Kelley Beekeeping

SERVING THE BEEKEEPER SINCE 1924

ISSUE 43: JANUARY 2014

The Walter T. Kelley Company Celebrates its 90th Anniversary by offering FREE SHIPPING!

IN THIS ISSUE

The Buzz

by Kevin Harrub

2014 is here! Do you know that means? At **Kelley's,** manufacturer of quality beekeeping supplies since 1924—home of exceptional value and convenience with superior customer service, it means we'll be celebrating the 90th year of serving beekeepers far and wide all year long! As part of our celebration this year, you will be glad to know that we've made a few changes at **Kelley's.** The one most near and dear to many of you will be the fact that we are now offering ***for a limited time***:

FREE SHIPPING

That's right! As part of our 90th year celebration **Walter T. Kelley** is offering FREE SHIPPING for a limited time in 2014! You won't have to wait until Thanksgiving this year to take advantage of FREE SHIPPING at **Kelley's**. Following are a few guidelines:

- **$200.00 minimum order to qualify**
- **Available in the lower 48 states**
- **Some items do not qualify**

KELLEY BEEKEEPING

As some of you may have noticed, there also a change in the name of this publication. ***Modern Beekeeping*** will now be known as ***Kelley Beekeeping***. We're making this change so that our website and newsletter can be branded the same and provide consistency. Additionally, we'll be launching a new section in our newsletter called **Kelley Nation—Your Story is Our Story**. You'll read more about that on page 23.

DECEMBER NEWSLETTER

Lastly, we did receive some questions regarding our use of the "Happy Winter Solstice" tag on the December cover last month. There were a couple of reasons for our using that on the December issue: 1) the majority of the newsletter last month was weather related so it stayed with the theme of the newsletter. 2) The winter solstice is the shortest day of the year; it is the point where the northern hemisphere is at the sharpest angle away from the sun (Melanie will get more scientific in her article about the winter solstice on page 3). Once the winter solstice occurs the days start to grow longer and spring is seen as being on its way—thus the "Happy"—as I believe most of us look forward to the warmer weather to come and the bee season that really starts to get active for most of us. Don't know about all of our readers, but for many of us, spring can't come soon enough.

So here it is, the January 2014 edition of **Kelley Beekeeping**. It's a new year with new goals and new challenges. We hope that **Kelley Beekeeping** will assist you in overcoming your beekeeping challenges and help you obtain your goals in 2014. There is much to read and enjoy in this edition of **Kelley Beekeeping**.

Bee excited,

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From the Queen's Court

by Melanie Kirby

Indeed, it is a HAPPY NEW YEAR! Though the calendar shows the New Year starting on January 1st, there is another beginning that started 10 days ago, on what is better known as the Winter Solstice. If winter solstice doesn't seem like such an important date, I'd like to share with you why it is; as its significance to bees and their keepers establishes the natural calendar cycle and seasonal behavior of both individual bees, the hive organism as a whole, and even the keeper's proposed management.

The word solstice comes from the Latin words for "sun" and "to stand still." It is a day when for a moment, the end of a cycle and the commencement of a new one is beginning; for as the earth's tilt begins to switch directions, the north pole is no longer the farthest from the sun—for an instant. And it is at that precise moment, the sun does indeed seem to stand still. After the tilt begins to change direction, it takes some time for the effects of the change in tilt are felt.

For instance, though December 21st is calculated to be the shortest day of the year, the coldest temperatures in the hemisphere do not occur for another month or two. The same for Summer Solstice (last week in June), when the longest day of the year signifies that the time thereafter begins to lose daylight; the hottest temperatures are not felt until July and August.

The shortening and lengthening of day is noticed by plants, animals, and man. For apicultural purposes this means that plants, bees and keepers accommodate these changes. The transition from a dearth to the anticipation of spring has begun…and little by little, each day, its promise becomes more appealing and time sensitive. Food stores will be consumed at a slightly faster rate as the brood building slowly, but surely begins. Depending on which strain of bees are residing in

Kelley Beekeeping
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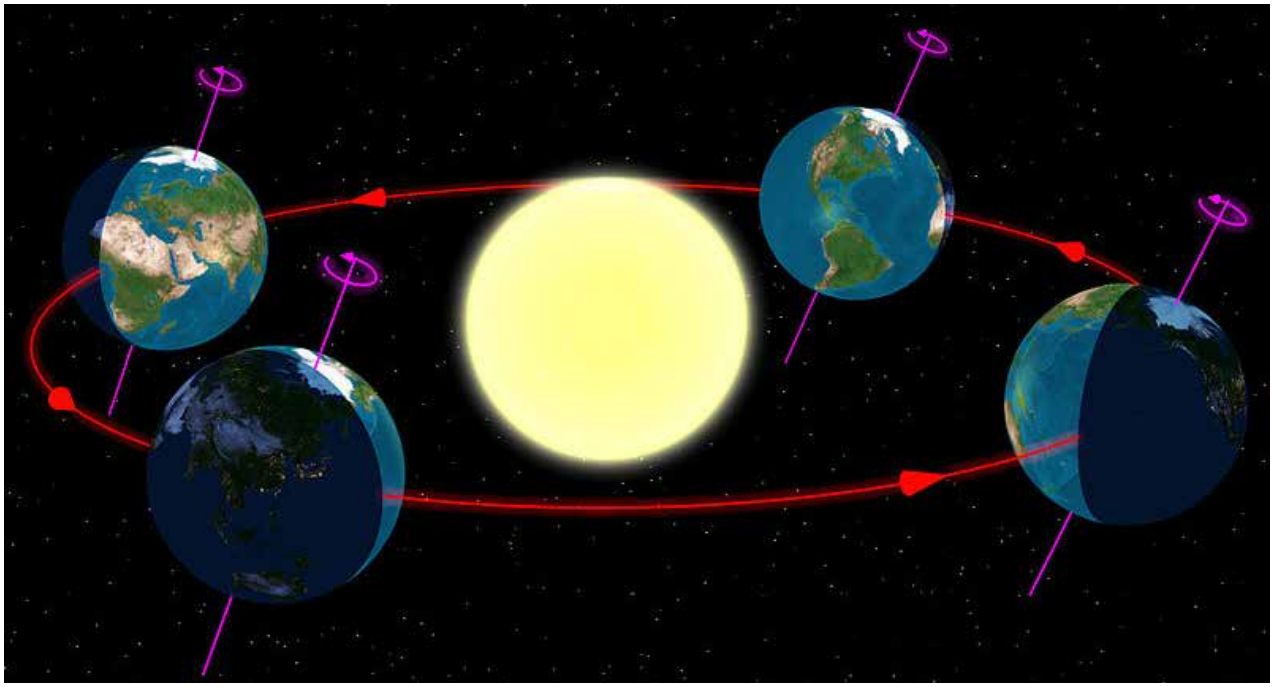
Queen's Court *continued*

your hives, their behavior is directly affected by the weather.

It is well known and noticed that warm weather based strains (i.e. Italian, Cordovan) seem to keep larger brood nests and tend to build up "faster" than cold weather based strains. Yet the cold weather based strains (i.e. Carniolan, Russian, and Caucasian) demonstrate a higher intensity of conservatism in consuming their food reserves (thus potentially requiring less food stores to overwinter). Yet, when the weather does propose a flow, they then can surpass their warm weather based counterparts in population build-up (given all other conditions within the hive are on a positive standing).

For cold regions, when winter solstice occurs, food stores will begin to wane as the nest transitions out of cluster and begins to slowly but surely begin to rear new brood in anticipation of the coming spring season. For warmer regions, though the bees may not necessarily have been in cluster, any dearth like conditions will have prompted them to recede their brood rearing and thus, the lengthening of daylight post Winter Solstice indicates to them that they resume brood rearing and in a more concentrated manner.

Winter Solstice is viewed by various cultures in the northern hemisphere around the globe as a time of reflection and celebration. From ancient civilizations to modern day societies, the winter solstice signifies that the cooler weather and dearth will soon be receding, and that warmer weather and the sprouting of spring, is soon to come. As most beekeepers and farmers tend to be "ever-optimists," winter solstice signifies to many who work with nature and who steward livestock, from bees to bulls, that the beginning of the first chapter in the coming year, invites us all to approach the coming season with hope and inspiration.



The New Year indeed promises genuine hope and faith that our bees, and we as their stewards,

Queen's Court *continued*

will both experience a prosperous year; one full of nutritious forage, healthy hive products, and content livestock… for when our bees are doing well, we as their keepers are happy.

As the new editor for ***Kelley Beekeeping*** online newsletter, I am happy to be a part of the **Kelley Nation** (for my full bio see December 2013 issue). I am also very happy to have the opportunity to read and share stories with beekeepers near and far. Learning from past seasons and anticipating the new, invites all of us as a community of individual beekeepers to experience what others are doing; and to share our learnings with each other; whether newly inducted into the enlightening world of honeybee husbandry or as seasoned professionals with many years notched on our hive tools.

In order to better gauge who our readership is and what they are interested in, I hope you will consider clicking on the survey link https://survey.zohopublic.com/zs/MQBfLQ and sharing your thoughts and suggestions with us as we take **Kelley Beekeeping** newsletter into the New Year.

We'll keep the survey link up through April, so tell your fellow beekeepers to share their thoughts, as well.

I invite those who are eager and willing to share their diverse experiences and multi-faceted methodologies with readers of the newsletter. For those interested in contributing, you are welcome to submit articles pertaining to the scientific art and artistic science of beekeeping for potential publication. The **Kelley Nation** reaches out to everyone, and all are welcome to be a part of it; for together we can better support existing beekeepers and better promote future generations of beekeepers.

