$23.75	$23.50

Postage, Handling, and Insurance - Queens

Qty	Price
1 - 4	$5.50
5 - 9	$12.00
10+	Call

Bee-Yond & Bee-Hind the Hives

Chicago: A Great Place to Bee

If you've ever been lucky enough to be in Chicago, Illinois in the summer, you probably enjoyed the scenery of sailboats and skyscrapers and beautifully blue Lake Michigan. Hopefully, you also enjoyed all the dynamic, vibrant flowers Chicago uses to decorate the streets and parks. Everything freezes in 'The Windy City' in the winter, but Chicagoan's don't let that deny them from enjoying and encouraging everything that blooms.

That means, in addition to well-heeled shoppers along Chicago's 'Miracle Mile,' there must also be plenty of pollinators.

This was confirmed via a conversation with Naaman Gambill, lead beekeeper for the Garfield Park Conservatory Alliance in Chicago. Gambill offers that Chicago is uniquely supportive of honeybees. He salutes the people and city of Chicago, noting that they realized early on it was both respectable and essential to have bees. Their being mindful to their many benefits was behind Chicago legalizing beekeeping much earlier than other cities, a real testament to the people and city of Chicago. Notes Gambill, "while beekeeping everywhere is enjoying a surge in popularity, urban beekeeping is a very cool thing in the city of Chicago."

Gambill is in charge of hundreds of thousands of (winged) workers in the 1-2 dozen hives under his watch. He's assisted by volunteers through programs developed to help people understand beekeeping "trials, tribulations and trouble-shooting." The programming's goals include educating and nurturing relationship with bees.

"City folk want an opportunity to interact with nature," explained Gambill, sharing there are other popular programs such as composting, horticulture and propagation. But, there's a special fascination with honeybees, as I suspect all readers of this newsletter understand!

Armed with fundamental knowledge allows students from the Introduction to Beekeeping class to more intelligently decide if they want to be beekeepers, or perhaps just be involved in the programming through the Garfield Parks Parks Conservatory, Parks Districts Through this programming volunteers are exposed to all dimensions of beekeeping, from building equipment to actual hive checks and honey extraction and bottling. A popular volunteer activity is cleaning equipment during what can sometimes be a long, cold, Midwest winter. "Propolis-scraping nearly cures cabin fever," claims Gambill.

A beekeeping volunteer becomes an actual "apprentice" when they've demonstrated they have the appropriate hive management knowledge, and can take responsibility for optimizing the colony. Depending upon the year, apprentices "earn" a third or half of the hive's surplus honey. The remainder of the honey is sold to help support programming.

Volunteers – including the one with wings.

There's a variety of beekeeping programming, including:

A 'Meet the Bees' session (typically in July) where volunteers come to Conservatory for hive demonstrations, honey tasting, working some hives (weather permitting), bee arts and crafts, and yes, even humans doing bee dances.

Working with a local elementary school that had built an entire curriculum around bees. The students sponsored a hive (buying all the materials), which they painted beautifully, and visited on field trips where they could apply everything they'd learned. "Students were excited to teach their parents about bees," shared Gambill, "although the parents stand much further back from the hives than the kids."

Using observation hives for "Bees at Work" demonstrations twice weekly at the Conservatory throughout season.

Honeybees meet humans during a 'Meet the Bees' event.

Gambill's enthusiasm for beekeeping is unmistakable, and makes him chuckle. "All the things I was forced to do as chores as a kid I now do as I job I love," he admits. Part of what he loves about beekeeping is the constant learning, noting they are all yearning to learn more about bees so they can better help them, and that they are constantly tinkering to find out what works best. Due to mites, they've gone to all screened bottom boards, even in those tough Midwest winters. They continue to experiment with various types of feeders and feeding, but rely on fundamental beekeeping knowledge. Notes Gambill, "one of the references used frequently is Walter T. Kelley's How to Keep Bees and Sell Honey."

Gambill, on behalf of Chicago, invites us to all stop by and visit the busy bees of this progressive city. When asked if he had any special advice for successful beekeeping, he noted that it is essential to research and "start with a good location."

Chicago, it seems, is such a place.

The look on the young man's face says how he feels about his awesome encounter with bees in an observation hive

About Comb Honey Production

By Pat Imbimbo

Editor's Note: Imbimbo became intrigued with beekeeping in 1982 while, on duty as a deputy sheriff in Florida, he pulled over a speeding tractor trailer filled with hives. The driver was a former employee, trying to steal the bees.

After the case was resolved and the bees were returned to the rightful owner, the farmer gave Imbimbo two colonies of bees. What started as a hobby has evolved into something larger. Imbimbo now has 80-100 colonies. He also has a blog, www.honeybeecsi.com, that will be fully operational shortly. It will review colony collapse disorder and other bee disorders.

Pat Imbimbo, doing what he loves.

Greetings Beekeepers,

Hope all of you are enjoying this time of rest and preparation for the next season. Our bee farm is about is about 130 miles South of the Canadian Border in the Adirondack Mountain Region. Today it is a scorching 23 degrees and freezing rain, a good day to write an article.

The purpose of this article is to provide you with information and resources in reference to comb honey production. Mike Palmer, French Hill Apiaries, St. Albans Vermont, told me that cut comb honey is his "cash cow". Many beekeepers produce comb honey for a variety of reasons.

