**TEXAS BEEKEEPERS ASSOCIATION** 

## journal

July/August 2023 www.texasbeekeepers.org Issue 23-4



#### THE SWEETEST COOK-OFF IN TEXAS!

Gather your friends, family, bee club, or coworkers and come to the 3rd annual Honey Cook-Off. Winners take home a coveted plaque and cash money! Or come enjoy an evening of live music, great food, honey, mead, and vote on your favorite dishes!



COMPETE

September 30, 2023 12 PM - 4 PM



Scan the QR codes above to purchase your wristband. All wristband sales will go to support Real Texas Honey & Grimes County Animal Shelter. In 2022, we raised \$1,500 for each!



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#### The Texas Beekeepers Association Mission Statement

The Texas Beekeepers Association (TBA) promotes the common interests, the betterment of conditions, and the general welfare of beekeeping.

## the president's report



Dodie Stillman TBA President

The TBA Summer Clinic was such a great time – Byron Compton and his team of volunteers really did a phenomenal job of organizing speakers, vendors, and delicious food. I felt the excitement from attendees about the classes and learning, as well as can currently share later in this journal.

We should call this the money issue... not only did we make great progress in the Legislature, but a major grant of over \$2 million was awarded to Dr. Ozturk to help provides various opportunities to

the appreciation for the new networking opportunity to meet fellow beekeepers, visit with vendors and just socialize without being in a rush to get to the next class. We have a list of super volunteers later in this issue, if you know them personally, please reach out and tell them thank you!! I'm constantly amazed at how much work is actually involved with getting these event put together and the tireless and often thankless efforts



Pictured: Dodie Stillman, Joe Morris, Representative Gonzales and Kevin Stillman

of everyone involved. I'd like to personally thank each one of you for your hard work. It's absolutely appreciated!

On the heels of our Summer Clinic the Legislative Committee jumped into work on one of our longterm resolution, obtaining a full-time apiculture specialist devoted to beekeeping to serve as a statewide resource for research-based apiary management practices. We had an exceptional opportunity to work on this goal that was a direct result of the progress the TBA Legislative Committee has made in building relationships and creating dialogue at the Texas Capitol. See the full story and all the exciting details we 4 JOURNAL OF THE TEXAS BEEKEEPERS ASSOCIATION | ISSUE 23-4

money from the US Dept. of Agricultural National Institute of Food and Agriculture was awarded to Dr. Rangel and Dr. Behmer to provide a study on how the honey bee diets and forage availability contribute to overall colony health. Check the Rangel Report for more details on this grant and what the proceeds from the Nevin Weaver fund have helped provide this year.

Beekeeping always slows down a bit after the heat kicks in and the summer heat has definitely started. An ice filled hydration pack or even an ice vest can really help if you are spending any extended time in the bee yard. I also pack a wash cloth in ice water in a ziplock ISSUE 23-4

for Dr. Ozturk's article for all the details. Additionally,

underrepresented

students for USDA

career paths. Look

educate the UTSA College of Science

students about

the importance

of beekeeping and explore

the medicinal

properties of

Texas honey. A major goal of this

generous grant

is to provide

workforce training for

Additionally, \$750,000 of grant bags for a quick sweat removal and cool off. Plan on working early in the day when possible to avoid the heat. Make sure your bees have enough feed during the summer dearth. Many colonies are lost during the summer heat due to lack of food stores, and as the colony population shrinks, the mite population Ag Building. After you shift at the booth, you can enjoy the Fair, and take in a football game!! If you can't make it to the Fair this year, your honey could still be displayed. Honey Donations can be shipped to: Skip Talbert 22326 CR 638 Josephine, TX 75189 Do not ship glass unless extremely well packed. To volunteer

is still increasing, so monitor and keep an eye on your ladies. Stay hydrated and be safe!!

If you are looking forward to the fall, you are not the only person!! And for me that means football! I'll be looking at the games at the Cotton Bowl and picking my time to help at the State Fair of Texas TBA



Honey Gift Baskets delivered to Texas Representatives

Booth. It's a great deal... you get a parking pass, and a golf cart will come to your parking spot and pick you up and bring you from your car to the air conditioned

experience in Temple, Texas November 2nd-4th. (More details will be posted on the website soon.) I hope everyone had a great honey harvest.

\$1 Million for Honey Bee Extension Program Several new full-time positions will open in September for Apicultural Specialists to be housed across the state of Texas.

Support for AgriLife Extension for programs and applied research related to honey bees was also funded during the 2023 Legislative session.

### 2023 LEGISLATIVE ACCOMPLISHMENTS

or arrange honey drop off, contact John Talbert Call or text at 214-532-9241, email at beekeeper1959@gmail. com

We are already looking forward to the TBA Fall Convention and I think it's going to be an exciting event based on what I'm seeing from the planning side - we can't wait to share more details but mark your calendar for a fun and educational beekeeping

## vice president's report

Byron Compton TBA Vice President

One big event down – Summer Clinic – and one more to go for 2023 – Fall Convention. Thanks to all attendees at our TBA Summer Clinic. I do believe everyone had a good and rewarding experience. These events never run perfectly smoothly, and there are always areas we can improve. We compiled results and comments from Member Surveys and no surprise here, but y'all want MORE COFFEE, MORE SNACKS, SHORTER FOOD LINES, and don't want to travel more than an hour! I sure wish we could accommodate all your requests. We did have some comments on sound in some of the sessions, and for some sessions the information was just too much to deliver in a 50-minute time slot. For the future events we will try to address all those issues, as much as our budget allows.

Speaking of the Fall Convention, we are lining up two great workshops for Pre-Convention Day – Thursday, Nov 2<sup>nd</sup>. One is a Queen Rearing workshop presented by Dr. Juliana Rangel-Posada from the Texas A&M Bee Lab, and the other is a workshop on Varroa Mites and Deep Dive Hive Inspections by Dr. Zachary Lamas from University of Maryland and USDA. We will have a second half-day workshop on Beginning Beekeeping Thursday morning by Chari & James Elam from 9 till noon our normal lineup of special updates on legislative actions affecting honeybees, TBA business meeting with election of new slates of executive committee positions, our banquet, and auctions to benefit THBEA as well as educational sessions.

Going forward, we are investigating options for Summer Clinics and Convention including combining them into a single event with or without an extra day, moving the date to be more accommodating of the beekeeping year, and a couple of other options. As we narrow down the options, we will keep you informed and solicit member inputs – after all these events are for YOU! So, we need to adapt to your needs and desires. And we are always balancing location selection to not inconvenience members by requiring long distance travel, but Texas is a BIG state and cities with acceptable facilities to host our events are limited.

Well, I need to wrap this up and get it submitted for the journal, and then get out and start harvesting supers for extraction – all indications are, in MY location, it might be a good harvest year. I hope yours is awesome too!

Regards, Byron Compton Vice President

On Thursday and Friday, Nov 3 & 4, we will have

### **TBA Business Meeting**

Saturday Morning, November 4th, 2023

8:00 am to 9:30 am

TBA Convention, Temple, TX





## TX5000<sup>™</sup> COMPLETE HIVES SUMMER BEES!

With all new equipment, 3-4 frames of brood, 2-3 frames of honey, 2 frames of drawn comb, and 20,000+ bees, this is the perfect way to start or grow your apiary! Comes with a varroa screened bottom board, and you can purchase & pick up the same day, Wed.-Friday, June-August!



KEEPERS HELPING BEEKEEPERS™





- Pick up Wed-Fri. in Blue Ridge & Dayton/ Huffman
- 3 pick up dates available in Round Rock



## the legislative committee

#### Bee Laws

The 2023 legislative session was a huge success for TBA as we were able to see two of our memberdirected initiatives finally become a reality: A statewide apiculture specialist and updated bee laws!