Rainbows in the mountains of northern New Mexico.

I wish everyone a very HAPPY & HEALTHY NEW YEAR... here's to a positive 2014 spring season and may we celebrate the next 90 years of **Walter T. Kelley Co.** with proactive style and grace!

Melanie Kirby serves as the editor for this newsletter. She has been keeping bees professionally since 1997; broadening her apiculture experience in over 4 countries and 5 states. She specializes in survivor stock queen honeybee breeding and is based at 8300 feet in the southern Rockies, USA.

A•Bee•Cs
Beginning Beekeeping

Q: I'm a new beekeeper, what equipment do I need to get started?

A: That's a great question! **Walter T. Kelley** makes that easy for you! We have two beginner kits: **Kelley's Basic Beginner Outfit** (item #365-N) and the **Deluxe Beginner Outfit** with shallow supers (item #365-NE). The (item #365-N) contains one deep hive body, (10) "N" style frames, wired foundation, (20) support pins, a wooden inner cover, plastic telescoping outer cover, screened bottom board, entrance reducer, entrance feeder, hive tool, smoker, goatskin gloves, round veil and helmet, plus the book ***How To Keep Bees and Sell Honey*** written by **Walter T. Kelley**, as well as assembly instructions. It has everything you need to become a "Newbee". However, the deluxe version includes additional equipment that will be needed just a few short weeks after your first bee install. The (item #365-NE) contains all the before mentioned equipment plus a 2nd deep hive body, (2) additional shallow honey supers, giving you a complete (4) box hive, (30) more frames & wired foundation to fill your three extra boxes, a bee brush, smoker fuel, a pullover jacket and a second beginning beekeeper book. By purchasing this kit, you won't have to place a 2nd order for the additional equipment that you'll need in a surprisingly short amount of time.

Basic Beginner Outfit
also available in **Deluxe**
Catalog #365-N

We also suggest that new beekeepers start with two complete hives. Our suggestion, purchase the **Deluxe Beginner Outfit** (item #365-NE) and a **Kentucky Special** (item #KS), which is a complete hive containing (2) deep hive bodies, (2) shallow supers, (40) frames, wired foundation, plastic telescoping cover, screened bottom board, entrance reducer and Boardman entrance feeder. Sounds complicated—It's not. By purchasing both the (item #365-NE) and the (item #KS) you have two complete hives and all the equipment for a new beekeeper to get started.

Q: What is the recommended hive tool?

A: Actually the most desired hive tool we carry is the Kent Williams Hive Tool (Item #152-KWA). Yes, it is our most expensive hive tool at $17.00, but it combines two tools in one. Designed by one of Kentucky's two Master Beekeepers, this tool has a strong scraper end for prying between hive bodies and removing burr comb plus a hook that makes prying up frames during your hive inspections easier. You'll quickly see that this hook comes in very handy when you're trying to work efficiently in your hive—and like we stated earlier—it was developed by a master beekeeper, so it must be a useful and needed piece of equipment!

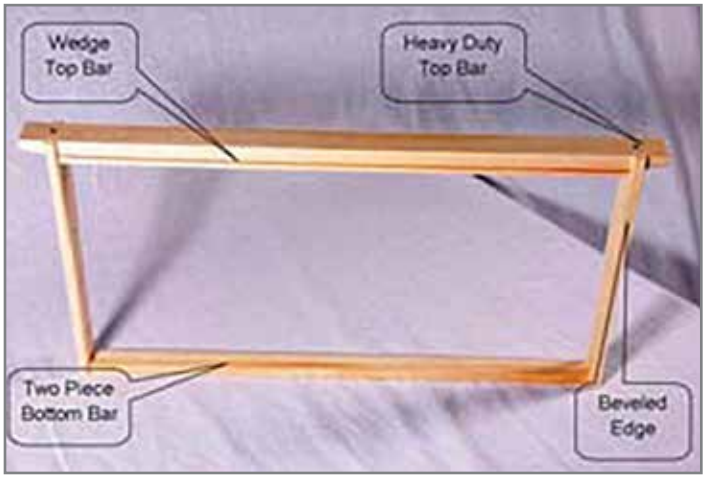
Q: Your catalog has six types of frames, what type of frame do you recommend?

A: That depends on several factors: foundation being used, how "handy" you are, and the amount of time you have. We generally recommend our "N" style frames due to ease of use. You'll simply slide the foundation into the slotted top bar until it seats in the grooved bottom bar. The "D" style frames have a long tradition with beekeepers; however the "wedge" that stabilizes the foundation must be nailed in place. The "D" style frame has a slotted bottom bar that allows the foundation to rest between the two piece bottom bar. If you're using plastic foundation then you will need the "SGX" frames, which have a grooved top and grooved bottom bar. Some natural beekeepers prefer the "F" frames, which are foundationless frames which require the bees to develop the comb, without the help of foundation. We even have two final frames, the "S" frame and the "SG" frame, both of these frames have wedge top bars that must be nailed on. The difference between these two frames is their bottom bar. "S" frames have a solid bottom bar and the "SG" frames have a grooved bottom bar.

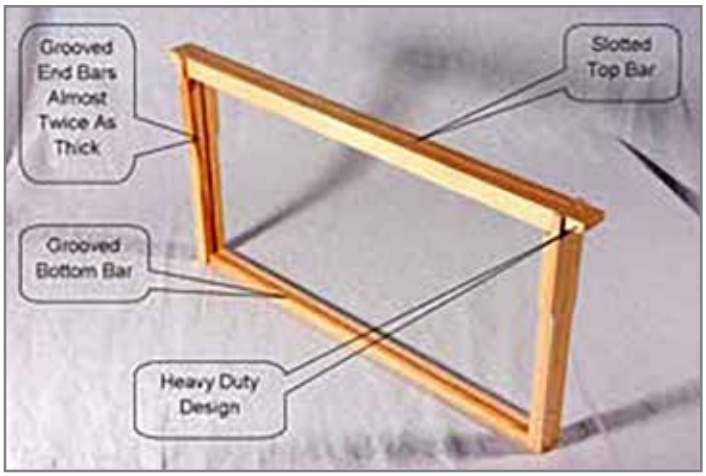
By the way, it is very important that you match your frame style with the correct foundation.

Q: What is foundation and what does "with hooks" mean?

A: Foundation is what we call "the bees' comb starter kit"—it gives the bees a jump start on drawing out comb, which means you get a jump start to extracting honey. We sell foundation that is made of 100% beeswax, which the bees love or foundation that is made of plastic and covered with beeswax. Typically you'll see beeswax foundation used by most hobbyist and sideliner beekeepers, with plastic foundation heavily used by the commercial beekeepers—although they too use beeswax foundation. Foundation "with Hooks" is foundation that is attached to any frame with a "wedge" top bar. Frames that use foundation "with hooks" include the following styles: D, S, & SG. Wired foundation that contain "no hooks" include frame styles: N & SGX. Remember "F" style frames have no foundation.



D Style frames have wedge top bar and divided bottom bar.
D-Style Items: 9-D - Deep Frames, 17-D - Medium Frames, 11-D - Shallow Frames



N Style frames have slotted top bar, grooved end and bottom bars.
N-Style Items: 9-N - Deep Frames, 17-N - Medium Frames, 11-N - Shallow Frames

Just the FAQs
Reader's Questions

Q: What type of package bee do you sell and are they guaranteed?

A: **Walter T. Kelley** sells Italian and Russian queens with our package bees. Unfortunately, we cannot guarantee our package bees; however, they can be insured through in zones 1-4 if you choose to have them shipped to you. Zones 5-8 cannot be insured by USPS. For those of you that choose to pick up your bees at the Clarkson campus, you must visually inspect your bees and queens before signing for them.

Our package bees come with Italian and Russian queens.

Q. When can I place an order for package bees?

A. Our answer, the earlier, the better! You can place orders from December through May, with pick-up or USPS shipment occurring each Saturday in April and the first two Saturdays in May depending on availablity; however, we are only able to purchase a certain quantity for each bee Saturday and please remember, they are first come, first serve. Order early!

Q: What type of queens do you sell and are they guaranteed?

A: **Walter T. Kelley** sells Italian, Russian, Carniolans and Cordovan queens and yes, we do guarantee our queens to arrive healthy and fertile. Should you find that your queen is not producing eggs within 10 days of shipment, simply notify us and we will send you a replacement queen; however, **Walter T. Kelley** does not cover the shipping cost for the replacement queen.

Q. My hive is infested with Small Hive Beetle. What should I do?

A. We recommend that you install either **Beetle Jails** (56-JA) or **Beetle Blasters** (56-B) in the hive, two jails or blasters per brood box. Periodically do ground drenches using 10lbs. salt to 25 gallons of water, under and around hives.

Q: I want to sell my honey. Do you provide custom printed labels for honey containers?

A: Yes, we provide 24 different designs that can hold (4) lines of information advertising your honey. Please allow 2-3 weeks for printing and delivery. We suggest that if this is your first label order that you send us your information by email or fax. Orders taken over the phone have a higher probability for mistakes and are at the customer's risk. When ordering labels please be sure to your four lines of information (normally your company name and address), label number, size and quantity.

What To Expect...When You're Expecting Bees

Part II: Nucleus Starter Hives

by Stacy Hill

THIS IS THE SECOND PART OF A TWO PART SERIES REGARDING PACKAGE BEES AND NUCS. FOR INFORMATION RE: PACKAGE BEES, PLEASE SEE THE DECEMBER 2013 ISSUE OF KELLEY BEEKEEPING OR SIGN-IN AT WWW.KELLEYBEES.COM AND CLICK NEWSLETTERS.

