

# THE BEE SPACE



Will County  
Beekeepers  
Association  
Est. 2011

THE PUBLICATION OF WILL COUNTY BEEKEEPERS ASSOCIATION • JANUARY / FEBRUARY 2023

## PLEASE JOIN US FOR NEXT MEETING:

**January 18, 2023 at 7 pm**  
Will County Farm Bureau  
100 Manhattan Rd  
Joliet, IL 60433

## FEATURED TOPICS:

- Hive Life conference highlights
- Melting crystallized honey
- Starved Rock mead and meal pairing review
- 50/50 raffle and door prizes

## THIS MONTH IN YOUR HIVES

### JANUARY / FEBRUARY

- The bees will consume about 24lb (11Kg) of stores in January and February – so check they have enough by hefting your hive
- Check candy boards and replenish if necessary
- Read books while waiting for spring
- Repair, order, build and assemble hive equipment to prepare for the upcoming season
- Check honey stores by hefting your hive.
- Add a pollen patty in February to encourage brood production
- Order bee packages

## WHAT'S HAPPENING IN THE HIVE

Additional information regarding hives management for January/February was kindly provided by John Leibinger. Click to download.

*Chores of the Month – [January/February](#)*



## *50/50 Raffle and Snacks are Back!*

WIN SOME CASH AND HAVE A SNACK ON US!

We're excited to start the new year right by bringing back our 50/50 raffle, which funds our library to purchase new books and your pocket book. And for all of you that have the evening munchies, we will have snacks and water during our meeting.





FEATURE STORY – BY PATRICK SCHAB

## Propolis, friend or foe?

*As we head into the depths of winter and retreat indoors to our snuggly warm homes, just like our bees clustering into their hives, I decided to clean up some of my apiary tools.*

Over the season I accumulated a good amount of propolis on my equipment. Last week I took advantage of my cold garage to remove the once sticky goo, but now solid propolis using a sharp hive tool. In the background, I added a little noise by listening to a podcast called *Beekeeping Today*. The timing couldn't have been better as episode 33 from season 3 popped-up, entitled *The Importance of Propolis with Dr. Marla Spivak*.

For years beekeepers found propolis to be an annoyance more than anything. A sticky glue that literally bonded our hand tools to our bee gloves and turned individual hive boxes into solid towers that can only be separated by jamming a hive tool between them. Scrape it off I'd say!

But wait! I learned from this podcast that propolis is actually a real good thing. It's an important tool that the bees use to maintain a structurally strong and healthy hive. With that, I thought I'd share some interesting facts I learned during that cold afternoon in my garage.

### **Where does propolis come from?**

Well, that's interesting. Propolis is actually not something our bees collect. They collect resin from a variety of plants, such as morning glory, parsley, poison ivy, sunflower and trees like cottonwood, birch, alder and poplar (aspen). When the tree buds, they exude resins around the bud. The resins protect the plants and trees from diseases, fungi and pests. It's also first aid to an injured plant. The resin oozes out of the cells and flows over the injury and makes a bandage-like barrier. Nifty!

A small percentage of the honeybee work force are assigned to the task of collecting resin. This is probably not as exciting as collecting tasty nectar, but we all have those undesirable chores. Because the resin's consistency varies with temperature, it needs to be collected on warm days when it's soft enough to be worked. Just like collecting nectar, a hive dance is used to tell propolis collecting bees where to go.

The collection begins when a worker bee takes a bite of the resin. Using her mandibles, she adds saliva for softening. Once it is pliable, the worker stores propolis for transport on her hind leg's pollen pockets. It may appear whitish gray, tan, a variety of browns and reds, or nearly black. For the longest time, I thought I only saw pollen being carried by my bees, when in fact it could have been propolis.

## Mortar and Medicine

Just like when we return home from grocery shopping, it's nice to have a helping hand to put the goods away. Propolis is so sticky, it requires an assistant to help remove it from the collector's pollen pockets and to place it in the hive. Bees use it for repairs such as sealing openings and cracks to keep the weather out and pests from coming in. In a natural hive, like a hollowed tree, propolis is

found all over inner walls. This is due to the rough texture that allows them to paste in on like wallpaper in grandma's kitchen. Applying propolis to a rough surface is easy to do for bees, but when it comes to a smooth cut surface like our hives, it's impossible. Some beekeepers are experimenting with texturing those smooth surfaces to encourage the application of propolis. Why do you ask? Just like plants and trees that use resin to aid in good health, so do the bees. Propolis has an antimicrobial effect on dangerous microbes in the hive. It helps to maintain, even increase the positive microbiome in a honey bee's gut and even their mouth parts.