The 2024-2025 biennium Texas budget includes \$500,000, in each fiscal year for A&M AgriLife Extension to support a "Bee Pollinator Program." Of this amount, approximately \$200,000, each year is specified to be used to fund a full-time apiculture specialist devoted to beekeeping to serve as a statewide resource for research-based apiary management practices. The remaining \$300,000, each year will be used by AgriLife Extension to support programs and applied research related to honey bees.

TBA representatives have already had one meeting with Dr. Phillip Kaufman, Professor and Head of the Department of Entomology, and Dr. David Kerns, Associate Department Head for Extension, to talk about needs and priorities for the funding. They are working on a strategic plan so that they are prepared for the fiscal year which starts September 1. Joe Cox, Associate Vice Chancellor for External Relations for AgriLife as well as TBA's lobbyist, Joe Morris, were also invited to the meeting to help answer questions about the legislative intent for the funding. "We could not be more pleased and excited about what we heard in this initial conversation," said Dodie Stillman, TBA President. "Both Dr. Kaufman and Dr. Kerns were enthusiastic about the program, and we believe this program will prove to be very beneficial for Texas beekeepers. We look forward to keeping TBA members updated as more information becomes available."

This funding would not have happened without the assistance of Joe Morris. Joe has worked with TBA since 2019, helping TBA build its reputation as a credible organization representing the beekeeping industry in Texas and developing relationships with legislators in Austin on our behalf. Last year, Joe approached Rep. Mary Gonzales of El Paso County, a strong supporter of Texas agriculture, about the need for a bee specialist in Texas. "Rep. Gonzales enthusiastically supported TBA in this initiative and worked hard as Vice Chair of the House Appropriations Committee, through a very arduous budget process, to help secure this funding for us," said Joe. Regarding the funding, Rep. Gonzales stated "Pollinators are critical to our ecosystems. Specifically, when it comes to agriculture, they play a significant role in food and fiber production. The heightened interest in beekeeping is exciting, and I'm pleased the legislature saw it fitting to provide funding for an AgriLife apiary specialist to provide ag extension agents, ag educators, and beekeepers the resources that most other ag commodity groups now enjoy and rely on." We sincerely appreciate her efforts on behalf of Texas beekeepers!

The second initiative became a reality with the passage of HB 4538, a bill updating Chapter 131 of the Ag Code. Once again, we sought Joe's help in finding us an author for this bill and he steered us to Rep. Kyle Kacal of Bryan. Rep. Kacal and his staff were very easy to work with and they worked diligently to get this bill through the House. Sen. Morgan LaMantia of South Padre Island sponsored HB 4538 for us in the Senate and it passed on the last day for consideration sometime between 10:30 p.m. and midnight! We appreciate Rep. Kacal and Sen. LaMantia so much for helping TBA advance these much-needed updates to the Texas bee laws. Bill Baxter is busy writing new regulations for implementation of the changes which take effect September 1.

While we didn't get everything we wanted this session, what we did accomplish is significant and will have a very positive impact on Texas beekeepers now, and into the future. We encourage you to send an email to those legislators that did so much for TBA this session and let them know how much Texas beekeepers appreciate their efforts.

> <u>mary.gonzales@house.texas.gov</u> <u>kyle.kacal@house.texas.gov</u> <u>morgan.lamantia@senate.texas.gov</u>



### SPECIAL THANKS TO

BOB ROGERS, DVM SOPHIA AND ALLIE THE HANSZ FAMILY CATHY FINDLAY SANDRA KNIGHT JAMES COVARRUBIAS KEVIN STILLMAN and all of the fantastic volunteers who made the clinic a success!





## free bee removals



Ryan Giesecke Texas Association of Bee Removers, President

They never stop coming. The customers who aren't, and the beekeepers who encourage them. My phone rings and the caller wants to know if I want the bees from their second story soffit. I tell them I'm happy to provide a quote for removal, and they are shocked that I expect to be paid. I sign into Facebook and find a post about bees that killed someone's dog yesterday; they are hoping someone wants to remove the bees for free. I see a Craigslist ad from a homeowner wanting to sell the bees out of their wall. They're wondering how much a beekeeper will pay for the chance to remove them, and they're threatening to hire an exterminator if no one is interested.

This would be almost laughable, if only the root of these skewed impressions of the situation didn't come from within the beekeeping community. But some beekeepers absolutely jump at these situations. I'm somewhat embarrassed to say that I was there once myself - an enthusiastic new beekeeper who wanted to save bees badly enough to offer removals free of charge. "Bees are valuable," I told myself, as I worked for hours on a ladder in the Texas heat. "Save the bees!" I said. People were grateful, and I thought I was helping.

#### Bees are valuable! Free bees!

I once sat down and added up the potential value of a honey bee colony over a single successful season, broken down into component parts and sold at market value; I rapidly realized that in this light a colony was worth many times what a colony sells for. Did you know that the package bees essentially sell, coincidentally, for just the value of the venom they carry? I've often seen established colonies sell for numbers that barely cover the value of the honey they contain. Hyper-defensive genetics are often seen as worthless or worse... I've been paid to cart away Langstroths and topbars when they're filled with unmanageable bees in urban backyards. What is a beehive worth? A managed colony derives its value directly from the labor that a beekeeper has put into maintaining, managing, and harvesting. Berry farmers may build successful businesses incorporating "pick your own" models, but their customers do not pay beekeepers for "pull your own honey" outings.

So what does that make the unmanaged colony in the wall worth? Well, I once spoke on bee removal at the TBA Conference, and I asked a room full of prospective and current bee removers from around the state what they would pay for the bees from the cutout removal I did the day before. No details about the circumstances, just blind-box removal bees. "What are they worth?" I asked. The high bid in that room was \$25, and that's once they're out of the wall. Let's face it, bees in the wall are less than worthless from any reasonable economic perspective. It's easy to feel invested though. If you asked that same room full of beekeepers what they would sell the results of their most recent removal for, rather than what they would pay for mine, I suspect the numbers would look quite different. There's a false sense of value here. Good management and making splits will always produce better bang for your buck than doing removal work for the bees it produces.

#### Bees are in danger! Save the bees!

Honey bees are not an endangered species, and live bee removal is not what keeps populations from plummeting. By most accounts die-off rates have been on the rise in recent years, and management has been refocusing on reproduction to make up the difference. If you're worried about colony numbers you'd do far better making splits than offering removals. Better financially too, compared to free removals, but we already covered that to a substantial degree.

Where this arguably gets a little more complex is when we start putting value on genetic diversity and "survivor stock." Complex first because we never know whether we're removing long-time feral stock or bees recently absconded from management. Secondarily because debates rage about whether feral bees are actually survivors or simply short-lived colonies constantly dying or absconding and then reoccupying cavities. I do think I see more genetic diversity in an apiary queened with removal stock than an apiary where purchased queens rule; I see it a variety of behavioral deviations, some good and some bad from a management perspective. If you think you're getting genetic jewels from removal work I'll support that stance, so long as you realize you're getting duds as well.

I think I'm on safe ground when I tell customers that Apis mellifera may not live or die as a species based on our actions, but this colony will. I think we can agree that honey bees are a worthwhile resource, and I think it's worth avoiding lethal approaches to colonies that have become a problem. I see removal work as a path to not being wasteful. While I don't think live removal work "saves the bees," I do think it saves bees, and I think that's a worthwhile pursuit.