Our starter nucleus hives (nucs) are 5 deep frames of drawn comb, bees, brood, honey, & pollen. A young, mated queen has been accepted and is laying in the nuc. A nuc is roughly 4-5 weeks more advanced than a package starting from scratch and can possibly produce harvestable honey in its first year. It will build up quickly if fed and is less vulnerable, compared to a package, to starving, absconding, or robbing. However, a nuc will only fit into a deep Langstroth hive body and is more expensive than a package. Our nucs are available only by pick up at our facility in Clarkson, KY and cannot be shipped.

Nucs are easily installed into your Langstroth equipment. When choosing to start your beekeeping journey with nucs, you'll want to make sure all equipment has been assembled and prepared for installation. Upon arriving home, place your nuc on top of or beside the hive you intend to install it into. Open the entrance of the nuc and allow the bees to fly and settle overnight before hiving them. When you are ready to hive your nuc, gently smoke the nuc entrance with three or four puffs of cool smoke.

Place the nuc beside the empty hive if it had been set atop it on arrival day. Remove the outer and inner cover of the hive body, insert the entrance reducer and remove six frames of foundation or comb and lean them on the side of the hive opposite the nuc. Spread out the remaining frames of foundation/comb to the edges of the hive body. Gently open the cover of the nuc and puff smoke over the bees and top bars of the nuc. Use minimal smoke so the bees do not get agitated and so the queen is less likely to leave the comb and hide on the bottom or wall of the nuc box.

While standing next to the nuc, remove the outermost frame (one near you) by gently pulling the frame straight up in order to avoid crushing the bees on this frame and the adjacent frame. This first frame will probably contain honey and pollen and it

Our starter nucleus hive, ready for pick-up.

What To Expect...*continued*

should be placed toward the center of the hive body. Pry apart and remove the frames of bees from the nuc and situate them in the hive body in the same order and orientation as they had been in the nuc. This step is very important.

Center the transferred nuc frames and slide the remaining frames in the hive body toward the nuc frames. Replace the remaining frames of foundation and/or comb on either side toward the hive walls. If there are frames of comb and foundation available at nuc installation time, situate the comb on either side of the nuc frames and place the frames of foundation toward the walls. If only foundation is available, place it on either side of the centered nuc. Before placing the inner cover on the transferred nuc, check the remaining bees on the bottom board and walls of the nuc box for the queen. If she is still among the bees remaining in the nuc box, gently thump the rear corner of the nuc box on the ground. The bees can then be poured into the hive by inverting the nuc box over it and giving it a shake so the bees fall into the hive body.

Transferring nuc frames into a hive.

If the queen isn't visible, still perform the same procedure to remove the remaining bees from the nuc box. Replace the inner & outer cover on the hive. Feed them sugar syrup for at least a couple weeks. The syrup will help them to produce the wax required to build combs on the new frames. I highly recommend a hive top feeder as it is the easiest to access without disturbing the bees.

After informing you the best I can, I ask again, which one do you choose? It's hard to say and only you can make that decision. Nucs have their merits in that the queen has already proven herself to be a good layer, and the hive is well established and ready to really take off. I typically recommend a new beekeeper start with a nuc solely to increase their chances of success but I think every new beekeeper should experience the thrill of putting a package of bees into the hive, placing the queen cage in, seeing the wax as it's drawn out, and especially seeing those first eggs and capped brood. To me, it's a way of learning and enjoying the process from the very beginning. No matter what you choose, almost everyone will recommend starting with two hives. How about trying one package and one nuc?

Whatever your choice, I wish you the best of luck in your journey and HAPPY BEEKEEPING!

Stacy Hill is the Bee and Queen Sales Manager for Walter T. Kelley. She can be reached at stacy@kelleybees.com

X•Y•Zs
Advanced Beekeeping

For those interested in learning about current research, management and industry developments, the **American Beekeeping Federation** and the **American Honey Producers Association** will each be holding their respective annual conferences. Info below….

2014 North American Beekeeping Conference & Tradeshow
January 7-11, 2014
The River Center—Baton Rouge, Louisiana

The 2014 North American Beekeeping Conference & Tradeshow will be held in Baton Rouge, Louisiana at the Baton Rouge River Center, January 7-11, 2014. As always, this conference promises to bring you the most up-to-date information within the beekeeping industry and the latest products and services offered by our many exhibitors and sponsors.

For info on registration visit:
http://www.nabeekeepingconference.com/

Kelley Bees will be present at this event.

AHPA
American Honey Producers Association

45th Annual AHPA
Convention & Tradeshow
January 7-11, 2014
Omni San Antonio at the Colonnade
San Antonio, Texas

An Engaging Convention & Dynamic Trade Show
Relevant sessions on new research and hot topics within the beekeeping industry; legislative changes; and honey market & pollination reports.
Backyard Beekeeping Workshop with Randy Oliver and Lloyd Snyder.
Great opportunities to socialize with friends and fellow beekeepers at our Welcome Reception, Private Rodeo & BBQ, and Annual Banquet.
Direct access to our industry's leading vendors.

For more information & registration
http://www.ahpanet.com/?2014ConventionReg

Marin Adapted Survivors

Nurture Northern California's Urban Beekeepers' Management

by Melanie Kirby & Bonnie Bollengier

Pest and pathogen challenges have transformed the face of the American beekeeping industry over the last quarter of a century. The additional challenges of shifting climates, development, habitat loss, and chemical agricultural practices, is creating a sincere need to pursue research into what topography and production protocol can lend to establishing adaptable, hearty and enduring stock. Establishing, maintaining and producing stock that endures without compromising chemical applications, is a sincere challenge.

Since bees are interacting with our living laboratory, it makes sense that their testing and selection be based on their real world interactions. These real world interactions include their environment which is composed of their landscape, forage sources, agro-ecological and human/development inputs and micro-climates. These combined inputs are the basis for any developing "api-sphere". Since bees traverse a distance for foraging, and their interaction with everything around them is constant- including in the hive since diverse forage is being brought in, establishment of bees that can maintain and prosper is key to their survival.

As such, the challenge to implement, promote and produce survivor stock is real, AND necessary in these changing times. This challenge is gaining momentum, both with professionals and urban novice beekeepers. Enthusiasts are learning to reconcile the reality that nature nurtures and that finding adaptable stock capable of enduring over time promotes several important heritable traits of longevity and warrants its maintenance and ability to remain productive.

The Marin Adapted Survivor (MAS) program is going into its third year this spring 2014. It initially started in the spring of 2012 when I had the enlightening opportunity to visit and assist two dedicated and well-meaning urban beekeepers in Marin County of northern California with their Marin Adapted Survivor bee program. Marin County is a petit peninsula north of the Golden Gate Bridge that juts into the North Bay region of the San Francisco Bay Area. Marin is braced by Sonoma and Napa counties to the northeast, and south by the metropolis of San Francisco and the "treepolis" of the Redwoods. Bonnie Bee & Company, composed of Bonnie and Gary Morse of San Rafael, California, decided to commit to trying their hands at selecting and rearing Coastal Pacific stock that has been tested by the topography and microclimatic conditions. Their goal was to produce their own breeding stock and mating nuclei to better support their and their community's needs for healthy bee stock.

The cyclical cool and lush, hot and sometimes moisture-laden cross winds- slope through the county's diverse microclimates across the dynamic Mediterranean landscape, which rarely reaches freezing marks. Developing and promoting regionally fortified survivor stock adapted to handle

Marin Adapted Survivors *continued*

and endure the dynamic coastal climate of northern California and its multifaceted microclimates appears to be outperforming introduced stocks. When asked whose idea it was, Bonnie was quick to share that they didn't come up with the concept but, rather, were inspired and encouraged by members in their local beekeeping club.

This encouragement, extended from throughout their beekeeping community. But talk is different than walk…and being that these two have embraced the challenge, I couldn't help but want to learn more about their efforts and extend commaradery. Those of us intrigued enough to get into beekeeping as a profession surely find solace and validation among our peers—no doubt! As such, I conducted an interview with Bonnie last year at the start of their rearing program. I will be joining her this coming spring 2014 to follow up. She is as eloquent in her responses as she is in the apiary, so I have decided to present this in its original interview format; my asking Bonnie questions, and her responses.

MAS queen cell installed in mating nucleus.

I am choosing to present this information in the interview format to demonstrate the approachability of individual and community voices; demonstrating and sharing plausible and practical methodologies and applications for promoting healthy bees. Thanks for reading!

MK: Who are you guys? How long have you been keeping bees? How many and Where?

BB: "Bonnie Bollengier & Gary Morse…just a couple of people who love their bees.

• We started in 2007—after watching a neighbor and his daughter with their bees for a few years and observing the cycle of the bees (including their foraging in our yard).

• Started with one—had another within a week. By third year, 10 hives. In 2012, we had #40—across Marin.

"Biggest thing to stress is that this wasn't our project—it was a community project. We just organized the logistics ;-)"

MK: How did you come up with the MAS (Marin Adapted Survivor) concept? And why?

