



Illinois State Beekeepers Association Bulletin

July/August 2014 Volume 97 Number 4

Letter from the President

Mike Mason

It has been an up and down season and for all of us beekeepers and it just does not seem to want to let up. Many of us are trying to rebuild from our losses which was a big blow this winter. To add insult, it seems to be one of the best nectar flows we have had in a long time. However, there were few swarms to take advantage of and our new packages or splits were not built up in time to capitalize on the long strong nectar flow that many experienced. At least in many areas of the state, the lucky ones that had good survival have been able to take advantage of this nectar flow and are reaping the rewards in 5 gallon buckets. Those of us that had some success with what did survive, can't help but think what would have been if we had better survival. Maybe next year.

There is some potential relief in the 2014 Farm Bill if you want to go through the effort and take advantage of a new federal program administered through the Farm Service Agency (FSA) which is a branch of the United States Department of Agriculture. It is called the Emergency Assistance for Livestock, Honeybees and Farm-Raised Fish Program (ELAP). This program will cover honeybee losses that occurred from October 1, 2011 to present. The program covers losses "in excess of normal mortality" due to an "eligible adverse weather or loss condition". In my discussions with the Shelby County FSA office, they deemed normal losses to be 17%. I suggest you visit your local FSA office and get details and the appropriate CCC-934 form if you are interested in making a claim. Unfortunately, if you did not receive notice, you will have missed the deadline of August 1 for losses for 2012 and 2013. However, you have until November 1, 2014 for claims on losses occurring on or after October 1, 2013 through September 30th, 2014.

As I write this many beekeepers are preparing to work the ISBA booth to sell honey ice cream during the State Fair which is our biggest fundraiser and



covers approximately half of our annual expenditures. If you have the time and come to the fair, consider stopping by to help man the booth or just eat some ice cream. Many other beekeepers are working on entries for the open class in the Illinois State Fair honey show/competition. We have three professional classes showing as well and all are working hard to bring home bragging rights and prize money for their winning entries. The biggest excitement however is watching the Governors Sale of Champions where the champion 2 ½ pound chunk honey is auctioned off. This can be quite entertaining to watch as the auction for the honey gets heated and has been the highest selling commodity several times in recent years. And that is competing with beef, pork, and dairy among other commodities. If you have not attended the State Fair, it is an experience you will not regret.

My goal was to have all my honey pulled and extracted by the end of July. Looks like I will miss that deadline but not by much. I have a long weekend which will allow me to come pretty close to that goal. I will have quite a bit of honey, but if I had only overwintered more colonies I could have taken advantage of this good spring.....



Fat Bees: Timing and Tummy Aches

by Randy Oliver

No matter how well your bees are fed, the benefit will be moot if they're unable to digest it!

Syrup Additives

Light syrup ferments quickly in warm weather. Bleach can be added to prevent this. There is scant information on the use of bleach to prevent fermentation, and the best recommendation I could find was anecdotal from some old timers, who suggested adding a cup of bleach to each 55-gal drum of syrup.

I know from experience that the chlorine outgassed from bleach is not repellent to bees, judging by how they prefer the water of hot tubs and swimming pools to all other! So I did some research as to the chemistry of bleach, and into food industry recommendations for sanitation. In short, bleach is 5-6% sodium hypochlorite in a weak solution of lye. When slightly acidified during use, it forms hypochlorous acid, which easily penetrates cell walls and oxidizes some metabolic enzymes, thus killing microbes.

The potency of diluted bleach is best measured in ppm of available chlorine. Recommendations for swimming pools are to have 2-4 ppm free chlorine; for disinfecting food surfaces 200 ppm. So how strong is 1 cup of 6% ultra bleach diluted in 55 gallons of syrup? Pulling out my calculator, I find that it is 32 ppm. However, when I purchased a swimming pool test kit to measure the free chlorine in chlorinated sugar syrup, I found that the 32 ppm figure drops progressively with time, and within 8 hours measures zero! This is for sealed containers with no outgassing of chlorine.