Imagine if your house was covered in an antimicrobial shell. You'd have one of the healthiest families in the neighborhood, although very sticky. Some current human antimicrobial applications for propolis include upper respiratory tract infections, common cold, wound healing, treatment of burns, acne, and neurodermatitis.

As I scraped off my final hive box and swept up the bits of propolis all over my garage floor, I hesitated for a moment before tossing it into the trash and thought, will humans ever learn? I'm literally working against nature by removing a hive strengthening, disease fighting substance that our bees worked so hard to make. Hmmmm, bad idea?

## BEE ADVOCATES

### Bees and Chicks

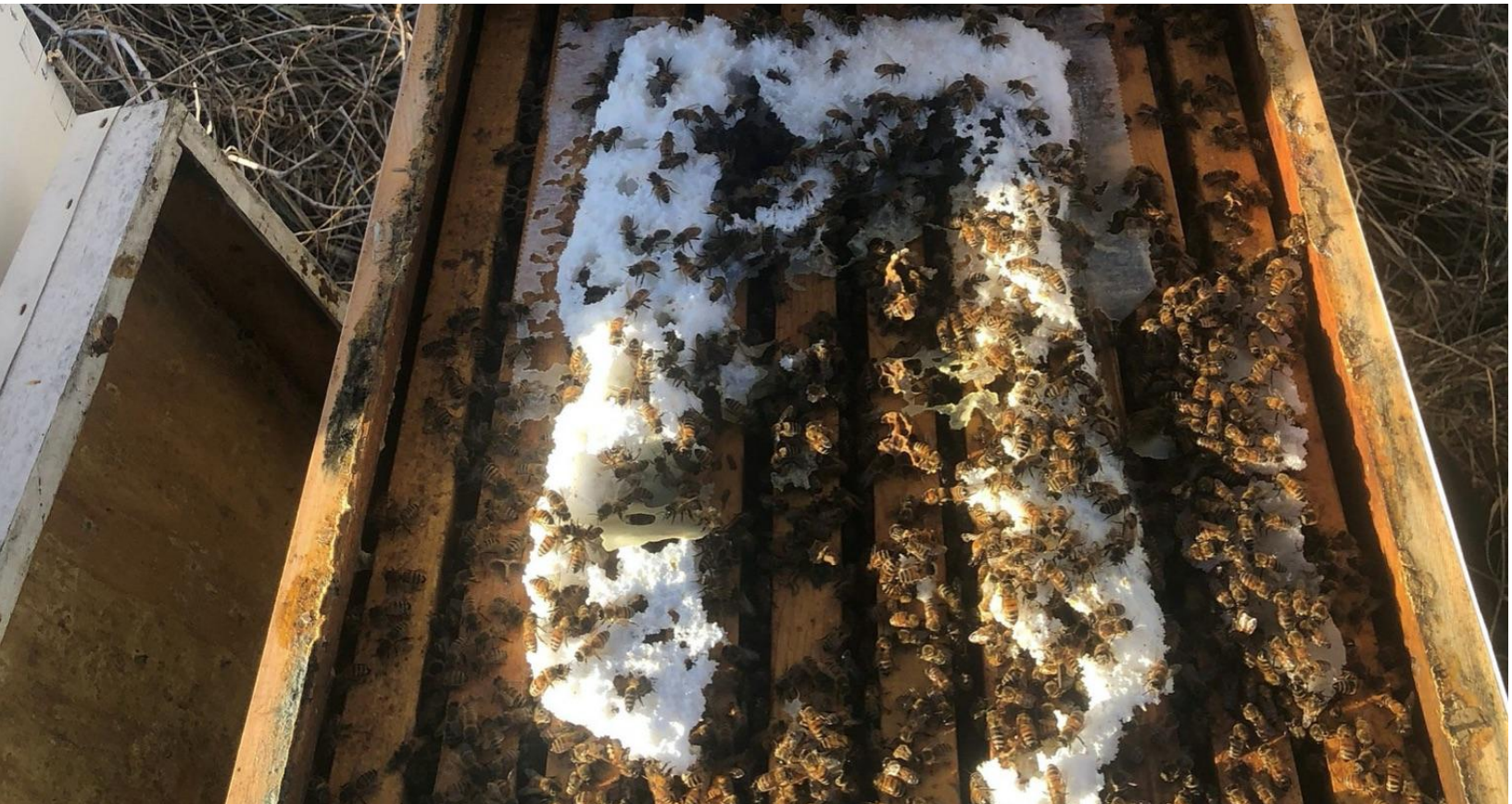
**THIS MONTH'S BEE ADVOCATE IS  
WILLBEES BOARD MEMBER SUSAN GREGORY.**

Susan recently became our WillBees treasurer to manage all our finances while supporting our club awareness efforts.