That said, if we want to save bees I think we save more by doing a day's work for a day's pay than by working for free. This takes looking at the big picture. Setting a reasonable expectation that beekeeper labor has value is essential to allowing for removals to be a primary focus for some, and allowing live removals to be a focus for some is essential to preventing demand for live relocations from dramatically outpacing the supply of available removal services. Every free bee removal story is told and re-told, and spreads an expectation that it is unreasonable for this work to provide compensation to those doing it. It reinforces, underneath an attractive exterior, the idea that beekeepers and bee removers should be working "for the bees," which we've already established puts us below minimum wage. No other industry suffers from newcomers and hobbyists shooting their community in foot to the same degree as bee removal, and of course the demand for free removal work will ALWAYS outrun the supply. The best case scenario for saving colony numbers is a fair rate of pay such that bees can be removed alive as often as possible. Free bee removals spread the misconception that while paying an exterminator to kill bees is totally reasonable, paying a beekeeper to relocate bees is somehow being cheated. The unfortunate reality is that this mentality is likely to increase the number of colonies being sprayed in the long run.

#### **Charitable Services**

There's nothing wrong with supporting a good cause. There are non-profits and elderly couples on disability income needing help with their bee problems, and I don't mean to imply that every free bee removal you might consider doing is equal. Removing bees from your church without charging is likely not to promote the same misconceptions as a removal from a thriving place of business or a pool house in a gated community. Charitable work is its own category, and it's going to involve its own priorities. Yet when I hear people plead charity as they're working for free for a large municipality, the seller (or realtor) of a nice home under contract, a roofing company, the owner of a vacation home that is worth more than their place of residence... you get the idea. Vet your charitable beneficiaries.

#### Swarms are easy and fun!

By now some of you are practically jumping up and down saying "but what about swarms!?!" Swarms are likely to be seen as carrying more value than bees from a cutout. They take less time and expertise to collect. Many beekeepers consider a swarm capture fun. If the world was made of beekeepers I'd tell you there's no downside to collecting swarms for free. If the world was made of beekeepers you'd need to, just to get one. But the world is not made of beekeepers.

Swarm removal has value, from a homeowner's perspective, unless we persuade them otherwise. To some extent this is because people are scared of bees. More logically, this is because absent collection those bees may well move into a cavity where more laborintensive approaches to relocation will kick into play.

"But is there a downside for the community?" you ask. "It's just a swarm, after all." On that big-picture note that we discussed in terms of valuing beekeeper labor and saving bees, since the world is not made of beekeepers, I would point out the reality that many of the people who will call you to relocate bees won't know the difference. Many callers saying "hive" mean a swarm, and many callers using the word swarm have an established colony. A few will say "swarm" and mean foragers on flowers. So it goes.

So in the name of avoiding the potential negative impacts addressed previously, I recommend that beekeepers collecting swarms ask for money. If you don't feel comfortable charging for the service that is swarm collection, then don't. But there are other ways to remind the non-beekeeping public that there is value in what we do. I've charged only for mileage. I've charged only for windshield time. I've picked up many a swarm with a pitch for a suggested donation to an area beekeeping nonprofit. It's a great moment to tout the benefits of the local beekeeping association, youth beekeeping program, or one of the groups focused on honey bee health. Even if they choose not to donate, your underlying message remains clear: "I think there is value in what I do, and you should too." And that, I think, is a point worth making.

#### Texas State Fair Honey Show

## calling TX beekeepers!

Are you feeling especially proud of the honey that your bees made this year? Is it exceptionally tasty? Do you think your honey could go toe-to-toe in competition against other honey entries from across the state?

If so, consider entering some of your honey from this year's harvest in one of the three honey contests sponsored by the Texas Beekeepers Association at the State Fair of Texas:

- Black Jar Honey Contest judged exclusively by taste <u>only</u>
- Polished Jar Honey Contest judged on several criteria including presentation of the bottle itself
- Creamed Honey Contest judged on firmness, smoothness of granulation, flavor, etc.
- Honey, the Magic Ingredient (a.k.a. cooking with honey contest) where honey must be a key ingredient in the recipe

Here are the basic facts:

Who: YOU!

- What: The Texas Beekeepers Association Polished Jar and Black Jar Honey Contests
- When: Monday, October 2<sup>nd</sup>, 2023
- Where: In the kitchen/cooking area of the Creative Arts building

at the GREAT State Fair of Texas (on the north side of the Cotton Bowl)

#### **Timeline**

9 a.m. - all Honey Contests open for accepting entries

10:30 a.m. - ALL Honey Contests closed; no more entries accepted

10:31 a.m. - judging begins

Note: ALL honey <u>must</u> come from Texas honey bees/hives.

There is no charge for entering the Black Jar, Polished Jar, or Creamed Honey Contests, however... there is a \$2 per entry fee for the cooking with honey category: Honey, The Magic Ingredient Contest.

Immediately following the Honey Contest judging, ribbons for first, second and third place winners will be awarded within the contest area, and photos of the winners will be taken!

#### Honey and Cooking Contest General Information and Rules

Click on the link to download the 2023 State Fair of Texas Cooking Contests Handbook:

2023 SFT CreativeArts CookingContestGuide 2.pdf (bigtex.com)

- Honey, the Magic Ingredient Contest (a.k.a. cooking with honey) is on page 27
- Black Jar, Polished Jar and Creamed Honey Contest(s) are on pages 28-29

Regarding the Polished Jar Honey Contest, please note:

Below is a diagram to demonstrate the appropriate honey fill-line in the queen-line jars.

\*Notes on correct fill level: The correct fill level on a "Queen-line" or "Classic" style honey jar is at the top of the fill ring of each jar. The fill ring is the raised ridge or ring of glass immediately above the shoulder of the jar, and below the threads. It can be distinguished from the threads in two ways: a) the fill ring forms a complete circle, without ends; and b) the fill ring will be completely parallel with the bottom and top of the jar. There should be enough honey in the jar to reach the top of the fill ring, without going over. Liquid honey in a circular shape forms a concave surface sometimes referred to as a meniscus. For purposes of filling honey jars for exhibition, the edge of the meniscus should meet the top of the fill ring. A jar of honey being over-filled is preferable to one being under-filled.



### **SAVE THE DATE**

2023 TBA Convention November 2-4 Temple, Tx

## the texas keeper



A Backache and Sore Knees are Not Your Friends by Kirk Kirksey

I have been hearing a rumor about bee keepers; it goes something like this. "You beekeepers take better care of those bees than yourselves." At first, I thought this was just grumbling by beekeepers' spouses and mothers. Then I did a little research and found the rumor may be true. The data shows beekeeping can be risky business.

Since beekeeping is considered part of the Agricultural Sector, it has many of the same risks as other "Agricultural" occupations. Highest risk activities include heavy lifting, twisting, and awkward positions. I'm betting not a single beekeeper is surprised by this statement. One international study found the most common injuries to beekeepers were back and knee injuries. Still no surprise. This all boils down to ergonomics – the study of fitting the workplace and tools to the physical capabilities of the worker. The formal study of ergonomics is a big deal for many occupations. For beekeeping – not so much.

#### Understanding The Problem

We don't know how many beekeeping related injuries occur each year, since (unlike other agricultural professions) beekeeping injuries are not reported. So, unlike other specific occupations, there have been very few academic studies examining ergonomics for beekeepers. This means evidenced based ergonomics for beekeepers is pretty much at Square 1.

One study conducted by Canadian and Australian researchers surveyed real beekeepers to catalogue highest risk activities for beekeepers. Beekeeping activities were broken down into "...three main operational stages": 1) population of hives which involves starting new hives and ensuring overpopulated hives are separated; 2) management of hives which includes acquisition and maintenance of a healthy egg laying queen bee, and inspection of hives for queen health and pests, and hive integrity; and 3) honey extraction, bottling and sales. Each stage holds risks of injury for the beekeeper. But what to do about it?

#### **DIY Ergonomics**

Beekeepers. We are an impatient bunch. We don't like to wait years for Ivory Tower Types to solve our problems. We are in the problem solving business so we try things. So, let's assume aching backs and sore knees are big problems for beekeepers today and will only become worse with age. This means we must come up with solutions that limit bending, risky lifting, and twisting into awkward positions. Easier said than done, I know.