So I performed a simple experiment: I filled a quart jar of syrup every hour, adding bleach at 32 ppm, and immediately sealed each jar. At the end of 8 hours I had a series of chlorinated jars, from 1 – 8 hours old, plus an unchlorinated control. At that time I added 5ml of actively fermenting syrup to each jar, and placed them all in an incubator at 80°F. I expected to see a gradation of microbe growth after incubation, due to the stepping down of initial free chlorine concentrations. However, the result was that microbes grew only in the control jar. Even those chlorinated jars that showed zero ppm free chlorine by test, still completely stopped microbe growth for weeks! Apparently, the chlorine binds or reacts with the sugar in a reversible manner, and retains its germicidal qualities.

I fed chlorinated 1:1 sucrose syrup to a few hundred colonies for several weeks this summer, with great

results. The bees appeared to build up fine, and my feeder jars did not get the black growth on the insides, and rarely fermented. Fresh chlorinated syrup also disinfects jars that aren't too dirty. However, it wasn't as effective in gallon insert feeders. So adding a cup of bleach per drum (**or 1 teaspoon per gallon**) appears to work fine (although I'd sure like to see one of the bee labs test it for long-term effects).

This is a well-used feeder jar. A little bleach in the syrup keeps gunk from growing in the jar and spoiling the feed.



Beekeepers have a long history of adding questionable chemicals to syrup, and the practice still flourishes. Some beekeepers feed or dribble stronger bleach solutions in an attempt to control chalkbrood, although I can find little data as to the efficacy of this practice (although it is commonly used in leafcutter bee culture). It also appears to hold promise as a nosema treatment. Disturbing to me was a recent recipe from the Web that suggested adding a gallon of bleach per 500 gal syrup (works out to 56ppm), plus several bottles of Tylan, plus essential oils, plus vitamins.

This is clearly an off-label use of Tylan, which is not approved for use in syrup, due to the likelihood of honey contamination. However, the mixture was more surprising to me in that the Tylan label states that Tylan may react with strong oxidizers (as can vitamins). Bleach is a strong oxidizer, and for all I know, it might make the Tylan in the syrup worthless!

Timing

The honeybee colony is a biological system that goes through an annual cycle, tied closely to the progression of the seasons. The successful beekeeper must always be aware of this fact, and make sure that his management is timely. Timing is everything—nature does not accept excuses nor delays. Supering up halfway through the honeyflow is too late. Feeding after a colony has shut down brood rearing due to protein deficiency is also too late. The beekeeper needs to be observant and proactive.

If you want to maintain colonies that are as big as Sumo wrestlers, they must continually eat like Sumo wrestlers—either from natural forage, or by supplementation. You can't wait until the last minute to beef up a contender! Feeding only in late fall or winter may be too little, too late. This point was brought home with a vengeance to California beekeepers this season. Our early summer drought shut down colonies in July. Those beekeepers who began supplemental feeding in July now have much stronger colonies than those who waited until late August. ***It is easy to lose colony "momentum" –once they start to ramp down due to dearth, they are much harder to restart, than they are to maintain with minimal supplementation.***

Here's another nutritional stress tip: The outcome of a stress event is often not apparent until a month or more later. ***When you see colonies having problems, it may be due to a stress event that happened two or more months ago.*** Beekeepers with problem bees would do well to get in the habit of looking back at events a couple of months prior, in order to try to figure out what happened. Note that one of the common denominators of CCD colonies was a stress event two to three months prior. There is a lag time for the consequences of nutritional stress to appear—it is easy to be caught by surprise, and then it may be too late to do anything about the problem.

I've found that by wintering strong, pollen-rich

colonies with plenty of quality honey stores, that there is no need for spring syrup feeding. Those colonies build up just fine on their own if they have adequate pollen—either from early spring alders and brassicas, or from supplement. So how much honey should you leave on for the California winter? I just heft my colonies and judge by the grunt. However, for those of you needing a more precise number, I hooked a spring scale to the front cleat, and lifted appropriately heavy colonies until the front rose clear of the ground. The scale read in the range of 60-70 lbs. My son uses a more colorful set of measurements: "If you can heft the front with two fingers, it's too light. If tipping it up makes your groin hurt, it's too heavy." Too heavy is a problem since a honeybound colony has inadequate empty brood comb on which to cluster and later fill with brood.