Producing quality and attractive comb honey is an art and there is much work and management involved. I am going to tell you how I produce comb honey, what works for me and what doesn't work for me. Just because a system or procedure does not work for me, does not indicate that you should not try or use that product.

I want to state that I am very partial to Kelly's equipment and customer service, most everything mentioned can be found at www.kellybees.com or in their catalog. There are lots of suppliers out there, but that is where I shop.

There are many comb honey sites on the internet and several good books available; some art listed at the end of the article. If you get a copy of *How to Keep Bees & Sell Honey* by Walter T. Kelly, there is a short course on comb honey in Chapter 8. That was my first exposure to comb honey years ago. I bought a video at Kelley's, years ago, called Honey in the Comb by Eugene Killion. That may still be available. (JANE – yes?)

A Cash Cow?

Why is comb honey called the beekeeper's cash cow? Harvest of comb honey is less labor intense, and there's no need for expensive extraction equipment and a honey house. Comb honey can be prepared in a small clean area or if your wife is not home in the kitchen.

Comb honey production is like regular honey production in that it is beekeeper and weather-dependant. You can be the best manager in the beekeeping arena, but if Mother Nature is not cooperating, the crop is down.

In the 2010 honey season Mike Palmer produced and distributed just under 6,000 cuts of comb honey. During this past 2011season Mike produced a little over 600 cuts. Big difference; same management style,

same equipment, queens came from the same source. Mother Nature intervened and decided cut the profit margin for this past season. Mike sells his cut comb honey wholesale; I do not know what he gets for a cut, but let's say gets $5. That is an incredible financial difference between seasons.

I sell my honey and comb honey direct to the consumer at Farmer's Markets and at the farm. I like being my own middleman.

Let's do some math before we get into the production and marketing. I run nine frames in shallow super. So if the girls built and capped all nine frames, and my Kelley comb cutter is sharp and clean, I will get 4 cuts per frame. 9 x 4 = 36 cuts, plus the trimmings that my crew devours. I get $8 a cut at the market. That's $288 from a super of comb honey, with no extraction costs. There is a cost for the box and label; I also tape the lid on the box to prevent leakage in the customer's tote.

Now let's look at liquid honey. Before we go any further, allow me to state that I currently produce comb honey and liquid honey to accommodate my customer base. If I had a choice, I would go with comb honey all the way. I am old and extraction is heavy work for me.

A shallow super of honey should yield about 30 pounds of liquid honey or at least it does at our apiary. To be fair, we will put the same price on a pound of liquid honey, $8 x 30 pounds = $240. Extraction labor and handling has to be added to the bottom line. If you are a good shopper, the bottle and label for liquid will cost close to what a box and label will cost for comb honey.

When I was traveling down to the Green Markets in New York City and in South Salem New York, I got $12 a cut for comb honey and $10 a pound for liquid honey. Charge what the market will handle.

Production Methods

Let's talk about some of the different methods used to produce comb honey:

1. Cut comb foundation in shallow wooden frames
2. Ross Rounds
3. Wood Sections made of basswood
4. Plastic equipment, examples Bee O Pac and Hogg Half Cassettes

I have had great success with the cut comb method and the Basswood Wooden sections.

My Italian bees will build in the Ross Rounds, but my Russian bees have to be forced down to build in them.

I had no luck with Bee O Pac at all, not to say they are not good. I have a friend that only uses Bee O Pac. My girls would not go in them, even with a coat of beeswax and honey water sprayed on them.

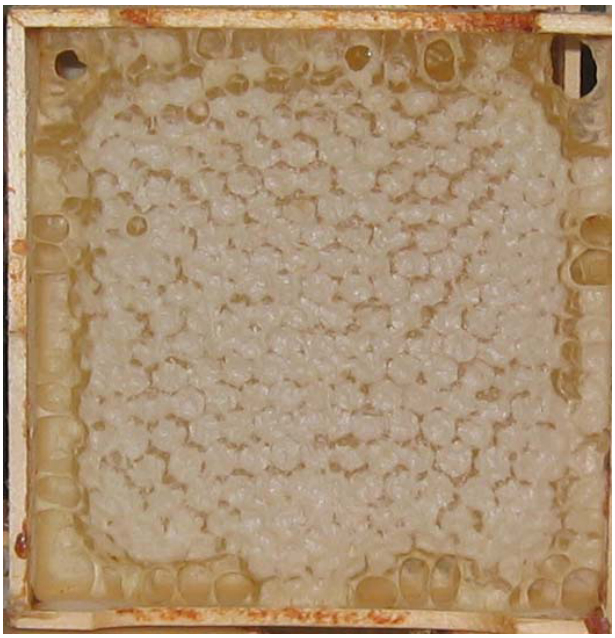
On the Hogg Half Cassettes, I have never tried them. There are several websites that discuss them in-depth.

I talked with, Lloyd Spears, who owns and operates Ross Rounds. He mentioned that sales are on the rise as more beekeepers are using Ross Rounds as a marketing tool. I have to say that the Ross Round finished product is impressive. With Ross Rounds, there is no cutting or draining. You clean up the rounds; caps go on, put your label on and collect the cash.

Ross Rounds

The Basswood Wooden sections take a little labor to assembly but produce a great finished product. I may be wrong, but I believe Kelley is the only supplier that sells the Basswood Wooden sections and boxes, I might be wrong about that but I do not remember seeing them offered anywhere else.