Susan wrote, "I joined the Will County Beekeepers Association to learn more about bees. I hope my 3 hives will survive the winter, pollinate my cherry trees and make some honey. My one acre of land also hosts 12 chickens, various fruit trees and the 40' by 60' vegetable garden."

That sure sounds like an ideal environment for your bees. Good luck this upcoming year and thanks for joining the board.





BY KEITH MEISER

## Feeding Honeybees During Winter

*I've been keeping bees for a long time, well before Varroa mites or Africanized bees. In my opinion, the best way to feed bees in winter is to ensure that each hive has enough honey stored to last through a normal winter.*

I aim for a minimum of 100 lbs. of honey. Once we get into the new year, it is easy to do more harm than good when trying to make up for what they should have had. That doesn't mean that we shouldn't jump in and help when something unusual happens. Also, the need for honey accelerates as spring approaches as the need to keep brood warm means burning more fuel (honey) than is needed just for clustering.

I like the simple approach to checking in winter by trying to lift the hive from the back of the bottom board. If you can barely budge it or not at all, there are probably sufficient stores for Northern Illinois. If the bees are flying on warm days, all is probably well. If, heaven forbid, the hive is light in weight, the time to feed is now.

### Feeding Methods

There are many methods of feeding, of course, but the goal is to make up for the short honey stores without disrupting the cluster. Feeding with diluted sucrose syrup as would be done in the spring with new packages using jars or frame feeders would require the bees to evaporate large quantities of water, which is impossible during freezing weather. The bees produce their own water as a byproduct of metabolizing sugar so the goal is to get the maximum amount of "dry" sugar, where they can access it during the cold, without undue disruption and chilling.



Some recommend pouring loose granulated sugar on top of a sheet of newspaper on top of the frames or even pouring some above the inner cover. This is called the [mountain camp method](#). It would be better than nothing in an emergency, but the bees have to chew through the paper, there is no space for them to move around, and the bees will sometimes simply take the granules and toss them outside. Loose sugar on the inner cover would require a long transit for the bees to retrieve it and it is not of any use if the bees can't break from the cluster because of the cold.

My favorite emergency feed when I was running many colonies was hard candy sugar boards. It consists of a simple wood rim about an inch deep with thin plywood nailed to it similar to an inner cover without the hole. It is filled to ¼-inch of the top with sugar and a little water heated to about 240 F. It sets up rock hard, and is easy to stack, store, and transport. Feeding only requires quickly opening the top of the hive and placing the board on with the sugar side down. There is sufficient water trapped in the candy so that the bees can lick the sugar to retrieve it. There are, of course, some major problems with it for hobbyists. It is very dangerous to cook and pour, and it is easy to burn or caramelize the candy which makes it indigestible for the bees.

A good compromise between molten sugar candy boards and loose sugar is “no cook” candy. There are various methods, but the basics are mixing dry granulated sugar with just enough water to make it stick together (not enough to dissolve it), packing it into a frame or molds, and allowing it to dry until hard. Start with 1 tablespoon of water for each pound of sugar. More water means a longer drying time.

One of the more complicated ways is to make a rim similar to the hard candy board but using 3/8-inch hardware cloth (screen) instead of the thin plywood. The damp sugar mixture is packed in on top of the hardware cloth and allowed to harden. It is placed on the top of the hive like the hard candy board but with the hardware cloth side down. The bees can pass through the 3/8-inch space between the wires to get all of the sugar.



Maybe the simplest way is to just pack the sugar mixture into a mold or tray no more than ¾-inch thick and drying it. Before it completely hardens, it can be cut into convenient sized “bricks”. To feed, just open the top of the hive and place the bricks on the top frames with a small space between them. Put a shim or spacer around it so the cover can be put back on without any gaps.