Hefting a colony for weight in fall. Ian's saving his back (and other parts) by levering off his knees.

The bees have a natural cycle in temperate climates, and you are fighting their instincts if you try to stimulate them to brood up between the first of November and the winter solstice. However, by New Year's day, they are ready to roll, if the weather is warm enough (as it usually is in California), and they will respond to feeding ***if the colony is composed of well-fed winter bees who have not previously reared brood or foraged, and have not been compromised by varroa or nosema.***

Fat Bees: Timing and Tummy Aches, Oliver

continued

Bee Digestion

Good nutrition is moot if you can't digest and assimilate the nutrients. Let's first look at food assimilation at the colony level. The end use for pollen is to build up vitellogenin and other protein levels in the hypopharyngeal glands and fat bodies of bees of the right age, and thus to allow them to produce jelly. For this discussion, let's sort bees into three age groups:

1. Newly emerged "young" bees that are developing their glands, and gorge on pollen.
2. "Mid-aged" nurse bees with developed glands, which can produce jelly to feed to the queen, brood, and foragers. These bees eat enough pollen, if available, to replenish their glands.
3. "Old" forager bees whose glands have atrophied, and who eat little pollen.

Unless the colony has plenty of young and mid-aged bees, feeding pollen will be of little immediate consequence, although it may be stored in the combs for later use. Pollen can only be assimilated well if there is a robust brood nest full of nurse bees and larvae. Brood nest size is limited by the volume that the cluster core can hold at 93°F. The point is, a small cluster of bees in cool weather cover much brood, and therefore can't assimilate much protein. ***You just waste pollen supplement in trying to work magic by feeding dinky colonies a big patty!***



Nurse bees from the brood nest eating pollen supplement. This is brewers yeast/sucrose cake a week old. Note how it is still moist, and has been eaten away between the frames.

The location of the patty is important, too. It should be in close proximity to the broodnest, since that is where

the pollen-eating bees look for food. Patties enclosed within the cluster also remain soft and moist, and are better protected from wax moth and hive beetle. A small colony cannot physically engulf a large pollen patty, and the uneaten patty sets just like cement. The next question you'd have is, "Should I use a cold chisel or a jackhammer to remove the leftovers?"

A colony that has reduced brood rearing during dearth may have few remaining young or mid-aged bees, and will therefore not be able to immediately assimilate much protein (remember the loss of momentum mentioned above?). ***A hungry colony diverts its efforts toward foraging, rather than broodrearing.*** Mid-aged are specialized to digest the proteins and lipids (fats) in pollen; older forager bees shift their enzymes toward the processing of nectar (or syrup) (Jimenez 1996). When you start feeding protein supplement, older bees are forced to revert to protein processing, and must shift enzyme production and regenerate their hypopharyngeal glands, which takes a bit of time (remember this point when discussing *Nosema ceranae*). Keep this in mind when feeding. ***A California colony that shuts down broodrearing in late July will not be able to utilize pollen supplement well in late September, since it will have few nurse bees with the proper enzymes.*** In addition, bees parasitized by the varroa mite become nutritionally compromised, so August mite control is critical for good nutrition.

Tummy Aches

Not all pollens or supplements are utilized well, due to nutrient imbalances. ***A deficiency in any essential substance makes that substance a "limiting" nutrient, and limits the utilization of all other nutrients.*** This is an ongoing problem in the development of a pollen "substitute." Particle size is also important when considering feedstocks--bees prefer a fine texture (but not too fine).

Bees digest pollen surprisingly quickly—it takes only three hours to pass through the stomach (also called the ventriculus or midgut). Unlike humans, bees do not secrete digestive juices into the ventriculus, they shed the epithelial cells lining the gut, which burst and release their contents, which include digestive juices.