With all of these methods, if the beekeeper does not know his bees, if the beekeeper does not know the honey flows in their area and does not have good management practices, it's not happening. Putting supers on at the right time is key. Getting them off before the travel stain occurs is important. My customers like the bright colors of capped comb.


A beautiful, stain-free small frame of honey.

Hive Selection

Attempt to produce comb honey in any form only on your best and strongest colonies. Good queens are essential. Several of the books referenced mention various techniques and procedures and shook swarms and artificial swarms. I have to admit, some of my best comb honey has come from freshly caught large swarms.

Kelley's boxes and equipment will help you produce this highly marketable cut comb.

Because you only use the best and strongest colonies, swarm management is essential; you are crowding the girls down for comb building. I do a lot of frame rotation and super rotation. I also spend a lot of time watching the hive entrances, you can learn a lot from just watching the entrances.

I had discussion with a beekeeper at one of the Vermont Beekeepers Association meetings that runs a two-queen system to produce comb honey. He advised the bees build-out all frames. I have never tried it, but he is successful at it. He also added swarm management was very important to his success.

I only attempt to produce comb honey in the start of the season and for the first few vigorous flows. In our region the mid-season and late flows are mostly Goldenrod and Aster. Goldenrod and Aster honey granulates quickly up our way, and is not as appealing as I look for in cut comb honey production.

Marketing

Let's talk about most beekeepers weak link, marketing. Beekeeping is not just about making honey or cut comb honey, marketing is a big part of game. What good is a warehouse full of honey if you cannot get rid of it, in any form? Your product has to look good, taste good and be easy to carry and then use at the family dinner table. If you cannot get folks to buy the fruit of your labor, you are going to be eating a lot of honey. Not a bad thing, but it's hard to pay the bills with honey.

If I am going to specialty market, I like to put cut comb in mason jars and fill the void in the jar with light amber liquid honey. Put some colored checkered cloth over the lid with a bright ribbon. Just a note: If you are going to market your comb honey in jars filled with liquid honey you will need some type of extraction equipment depending on how much you are producing. Another note: I get my mason jars at the dollars stores, cheap.

I have given you some basic information and resources. Do some research and give it a try. A good thing about comb honey production, you can just do one super at a time, no matter what method you decide to try. If I can be of service to you, I can be contacted at adkflowerfarm@aol.com.

Have fun and prosper.

References

Kelley Catalog, Walter T. Kelley Company
How to Keep Bees and Sell Honey, Walter T. Kelley
The Comb Honey Book, Richard Taylor
Honey in the Comb video, Eugene E. Killion

Comb Honey Production

By Carol Mark

Comb honey production for some is an art and others a pursuit for perfection. As a small beekeeper I try to make it fun, and am I in awe by what our fuzzy friends are able to accomplish given the ups and downs of Kentucky weather!

That said, my approach in reviewing comb honey will be somewhat in reverse, as I share how to aim at the end result by starting there first, with the customer. I want them to LOVE my product so I make sure I fill their needs. Clean and neat; NOTHING STICKY, sticky means ants. Make it look really delicious.

Phase One, Getting the Bees to Produce: In considering comb honey production, the first concern is, do I have my hive(s) ready to make comb? Comb production requires lots of young bees who have functioning wax glands. Older bees in the hive cannot perform the act of making wax efficiently, so in early Spring check those hives that are going to be potential comb-building hives.

Now one could say go feed the hives for artificial nectar flow stimulation, and yes, you can.

Sometimes you do not get the desired results. I sure did hate that all that comb was lost (right), but those things happen.

This is my booming hive (lower left) and I have several others like it to make comb. I try my best in mid-April to find the queen and move her to a nuc. This hive had a few queen cells, which I left, lots of workers, and a nectar flow taking off. That nectar flow is the very important ingredient in the comb making recipe. Moving the queen means no swarming and all attention is making the new queen cells and what to do with those wax glands and where to put it—Build comb!

Hives that look like this, booming with residents, are my pick to use for my comb.

I put a comb super on top and let them work out their loss of the queen on white wax production. The sign of white wax is the indication that time is right for comb. You can see it on the tops of frames between supers and these are indications for additional supers to be added.

Phase Two, Managing Their Production: The best even comb honey is achieved by paying attention to those supers and moving the frames from the center to edges for even comb production throughout the super.

Phase Three, Product Preparation: I bring the supers into the honey house, wrap them in plastic sacks and freeze them. This is a super of cut comb that has been frozen and thawed. The super must be frozen and thawed twice to kill wax moths. Once doesn't work, trust me!

After that process of freeze and thaw, I open up the sack, let them thaw, and turn on the dehumidifier to draw out the moisture. I keep a very dry kitchen.

The process then goes like this:

Step 1: Select frames to cut.

Step 2: Transfer to a drip tray.

Step 3: Cut comb from frame, to container size, with a sharp warm knife. Let drip for 24 hours.

Step 4: Carefully place cut comb in tray.

Step 5: Label and sell!

Ross Rounds and Basswood Boxes are other comb products that require more specialized equipment, but the process of getting the bees to make comb is the same: lots of nectar in an almost swarm-crowded hive condition. I find removing the queen helps a lot to control the swarm. Best of Luck!

Bees, Sex, and Opium

By Peter, a beekeeper in Thailand

Womens Banana Processing Cooperative

First impressions may be that the title is a little curious for an article about beekeeping, but there are strange things in real life.