Many of our colleagues agree with a homegrown approach since there are plenty of DIY ergonomic solutions out there. Here are some back-and-knee saving suggestions from real beekeepers, a few academicians, and one physical therapist.

My Portable Folding Bistro Table I'm starting this list with one of my personal favorites. Many years ago I bought a small, portable table at one of the big box stores. It is light, folds up, and is easily moved. Come hive inspection time I use it to hold hive covers, stacked boxes, my smoker, rocks – anything I need to be within easy reach For me, my little back saving little table is just as essential as a hive tool.



#### Frame Hanger

Here is another one of my favorite tools. These gizmos hang easily on the outside of a box so that starting and inspection I can hold (with no bending) two or three frames. This keeps frames out of the dirt, and makes room inside the box for an easy inspection.

One word of warning. You will hear/read, "all frame hangers are the same." Not true. Frames hang freely in a wide opening. In cheaper hangers (read lowest online price on U-Know-Who made in U-Know-Where) this opening is not closed. Hanging frames heavy with honey can cause the opening to stretch, and drop the frames . Buy a frame hanger with a closed opening.

#### Hive Moving Devices

Deep hives boxes can weight 80lbs; medium boxes 60lbs. For beekeepers needing to regularly move these kinds of loads, a hive moving devices may be your ticket to a pain free back and not-sore knees. These machines come in three flavors: homemade (naturally); devices made especially for hive moving; and adapted general lifting devices. Here are a couple of examples.

Apilift is a fork lift dolly type especially manufactured for lifting and moving heavy hive boxes. Now the bad news. Apilift is made in Poland and ships from overseas. You can find Apilift details on Ebay.

Apilift



EZ Lift Hive Truck is sold by Mann Lake and is designed for hives sitting on the ground or on pallets. A "retractable hive catch" slips into the usual recessed hand holds allowing the operator to lift and move the boxes.

These types of moving devices are expensive and so target the commercial and sideliner markets. For smaller operations there are alternatives

#### Move Frames Not Boxes

Beekeepers like to think in terms of hive boxes full of frames. To lessen back and knee strain, break up the load. When honey harvest time rolls around, don't lift a super filled with capped honey frames. Transferring a few of those harvest-ready frames to a more workable container. This might be a plastic storage bin or smaller (e.g. eight frame) hive box.

I like to keep sticky mess at a minimum by using an empty five frame Jester EZ NUC Box with the entrance sealed up tight with duct tape for moving harvest-ready honey frames. Honey drips onto the bottom of the box and not the bed of my pickup. Close the lid and marauding bees can't get in. Post extraction, use the EZ NUC to transfer icky frames back out to the bee yard with minimal mess. Undo the duct tape and open the lid, and the bees will even clean up the honey drippings inside the box

Time for a Different Kind of Hive? Long Langs – a horizontal, one level Langstroth – and Top Bar hives have long been the go-to hives for folks who with knee and back issues. All work is done at waist level with very little bending or heavy lifting required. But hold on –

There's a new kid on the block: The Slovenian Hive. This hive looks kind of like Langstroth style hive with one big difference. Frames are removed, one by one, from the rear of the hive box so there is very little heavy lifting.



It's hard to find Slovenian hives and when you do, they are expensive. A Slovenian Hive variant called the LAAZY Hive was developed by Ohio Beekeepers. Their version converted Langstroth equipment. You can read about the LAAZY Hive project here:

https://northcentral.sare.org/news/laazy-hivesergonomic-hive-alternative/

### Plans for converting Langstroth hives to the LAAZY hive model can be found on Amazon at

#### https://northcentral.sare.org/news/laazy-hivesergonomic-hive-alternative/

#### My Favorite Suggestion

I read a case from a woman who managed 50 hives. Lifting a 60-pound super from a 6 box tall hive was becoming difficult for her. She built a movable "scaffold" (her word). At the end of her write up she gave her age – 73.

#### MY PHYSICAL THERAPIST SAID...

I told my PT I was writing this article, and asked him to give me his best advice for beekeepers. Here are his Big Three recommendations.

Number 1. "Lift with your legs, not your back." We've all heard this a zillion times. We know we should, but we don't.

#### Number 2. "Get Help"

My Physical Therapist says beekeeping should not be a Clint Eastwood movie. There is no dishonor in asking for help if the load is too heavy for one person.

#### Number 3. "When you pull your back - MOVE.

My Physical Therapist says sooner or later, you WILL pull your back. When you do avoid the temptation to lay around YouTubing for a couple of days. Move as much as you can. Yes, it's painful, but inactivity will cause muscles to become loose and out of shape. The result will be a longer recovery time.

I agree with my Physical Therapist. Sooner or later we'll all overstrain our backs and knees. It's part of the cost for doing what we love. Think of it this way. If we hurt ourselves, our bees will suffer too. Be careful out there.

#### **REFERENCES:**

Fels DI, Blackler A, Cook D, Foth M. Ergonomics in apiculture: A case study based on inspecting movable frame hives for healthy bee activities. Heliyon. 2019 Jul 8;5(7):e01973. doi: 10.1016/j.heliyon.2019.e01973. PMID: 31334369; PMCID: PMC6617107.

Jim and Sandy Metcalf. When Hives Get Too Heavy. The American Bee Journal. 2018. Vol. 158. No. 4 Hannah Gouzias,Sarah Smith,Alex Venditti. Bee Hive Lifter: A Major Qualifying Project Report. Project Number: C152, 2016. https://www.google.com/



## the brantley column

S. S. Brantley 2016 Life Member Texas Beekeepers Association 2017 Life Member Louisiana Beekeepers Association

2023 has really produced some extreme weather conditions for the beekeepers. August will probably be hotter than the summer temperatures we have seen so far. Unless we get some weather systems that produce continual rainstorms or pop-up showers, I suspect the bee forage is going to burn up or just barely live and not be able to produce any nectar.

Some of my sideliner/commercial acquaintances are getting much less honey extracted than in past years. One producer collected only eight barrels of honey compared to twenty-eight or thirty in previous years. At this point, I suggest you consider the supply and demand situation when pricing your honey and do not sell it at prices too low for this market.

During August the bees don't have much to do except carry water and fan the hive for cooling. The colony can be very aggressive, so much so that you might start thinking your bees have become Africanized! Be prepared to use caution when opening the hive. By all means have a smoker that produces a good volume of white smoke.

Venting the hive helps the bees keep it cooler. If you vented by placing the edge of the telescoping cover on the edge of the inner cover, make sure that the outer cover is sloping from the front of the hive toward the back. This ensures that any rain that might fall will run off the back of the hive and not flood the landing board.

Use the August heat to your advantage. If you are still extracting, the hotter days make the honey flow more easily from the cells while extracting. Solar wax melters work much faster in the August sun to turn your supply of cappings into beautiful white wax. Before melting the wax, consider spreading it in flat containers and allowing the bees to collect any remaining honey before putting the cappings in the solar melter. If you find the bee's honey stores are limited, you would not err in feeding a 2:1 sugar/water mixture. Why 2:1? Because your bees can begin to store this heavier mixture for their winter food supply. You want to have a good winter food supply to help produce the "fat bees" to get the colony through the winter clustering times and have them ready to begin collecting nectar in the 2024 season. Important note: Do not start feeding sugar water until you have completed this season's honey extraction. You don't want your extracted honey to be mixed with sugar water!