But, just as in humans, digestion doesn't always go smoothly. Bees are subject to problems due to indigestible sugars, other polysaccharides, or protease inhibitors (as in untoasted soy)—the indigested substances are then subject to bacterial fermentation (as in our own gut when we eat foods such as beans),

Attacking Small Hive Beetles: Another Integrated Pest Management Approach

By John Nenninger

The Salt Box

Could it be possible to prevent the small hive beetle larvae from developing into adults?



The weakest link of the beetle is the need for the small hive beetle larvae to find suitable soil to pupate into an adult small hive beetle.

I wanted to see how a salty environment would affect the small hive beetle larvae. I developed a box that would be placed beneath the hive body boxes of a beehive. The hive would be supported above this box using 4x4

pressure-treated wood cut to 24 inch lengths. It seemed to be the best economic approach to use one 4x4 8 foot length per colony. This box would be filled with pea rock and salt rock with dirt on top (see above image). My intent was to kill the larvae as they were trying to get down through the rock to favorable soil. This method can be named the "Salt Box."

Temperature vs. Beetle

During the summer of 2011, I made some observations of the small hive beetle. On one occasion I accidentally knocked over my jar of participants spilling them onto the top of a 55 gallon drum. The outside temperature was in the upper 90s and the top of this drum was hot to touch. Within seconds of spilling onto the top of the metal drum both the adult small hive beetle and the larvae died. This made me think, what temperature does the surface have to be for the larvae to die? In the summer of 2012, I captured some small hive beetle larvae placing them on the ground next to a ruler. I wanted to measure the surface temperature and how long and how far would the larvae travel for a given surface temperature of concrete. I performed this test five times that day. It wasn't until my average reading reached 112° that the small hive beetles started to die. As an FYI, how long does it take a larva to travel 12 inches? (pictured right)

It takes an average of two minutes and 52 seconds for small hive beetle larvae to travel 12 inches.

Glue vs. Beetle

During the summer of 2011 I was also testing different glue products. I wanted to see if there were any products that could trap small hive beetle adults or larvae. My first test was a fly trap pulled out from a cylinder that becomes stuck to your fingers. I captured a dozen adult and larvae small hive beetles and using my kitchen counter as my test lab (I had conditional permission from my wife) I placed the adult and larvae on the flytrap. The adult small hive beetles walked across this glue as though they were crossing a four lane highway in rush-hour traffic. The larvae being slower could have been smashed by a big Mack truck. I decided to take an adult small hive beetle and place it on its back sticking it to the glue. The adult small hive beetle reacted similarly to a turtle placed on its back. Then it placed one leg on the glue, getting that leg stuck, and using that stuck leg, flipped itself over to the upright position. The beetle proceeded to walk off the glue. This process took about 8 minutes. I recaptured this beetle and placed it on its back again. This time it took the beetle about two minutes to flip back over using that same leg attaching it to the glue and flipping itself up right. Recapturing this beetle for a third time, I placed it on its back sticking it to the glue and in less than a second this adult beetle used the same leg getting it stuck and flipping itself up right. To test to see if the beetle was actually learning, I would've had to remove this leg and see if the adult beetle would have used a different leg to right itself. Maybe next summer I'll do this test. The reason I was placing the small hive beetles on their backs was to see if the adult small hive beetles once stuck in the glue would become exhausted and die.

During the winter of 2011 and 2012, I decided to go out and find as many glue products as I could.



Attacking Small Hive Beetles, Continued

On weekend trips to different cities I would visit local hardware stores to see if they carried a glue product I hadn't seen yet. I also did research on the Internet for glue products. In the summer of 2012, I started to test these different glue products that I gathered through the winter. It wasn't until a Chicago trip I came across a glue product that captures fleas. This glue product had the best test results. This particular product slowed the progress of the adult and larvae small hive beetles. If the larvae or the adult walked off the glue, I would recapture them and place them back on the glue. After about an hour and a half of this recapturing or redirecting the small hive beetle adult and larvae on the flea glue product, both the adult beetle and the larvae became so exhausted that they stuck to the glue and died.