BB: "It is being promoted by beekeeping communities across the country. In Marin, we've been talking about it for several years and M.E.A. McNeil Draper and Jerry Draper have pushed to develop local survival stock (they have been running Draper Farms, a local Community Supported

Marin Adapted Survivors *continued*

Agriculture (CSA) garden and are also founders of SuperOrganism (www.superorg.org); it should also be noted that M.E.A. is also a very illustrious author for ABJ). Additionally, individual beekeepers have promoted it even longer—like Dan Stralka. And there were attempts at promoting and sharing local stock, but these had their limitations, the biggest of which was having a source large enough so that anyone who wanted bees was able to have access to them. Everybody was talking about the importance of local stock (from untreated queens) but it's a big jump from talking about it to making it a reality. That's why we started Bonnie Bee & Company. Our goal is to ensure that anybody who wants local stock can order it—like they can packages and nucs from outside the county—and have the confidence that they would receive it."

"It was important to us because beekeepers in Marin have been experiencing higher than national average losses. Since we started doing an annual Marin Beekeepers census survey in 2009, our annual losses have ranged from 39% - 53%. Overall, during the study period, early season swarms and splits from local beekeepers have experienced greater survival rates. By using queens from locally-adapted stock (and in the long term, goal is to use all local bees), we hope to help increase local bee survival rates."

MK: What was your approach for sharing and explaining this concept to area beekeepers?

BB: "The concept was not new to area beekeepers—it was what they had been waiting for. A bigger leap was convincing people that we would be able to deliver. Frankly, it was an audacious step for us. We really didn't have the experience to know that we could be successful. But we never considered failure (on delivering bees that people had ordered) an option."

MK: Your primary location is considered urban residential. Knowing that the urban nature of your immediate area limits apiary size, what concepts and strategies did you have to negotiate the establishment of your rearing yards? In other words, what is your process for researching resources? For locations of cell builders and mating nucs, for stock, for brood for the nucs, for technical assistance, equipment?

BB: "For everything…"Seek and ye shall find." When we asked for help, we started finding it. Once you know what you need, it makes it easier to find.

#1: We needed frames of bees for the nucs. Locally sourcing was an option—but too time consuming because no source for large numbers so it would have been a logistical nightmare. Also, the health of those bees was a concern. We turned to Randy Oliver. Ultimately, 80% of the nucs produced were done using frames of bees from Randy and his sons.
#2: We needed local queens. We are relatively new to grafting, and though we intended to try to raise our own, we needed a backup plan. Initially, Randy was our backup plan and he agreed to help if we brought breeders to him. Fortunately, those fine folks from Zia Queen Bees agreed to relocate for a couple of weeks to help with the project.

#3: Equipment: just started researching options. Because of potential for heavy rains and cool

Marin Adapted Survivors *continued*

conditions at mating yards, we preferred not to use cardboard nucs (though cheaper). Not a fan of plastic, so those were out. Ultimately, we went through a local beekeeper who wanted to place a large equipment order and had researched options directly through mills, we found a great deal on woodenware.

#4: Technical assistance: Read a lot!!…Rereading notes from workshops with Sue Cobey, Randy Oliver, and others. We had scheduled a vacation a couple years before that turned out directly before we would start grafting (we had no idea when we initially planned our vacation then that we would be into bee time). We took Larry Connor's "Queen Rearing Essentials" and Laidlaw & Pages' "Queen Rearing and Bee Breeding" books with us. We talked to beekeepers (everyone has a slightly different take —which can be both helpful for giving options, and can sometimes be overwhelming).

Marin spring mating nuc yard.

#5: Mating yard location: we knew what we needed —relatively isolated areas that could accommodate a lot of bees and have good access. Believe it or not, in our neck of the coast—it is not an easy order. Our primary mating yard was found after talking to a student in one of our classes who connected us with the Solstice Grove Institute. We met with them and discussed what we were trying to achieve and they agreed to host the yard in exchange for beekeeping classes and some honey. Two more yards were offered later by another landowner in Marin. The mating yard locations were important because it enabled us to have greater control (even if not perfect) over drone population. West Marin is less densely populated, so less beekeepers overall. Also, in March, drones that were out there (that weren't in nucs or from colonies we brought to the area) had successfully overwintered. When it came time to delivering nucs to customers, we selected queens for each based on the microclimate of their area. We wanted to return the queens to the areas where the mother stock had done well.

#6: Cell builder locations: This was really up in the air until the final days of organization. Ultimately, it was decided based on proximity to breeders, proximity to major roads (and time for transferring queen cells to mating yards), and, perhaps most important – other beekeepers willing to let us use their hives to set up cell builders."

MK: How did you define and select your nominated breeding contenders?

BB: "This was difficult for the first year. We knew we didn't have enough stock to select all breeders

Marin Adapted Survivors *continued*

(ultimately, used 1 of our colonies for grafts in larger cell builder—for queens to go into nucs for customers and also personal stock , and 3 colonies for Randy Oliver style small cell builders used primarily for increases to our personal stock and potential future breeders). Problem for year one is that different beekeepers keep different records (or some, not so good at all), so much of our selection protocol outside our own stock revolved around anecdotal reports, and experience working with other beekeepers and their bees.

Also, because of the different microclimates in Marin, we wanted to select breeding stock from different areas. Marin climates vary considerably—from the south—just north of the Golden Gate Bridge where fog creates cool conditions and moisture (think redwood trees) than enable long bloom times and forage for bees—to the north, with oak woodlands and dry summers with a longer dearth—to the coast —with wind, fog and more limited bloom periods and plants."

M: How did you coordinate your locations for cell building and mating?

B: "With a lot of spreadsheets and sleepless nights ;-)"

M: What cell-building styles did you implement and any preferences? Can you also describe the "Oliver-style" cell-building/queen rearing nuc and the walk-away splitting concepts?

B: "We had two different goals with the queens: 1) Select 3-4 breeders (preferentially from 2yr + untreated colonies) to use for queens used in nucs sold to customers, 2) Select stock (often only 1 year untreated survivors) to create a few queens primarily for our apiaries and a few select other beekeepers to observe and potentially use for future breeders.

For us, it was important from the beginning to use a technique that could be easily replicated. So, no special equipment (like incubators), we wanted to use what we had. (We are also incredibly low tech people—just look at our website.)

For the breeders to graft queens for bulk nucs, the cell starter/finisher works well with who we are—we just want to set it up and let the bees do what they do best. As such, we learned not to overlook the little things to give the bees the best chance to make great queens—especially, keeping hives warm by putting insulation on top/under hives and reduced entrances. Observing differences in hives with/ without these simple additions made big difference in % build out of queen cells.

For stock we were looking to graft only a few queens from, we used a modified technique Randy Oliver showed us in a workshop he conducted for Marin Beekeepers the year before. In this, he basically takes a 5 frame split, provides plenty of nurse bees, leaves the split queen-less for half a day, then grafts from that colony into" press in" queen cups and puts the cups back into the colony. This worked great on our small scale because we could take splits from participating beekeepers and bring them back home (or other locations). Then, at the end of the day, we could graft. We put up to 10 cups into these splits and got up to 80% take. Beekeepers providing the splits either donated them to us (and we gave them new frames to replace theirs), traded them for other stock from us, or we took two splits and returned one after it was queen-right and kept one. This really was a great way to conduct our queen rearing on a small scale! And it is also a great way for people to start trying to graft/raise queens."

Marin Adapted Survivors *continued*

M: What is your preferred grafting style, or process?

B: "Grafting style: leave bees queen-less for a while (preferably at least a ½ day), find a dark place (or not too dark), that's not too dry. Have wet towels ready, and go for it! (Crossing fingers and saying nice things to the bees seems to help, too.)

Keep good records! Write on bars or use different colored cups to keep track of different breeders. Wait 2 days, check grafts. Didn't take? Do more…

M: Any projected outcomes and future plans for Marin Adapted Survivors?

B: "Initial results were good. Goal was to produce 80 queen cells—we produced 120. "Extras" were shared with beekeepers who participated in the project (by setting up cell builders, providing breeder stock, trading stock, etc.). All in all, this 2012 production season, we produced 80 nucs."
2012: made 80, sold 50
2013: made 120, sold 80
2014: forthcoming

Bonnie concluded this interview by saying that they, "have heard of some success stories (low mite loads relative to other bees) and some failures (high mite loads). Long term plans include developing specific selection protocols—and sharing with other beekeepers—so that breeder selection is standardized. We also want to expand on selecting and breeding bees from different microclimates of Marin County."

M: Any "Shout-Outs" that you would like to extend?

B: "Small scale projects, like this, for developing local stock are not the work of individuals, they are the work of committed communities.

• Couldn't have done it without Melanie Kirby and Mark Spitzig. Their dedication to local breeding programs and willingness to share their knowledge is inspirational. We include Randy Oliver in that as well. He is very generous with his time and knowledge.

• Wouldn't have done it without leadership of MEA McNeil Draper, Jerry Draper and Dan Stralka, and the Marin beekeepers who have led the push for Marin Beekeepers to develop local survivor stock.

• Thanks to customers who believed in the project enough—and us—to order bees from us in our first year. It wouldn't have happened without their support.

• AND Big kudos to all the local beekeepers willing to share their time and bees this spring to make it happen, including, but certainly not limited to Richard & Karen Hyde, Rob Tysinger, Anna Taylor & Bob Gravely, Astrid & Matthew Hoffman."

Bonnie and Gary plan to continue their Marin Adapted Survivor Program, and we wish them the continued stamina and success in this much needed and appreciated venture. It is great to work alongside our neighboring beekeepers in conjunction with Mother Nature.

Learn more about Bonnie and Gary Morse's work at www.bonniebeecompany.com. Email: bonnie@bonniebeecompany.com and gpmorse@comcast.net.