If you have only two or three hives with a couple supers each, consider leaving the supers on the hive to overwinter. The bees can probably do a better job protecting them from the wax moth easier than you can pull them off and find a place to stack them. If you do remove and store the supers, you will need to protect them from wax moth infestation by using Certan or paramoth crystals. To use paramoth crystals, place newspaper on the floor and stack the supers on the paper. Place a paper plate or an 8x8 inch piece of paper on the top of the third super. Pour <sup>1</sup>/<sub>4</sub> cup of paramoth crystals on it. Continue to stack supers in this manner, putting crystals on each third super and on the top super. Then cover the stack with a telescoping hive cover. For safety, do not stack over ten high. Crystals will evaporate so check the top batch of crystals to monitor their progress and replace before they all evaporate. Remember to add more crystals to the lower supers also.

Be aware that drones may have already been expelled from the hives so it would not be advisable to try to raise your queens at this time. There may not be enough drones to mate with a virgin queen. Watch your hives in the fall to see if the goldenrod flow may convince the colony to raise more drones for a possible fall mating.



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## TAIS update



Bill Baxter Chief Apiary Inspector, Texas Apiary Inspection Service

### Greetings to Texas beekeepers from TAIS

I wish to begin with a quote from Mary Shelley of Frankenstein fame—" there is nothing so painful to the human mind as great and sudden change".

Well, the change is not sudden, but it is coming. In the 88<sup>th</sup> Regular session of the Texas Legislature HB 4538 was passed and signed by Gov. Abbott. This bill will take effect Sept. 1, 2023 and will create changes for TAIS and Texas beekeepers. TBA and TAIS have worked together for several years to update our Chapt. 131 bee laws in a reasonable and responsible manner.

Some of these changes will affect a lot of people and some not so much. The rule changes have to go through the state of Texas administrative process, so there will be a required posting in The Texas Register and a time requirement for public comment.

The Intrastate permit that applies to apiaries in multiple counties will be repealed. Beekeepers moving bees from one county to another will have no required permit on that basis. This change will also do away with the Bee Removal Transportation permit that existed to meet the Intrastate requirement.

Beekeepers moving bees into and out of Texas will no longer deal with separate Importation and Exportation permits. They will be replaced by a new Interstate permit that will have to be renewed each fiscal year that begins Sept.1.

A few changes will show up in definitions. The definition of apiary will no longer state the number 6. A beekeeper will be person who owns, possesses, leases, controls or manages a colony for any purpose.

Registration procedure will see the biggest change. TAIS form will change to "beekeeper" registration instead of "apiary" registration. Registration will be voluntary in most cases, the exception being for beekeepers doing bee removals, as that Structural Pest Control law requiring that has not changed. If beekeeper requests registration there will be a \$35 fee assessed. Registration will only be valid until Aug. 31 of fiscal year, regardless of when registration is done, and must be renewed each Sept.1. This policy will help give our agency up-to-date data and resolve the issue of people registered in our database that have not had bees in years. There will be an abrupt change on this. <u>ALL REGISTRATIONS</u> WILL BE NULL AND VOID ON AUG. 31, 2023.

Beekeepers doing live removals will not see much procedural change, just different paperwork. They will still be assessed an annual \$35 fee,but it will be a registration fee. There will be no mandate or restrictions on counties operating in. TAIS will still have the bee removal list as a public service, though only a finite number of counties will be on registration form.

I will be presenting on this at the Brazos Valley Club's bee school in Sept. and at the TBA Convention in November.

The other thing I wish to address is people (beekeepers?) selling nucs. Sell a quality product and do not take advantage of people with less knowledge than you. If Johnny Beekeeper calls me to come look at a nuc he/she bought there should be bees in the box and should not have frames that should have gone in the burn barrel 10 years ago. You are required to furnish the buyer a copy of a health certificate from TAIS or a health statement of your own.

TAIS will continue to offer a paid inspection on a requested basis. A clean inspection will be issued a health certificate that will be valid for 12 months from date of issue. A beekeeper may use this certificate to present a copy to an appraisal district, to a buyer or for other business purpose. txbeeinspection.tamu.edu tais@ag.tamu.edu (979) 845--9713

## the happy

### herbalist



Homemade Sunscreen Bar By Carolyn Gibson

If you know how to make to make lotion bars, it just takes one more step to becoming a Sunscreen Bar. Protect you and your loved ones from the sun with chemical free, natural ingredients, made by you.

I had trouble with my grandkids wearing sunscreen. They complained it would get in their eyes. My husband would not wear sunscreen, same complaint, he would sweat and it would get in his eyes.

Natural ingredients:

- Beeswax makes the sunscreen water resistant.
- Nourishing plant butters and oils, Cocoa Butter and Coconut Oil
- Sunscreen Ingredient: Non nano Zinc Oxide, shields skin from sunlight, pollution and wind by creating a physical barrier.
- Optional: Jojoba Oil infused with Rosemary, a natural antioxidant that decreases UV damage.

Add 20-25 % by weight, Zinc Oxide powder to any lotion, body butter or lotion bar to create a DIY sunscreen. It is important that it is a non- nano Zinc Oxide powder to ensure that it will not be absorbed by the skin, but will remain on top of the skin to create a barrier.

Zinc oxide is a white, powdery mineral that is used safely as a sunscreen by scattering and reflecting UV radiation. It has a long history as being used in cosmetics, diaper rash ointments, acne creams, foot powders and sunscreens. It is one of the active ingredients in Calamine Lotion. The FDA has done extensive research on Zinc Oxide powder and has declared it safe to use up to 25% concentration.

I have converted my lotion bar recipes to grams, to make it easier to figure the percentage of the Zinc Oxide powder. After adding Zinc Oxide powder to several of my lotion bar recipes, my grandchildren, my husband and I agreed on this particular recipe.

I am treating the Coconut Oil as the liquid fat since it will be summertime, maybe stored in a hot car, it will definitely be over 78° f. Coconut oil becomes liquid when over 78° f.

- 54 grams of Beeswax
- 54 grams Cocoa Butter
- 54 grams of Coconut oil
- Or instead of the 54 grams of Coconut oil
- 44 grams of Coconut oil and 10 grams of Jojoba Oil infused with Rosemary
- 1 teaspoon of Vitamin E
- 54 grams of Zinc Oxide powder

• Optional: You could add essential oils or fragrance. I choose not to. If you have ever had bees, chasing after your sweet drink and treats at your favorite swimming hole, or other outdoor activity, you sure do not want them chasing you for your sweet smelling sunscreen.

1. Melt Beeswax on top of double boiler. Stir in the Cocoa Butter, and Coconut Oil or combination Coconut oil with Jojoba Oil. Stir until melted, and then combine them together.

2. Place melting pot on a towel to remove moisture from the bottom of the pan.

3. Let cool 1 minute and then stir in the Vitamin E and then the Zinc Oxide powder a little at a time.

- Mix thoroughly. 4. Pour into lip balm tubes or lotion bar tubes.
- 5. Let cool completely before capping.
- 6. Clean with alcohol and labe

Lotion, Cream and Body Butter recipes would make a softer and lighter sunscreen, when you do not need the water resistance of the beeswax.

Sunscreen lotions, creams, lotion bars and body butters containing zinc, automatically become a skin rash cream. You can of course try other lotion bar recipes and decide for yourself.

Look online or at <u>www.wholeasalesuppliesplus.com</u> for extra large lip balm tubes and lotion bar containers.

## *Protect you and your loved ones from the sun with chemical free, natural ingredients, made by you.*



ways to infuse oil.mp4

Lotion Bar Video.mp4 https://youtu.be/TZrkshzUgAQ



Making Infused Herbal Oil with Dry Herbs Video.mp4 https://youtu.be/OncBRdvzGLQ



diy zinc oxide skin rash cream.mp4 https://youtu.be/XaFz4QFIT8A



# 2.9 million dollars

Have you heard the buzz? San Antonio, TX, beekeeper and UTSA faculty Dr. Ferhat Ozturk was awarded a \$2.9M USDA NextGen grant to support the next generation of beekeepers through internships, seminars, research projects,

workshops, and a CURE course. The collaboration between Kelly Nash and Amelia King- Kostelac, professors in the UTSA College of Sciences, will allow Dr. Ozturk and his colleagues to establish the HONEY (Honeybee Orientated Nextgen Entrepreneurs and Youth) pathway to educate the UTSA students.