Beetle Mobility

Another observation I made during the summer of 2011 was the mobility of the small hive beetle larvae. Placing an active adult small hive beetle on my kitchen counter, I coaxed the adult beetle into the straw. I closed off one end with my finger, watching the adult



beetle walk the entire length of the straw. (pictured above) When it got to my finger I could feel the tip of the insect antennae. At this point the beetle decided to start walking backwards. This was disappointing to me, however it was fun to watch him walk backwards; he was doing the moonwalk.

Summer of Discovery

In the summer of 2012, I was able to get back to testing the pea rock and rock salt trap (Salt Box). I first filled the box with pea rock. I had 10 sections again within the box. I captured 74 small hive beetle larvae to be used on my first test. I placed between seven or eight larvae within each section. Shortly after the three minute mark, one of the larvae made it through the pea rock and fell down to the tin tray making a distinct pinging sound. This was slightly discouraging. But it

got worse, in the next 18 minutes six more larvae made it through the pea rock making a distinct pinging sound when landing in the tray. All the larvae that made it through the pea rock fell out around the perimeter of the box. All seven of the larvae were placed back into the center of the box after they landed in the tin tray. The rest of the afternoon and into the evening no other larvae made it through the pea rock. My goal is to prevent any of the small hive beetle larvae from making it through.

The next test consisted of covering the pea rock with a layer of rock salt. (pictured below) This test used 82



small hive beetle larvae. Seven or eight small hive beetle larvae were placed in each section. Four of the small hive beetle larvae made it out of the trap. The larvae crawled over the rock salt up the side of the wood falling down onto the tin tray making the very distinct pinging sound. The larvae was recaptured and placed in the center of the test box. This all happened within the first three minutes of the test. No other larvae made it over the side or down between the pea rock.

After performing four sample tests, I decided to add topsoil to my Salt Box. (pictured below) Observing



that small hive beetles instinctively proceed downward as soon as they find a favorable location, and that small hive beetle larvae have no instinct for going back up,

I was anxious to try a new test. I tested with 88 small hive beetle larvae. Placing between eight and nine in each section, by the time I placed the last group in the last section most of the previous larvae were already burrowed through the topsoil. I sat outside next to my test for five hours. I now know why professors have grad students. Zero larvae made it through the topsoil, rock salt, pea gravel combination. I continued to observe the test, listening for that distinct pinging sound and looked for larvae in the tin tray. The following day it rained about a quarter of an inch filling the tin tray with water. No larvae were observed. I performed this part of the test three more times, using 72, 77 and 82 small hive beetles larvae. No larvae survived this procedure.

Openings for Beetles

All the beehives had screen bottom boards with trays. However I did not place any vegetable oil in these trays. To prevent crawling insects using the 4x4 columns as a means to enter the hive, I coated the columns with grease. This worked as long as the grease did not form a dry shell. Once this shell developed over the grease I had an ant and roach problem. In the summer of 2012 I used a product called Tanglefoot to coat the 4x4 columns which resulted in less insect infestation. I also added vegetable oil to the bottom trays. The insects that made it up into the trays were killed by the vegetable oil. Also some of the larvae and adult small hive beetles were caught in the oil. Less openings for small hive beetles to enter the better, including different size reducers.

Larvae Suppression

If the small hive beetle larvae are kept from developing into an adult beetle, can we eliminate the small hive beetle from North America? If you keep offspring from developing into reproductive adults eventually that species will become extinct. But does

this answer the question? There will always be a presence of small hive beetles in North America. Beekeepers that have stationary beehives can build a salt box base around their beehive to kill the larvae. I will say that this method is guaranteed to kill the small hive beetle larvae.

The plan for 2013 is to build a larger salt box. The box will be constructed using a 4 x 8 pressure-treated plywood attached with 2 x 6 pressure-treated boards screwed around the perimeter. The beehives will be placed in the center supported by the 4 x 4 columns. The box will have a layer of pea gravel with rock salt topped with less than an inch of topsoil. Any method similar to this should work providing that the rock salt environment is present beneath the hive.