To Weather THE WEATHER Part II: 2014 Forecast

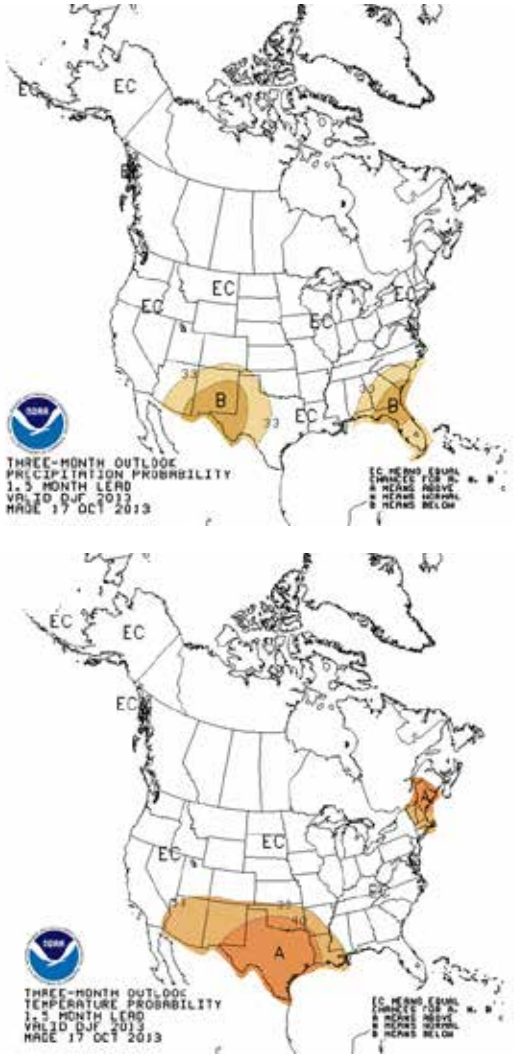
by Melanie Kirby

"Some are weatherwise, some are otherwise."
—Ben Franklin

This is the second part in a three part series on weather as it affects bees and their keepers. The first part (Modern Beekeeping December 2013 issue) discussed the phenomenon of weather and forecasting. This second part discusses the winter forecast for these next couple of months and what can be expected for spring 2014 by region. And next month, the third and final part will conclude the discussion with what beekeeping management strategies, immediate and long-term can be researched and implemented for the coming year.

As we all know, weather, regardless of the season, impacts hive activity and can be a huge factor in the success and sustainability of bee colonies; even when you're managing all other variables adequately and to the best of your ability. This month we look at the latest weather models for insight into what the weather predictions hold for December 2012 through February 2014. Following are forecasts from a selection of weather forecasting sites for review.

According to Todd Crawford of Weather Service International, the **Northeast** can expect an extended cold in late winter. The **Southeast** will experience below average temperatures, particularly in the early winter. The desert **Southwest** and **South Central** states can expect warmer than average temperatures (depicted below in the National Oceanic and Atmospheric Administration (NOAA) maps).



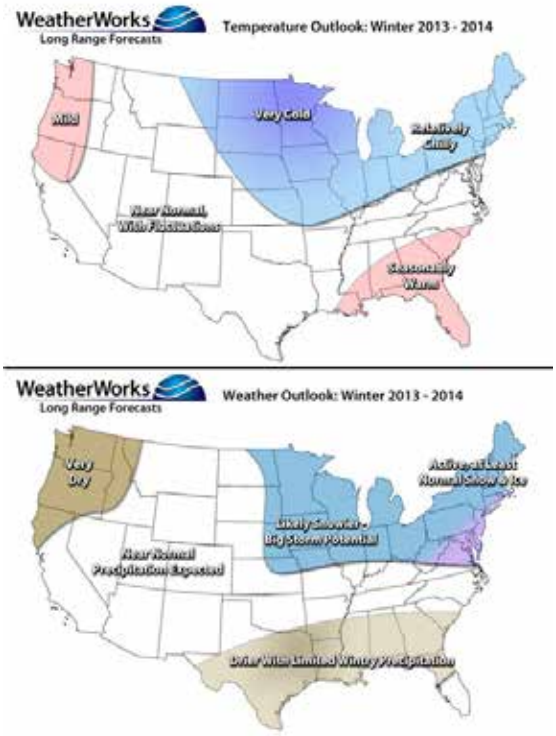
Maps from the National Oceanic and Atmospheric Administration (NOAA).

WeatherWorksinc.com reports: "By the time we head into January, the winter season should really start to ramp up and persist into most of February. A combination of favorable atmospheric and oceanic circulation patterns along with support from several "analog" or "similar" years indicate that below normal

To Weather THE WEATHER *continued*

temperatures along with a more active storm track will be the rule. This combination could set the stage for several big winter storm events up and down the East Coast, especially from late January into most of February.

The maps below are based on a combination of the factors listed above along with both subjective and objective modifications to account for atmospheric teleconnection patterns. Below the maps is a list of take-away points for the upcoming winter.



Expected Temperature Patterns:

• Cold Outbreak likely for the eastern-third of the nation from October 25th through November 8th—with a good chance for a pre-winter snow event

• Relatively cold conditions are expected in New England—with the greatest departures likely from mid-January through the end of the season

• Near to slightly below average readings for the Mid-Atlantic, overall—with colder fluctuations possible late in the year

• Much colder than normal conditions across the Midwest should persist for the better portion of the winter

Expected Precipitation Patterns:

• Becoming active across the Mid-Atlantic, Northeast and New England, especially during the second half of the season

• Best potential for significant or widespread snowstorm / nor'easter will exist from late January through most of February

• Very snowy across the High Plains / Midwest, with the potential for several big storms throughout the entire season."

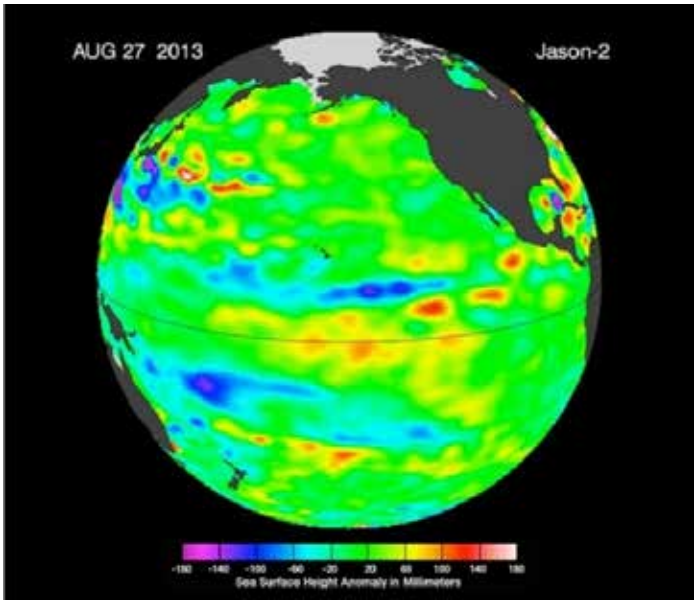
Spring 2014 Forecast Predictions

(From NatureWorldNews.com) An ongoing period of near-normal sea surface height conditions across the equatorial Pacific Ocean, called "La Nada," will likely continue until the spring of 2014, according to the National Weather Service's Climate Prediction Center. The condition has been in effect since spring 2012 and represents something of a conundrum for forecasters.

"Without an El Niño or La Niña signal present, other, less predictable, climatic factors will govern fall, winter and spring weather conditions," said climatologist Bill Patzert of NASA's Jet Propulsion

To Weather THE WEATHER *continued*

Laboratory, Pasadena, Calif. "Long-range forecasts are most successful during El Nio and La Niña episodes. The 'in between' ocean state, La Nada, is the dominant condition, and is frustrating for long-range forecasters. It's like driving without a decent road map—it makes forecasting difficult."



The latest image of sea surface heights in the Pacific Ocean from NASA's Jason-2 satellite shows that the equatorial Pacific Ocean is now in its 16th month of being locked in what some call a neutral, or "La Nada" state. "La Nadas" make long-range climate forecasting more difficult due to their greater unpredictability. Yellows and reds indicate areas where waters are relatively warmer and have expanded above normal sea level, while blues and purple areas show where waters are relatively colder and sea level is lower than normal. Green indicates near-normal sea level conditions. (Photo : NASA-JPL/ Caltech/Ocean Surface Topography Team)

During the past several decades, roughly half of all years have experience La Nada conditions, in comparison to 20 percent for El Niño and 30 percent for La Niña, according to NASA. And while La Nada may be considered something of a neutral in-between, Patzert notes that some of the wettest and driest winters can be attributed to it.

"Neutral infers something benign, but in fact if you look at these La Nada years when neither El Niño nor La Niña are present, they can be the most volatile and punishing. As an example, the continuing, deepening drought in the American West is far from 'neutral,'" he said.

Sea surface height is partly a result of temperature: as the ocean warms, levels rise and vice versa. Meanwhile, the temperature of the upper ocean can significantly affect both weather patterns and climate. For this reason, NASA officials say they will keep an eye on the persistent La Nada event in order to determine what role the Pacific Ocean may play in the world's climate over the next several months."

Predicting what is to come is a difficult thing to do, regardless of the industry. Weather forecasting is a challenging task. Beekeepers can be assured that learning to research and "read" one's local conditions, is necessary. We can be thankful that there are various agencies and programs that develop and share the weather forecast; helping to decipher the potential "what-ifs" by presenting opportunities to stewards for brainstorming where, what, how and when. Beekeeping, like Mother Nature, is dynamic-it changes with the seasons, and with each passing day of weather. Bee stewards will find that their management styles must also be dynamic in order to be pro-active and flexible. This flexibility is what we will discuss in next month's issue along with researching seasonal management techniques in the conclusion to this three part article on how To Weather THE WEATHER.