This federal grant will create various opportunities for underrepresented students to pursue USDA career paths by providing the resources to educate them about the importance of

beekeeping and the medicinal properties of honey.

The project also includes collaborations with Michael Simone-Finstrom of USDA-ARS, Dodie Stillman of Texas Beekeepers Assoc, Nathalie Misserey of the BeeMindful, Professor Juliana Rangel of Texas A&M University, Isaac Rodriguez, Ph.D. of SweetBio, Inc., Taylor Powell of TAIS, Robert Holliday of Alamo-Area Beekeepers Association, and Craig Rose of Judson ISD.

Ferhat Ozturk, an assistant professor in the UTSA College of Sciences Department of Integrative, has been leading a Course-Based Undergraduate Research Experience (CURE) on the medicinal properties of honey offered by the integrative biology department. The CURE course on the medicinal properties of honey has been a great success.

In the course, students conduct hands-on original research analyzing honey's antioxidant and antimicrobial capacity through biological and chemical



Dr. Ferhat Ozturk, UTSA Professor

analyses. Throughout this course, students have tested more than 100 honey samples to identify the biological activity potential using various antimicrobial and antioxidant methods.

When students are not in the lab, they are enjoying seminars from beekeepers, entrepreneurs, media producers, and military veterans as they illustrate the endless array of knowledge of honey.

Dr. Ozturk has shared his love for honey and passion for research with his students and witnessed their enthusiasm

grow as they delved into research. "I love everything I have learned so far, and I am excited for the future implications of the HONEY pathway grant," Victoria Garcia shared, a senior studying biology and past CURE student.

The grant will provide five years of support by strengthening the hands-on learning experiences for UTSA students and support future leaders in beekeeping by exploring honey's medicinal properties. T

Through these opportunities, students will become well-versed in the world of honey. They will carry their knowledge into their career paths as they gain valuable experiences preparing them for career opportunities in agriculture and STEM fields.



### TEXAS HONEY QUEEN

#### TELL ME MORE:

The TBA Honey Queen Program was started in 1979 to promote the Texas Honey Bee Industry through education and promotion. With 50 years of history, our program participants gain valuable experience in marketing, communication, and education. Honey Queens are 17-24 years of age. They'll promote the beekeeping industry through demonstrations, interviews, & promotion.



#### APPLICANTS MUST DEMONSTRATE:

- Communication skills
- Poise, confidence, charisma
- Bee & industry knowledge
- Social media, video, and marketing skills

### More Info:

Find detailed application and program Information at TexasBeekeepers.org/honey-queen

Applications Due Nov. 1

#### **EDUCATE - NETWORK - PROMOTE**

## honey bee factoid article



Hexagon and the Honey Bee By Kirk Kirksey

Dubbed "The Sacred Shape", it is both eerily mysterious and infinitely practical. Spiritual Geometry followers call it The Flower of Life saying it represents harmony, balance, and the burial of the "sinful self". You can find it on trash cans, coffee tables, bathroom wall paper, and couch cushions. It's the symbol the world loves. And here's the good part - beekeepers get to see it every time we open a hive. It's the hexagon – the six-sided honeycomb wax cell.



THE HONEYCOMB CONJECTURE IS SOLVED

The honey bees' six sided wax cell has been the subject of speculation for over 2,000 years. In 36BC, the Roman scholar Marcus Terentius Varo gave the world something called The Honey Comb Conjecture. In a nutshell, Varos theorized (but could not prove mathematically) that when used in a continuous pattern (like honeycomb) the hexagon is the most efficient way to fill space using the least amount of material. Through the centuries, other scholars have pondered, ruminated, and speculated about the practicality, use, and construction of honeycomb and the humble beeswax hexagon shaped cell. According to Charles Darwin, honey bees' ability to build perfect honeycombs "...is the most wonderful of all insects." unsolved. Fast forward a couple of thousand years from Varos in ancient Rome scribbling on his wax tablet to the age of computers and American mathematician Dr. Thomas Hales, a renowned mathematician (born in San Antonio, BTW). In 1999 Hale proved Varo's Conjecture. The repeated hexagon pattern honeybees use to build their comb IS the best shape for the job. Key factors for inside the hive are Shape Packing and Tessellation.

#### SEVERAL MILLION YEARS AGO

Shape Packing is the study cramming shapes into a predefined space or container. Tessellation is the use of repeating patterns such that there is no overlap or gaps. As they evolved several million years ago, honey bees found themselves with a Shape Packing/ Tessellation problem. What's the best cell shape that can be most efficiently packed on to continuous sheet of wax? This cell must accommodate long term food storage under harsh weather condition, and the rearing of honey bee brood. Wax sheets holding the packed cells must fit into a confined space either in a feral hive or beekeeper's frame. What are the choices?

Consider the circle. For storage and efficiency circles are good, but the Shape Packing doesn't work. Circles can't share a common border. Pack a bunch of circles together and you end up with small gaps between the shapes. From a honey bee's point of view, these gapes are wasted space.

Triangles and squares are possibilities. When packed, they can share common borders without gaps or overlaps. Trouble is the space would not be optimal.

Bottom Line. Honey bees solved the Honey Comb Conjecture several million years before Varos was born. They settled on the Hexagon for honeycomb cell shape. And the rest, they say, is history.

#### THE MIRACLE OF HONEY COMB

Honey comb is made from slivers of wax secretions – about the size of a pinhead – produced from glands

For centuries, Varo's Speculation remained – about the s 24 JOURNAL OF THE TEXAS BEEKEEPERS ASSOCIATION | ISSUE 23-4 on the underside of a worker bee's abdomen. Other worker bees take these wax bits to shape in to honeycomb. Honey is the ingredient used in making honeycomb. No nectar flow; no honey. No honey; no wax.

We probably all take honey comb and bees wax for granted. It is a humbling experience when one considers the bees' cost of making honey comb.

- It takes about 6Lbs of honey to make 1lb of wax.
- bees fly 20K miles to gather enough nectar to make 1oz of wax.
- bees will spend 110k hours converting nectar to wax.
- bees will spend 18k hours fashioning wax into comb.

From the honey bees' point of view – "Beeswax ain't cheap."

#### ONE SIZE DOES NOT FIT ALL

It is often said (and written) that the hexagonal cells in honey comb are uniform and exact. We now know this is not exactly true. At times honey bees must build non-uniform shapes. Consider two situations; merge and transition

First, groups of honey bees can begin building cells

in several locations. At some point, all the cells must converge to form a continuous sheet of honey comb. Honey bees build odd. shaped cells in order to connect different sections of comb. Secondly the honeycomb must connect sections of three different cell sizes; worker cells, drone cells, and queen cells. Odd shaped cells serve as transition point between different sized cells.

Eureka!!! Honey bees don't just build hexagon shaped cells. They can build any size and shape needed to keep a sheet of comb continuous. Pretty amazing.

#### OTHER USES

As beekeepers we focus on those hexagon comb cells as chambers for storing food and raising young. In fact the cells and honey comb serve other important functions inside the hive. Here are a few:

#### Drying Honey

The six sided cell exposes considerable surface area of uncured honey. This shape accelerates the bees ability to reduce moisture levels and cap honey.

#### Pheromone Distribution

The texture of honey facilitates in-hive communication by helping spread pheromones as bees move around the hive.

continued on page 28



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#### Anti Bacterial Properties

Honeycomb has proven antibacterial effectiveness especially when used with "other natural products such as honey and olive oil."