In the hills above Chiang Mai in Thailand there is no industry, and the people living there have great challenges in making a living. Farming exists but it is really hard work and can only support a certain number of people. There are lots of wooded hills and limited arable land. It is home for many people though and they like to stay with their roots if they can.

There are vulnerable members of these communities though; the young and old women. The young women see the bright lights of the big city and that is where they head. They believe that the bright lights are glittering gold. The trouble is that it is all a façade and it is really no easier for them in the city. But these young women are very visible and attract the attention of the bar recruiters who will spin a tale of riches; not just in the local market but also for Bangkok. Once the net of prostitution closes round it is very difficult to escape.

The old women need to stay in the hills and look to easy income; something they can do, something they have seen in the past. Very quietly they look to growing opium. The poppies grow without any problem; opium was a very common crop in the past. Without any other income it is easy to look back to what is known to work. The penalties when you get caught are severe but they need to eat so is there really no choice.

Typical village view.

This is where bees come in; offer an alternative, offer something that is not there today.

We are working on a project at present where we would like to introduce beekeeping and hive manufacture to a community in the hills. The first step is working the land. We have been given use of 14,400 square meters (155,000 square feet) of derelict land. It was a rice paddy in the past but the irrigation system changed and so it is now to be used for growing sunflowers. The land will need a lot of work

before there can be any thought of growing but within the next two months we hope to be moving forward with planting.

Why sunflowers? Well, they are not too hard to grow and the seeds can be simply sold or crushed for oil. The flowers are very attractive to bees. It is possible to grow three crops in a year so if planting is staggered on parts of the land then there will be a continuous food supply for the bees.

From this we will teach anyone who volunteers to join the project how to grow sunflowers and how to keep bees. No catches; just come and help. We are also hoping to open a small woodworking workshop so that beehives can be made locally. We intend to make Langstroth hives since they are well-documented and easier to manage when it comes to honey and pollen harvest (compared with the local system used on the plains).

We will start off with 20 hives in the first year. The whole range of hive products can help spawn other activities (candle making or polish manufacture for example). The idea is that with the extra activity there will be more ways for the young and old ladies to make a living.

After working with the project we anticipate that some participants will leave and set up their own businesses in competition. If they are able to do this they have our blessing. Some will stay with the project. Sunflowers and bees are self-sufficient and with good management can go on year after year. A woodworking shop could also offer a service to the community in addition to making hives, it would mean that wooden farming implements could be made in the hills rather than having to go down to the city to find supplies.

The management team putting this together is a mix of university doctors who have existing self-sufficiency projects in the area, local land owners (who make the land available free of charge), through to myself and my wife who know how to keep bees. The project status is that we have applied to a trust in Singapore for the initial funding (about US $15,000), if that comes through then we will quickly push forward. Even before knowing of our funding we have found the land and started marking it out.

Editor's Note: To read more about beekeeping in Thailand, see our January issue.

Wild apis dorsata 20 meters from the apis florea.

Part of the land for raising sunflowers.

Show Schedule

For the latest event information, please visit kelleybees.com/Events/

Alabama Beekeeping Symposium
- Saturday Feb 4, 2012
- Located at Auburn University (Lowder Business Building) in the College of Business at 415 West Magnolia Ave in Auburn University, AL

Allen County Bee School
- Saturday Feb 4, 2012
- Located at Allen Co. High School in Scottsville, KY

Southeast Beekeeping School
- Saturday Feb 11, 2012
- Located in Whitley City, KY (more event information coming soon)

Western Pennsylvania Beekeeper Meeting
- Friday Feb 17, 2012
- Located at the Four Points by Sheraton in Pittsburgh North, 910 Sheraton Drive, Mars, PA 16048

Indiana Bee School
- Saturday Feb 25, 2012
- Located at Southport Presbyterian Church, 7525 McFarland Boulevard in Indianapolis, IN

Northeast KY Beekeeping School
- Saturday Feb 25, 2012
- Located at 150 University Blvd in Morehead, KY

Audubon Bee School
- Saturday Mar 3, 2012
- Located at 3341 Hwy 351 East in Henderson, KY

Tri-County Meeting
- Saturday Mar 3, 2012
- Located in Wooster, OH

2012 Florida Bee College
- Friday Mar 9, 2012
- Located at The Whitney Laboratory, 9505 Ocean Shore Blvd in St Augustine, FL

Bluegrass Beekeeping School
- Saturday Mar 10, 2012
- Located at Bradford Hall on Campus of Kentucky State University, 400 E Main St in Frankfort KY

Southwestern Ohio Bee School
- Saturday Mar 24, 2012
- Located at the Oasis Center: Oasis Conference Center, 902 Loveland-Miamiville Rd in Loveland OH

February 4th Beekeeping 101

On Saturday February 4th Sean Burgess of the Walter T Kelley Co. will lead a one-day class on Beekeeping 101 at the Clarkson, KY location.
The class will begin at 9:00 am CST and end at approximately 3:00 pm.
There will be a morning break and a one-hour lunch break.
This class will cover equipment choices, hive locations, installing package bees and nucleus colonies, when to feed, how to care for your bees, medications, when to add additional boxes, how to determine colony strengths and weaknesses, combining colonies, harvesting overview, requeening, identifying most common diseases and how to deal with them, winter preparations and first spring inspections.
The fee for this class is $30.00 per person; class size is limited to 50 people. There will also be classes taught in February and March. If weather permits we will do a live inspection of an active hive.

Sean and Jane Burgess.