People have mentioned the use of roofing shingles under the hive. What are their observations, what was the time of day, temperature of the surface of the roofing shingles, did they actually see any small hive beetle larvae fallout, were they able to locate and count any dead small hive beetle larvae carcasses? What kind of infestation do they currently have that they are seeing or observing so many small hive beetles?

The small hive beetle genetically developed to live inside the honey bee colonies eco-system. Small hive beetles are living in this universe of food sources and shelter so why would they be attracted to a trap inside the beehive. To control a small hive beetle population you have to keep them from entering the hive. The larvae of the small hive beetle would have to be killed before they become adult beetles. Some of the things we should do first are make our colonies harder for the beetle to enter. Use the Salt Box method with stationary hives and develop a honey bee through selective breeding that is aggressive to the point of killing the small hive beetles and its larvae. I am currently developing and working on solutions in these areas.

John Nenninger is a St. Louis area beekeeper and a leading member of the Jefferson County Beekeepers Association, and a member of the St. Louis Beekeepers Association, as well as the Missouri State Beekeepers Association.

Helpful diagrams for construction of the "Salt Box" beetle trap were prepared by Mr. Nenninger and are available by request of the editor.



APIARY INSPECTION SUPERVISOR'S REPORT

Steve Chard, Illinois Department of Agriculture

HONEYBEE LOSSES

The loss of honeybees due to the extremely harsh weather conditions this past winter continues to be on a lot of people's minds. The Bee Informed Project has released the results of their winter loss survey on a state by state basis. Concerning bees kept by hobbyists and sideliners, the loss of colonies for Illinois totaled 1,202 colonies, or 61.4%. There was no state by state figure given for migratory beekeepers in the survey. The total U.S. loss for those beekeepers was 454,307 colonies or 20.7%. We have been contacted by several radio and print media on this issue. That coverage helps create or increase public awareness on the importance of honeybees to humankind.

FSA DISASTER ASSISTANCE

In my last article, I provided some information on the disaster assistance program called, "Emergency Assistance for Livestock, Honeybees and Farm-Raised Fish Program" (ELAP), under the Agricultural Act of 2014 (Farm Bill) that the USDA Farm Service Agency is carrying out. There is an opportunity for eligible beekeepers to receive disaster assistance under this program. For your information, I just received a notice from FSA regarding a signup deadline which stated:

"B Purpose:

This notice reminds State and County Offices that ELAP signup for 2012 and 2013 livestock, honeybees, and farm-raised fish losses that occurred on or after October 1, 2011, through September 30, 2013, ends COB August 1, 2014.

2014 ELAP Signup Deadline:

The signup deadline for 2014 ELAP ends COB November 1, 2014. In addition to filing a notice of loss, producers must file a manual application for payment on the applicable CCC-851 for livestock losses, or CCC-934 for honeybees and farm-raised fish losses, and supporting documents, provided in 1-LDAP (Rev. 1), subparagraph 887 E, by COB November 1, 2014."

If you wish to apply for and receive disaster assistance per the above guidance, I suggest that you contact your local FSA office or Mr. Rick Graden at the State FSA Office (217-241-6600, Ext. 214). Also, for a Fact Sheet overview of the 2014 Farm Bill USDA ELAP program and beekeeper eligibility, go to the FSA website:

http://fsa.usda.gov/Internet/FSA_File/elap_livestk_fact_sht.pdf

HOPGUARD II

Last time, I reported that BetaTec, the company that manufactures HopGuard for varroa mite control, has petitioned the USEPA for an emergency use permit to sell a new product, HopGuard II. The Department has gathered the necessary information in support of BetaTec's petition to USEPA and has requested

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approval for use in Illinois through USEPA as well. I'm pleased to inform you that USEPA has approved our request, so beekeepers can now purchase the new product through your preferred beekeeping equipment supplier.