Melanie Kirby serves as the editor for this newsletter. She has been keeping bees professionally since 1997 and is a survivor stock queen honeybee breeder based at 8300 feet in the southern Rockies.

Pollinator Programs: Who, What & How You Can Help

For the next few months we will share info on various non profit pollinator programs. Though listed in this newsletter, **Kelley Beekeeping** does not endorse any single program over another; but rather wants to share their information so that readers can decide if they would like to learn more and help support these programs. If you have a nonprofit pollinator program that you would like to share information about, please send your submission to Editor@KelleyBees.com—subject header: nonprofit pollinator program.

Pesticide Action Network North America

Pesticide Action Network North America (PANNA) works to replace the use of hazardous pesticides with ecologically sound and socially just alternatives.

As one of five **PAN Regional Centers** worldwide, they link local and international consumer, labor, health, environment and agriculture groups into an international citizens' action network. This network challenges the global proliferation of pesticides, defends basic rights to health and environmental quality, and works to ensure the transition to a just and viable society.

PANNA (Pesticide Action Network North America) is helping to create a domestic Fair Trade movement to support family farms and guarantee living wages and safer conditions for farmworkers. Our commitment is to a truly green revolution, one that includes not only a sustainable agriculture, but most important, expansion of human rights to food, justice and self-determination. For more information on **PANNA**, visit: www.panna.org.

Project Apis m.

Project Apis m.'s mission is to fund and direct research to enhance the health and vitality of honey bee colonies while improving crop production.

PAm is the go-to organization at the interface of honeybees and pollinated crops. **PAm** has infused over 1.5 million into bee research since 2006 to provide growers with healthier bees resulting in better pollination and increased crop yields.

Project Apis m. is a non-profit 501 (c) (5) organization governed by a nine-member board. Our board members are beekeepers representing the major national and state beekeeping organizations. Four scientific advisors review research proposals and provide recommendations to the board.

PAm's current 2013 research projects include 14 projects being undertaken at 12 different research institutions across the U.S. Research studies for the year total $340,151. For more information on **Project Apis m.** visit www. http://projectapism.org.

Pollinator Programs *continued*

Pollinator Stewardship Council

The mission of the **Pollinator Stewardship Council** (formerly known as the National Pollinator Defense Fund) is to defend managed and native pollinators vital to a sustainable and affordable food supply from the adverse impact of pesticides.

As pollination is required for one-third of the nation's food supply, we strive to accomplish our mission by: Ensuring that State Lead Agencies and US EPA enforce regulations to protect pollinators from pesticides, as mandated by FIFRA.

- Using multiple strategies, including litigation and legal petitions, as well as technical support for managers of pollinators who have suffered damages to their beekeeping operation caused by pesticides.
- Providing advocacy, guidance and tools for beekeepers to defend their bees from the detrimental effects of pesticides.
- Raising awareness about the potential adverse impacts of pesticides on pollinators important to the supply of food and the ecosystems that support them.

For more information on the **Pollinator Stewardship Council** and how you can help, visit: http://pollinatorstewardship.org

Kelley Nation

Your Story Is Our Story

At **Walter T. Kelley** we believe it is our customers that have made it possible for us to be celebrating our 90th year in the beekeeping business in 2014. As part of our celebration, we feel it's only appropriate that we launch a new section in our **Kelley Beekeeping** newsletter called **Kelley Nation—Your Story is Our Story**. Similar to our **Beekeeping Spotlight** section on our website (www.KelleyBees.com), this section celebrates YOU, the beekeeper, and invites you to tell your beekeeping story.

If you are not aware, one of the features of our new website is our **Beekeeper Spotlight** section. In this section you'll read stories from new beekeepers, hobbyists, sideliners and commercial beekeepers. They share information on how they got started in beekeeping, where they ran into trouble, what it was like when they got started and how they're expanding the beekeeping community through mentoring and association involvement. You'll also read about how their beekeeping experiences and activities has allowed them to start new hobbies, create new revenue streams, and simply enhances their daily lives. It is our hope that by sharing your stories with the **Kelley Nation**, potential new beekeepers visiting our website for the first time will be inspired to enter this world that we find so fascinating, challenging and rewarding; and that those that have been doing this awhile might read your stories and see opportunities to increase their # of colonies, to fund their hobbies, and to grow their beekeeping or honey producing businesses.

So in this, the inaugural article of, **Kelley Nation—Your Story is Our Story**, it is with great pleasure that we introduce **Peter and Laura Cheney** from New Jersey to the **Kelley Nation**.

Peter and Laura Cheney, beekeepers.

Peter & Laura Cheney, New Jersey, U.S.A.

An active beekeeper and current President of Central Jersey Beekeepers Association, Peter Cheney is carrying on a family tradition of beekeeping that began in northern Spain in the early 1900s. His wife, Laura Petrovich-Cheney, has loved bees since grade school. All of her science projects were honeybee related. Throughout the years, Laura has collected bee trinkets—jewelry, candlesticks, and dishware. Realizing that they shared a unique love of this little insect, Laura and Peter decided to become beekeepers when CCD started making news. They hope to help save the world one honeybee colony at a time.

After his retirement in 2006 from public education, Peter advanced his formal knowledge of the craft through courses at Rutgers's University. First, the Cheneys started with two colonies. They now have four hives in their backyard. The hives produce approximately 200 pounds of honey a year. The honey is sold at local shops near their hometown in New Jersey.

As an artist, Laura uses the beeswax for encaustic paintings. Encaustic painting is one of the world's oldest art forms. The earliest applications of encaustic wax paint were done by the artists of Ancient Greece.

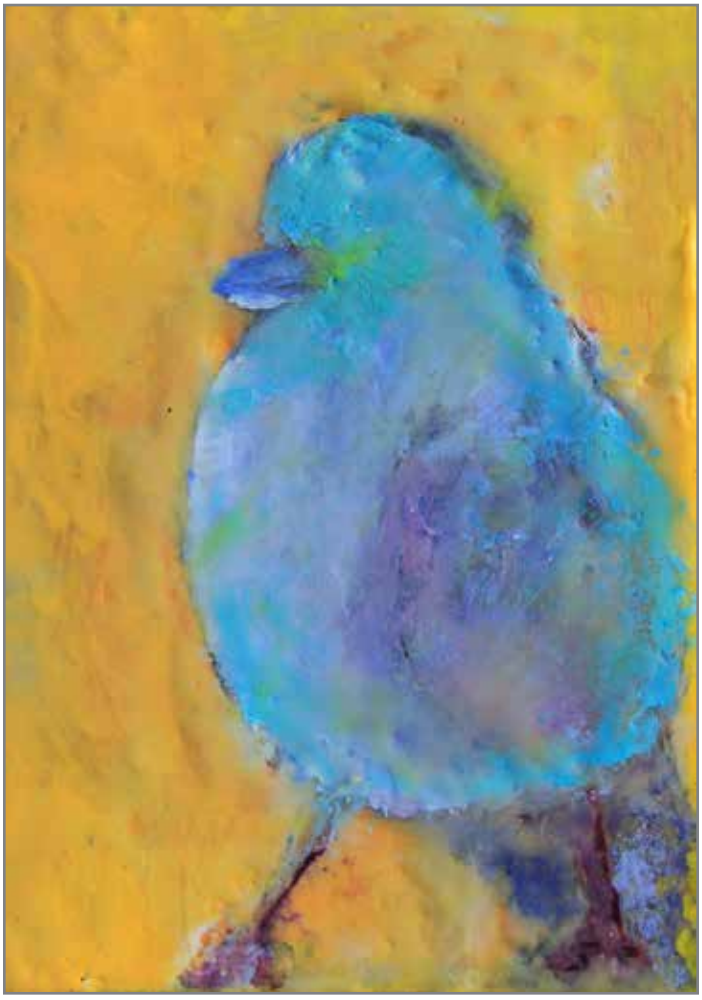
Your Story Is Our Story *continued*

The word 'encaustic' comes from the Greek word enkaiein, which means "to burn in." Encaustic painting involves using heated, liquid beeswax to which colored pigments, such as oil paint and oil sticks, are added. This mix is then applied to a prepared wooden surface. Metal tools and special brushes are used to shape the paint before it cools, and a heat gun is used to manipulate the wax once it has cooled onto the surface. Unlike other paints, encaustic is never wet or dry—it goes from a liquid to a solid state and back again in seconds, allowing additional layers to be added immediately.

This year, Peter and Laura are trying to make natural salves with the beeswax and herbs from their flower garden.

Over the years, Peter and Laura have their share of swarms. In fact, one day, while walking the dog, Peter ran into a neighbor. This neighbor had a clear view of their backyard. He had commented on how lovely it was to see bees doing a spring dance in the yard. Peter asked him what he meant. The neighbor went on to describe how the bees came into the middle of the yard and then began swirling around like a magical, dark tornado. The neighbor then mentioned that bees quietly gathered together like a ball on the tree in the yard. Peter hastily said good-bye to the man, ran home, suited up and captured the swarm before anyone was the wiser.

After keeping bees several years, Peter and Laura have become more sensitive to the rhythm of the seasons than they ever were before. In addition to beekeeping, they keep large gardens of vegetables, native bee-friendly plants, a butterfly garden, and fruit trees—to show a spirit of solidarity for a more humane and habitable earth.



Bluebird, a painting by Laura Petrovich-Cheney.
See more of her artwork at www.lauracheney.com.