When it comes to understanding the magic of the hexagon, honey bees easily beat human beings by several million years. They use magic to build one of the most innovative, useful, and beautiful structures on earth. Lucky us. We get to watch.

#### **REFERENCES:**

Filippo Fratini, Giovanni Cilia, Barbara Turchi, Antonio Felicioli,

Beeswax: A minireview of its antimicrobial activity and its application in medicine,

Asian Pacific Journal of Tropical Medicine,Volume 9, Issue 9, 2016, Pages 839-843.

Nazzi, F. The hexagonal shape of the honeycomb cells depends on the construction behavior of bees. Sci Rep 6, 28341 (2016). <u>https://doi.org/10.1038/srep28341</u>

Saugat, B. The Surprising Architecture in Bees' Honeycombs <u>https://www.scientificamerican.</u> <u>com/article/the-surprising-architecture-in-bees-</u> <u>honeycombs/</u>

BLOG: The Secrets of Honeycomb https://www.perfectbee.com/learn-about-bees/thescience-of-bees/the-secrets-of-honeycomb

Bees are known for building honeycombs composed of perfectly uniform hexagons, but they deviate from their regular patterns when necessary. For example, when transitioning between small cells for rearing worker bees and those meant for larger reproductive drones, the bees build one or two rows of intermediate-sized cells 1. And because they start construction in multiple locations, bees must find ways to merge sections to form a single comb, an operation that often involves combinations of 4-, 5- and 7-sided cells 2.



Credit: Brown Bird Design; Source: "Imperfect Comb Construction Reveals the Architectural Abilities of Honeybees," by Michael L. Smith, Nils Napp and Kirstin H. Peterson, in *Proceedings of the National Academy of Sciences USA*, Vol. 118; August 3, 2021

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## THBEA 2023 Raffle Winners

The THBEA would like to announce the winners of the raffle held at this year's Summer Clinic held at the Lone Star Convention Center in Conroe, Texas.

**Cindy Long** won a Cedar Hive and a Virtual Beekeeping Class donated by The Bee Supply.

**Russell Schroder** won a Night at the Loft (at BeeWeaver's Honey Farm) and a Personal Beekeeping Lesson donated by Laura Weaver.

**Ron Chess** won a Full Strength Hive and an Inspection with Chris Moore donated by the Moore Honey Farm.

The Board members of the THBEA would like to say CONGRATULATIONS to the winners of the prizes and a big THANK YOU to the organizations who graciously donated them. Every year, these events help raise money for the THBEA to carry out its mission and education programs.



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## youth education



#### THBEA Grant Update By Jerry Maxwell

Wow, it's been hot outside! But our youth grant recipients have been busy putting their new beekeeping programs into action. It is so wonderful to see these youth learn about God's amazing little creatures and how to take care of them.

Blanco County Beekeepers Association reports that they have set up their "Blue Barn" as a teaching apiary and installed two hives there. Future plans include tours, students selling their honey at the market, and participation in the annual Lavander Festival. They ordered and received suits, gloves, smokers, hive tools, and books. They are using the local library to hold classes. The first class had five students. They learned about bee anatomy, bee biology, bee jobs, and beekeeping equipment. Their next class was at the bee yard where they helped to install bees; feeding; and inspecting. Later, they learned about lighting a smoker; steps to a hive inspection; hands on time with frames and reading a frame. In other classes, the youth also learned about the Beekeepers calendar, pests and diseases, and IPM. In their 4th class, they learned about honey extraction, products from the hive, and finished with a honey tasting



experience and class survey. They are planning for another class in September and will consider making this a 2-month class focusing on late summer/fall beekeeping activities.



Blanco County Beekeeper Youth

Dripping Springs High School reports their program is going well on campus. They have about ten members as of now. They located their hives at the Sally Bees Honey Company a few miles from the campus. They currently do bee checks every two weeks at the bee site. They attended their first honey harvest, which was very exciting. With the new club finally being approved, they can now claim a bulletin board on campus to advertise their club along with a booth to utilize on club fair days. They decided on a permanent name for their club: Drip'n Honey Bee Club. They will be working with their business students to assist in establishing it as a student business for their SAE to sell products at the campus store. The students and parents are very excited. Wortham ISD is getting a later start after their boxes finally arrived after numerous delivery issues. Their bee supplier will most likely be installing their honeybees on Friday, July 21<sup>st</sup>. The local bee club is going to help with some of the additional supplies as needed. They will also be offering a class this Fall called Beekeeping and Honey Production through the Ag Department. The kids are excited about the program,



and they look forward to doing some cross-curricular activities between the ag department and the culinary department.

It is obvious that these grants have proved to be a huge blessing for these organizations and their youth. We can't wait to see what the future holds for them. This is why the THBEA exists, and all this is made possible by the donations received from fellow beekeepers like you.



Drip'n Honey Bee Club



THE JOURNAL OF THE TEXAS BEEKEEPERS ASSOCIATION | JUL/AUG 31

## the rangel

report



Dr. Juliana Rangel Assistant Professor of Apiculture - Dept of Entomology

Texas A&M University

Dear TBA members,

With the sustained hot temperatures in July reaching above 105°F, it is incredible to consider that our busy bees are still thriving at the RELLIS bee lab, and that our lab members have been able to do their beekeeping work as well. Kudos to both groups! There doesn't seem to be an end in sight for the exhaustive heat... so be careful being outdoors while tending your bees and/or gardens this summer! We have had a few outreach and education opportunities in the past couple of months that I want to share with y'all.

This summer we had the tremendous opportunity to have two student researchers join our lab. Ms. Madison Rowe is a second-year Veterinary Medicine student at Texas A&M University, and one of this year's recipient of the 2023 Veterinary Student Research Fellowship (FFAR Vet Fellows). This unique fellowship creates opportunities for veterinary students around the world to conduct research advancing global food security, sustainable animal production and environmental sustainability. See accompanying piece below. Also, Ms. Abigail Martinez is an undergraduate student at the University of Texas, Rio Grande Valley. She was one of this year's Research Experience in Entomology for Undergraduates (REEU) students. Maddie and Abigail worked on a very interesting project looking at how Nosema ceranae infection affects honey bee worker and queen behavior. They will be presenting their work at a couple of conferences this summer and fall. Thank you guys for the hard work!

I was one of the keynote speakers at the Virginia State Beekeepers Association Summer Conference on 10 and 11 June (<u>https://www.virginiabeekeepers.</u> <u>org/details-event</u>) and at the North Carolina State Beekeepers Association Summer Conference on 13-15 July (<u>https://www.ncbeekeepers.org/calendar/statemeetings/2023-summer-meeting</u>). The meetings were great, I saw colleagues that I admire and appreciate (e.g., David Tarpy, Sam Ramsey) and my presentations were well received.

Our lab once again participated at this year's Texas Beekeepers Association's Summer Clinic on Saturday, 17 June 2023 in Conroe, TX. Dr. Tonya Shepherd spoke about bee-associated viruses. As every year, we had a booth where people had a chance to meet our new and returning students, and we also sold Aggie Honey and t-shirts to help support our summer research. Thanks to all of you who came to say hello!

On 11 July we had our annual honey extraction event. Our student Keegan Nichols was asked earlier in the spring to get as many hives as possible ready for extraction, and he did not disappoint! We had a very successful honey harvesting and bottling event, and as usual, proceeds from selling our beloved Aggie Honey go toward helping to fund our research program in the summer. Thank you to all of those who helped this year!