USDA NATIONAL HONEYBEE SURVEY

Previously, I mentioned that the Department was hoping to participate in another national honeybee survey at the request of the USDA-Animal Plant Health Inspection Service in an attempt to help document which bee diseases/parasites/pests of honey bees are and are not present in the US. Funding for this year's survey through the new US Farm Bill has been approved and the Department is contacting various beekeepers to determine if they would be interested in having their apiary be part of this national survey. The samples collected at each apiary will be tested in a USDA approved laboratory and the test results will be provided to the respective beekeepers who participated.

MOVING PERMITS – QUEENS

In response to the request of the Illinois Queen Initiative (IQI) and others, the Department has created a new moving permit policy for transporting queens across county or state lines. This policy is intended to facilitate the sale or exchange of queens, queen cells and frames of brood and at the same time, prevent the spread of diseases and pests of the honeybee. The new policy has been approved by the ISBA Officers/Board of Directors and IQI. It is shown below.

The Department will follow the steps below for issuing general moving permits to producers selling/exchanging queens, queen cells and frames of brood:

- Queen Producers will notify their respective Department Apiary Inspector by February of each year that they plan to exchange or sell queens across county or state lines.

- As soon as the weather is conducive for inspections, queen producers will contact

Department Apiary Inspectors to make arrangements for an inspection of the colonies used to produce queens in the spring.

- Once the inspection is completed, the Department Apiary Inspector will send the inspection report to the Department's headquarters no later than the following day.

- Upon receipt of the inspection report, the Department will issue a general moving permit to the queen producer as quickly as possible, but no later than 7 days, on the condition that the colonies do not have a significant disease or pest problem that could harm bees in other apiaries. Unless the Department denies the issuance of a general moving permit, if the queen producer does not receive the general moving permit within 7 days of the inspection, the producer may go forward with moving the queens without the general moving permit.

- The general moving permit will allow the queen producer to move the queens anywhere in Illinois or outside of Illinois.

- The general moving permit is effective for 90 days.

- At least 10 days prior to the expiration of the 90-day period, the Department Apiary Inspector will inspect the original or new colonies and the same process for issuing the general moving permit starts over.

In order for this process to work effectively, producers must communicate with the Department's Apiary Inspectors in a cooperative and timely manner.

WE HOPE THIS NEW POLICY WILL BE BENEFICIAL TO THE BEEKEEPING COMMUNITY. IT WILL BECOME EFFECTIVE ON JANUARY 1, 2015.

The Buzz About Town

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Sunday, September 7th, Noon-6pm.
"Get Your Bees Through The Winter Class"
at Long Lane Honey Bee Farm.

The winter of 2013-2014 was very hard on colony survival and it was hard on beekeepers. It can be confusing trying to figure out why your bees died. They may have had plenty of stored honey and still died. Maybe they had a great queen and were very populated but still died. Join certified master beekeeper, David Burns, for an extensive 6 hour course on common reasons why bees die in the winter and what you can do to improve your bee's chances of survival. This class will cover topics such as: fall preparation, mouse protection, mite reduction, wind blocks, wrapping hives, heating lights, winter feeding, insulation, moving hives into buildings or shelters, the biology of fat bodies, the timing of a new fall queen, pros and cons of double walled hives, dynamics of both Langstroth and top bar hives in the winter, the winter cluster and more.

Visit <http://www.honeybeesonline.com/> for directions and registration.

August 20, 2014, 7:00 pm - 9:00 pm

The **Will County Beekeepers Association** will hold a **Mead Making Workshop**. Participants may start the process of creating their own batch of mead at this meeting. Bring 3 pounds of honey and a gallon of spring water to the **Will County Farm Bureau 100 Manhattan Rd, Joliet, IL 60433**

Beekeeping Classes at Kaskaskia College in Vandalia, IL

Queen Rearing and Bee Propagation

Saturday, Nov. 1, 2014 from 8 am to 12 noon.
 Kaskaskia College Vandalia Campus,
 2310 West Fillmore, Vandalia, IL 62471,
 Ph: 618-283-1780

This is a lecture course covering all aspects of Queen Rearing and Bee Propagation. The class fulfills the IQI Producer requirement for an approved class.