If you are interested in sharing your story, please contact Melanie Kirby at Editor@KelleyBees.com

The Evolving Beekeeper

Forward Into the Past

by Phill Remick

"We can't solve problems by using the same kind of thinking we used when we created them."
—Albert Einstein

It was 1968 and my new hive had arrived by truck shortly after dark. I decided the most advantageous placement would be an out of the way spot with excellent visibility and an unobstructed flight path. Where did I place it? I hoisted the two-story, shiny silver Langstroth hive—wait for it—onto my roof!

Never considering the possibility of high winds, I attached a large, black golf umbrella to the side of the structure to protect it from the sun, neglecting to anticipate the tremendous amount of direct heat radiated off the red-hot asphalt roof were it was situated. Oops.

Unfortunately I did not have a clue. How many of us start our beekeeping excursion in a similar fashion? While today's newbies may still get off to rocky starts, the beekeeping industry has gone through changes in the last 45-50 years: some of it good, some of it bad…a lot of it very rocky.

You Could See Forever

In the early 70's I vividly recall driving through open fields of wildflowers, orange grove after orange grove in southern and central California—the awesome fragrance almost melting my nose with olfactory delight. Where are all those orange groves now? Oh, there are a few highly coveted groves, saturated with honeybees in season, but nothing like there was. Some of golden state's most famous landmarks now appear where the beautiful, fragrant groves once stood.

Today, out of state migratory beekeepers can rent fields to put their bees in, if they can find them. So much land has been paved over for parking lots and condos that open forage for bees is harder and harder to find.

When It's Gone Its Gone

Even in the 70's our abundant American agricultural heritage was anchored by family farms which kept their crops rotated, fostered plant diversity, didn't spray every weed in sight, and of utmost importance possessed their own livestock. Livestock grazing in open fields meant no need for synthetic, toxic fertilizers. Scientists claim these synthetics can linger in soil for decades. Wonder if there are any vintage synthetic fertilizers from 1975 still lurking in the depths of county water systems? I sense the specter of Rachel Carson, who in 1962 warned of the impending pesticide problems impacting our planet.

With today's rapid-paced urbanization, beautiful wildflowers, beneficial weeds, and the majority of natural habitat have been plowed under thus destroying safe havens and often voiding the

Forward Into the Past *continued*

future of millions of native pollinators across our country. It is a classic example of monoculture. Yes, 'monoculture' is one of the culprits at work in the demise of the honey bee.

In a 70's a pamphlet describing California beekeeping approaches, it actually declared that in some situations, it may be advantageous to eliminate cover crops in orchards to lower competition (between bees for nectar) and reduce the pesticide damage risks. Monoculture was advocated in the 70's and has increased over the years with urbanization and corporate farming practices.

Pollination Practices

Pollination prices ranged from $10-$25 per colony for almond pollination in the San Joaquin Valley in the early and mid-1970's. Today the prices are rolling up to over $200 per colony. If this price seems outrageous, I believe that most of us understand that simply keeping those colonies alive to arrive in today's almond orchards is a major financial and physical accomplishment.

The standard pollination practice of the mid-70's was four frames of bees and a laying queen per colony. For alfalfa seed production the minimum level was at least nine frames of bees and 600 square inches of brood with placement of two hives per acre. The standard set for almond pollination is a bit different now; some growers want more or less bees per acre. For the record, a frame must have 4 to 5 bees per square inch of ¾ of the frame surface. Both sides then qualify as a frame of bees.

Most spray outfits did their best to notify beekeepers of pending pesticide applications, although too many times there simply was not ample time to move threatened colonies. There was also the errant, uninformed neighbor who would spray with total disregard for the honey bees close by. I imagine that this predicament still holds today.

A grove of almond trees in California.

Get Back to Where We Once Belonged

In the 70's there was a USDA subsidy program in California reimbursing beekeepers for pesticide damage. At that time, I happened to be a member of the Fresno County based apiary inspection team working the entire San Joaquin Valley which dealt with many of these issues. A dollar figure was placed on minor, moderate or severe damage to the colonies. Reimbursement was meager compared to what could have been gained financially by beekeepers if their hives had been maintained at maximum strength.

Forward Into the Past *continued*

Obviously, the loss of the field force - about 1/3 of the bees, was devastating to any beekeeper - at least in the short term. Often many beekeepers hauled home empty boxes, forced to write off the balance of the season for some hives.

So much seemingly indiscriminate spraying transpired that it became difficult to anticipate the scope of each toxic event.

It All Began with DDT

The Organophosphate chemical group containing classic killers like Diazinon, Malathion and Parathion that were terminating pollinator's lives in the 70's are still in use today. These are just some of the regulars in the killing fields in which honeybees forage.

Today, the EPA claims there are well over 350,000 pesticides: chemicals that defile the environment, pollute our aquifers and terminate our priceless pollinators. Why has pesticide use expanded over the years? Pesticide business is a $12.5 billion industry in our country. Today, the EPA estimates over 1 billion TONS of pesticides are applied every year in the U.S. Follow the money.

Neo What?

Today, there are even more pesticides, fungicides, insecticides and acaricides. The newer chemical killers on the block are in the lethal Neonicotinoid category. These toxins are systemic - exhibiting high toxicity where the seeds base is coated by powerful, destructive Neonics. The entire plant becomes deadly to any creature that dare nibble or sample its nectar. It's crucial to bear in mind our beloved honey bees also pollinate weeds (which have been sprayed). These weeds in turn provide food for birds and other critters. Neonicotinoids are also found in flea collars for pets.

Currently, orange growers face yet another pest; the Asian Citrus Psyllid Moth. How will future attempts to eradicate this uninvited guest affect the fragile honey bee? Over 200 million acres are treated in the US with neonicotinoids. Imidaclorprid, Clothianidin and Thiamethoxam all are Neonicotinoids which may be applied in what are known as soil-drench applications to control the Asian Citrus Psyllid Moth. Picture this soil-drenching procedure for a moment. These types of Neonicotinoids are water soluble so one must wonder where the poisons will flow off to once the soil has been drenched or flooded with these carcinogens: the municipal water supply, ponds, lakes, your well or my well.

Is CCD a New Techie Device?

Colony Collapse Disorder did not exist in the 1970's and as we all know, it is far from techie. People often ask me, "What happened to all the bees?" I tell them to observe the multitude of weekend warriors armed with hand-held sprayers loaded with Glyphosate (Roundup). In some cases people are spraying just to spray, believing the only good weed is a dead weed. Sadly, one of the primary targets of these toxins is the delightful dandelion - one of the honey bee's favorite nectar sources. Even in the 1970's people would enjoy dandelion greens in salads and use the leaves to help eradicate toxins from their systems. Now, unless the plant is certified organic, if you ate any part of a dandelion, you could be putting toxins INTO your system.

Forward Into the Past *continued*

The Mighty Mites

In 1984, tracheal mites were spotted in the United States. These troublesome mites (which can only be spotted using a microscope) spread rapidly due to migratory operations, queens being sold and shipped all over the United States, nucs with mites and packages arriving with mites already on them.

In the 1970's there were no Varroa Destructor mites. There was no lengthy discussion of small cell size, starter strips or those almost 'glow in the dark' plastic green drone comb frames to inhibit the Varroa invaders. Today, mites are rampant and coupled with the high use of pesticides; the kill rate of bees is only increasing.

AFB Outsmarts Us All

In previous years, the paramount issue was American Foulbrood which was treated and justly so, like the plague. In the 1970's if apiary inspectors found AFB in your hives, it was a simple process: red tag the hive, gas it with cyanide and contact the owner who was given a time frame in which to remedy this foul situation. The bees were killed, all the frames/comb burned, supers/lids/bottoms could be spared if rendered in lye water or scorched with a blow torch.

That's when Terramycine, or 'TM' was adapted; it effectively masked the symptoms of AFB. Even though AFB has been around forever, if treated on a consistent basis, TM was effective until the colony developed a resistance to it. Foulbrood?? What Foulbrood?

On a related note: two chemicals whose toxicity is increased by TM are Coumaphos and T-fluvalinate which are present in some mite control products.

Give me an 'A' Give me an 'H' Give Me a 'B'. What's That Spell?

The highly aggressive Africanized Honey Bees were relatively new phenomena in the early 70's. Now they are commonplace. With multiple reports of attacks resulting in human and pet death, the AHB is a terror that the uninformed, unfortunately often associate with our mild mannered honey bee. This stereotypical response has cast a pall on normal honey bees, but makes for sensational news stories and ridiculous, although terrifying movies.

AHB's are renowned for aggressive behavior and their unusual nesting locations bees. AHB's seek out cement walls, abandoned cars and even old mailboxes (special delivery!) The average honeybee prefers larger areas to set up housekeeping.

Today, AHB's are common in many areas of the south and southwestern corridors of the US.

Show Me the Honey!

The average price of extracted honey in 1973 was near .49 cents per pound wholesale. I recall delivering several tons a few years later and thinking, "Wow, $1.09 a pound! What will I do with all this disposable income!?"

I was a member of the Valley Honey Association in Stockton and was thrilled to unload that big batch. There was just one slight snag. I could never get payments in full since it was a coop. Disbursement averaged out over the year or sometimes longer. Oh well. Today the average honey price is about $2.09 per pound wholesale.