Conferences/Seminars/ Classes

Note: As a courtesy, we're delighted to share your association's major event announcements as space allows. These events are different from the ones listed earlier in this issue; those listed earlier are events Kelley's will be attending. The events listed here we are not (currently) planning on attending. We'd love to, but we can't bee everywhere. If you'd like us to list your event, please send the information by the 10th of each month for publication in the next month to: KelleyBeesEditor@gmail.com.

Eleanor Balson, Apiary Inspector, Illinois Department of Agriculture, Beekeeper of the Year 2012, St. Clair Beekeepers Association, one of the presenters.

Illinois

- A Day of Beekeeping Classes, Saturday, February 11, 2012
  - U of I Jefferson County Extension Unit in Mount Vernon
  - Call Eleanor Balson (510) 285-7879 or email bubblebubb@gmail.com for more information.

Michigan

- Kalamazoo (Michigan) Bee School, Saturday, Feb 18, 2012 http://michiganbeekeepers.com/coming-events/beeschool. Two sets of classes are offered:
  - Classes for those just getting into keeping bees for the first time
  - Classes for beekeepers who already have one or more hives
- Albion (Michigan) Bee School, Saturday, Feb 25, 2012. http://michiganbeekeepers.com/coming-events/beeschool
- Comstock: How to Get Started In Beekeeping - For New Beekeepers, Tuesday, March 13, 7 pm, presented by Dr. Larry Connor and Dr. Dewey. For more information, go to: http://michiganbeekeepers.com/coming
- Comstock: How To Get The Best Results From Your Hives - For Intermediate Beekeepers, Thursday, March 15, 7 pm, presented by Dr. Larry Connor and Dr. Dewey Caron. For more information, go to: http://michiganbeekeepers.com/coming
- The Southeastern Michigan Beekeepers' Association (SEMBA) 74th Annual Beekeeping Conference, Saturday, March 17, 2012 at Schoolcraft College, 18600 Haggerty Road, Livonia, MI. For further information, please contact Richard Mendel, 734-660-8621 or E-mail brescue@att.net, or go to www.sembabees.org

Ohio

- Medina County Beekeeper's Association Beginner's Class, March 10, 17 and 24, Medina, Ohio. To register or for further information, contact Kim Flottum at Kim.Flottum@gmail.com or call at 330.722.2021, or Contact Peggy Garnes at 330-723-6265, pgarnes001@neo.rr.com. More information can be found at
  - www.medinabeekeepers.com.
- Advanced Beekeeping Class – Going Commercial, Bee Culture Magazine and The Medina County Beekeepers present a half day Advanced Beekeeping Seminar on Sunday, March 18, 2012, Medina, OH 44256. For more information and to preregister, contact Kim Flottum at Kim@BeeCulture.com, or 330.722.2021. Registration closes Friday, March 9, 2012.

Featured Products

Kelley's carries everything you need to keep bees. Please browse our website, or our soon forthcoming catalog, to see how vast "everything" is. (By the way, if you'd like to receive a catalog and you're not already on our mailing list, sign up on our website at Customer Care, then select Contact Us. Be sure to provide your full mailing address.)

We've discussed comb honey in this issue, and we stock everything you need for that as well, including:

Catalog # 22-KIT: Everything you need for production and packaging of beautiful comb honey.

Catalog # 210-C: Our comb cutter is practical and efficient.

Catalog # 414: This assembled Round Section Super includes a #411 super, conversion kit, and 8 round section frames with 64 section rings installed.

More great products like these at kelleybees.com!

Catalog # 216-RV: These plastic trays for comb honey are attractive, strong and inexpensive.

FAQs

Please note: Correspondence submitted to the Kelley Bee News Modern Beekeeping newsletter (or subsequent publications) becomes the property of the Walter T. Kelley Company. We reserve the right to print or not print any correspondence and it may be edited for length and/or clarity. It may be published or republished in any format or medium and/or licensed to others for publication. If we publish your correspondence, we may attribute it to you and may include your name and city, unless you expressly request that you remain anonymous.

Q: I want to create my own hybrid bees by exchanging the existing drones cells with another drone species. It's my understanding that inbreeding, or to breed by continual mating of individuals of the same or closely related stocks, makes a degenerate quality of bee. My theory is we can regenerate and create super bees by us periodically exchanging existing brood drone cells or queens with other colonies of like, or other species. What are your thoughts on this? W. W. Kelley

A: Bees are predisposed and programmed to increase genetic diversity. Virgins leaving the hives on their mating flights will seek out a DCA (drone congregation area), comprised of all drones in a given area. This would include drones from your hives, neighbors' hives and feral stock. If a queen mates with a drone closely related to her she may expel the sperm.

Commercial queen breeders have their queen mother hives and their mating boxes in a given location and then surround the compass points at a distance of 1/2 - 2 miles with their drone mother colonies. This requires a lot of equipment and time to maintain.

For the smaller beekeepers it is much easier to buy queens from a good breeder and introduce them in their yard so you have genetic diversity.

When we breed queens we look for genetic markers such as color and size. We call ours leatherbacks, Tigers and all blacks because of their appearance. We only breed from our strongest hives that have survived several seasons with no chemical treatments and show traits of hygienic behavior, overwintering capabilities, mite and disease resistance and honey production. Gentleness follows at the end as I believe it takes a tough bee to be a survivor.