Keeping Healthy Bees

Sat., Nov. 15 from 8 am to 12 noon. Kaskaskia College Vandalia Campus,
 2310 West Fillmore, Vandalia, IL 62471 Ph: 618-283-1780

This is a lecture course on keeping bees healthy without chemical treatments, IPM management, and identification of bee pests and diseases.

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WILL COUNTY BEEKEEPERS ASSOCIATION Darien Kruss ~ Joliet, IL Phone: 630.557.6233 info@willbees.org

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 Publicize your bee events here!**

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bubblebubb@gmail.com.
 List new and events on the
 ISBA website aswell by
 sending the information to
 the ISBA webmaster,
Steve Petrilli,
s.petrilli@comcast.net.

I'm happy about my bees. If you read my last letter, you know that I confronted the problem of a European Foulbrood infection that spread to almost all of my hives. I had to medicate my hives twice last year to get them through the winter, and I decided to try to return to natural beekeeping by treating again this spring, shaking my bees onto fresh foundation, and re-queening.

This effort involved in this process was steep to the point of painful, but the results were extremely rewarding. I started with 12 hives to treat, and by the end of the process, I ended up with 18. Only one hive showed a very minor rebound of symptoms, so it went through the process again.

Now I'm really enjoying my bees. I want to monitor the brood every 2 weeks or so to be sure that they don't become re-infected, for example, if a feral hive in a nearby barn was losing its battle, and became an attractive colony for my hives to rob. So far, this hasn't happened. I'm cherishing the solid queen patterns, and watching my hives build up properly as I keep feeding them. It has taken some pollen patties, a whole lot of sugar, and I'm nearing the end of a gallon of Honey Bee Healthy. By the end of summer, I may have gone through 1000 lbs of sugar.

I meet other beekeepers who have experienced

European Foulbrood in the past, or are recognizing it for the first time. It's a hard problem to face, but a great triumph when you beat it. I found that it was worth it to open the discussion with other beekeepers about EFB, because together we've able to share ideas of a successful management practice, and share our joy when the health of a hive is restored.

On another happy note, my farmer husband, Raph, used his farm machinery to plant two food plots for the bees. They have finished working Buckwheat, and are now covering the drought-tolerant Niger (*Guizotia abyssinica*), an oilseed crop with a bright yellow flower. It has been a little dry to get much from the Buckwheat, but the Niger is going strong. It's an annual, and it's delightful to see the bees at work during a dry spell. I think it will be a keeper around our farm.



Timing and Tummy Aches, Continued

which can lead to dysentery. On the other hand, certain gut microflora may be involved in producing digestive enzymes—remember this when you consider dosing your bees with prophylactic antibiotics!

Finally, some pathogens compromise the gut. Deformed Wing Virus (which virtually all bees carry) likely affects digestive function (Laurent 2006, Fievet, et al 2006). Amoeba disease and various other organisms occasionally cause problems. But the number one gut disease that you should be aware of are a pair of microsporidians called *Nosema*.

References and Further Reading

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Illinois State Beekeepers Association

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**Honey bees in
your spray area?
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Membership in the Illinois State Beekeepers Association is open to all persons interested in bees and beekeeping. Beekeepers are urged to join through their local Associations or individually if no local Associations are available. Dues are \$10 for the calendar year January 1 through December 31 only. Dues include a subscription to this newsletter, the ISBA Bulletin. Beekeeping journals are available to ISBA members at about 25% discount. Mention membership in ISBA when sending your subscription payment to the publishers. Rates are subject to change without prior notice.

Make checks for membership payable to: Illinois State Beekeepers Association and mail to: Illinois State Beekeepers Association, Membership, P.O. Box 21094, Springfield, IL 62708.

Address Changes: Send old and new address six weeks prior to date of change when practical to the Association Secretary. At large members can send the changes to the ISBA Membership Director via email.

Reduced Journal Rates for 2014 (members only)

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