Recently two honey processors and five other people were charged with federal crimes regarding the illegal importation of honey from China. This product often contained illegal and or unsafe antibiotics. This honey was so ultra-filtered there was zero pollen in it. Zero pollen means there was no way to verify its nectar location. In the last few years honey has also been adulterated with High Fructose Corn Syrup. The practice of substituting HFCS for honey has become

Forward Into the Past *continued*

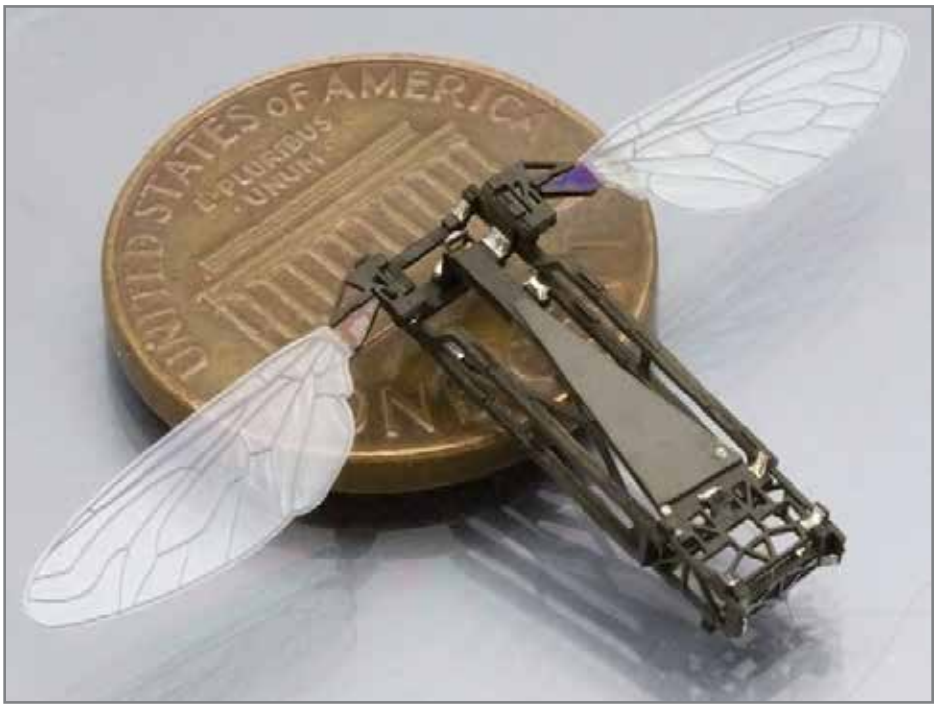
so bad that often there is little honey in the jar at all. The flooding of U.S. markets with this junk honey obviously has had an adverse effect on our honey prices.

The U.S. produced about 145 million pounds in 2012 of the more than 400 million pounds of honey consumed. We rely on imported honey from Argentina, Brazil and Canada among other countries to make up the deficit.

While 45-50 years ago we did not import so much honey, we also did not sell HFCS and call it honey. Who knew then that honey would become a commodity that could become big business for crooks?

A Chicken in Every Pot, a Beehive in Every Backyard?

With the dramatic rise of urban beekeeping comes its own set of issues. You've seen the ads, showing the chic garb for newbies; multi-colored coveralls versus the traditional 70's choice of drab white.



A robotic bee developed by Harvard students.

Just like the change in garb, I also sense a real lack of long term commitment from some of today's newbies. A large segment of them have never attended a class because in their estimation they don't need to. I often hear or read comments like this: "Beekeeping is so simple, set them and forget them. Why spend money on lots of equipment? Besides, I'm not sure I like bees that much… but right now, I want to help save them".

So they acquire an online blueprint for a hive, build it with the cheapest materials possible and slap a swarm or package bees into the box. What could BEE easier? Monkey-see, monkey do: just like their misinformed neighbor/mentor. That is until the bees swarm, sting a pet or child, develop a disease, become queen-less, notice the hummingbird feeders are always full of sugar or start pestering the neighbors in their pool.

I joke with a friend of mine who sells packages of bees to give me the addresses of these new folks who don't have a clue. I want to catch all their swarms! Joking aside, I know full well that without proper management skills their investment, time and honey bees will SOON be a bad memory. Sadly many get very discouraged and give up beekeeping entirely. What a waste of time, bees, money and potential.

Welcome to the Future

In the 70's people read LOTS of books to acquire knowledge. There were no YouTubes by every newbie 'expert' touting their approach to beekeeping; right or wrong (usually the latter). Yes, friends you too can become a REAL beekeeper in just a few short minutes! We did not have online resources for learning the skill of beekeeping…(There was no line at all) or from which to order our fancy new equipment.

In 2013 we possess new hive tool designs, frame grips, frame holders, spacing tools and polystyrene

Forward Into the Past *continued*

beehives. Queens are available year round, even if they are shipped in plastic queen cages. I prefer the biodegradable, 'outta sight', non-gaseous wooden ones.

> *"If we make the world too toxic for honey bees,*
> *Some compound brain, Monsanto perhaps,*
> *Will invent tiny robots that will fly about*
> *Pollinating flowers and making honey".*
>
> —Wendell Berry

Welcome to the future! There is now a robotic bee. Researchers at Harvard have developed a tiny drone that can flit from flower to flower. We have yet to see evidence that they can gather nectar, mate with the Queen, keep brood warm and produce delectable honey. Oh well, what do you expect from a mechanical drone?

In the 70's There Were…
No GMO crops
No GMO tanker loads of High Fructose Corn Syrup. Can you say Hydroxymethylfurfural?
No 'natural' bee repellents to remove the honey crop
No mini beehives for the backyard
No beetle traps or mite count trays
No GPS (there were far fewer satellites too!)
No beekeeping apps
No social media (the social media of the 70's was CB radio, '10-4 good buddy'!)
No welcome mats with bees on them
No powered two frame extractors (bummer!)
No plastic pollen traps
No EPA. Wait, Wikipedia claims the EPA came into existence in 1970, but most beekeepers are convinced they never really existed. I know, you're thinking, "Wow man, that's heavy"

Beekeeping in Bell Bottoms
I have to admit that I usually go to the bee yards in a t-shirt, jeans, hat and veil, no gloves. I am not fashion conscious when it comes to beekeeping (and my wife will say I'm not fashion conscious when it comes to anything else!)

So, it is with wonder and a smile that I also note the difference in beekeeping garb and accoutrements in 2014…

Ventilated or breathable 2 X bee suits in assorted colors
Custom couture beekeeping hats and veils
Custom designed tool boxes for beekeepers
Cute 'Little Beekeeper' key chains
Cell phones with which to order pizza from the bee yard (far-out!)
Shop anytime day or night for bee supplies with your mobile device
Beeswax based lip balm kits
Plastic bee stick pins
Honey bee ornaments
Bee earrings

How did we ever survive in the 70's? How did our forefathers ever develop large beekeeping businesses from their buckboards? Now, it is de rigeur to follow or tweet fellow beekeepers. Remember when only commercial beekeepers had refractometers?

I know it will make me sound old school, but it used to be that nobody whined about the weight of a heavy super and began cutting their equipment down from standard Langstroth ten frames to eight frames. Funny, but once upon a time more frames used to mean more honey, which usually meant more money!

You get the point. I could continue but, I'm behind on my tweets and texts, the Tivo is loaded with shows to view on my new 60 inch flat screen, I 've got 15 new friend requests on Facebook, and my latest selfie like totally needs to be posted, Dude.

Phill Remick is a beekeeper in Albuquerque, New Mexico. To contact Phill and learn more about his work, visit NewBeeRescue.com.

UPCOMING EVENTS

January 2014

Walter T. Kelley's Beekeeping 101 Class
Saturday, January 4, 2014
807 W. Main St, Clarkson, KY
Class size limited to 50.
Register now at: www.kelleybees.com

American Honey Producers Association Convention & Tradeshow/ American Bee Research Conference & American Association of Professional Apiculturists
January 7-11, 2014
Omni San Antonio @ the Collonade,
San Antonio, Texas
www.ahpanet.com/?page=AHPAconvention

American Beekeeping Federation Convention & Tradeshow/ NA Beekeeping Conference
January 7-11, 2014
The River Center, Baton Rouge, Louisiana
www.nabeekeepingcomference.com
Kelley's will be attending so pre-order today!

New Mexico Beekeepers Association
January 17, 2014
1st Presbyterian Church Downtown,
Albuquerque, New Mexico
www.nmbeekeepers.org/events/nmbka-annual-meeting

Eastern Kentucky Beekeeping School
Saturday, January 18, 2014
Hazard Community & Technical College, KY
http://perry.ca.uky.edu/sites/perry.ca.uky.edu/files/EKBS%20flyerbeeflyer%202014_1.pdf
Kelley's will be attending so pre-order today!

Mid Ohio Valley Beekeepers' Association
January 18, 2014
West Virginia University of Parkersburg
Tel: 304-375-4919 for more information
Kelley's will be attending so pre-order today!

February 2014

Walter T. Kelley's Beekeeping 101 Class
Saturday, February 1, 2014
Clarkson, KY
Class size limited to 50.
Register now at: www.kelleybees.com

ACES Auburn University 19th Annual 2014 Beekeeping Symposium
February 1st, 2014 8:00 am – 3:45 pm
Raymond J Harbert College of Business
405 West Magnolia Avenue,
Auburn University 36849
https://mell-base.uce.auburn.edu/wconnect/CourseStatus.awp?&course=C140201
Kelley's will be attending so pre-order today!

We'd love to share news of your upcoming events. Please send the event name, date, website and/or contact information to me by the 10th of each month for inclusion in the following month's issue. Editor@KelleyBees.com

You can save shipping costs by meeting us at industry meetings.
We note on our website which meetings we'll be attending, and we'd love to meet you there to deliver your equipment.