Experiments have been done in remote areas of Canada where virgins were introduced in hives and drone colonies were moved at farther and farther distances from them. In the end I believe it showed that the queens flew as far as 12 miles to a DCA. I think having genetic diversity will not be an issue.

(The Walter T. Kelley's company beekeeper, Sean Burgess, addressed this question for us. Thanks Sean!)

Q: Julian L sent us this photo with a highlighted area, and asked "could this be a mite?"

A. The photo, from the cover of our January issue, was taken at one of my hives. So yes, it could've been a mite. I've seen several hundred hanging out there! Unfortunately, the photo quality didn't let us really scrutinize it. Sean Burgess, Kelley's beekeeper, suspects however that it isn't a mite, as "Since bees groom the queen all day I would doubt it but I can't tell for sure."

Q: This unusually warm winter, it's got to be better for my bees, right?

A. Dr. Roger Hoopingarner, Professor Emeritus/Michigan State University, fielded this question at the Michigan Beekeeper's Association Annual Meeting in December. He agreed that yes, in general the shorter the confinement period, generally the better off honeybees will be. While the species has obviously survived many arduous winters, getting out to relieve themselves is important for the hive's health. Weather that allows them to do this is beneficial, as is weather that allows them to relax the cluster and move it to food stores.

But of course, there's a downside to the (as-we-went-to-press) milder winter much of the country is experiencing. Warmer temperatures—especially in the 40-50 degree range where bees are moving about the hive but not out flying / foraging—means more honey consumption. Bees could face a shortage of food earlier this year because of that; Hoopingarner recommends keeping an eye on it and supplemental feeding if needed.

Q: Can I feed honey to bees in February-March-whatever? I would put it across the top bars in a 2" rim. (A follow-up question asked of Dr. Roger Hoopingarner.)

A: Hoopingarner noted that honey is "like money in a bank," you can always cash it in. The answer to the question is yes, but he questioned why use $2 / pound honey when you could instead feed sugar at a quarter the cost.

Q: I was reading a paper today in the science journal PLoS ONE, and they were saying Northern California scientists have found a possible explanation for a honey bee die-of that has decimated hives around the world: A parasitic fly that hijacks the bodies and causes them to abandon hives.

Scientists say the fly deposits its eggs into the bees' abdomen, causing the infected bee to exhibit zombie-like behavior by walking around in circles with no apparent sense of direction. The symptoms mirror colony collapse disorder, in which all the adult honey bees in a colony suddenly disappear. The fly's name is APOCEPHALUS BOREALIS.

I live in MISSOURI; is there anything for me to worry about? And if so, what can I do to help the bees?
G Carner

A: As of press time for this newsletter, we'd received more information, shared in the Healthy Bees section of this newsletter. Kelley's CEO and President Jane Burgess also noted to "we'll share more information as we receive it. Like many things it may take forever (hopefully never) to move inland from the west coast. (That's what we thought about Africanized bees also.)

As far as if you can do anything? Specifically for this? Not that we know of yet. However, the more folks who successfully raise bees the better chances we will figure out a way to slow many predators down. Many minds come up with many possible solutions; one is bound to help."

Q: What is the deadline for ordering new bees? P Ellis

A: The deadline for ordering new bees is really hard to pinpoint. Kelley's takes orders for pick-up (or shipping) on a particular date, and by the time this newsletter gets distributed, we suspect there will be more than one date sold out. Call us at 1-800-233-2899 to find out the dates for which we still have package bees available. Chances are good we'll have them, perhaps just not for the date you desire.

Q: About every issue, we get a dozen or so emails like this "Please update my email address so I can continue to receive your mailings...."

A: Sorry, but we cannot. The service that distributes the e-newsletter needs that request to come from you. It's easy enough to do:

- Unsubscribe (from your old email address) using the link in the email that distributed the newsletter.
- Resubscribe at www.kelleybees.com, using your new email address.

Thanks for reading.

Q: Along the same lines, Steve C. wrote: "I'm trying to log in to make a purchase and it's telling me my address doesn't exist in your files. I can't remember my password ...."

A: You can enter your email and select 'forgot password' and edit your address. It will ask you to enter your email, then answer your security question and the system will let you reset your password.

BeeCause

Your bees need food and shelter, and we at The Walter T. Kelley Company are honored that you turn to us to for such essentials. We work hard to provide quality equipment and products at competitive prices.

Because of your loyalty, and to continue a key principle of the late Walter T. Kelley's, we contribute a percent of profits to charitable causes. Our company is headquartered in Clarkson, Kentucky, and recently, we've supported many local organizations via donations to help secure food and shelter for those in need.

If you've visited Kelley's, or talked to us on the phone, hopefully you'll agree that we're extremely friendly folks. It comes easy; we're located in an area of friendly, caring folks. Here are a few photos from Clarkson's annual Honeyfest, a celebration of honey, honeybees, and the people who love them.

If you've read back issues, you know our charitable efforts have extended far beyond our local community at times—supporting bee research, promoting bee awareness, supplying equipment to new beekeepers, and helping beekeepers both in the USA and different countries.

Thank you for helping us make a difference.

Recipes

As I write this, the snow is falling. There is something peaceful about the snowfall. The flakes are gentle and soft and they cannot help falling to the earth but at the same time, they seem timid and unsure that they will be welcome. I do welcome them and love watching them. I am from Kentucky and sometimes I feel guilty. Our snowfalls are not as heavy and fierce as those many of you experience.