A few words about “sugar”. The bees can utilize pure sucrose as they have the enzymes in their saliva to convert it to the sugars in honey. Adding cream of tartar, lemon juice, or anything else to “help” the bees digest the sugar is not needed and can create harmful chemicals, especially when heated. Beware of “powdered” (confectioner’s) sugar because it contains corn starch (to prevent caking) which the bees cannot digest. The same goes for molasses, corn syrup, or any other sweet substance that is not 100% pure sucrose. I prefer pure cane sugar over beet sugar. Baker’s sugar, if you can find it, IS pure sucrose, very finely ground (but more expensive).



My opinions only and, of course, you can find many more online.

## BEECABULARY

*A new year, and new set of beekeeping words.  
Bring your answers to our next member meeting  
and impress your fellow beekeepers!*

**Melittology**

**Crown of thorns**

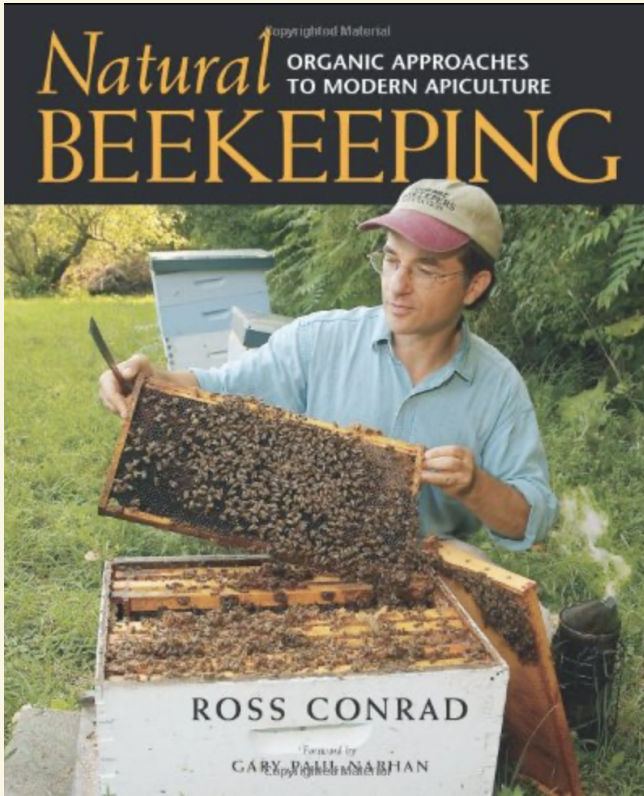
**Out apiary**

**Diutinus bees**

**Wax rendering**

**Slumgum**





# BOOK NOOK

## Natural Beekeeping – Organic Approaches to Modern Apiculture – First Edition

By Ross Conrad

Reviewed by our VP Dennis E. Wisnosky

Ross Conrad has been farming Honeybees in Vermont for nearly 30 years. He is the recipient of awards for his work and has written a book on the history of beekeeping in Vermont.

There are some interesting insights in this book such as the idea of storing empty boxes outside on top of supers with active colonies. But, much of it is basic filler such as “It takes some practice and

dexterity to pry up and grasp the end of a frame”. There is actually an illustration showing how to do this. There are other equally obvious hints and illustrations.

I expected to really learn something new about organic approaches to modern apiculture. But, in the end, the approaches used by Mr. Conrad are the ones with medications and treatments familiar to all of us.

The only content that I consider new is his familiarity and contact with researchers in genetics and breeding – Chapter 4. Here he does provide some scientific or at least experience based rationale for what seems obvious. Locally raised queens usually result in stronger colonies. Keeping colonies alive through successive generations and even years results in stronger colonies. Splitting strong colonies helps to control the gene pool of successful colonies. He provides potential approaches to do these things. They do seem to be on the roadmap of natural beekeeping. Are they organic when the process is aided by chemicals?

In the end he does not hold out much hope for genetically mite or disease resistant *Apis Mellifera*. Neither do I. The book is free to read in the Will Bees library. I do recommend it.

*Our Will Bees lending library offers a vast selection of books and videos for you to enjoy. Be sure to check out a book at our next member meeting.*

## Survey Says...

### CALLING ALL MEMBER INPUT FOR UPCOMING BEE MEETING TOPICS!

WillBees would like to make this year’s meeting topics the most valuable yet. If you have not replied to our recent survey, we will be following up in January for your response that will help guide our educational topics. Please check your email.