There is something about the winter and snowfall that brings out the YEAST in me! I must bake bread!

I recall homemade doughnuts, timed just right to be warm when my children (and the neighbor kids) got off the school bus. Yeast rolls for dinner were a welcome treat. There was a lady in town who was wheelchair bound; she loved my homemade loaves. Those were good days.

Now, I have a top of the line bread machine that is a lot of fun. But, sometimes I just must go back to the old fashioned way. My fireplace and the smell of yeast bread rising; for a few moments I feel all is right with the world. Women were made for kneading dough. It pulls and tones our stomach muscles! You don't get that with a bread machine.

Below is one of my favorite recipes. I have made it for years, even won a couple of blue ribbons. They are a special treat for Christmas and Easter for my family. I took it to EAS once (on ice) and won there. It was a nice honor. I share it with you below:

ORANGE ROLLS

1 envelope yeast
1/4 c. very warm water
3 T. honey
1 t. salt
2 eggs
1/2 c. sour cream
1/2 c. melted butter
3-1/2 c. sifted, all-purpose flour

3/4 c. sugar
2 Tsp. grated orange rind

Glaze
1/2 c. sugar
3 T. orange juice
1/4 c. honey
1/4 c. melted butter
1/2 c. sour cream

Dissolve yeast in water in large bowl. Beat in the 3 T. honey, salt, eggs, sour cream and 6 Tbsp. of the butter. With mixer, gradually add 2 cups of flour. Beat until smooth. Knead in remaining flour.

Cover and let it rise in warm place until doubled—about 2 hrs.

Knead on well-floured surface about 15 times. Divide in two pieces. Roll each piece into a 12-in circle.

Combine the 3/4 c. sugar and orange rind, brush dough with melted butter and sprinkle 1/2 of the sugar/orange mixture over the entire circle. Cut circle into 12 wedges. Roll up each wedge, starting with wide end. Place, point side down, in three rows in a greased 13 x 9 pan. Repeat the above with the other half of the dough.

Cover pans and let rise in warm place about one hour. Bake at 350 degree oven for approx. 20 min.

Top with glaze: Combine ingredients and boil 3 minutes, stirring constantly. Pour over rolls when they are removed from oven. The recipe makes 24 rolls and they do freeze well. Thaw and warm in 300 degree oven for 10 minutes.

Submitted by Mary K. Franklin. Mary K. is a long-time employee of The Kelley Company. Cooking with honey is one of her many hobbies.

Sweet as Honey

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Last month's newsletter contained the BeeCause article "Observation Hives in the Classroom." Kelley's has been donating observation hives (OH) to a very innovation project in Boston. The beekeeper behind this effort, Jeff Murray, emailed, "Thank you for that very nice piece in the newsletter. We all appreciated very much."

As always, hearing thanks is, well, sweet as honey, so Jeff, thank you! We didn't include Jeff's email just to pat ourselves on the back though. His email gave us the excuse to mention that article again, as it presents a fresh idea for bee clubs—integrating observation hives into educational venues. To see that article, check out our January 2012 issue. Like all other back issues, it's available at www.kelleybees.com.

Dear Kelly's: I love your newsletter. As a returning beekeeper, I pour through every article and value how readable and relative articles are. (I pass them around to two new keepers I'm mentoring.) I especially appreciate your balanced approach to beekeeping methods. (I take a non-chemical approach.) I purchased some of your equipment last year at Parkersburg. Because of its price and quality AND your newsletter, I'm now committed to your products. Smart move on your part. Just wanted to let you know and thank you.
Paul

Our January issue also mentioned that one of the State of Kentucky's beekeepers of the year, John Pace, was—pending a local election—starting a meadery. We've received the update that voters gave the go-ahead. The mead that will be sold at the winery will be made from honey produced by Pace's bees. Pace tends about 60 beehives.

The World of Bees is an interactive children's exhibit about bee diversity and conservation hosted by the Hudson Highlands Nature Museum in Cornwall on Hudson, New York. We featured it in an issue last fall. This exhibit will be up until August of 2012, but if you won't get a chance to stop by, or know some young minds interested in the fascinating world of bees, check out this virtual tour:
http://www.loulabella.com/2012/01/world-of-bees-virtual-tour.html

Speaking of fascination, reader Ron A. shared this amazing video, which can also be found on YouTube along with some equally breathtaking videos. Thanks Ron.
http://mjperry.blogspot.com/2012/01/video-hidden-beauty-of-pollination.html

We salute Phil Craft, who had served Kentucky as State Apiarist for 12 years. Craft was recently relieved of his politically appointed office at the first of the year. We admire Craft's passion, knowledge and enthusiastic outreach to Kentucky beekeepers in his position. Phil, best of luck as you define your future, and thanks for all you've done.

Thank you all for the help with my order on Saturday. You all did so good to get me in and out so I could be home Saturday.
L. Rowe, Virgina

January's *Dronings from A Queen Bee* column highlighted Kirt Martin's beekeeping journal. Many of you shared that you loved it. Author Kirt even shared "WOW! Nice going Charlotte. You are a master at editing my journal. Actually you shamed me into doing a better job on my entries and pix. Will step up to the plate next season and keep you posted of the Martin Boys' journey."

Kirt, we're all looking forward to it. Speaking of beekeeping journals, we'd like to share what works to help you keep track of hive activities and health. Please email me your format, suggestions or examples at KelleyBeesEditor@gmail.com, thanks.

I have to agree with the person who said "thank you for the wonderful job that is done with the [Modern Beekeeping] newsletter!" I can't believe how much good information you pack in there.
D. VanAntwerp, Michigan

Foraging for Fun

Where is She?

One of the challenges of beekeeping, at least for rookies, is spotting the queen. This essential skill does get easier with practice.

This time of year, the bees of most readers are clustered deep in a dark hive. We didn't want folks to get too far out of practice, so here's our version of "Where's Waldo?" with queen-containing pictures ranging from easy-to-spot to some that are more of a challenge.

Hints on location are provided in the captions below each photo. Good luck!

Don't be distracted by the worker bees with bright yellow pollen sacs, Her Highness is that beautiful golden girl not far from the point of the hive tool.

It should be really easy to SPOT this one! (She's in the lower-left quadrant, with a big dot on her back.)

We figure you're still warming up! Hopefully you easily spotted her (practically middle of the picture, pointing left).

This photo shows the long, golden body of Her Highness. (She's in the middle of the photo, headed up.)

Alrighty, if you can't spot this girl, you may want to get some younger eyes to help you with your hive checks.

This photo shows the long, golden body of Her Highness. (She's in the middle of the photo, headed right, about a quarter of the way from the top.)

This one is not-so-easy until you spot her, and then you'll wonder how you could ever miss her. (She's in the upper-left quadrant, pointing toward the upper-left corner.)

This thriving hive hosts a beautiful, busy, golden queen. (She's on the right side, pointed toward the lower-right corner, almost exactly half way between top and bottom.)

Sure, the drones are attention-grabbing, but this golden girl is the one who deserves the attention. (Lower-left quadrant, golden in color, pointing toward the center.)

Yes, she's in there somewhere. No, we can't spot her either.

You're right, now we're just messing with you! She may be in there somewhere.

Dronings from a Queen Bee

Why Do I Keep Bees?

By Charlotte Hubbard

My son dates a fabulous young woman from "the other side of the tracks."

The people on "our side of the tracks" are farmers, engineers, and other laborers. "Her people" are Ivy League professors, internationally known journalists, doctors and lawyers; except for those who are both doctors and lawyers. We're decent people, but we just read magazines, instead of being featured on their covers.

I recently attended a gathering of "her people." They are kind, engaging and friendly. Because I can't eloquently discuss Mideast diplomacy, life-saving medical innovations (for which they hold the patents), or the merits of a Princeton versus a Yale PhD, I spent the evening successfully hiding behind robust potted plants, except for occasional (OK, frequent) trips out to the awesome buffet for refills—especially from the chocolate section.

I'm introverted by nature, so I was quite comfortable hanging out with ferns. But somehow, word got out that I was a beekeeper. Elite, sophisticated people made a beeline to talk with me.

While I am not usually a conversationalist, like most beeks, that changes when it comes to talking about bees. I stepped out from behind the sculpted bonsai and started fielding the questions flying at me like my bees that day they merrily swarmed in front of my eyes.

As a beekeeper, I've spoken to several nursery and elementary schools, among other educational venues. From preschoolers to 4th graders, science camp kids to inner-city second graders, kids ask about the same dozen questions.

I was delighted and amused that PhDs and MDs ask about the same dozen questions as well!

This observation is in no way meant to mock the intelligence of the highly and well-educated, but instead to highlight what I think is one of the coolest things about honeybees: no matter whether you're following Wall Street or Sesame Street, you find the amber insect that both stings and makes unsurpassed sweetness incredibly fascinating.

While the questions asked by kindergarteners and patent lawyers were generally the same, I did give the older audience more complete information. For example, to "Have you ever been stung?" the answer was "Yes" for the kids and "Yes, by both bees and bad investments" for the adults.

To the question "Where do bees go in the winter?" I explained they generally stay snuggled in a group in the hive, but added for the adults "Except for those with the means to head south."

The adults all nodded their heads in understanding. They all have the means to head south, and I suspect their southern "winter hives" are quite lovely.

You know that awareness of Colony Collapse Disorder has gone waaaaaay beyond commercial beekeepers and researchers when a solemn-eyed, gap-toothed first grader asked if any of my bees have died of that "mystery thing."

I answered that question with "No, I don't believe so."

I expanded that answer for the older set, because I've had plenty of bees die. It isn't because of that mystery thing, but rather my own ineptitude. For example, there was the first year, when I thought if wrapping hives is good, really wrapping them must be even better. They were wrapped so well that I suspect the lack of ventilation / moisture build-up killed them. It was a classic lesson of "too much of a good thing is a bad thing." Too bad I didn't think of that lesson before I had 34 dark chocolate cups filled with raspberries.

No matter who I am talking to, a question that is always asked is "why do you keep bees?" I share how we need pollinators, how local honey helps allergies and is a smart food, how I enjoy the perpetual learning and challenges of beekeeping.

The gathering of investment bankers-attorneys-doctors then asked another question: "Is there a good ROI on beekeeping?"

I laughed a lot at that question, and reminded them of how I routinely keep bees, but not very well or for very long. For me there's a huge ROI, but it is negative. But, if I look beyond the dollars to the fun of beekeeping, it pays huge dividends in working my mind, working my body and overall enjoyment.

The adults looked at me like they sort of understood.

When kids inevitably ask "Why do you keep bees?" I give them the simple answer: Because bees are so cool.

The kids fully understand.