*This month's recipe was found on  
[www.countryliving.com](http://www.countryliving.com).*

## Grapefruit, Honey, and Rosemary Smash

### Ingredients

3 c. fresh pink grapefruit juice, plus 2 pink grapefruit,  
cut into wedges

1/4 c. honey

1 (6-inch) sprig fresh rosemary

1 1/2 c. to 2 cups vodka or bourbon

1/2 c. fresh lime juice (from 3 or 4 limes)

### Directions

Combine 1 grapefruit worth of wedges, honey, and  
rosemary in a large pitcher; mash with a muddler or

wooden spoon. Add grapefruit juice, vodka or bourbon, and lime juice; stir to combine. Serve over ice  
garnished with remaining grapefruit wedges.

*Share your favorite honey inspired recipe to be published in the next issue of The Bee Space!*

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# ON-GOING ED

## UPCOMING CONFERENCES

### **ABF Conference – Jacksonville, Florida**

**January 3 – 7, 2023**

The Tradeshow is yet another place where you can learn about the latest products and services available to beekeepers. They anticipate more than 80 exhibitors, who are all anxious to meet with you to demonstrate the latest in beekeeping innovations.

Visit their [website](#) for more information.

### **Hive Life Conference and Tradeshow**

**January 5 – 7, 2023**

The primary goal of this program is to equip the next generation of serious beekeepers with advanced knowledge, networking opportunities, and exciting experiences!

Visit their [website](#) for more information.

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The Garfield Park Conservatory is offering several lectures worth considering

### **Virtual Beekeeping Lecture with Atreya Manaswi**

**January 4, 2023 @ 6:30 pm - 8:00 pm**

Visit their [website](#) to register.

### **Introduction to Backyard Beekeeping**

**January 8, 2023, 6:30 PM – 8:00 PM PST**

Visit their [website](#) to register.

### **Virtual Beginning Beekeeping 2 Part Class**

**January 12, 2023, 6:00 PM – 8:30 PM CST**

Visit their [website](#) to register.

## Getting into Beekeeping - Hybrid Online Class

January 12, 2023, 11:00 AM PST

Visit their [website](#) to register.

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### Breakfast with the Bees hosted by James Konrad

The Fox Valley Beekeepers Association extends an open invitation to all beekeepers to join them via Zoom for a group chat every Saturday at 7:30am Central Time. Guests are encouraged to ask questions and contribute to various topics that relate to the season. Please email James at [james@jamesgardenbees.com](mailto:james@jamesgardenbees.com) for more information.

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### Varroa mite management tools

#### **Randy's Varroa Model on the Web**

This tool helps the beekeeper plan treatment options in order to avoid colony "crash" in the off-season.

<https://chickab>

#### **Honey Bee Coalition Updated Guide to Mite Treatments**

Visit their [website](#) on all the latest mite treatment options, along with "how to videos."

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### Interesting articles and Podcasts

#### **Honey bee life spans are half what they were in the 1970s**

Laboratory study might provide new explanation for colony collapses. [Click here.](#)

#### **Joe Rogan Experience #1908 with Erika Thompson**

Erika Thompson is the owner and founder of Texas Beeworks: an organization promoting public awareness and education about the valuable work bees and beekeepers do. [Click here.](#)

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# ODDS & ENDS

### **WillBees Membership Dues!**

Please renew your memberships by January 31 for the 2023 season. Cash and checks are accepted at our member meetings, or visit our [website](#) to renew online. Badges will be printed in February.

### **Share what you know**

We are looking for people to help contribute to your monthly newsletter:

- Feature articles that you'd like to write
- Review of a book or article in a journal you read
- An educational opportunity that you are aware of
- Pictures that you'd like us to share
- Recipe using honey you would like to share

### **Don't forget to register your hives for free with the Illinois Department of Agriculture.**

<https://www2.illinois.gov/sites/agr/Insects/Bees/Documents/beekeep.pdf>

### **Swap Meet**

Let's all start going through our existing equipment and think about donating it to new beekeepers. Items may be things you originally may have used and replaced or have more than you need. At a future meeting we will all bring these items and raffle things off.

Please email [willbees-board@willbees.org](mailto:willbees-board@willbees.org) with anything you'd like to share today.



**Update your calendar for our upcoming WillBees meetings:**

Wednesdays at 7pm:

Jan 18, Feb 15, Mar 15, Apr 19, May 17, Jun 21, Jul 19, Aug 16, Sep 20, Oct 18, Nov 15

**BOARD MEMBERS**

Patrick Schab, President

Dennis Wisnosky, Vice President

Susan Gregory, Treasurer

Fran Miller, Secretary

**DIRECTORS** (years remaining on term):

Keith Meiser (3)

Dave Meyer (1)

Jim Moleski (2)