Monarch butterflies filled the skies again on Saturday, 22 July 2023 at Wish Upon a Butterfly, an annual fundraiser at the Brazos Valley Museum of Natural History. Every year, this symbolic event highlights the elegant monarch, the Texas state insect. This year, festivities began inside the Museum where guests may make a "wish keepsake" and other butterfly crafts before receiving their purchased butterflies. As usual, our lab made a huge impression by having an educational booth at the event. <u>https://www.</u> <u>brazosvalleymuseum.org/wish-upon-a-butterfly</u>

Finally, I was invited to give a talk at the monthly meeting of the Williamson County Beekeepers Association in Georgetown, TX. This made for a beautiful drive through the countryside, which my family and I really enjoyed. Right before I started my talk, the organization presented me with a donation check for \$2,000 on behalf of the Nevin Weaver Endowed Fund, which I greatly appreciate. Thank you!!

And, speaking of the Nevin Weaver Endowed Fund, I have been asked by Texas Honey Bee Education Association (THBEA) to provide information on how I have used the interest accrued from the Nevin Weaver funds, as this may help keep the Nevin Weaver donations flowing. Briefly, this year our most pressing need was to buy a used laboratory vehicle/truck to transport us to and from the RELLIS bee facility and other research sites. We did not have any funds for a vehicle and our only truck (2010 Toyota Tacoma) has been defective, especially in this horrible heat. Fortunately, the Texas Apiary Inspection Service (TAIS) had a used but reliable Ford F-150 truck that they could sell to us at an affordable rate. So, used \$9,000 from the Nevin Weaver funds and borrowed \$10,000 from my department that I hope to be able to pay once I sell the old Tacoma truck that is failing us, in auction this fall.

The next session of the At Home Beekeeping Series will be on Tuesday, 29 August, from 6:30-7:30 PM CT. The speaker will actually be.... Drum roll.... me! I will be speaking on the "Genetic diversity of Varroa destructor in the United States." Please help us out by sharing this info on your social media sites and sending the flyer to your partners and local beekeeping associations. The event is also available on the Lawrence Co. Extension local page: <u>https://www.facebook.com/LawrenceCountyextension</u>. Feel free to re-share this post from our site or create your own post with the jpgs attached. Information for the entire series can be found here: <u>https://www.aces.edu/.../</u> bees.../at-home-beekeeping-series/.

That is all for now. As always, for up-to-date information regarding our program, or for new and interesting posts regarding bees and beekeeping, please visit us on Facebook at <u>https://www.facebook.</u> <u>com/TAMUhoneybeelab.</u> We how have over 5,600 followers from around the world!

Sincerely yours, Juliana Rangel

Also, from AgriLife Today:

Via AgriLife Today: "Research seeks insights on honeybee diets for healthier hives" by Adam Russell https://agrilifetoday.tamu.edu/2023/07/12/ honeybee-diets/?utm\_source=newsletter&utm\_ medium=email&utm\_content=READ%20 MORE&utm\_campaign=newsletter-AgriLife-

#### Today-6-22-23

Texas A&M AgriLife scientists examine sustainable beekeeping, agriculture and urban development.

The old health idiom "you are what you eat" also applies to honeybees.

An AgriLife Research project is investigating how honeybee diets and forage availability contribute to overall colony health. <u>Texas A&M AgriLife</u> <u>Research</u> scientists are studying how pollen diversity affects the nutritional quality of honeybee diets, including asking foundational questions about how nutrition can sustain healthier colonies.

The four-year study is funded by a \$750,000 grant from the <u>U.S. Department of Agriculture National</u> <u>Institute of Food and Agriculture</u>. It will be conducted by co-principal investigators <u>Juliana Rangel</u>, <u>Ph.D.</u>, and <u>Spencer Behmer</u>, <u>Ph.D.</u>, both professors in the <u>Department of Entomology</u> within the Texas A&M <u>College of Agriculture and Life Sciences</u>.

The project is exploring honeybee nutrition across multiple landscapes and will provide a multidimensional analysis of pollen as a nutritional resource. It will also examine how bees regulate the collection and consumption of pollen. The research could provide insights that will guide beekeepers, traditional agricultural methods, and urban/suburban development planning in ways that impact food production, ecosystem health and overall sustainability.

Rangel and Behmer bring together expertise in honeybee biology and insect nutritional physiology, respectively, to investigate the complex relationship between diet and nutrition in honeybees. Their collaboration will analyze how honeybees make decisions when presented with different dietary options.

"Our research focuses on understanding how honeybees choose the best possible combinations of nutrients when given choices between different food resources," Rangel said. "We are particularly interested in their preferences for pollen, which is their main source of dietary protein, and lipids, plus other essential micronutrients."

Nutrition's role in honeybee and hive health

Poor nutrition and landscape changes are two major contributors to losses of over 40% of managed honeybees in the U.S. annually, according to the <u>Bee</u> <u>Informed Partnership</u>. However, the definition of "poor nutrition" for honeybees remains unclear, Behmer said, and the characterization of available nutritional resources across various landscapes is also insufficient.

Behmer said nutritional deficiencies can have negative cascading effects on bees and colonies. Much of the impact of poor nutrition begins in brood food, a milky substance produced by nurse bees to feed bee larvae. Deficiencies of key nutritional components in brood food, especially protein and key lipids, can lead to poor physiological development that can cause undersized adults, deformities and compromise the immune system.

Rangel said preliminary work suggests honeybees tightly regulate their protein and lipid intake, and the fatty acid composition of lipids could play an important role in the bees' nutritional preferences.

"Honeybees balance their protein-lipid intake, ensuring they do not overconsume either nutrient beyond what is required," Rangel said. "This balanced approach ultimately contributes to their overall health and well-being."

Answering fundamental questions about honeybee diets

The researchers' overarching hypothesis is that honeybees tightly regulate their intake of multiple nutrients using a two-level process. First, foragers selectively collect pollen based on its nutritional content. Next, nurse bees selectively feed on stored pollen, or bee bread, to balance their nutrient intake, which optimizes their performance and the brood food they produce for larvae.

Rangel and Behmer suspect the nutritional content of pollen varies across landscapes and seasons, but that both foragers and nurse bees can assess the variability and respond appropriately.

The study has three objectives to answer their research questions.

First, researchers will conduct a comprehensive nutrient analysis of pollen, examining the nutritional space available to honeybees across three distinct landscapes – agricultural, urban and rural – while considering seasonal variations.

Second, they plan to perform a multidimensional nutrient analysis of bee bread to gain insights into the role of predigestive pollen processing. This will reveal how nutritional inputs change as pollen is turned into bee bread.

Lastly, the study will characterize the connection between the fatty acid composition of bee bread, nurse bee feeding behavior and physiology, and the overall performance of the colony. The data generated through these objectives will equip beekeepers with valuable insights, enabling them to provide necessary dietary supplementation and improve the health of their colonies.

"Protein has typically been viewed as the key dietary currency, but our feeding experiments with nurse bees suggest that lipids are also really important," Behmer said. "Lipids, besides providing energy, are important structural components in cellular membranes and as precursors for molecules linked to immunity. We are realizing that honeybee diets are multidimensional and are foundational to their ability to meet challenges and deal with stress."

Understanding what bees eat is important

Researchers believe understanding the diets of honeybees could be critical to healthier, more sustainable honeybee colonies, beekeeping and honey production and crop pollination. The researchers are also interested in understanding whether honeybees make forage and dietary choices based on the colony's nutritional needs or if they collect food at random or based on availability. Behmer and Rangel believe the honeybees make purposeful decisions based on the nutritional requirements of the colony when available.

But forage diversity may not always be available in environments such as urban/suburban or agricultural production areas.

Urban/suburban development can strip a landscape of native pollinator plants, while traditional agricultural production consists of large monoculture crops, many of which rely on bees to pollinate, Behmer said. The lack of forage diversity may lead to nutrient deficiencies in honeybee diets, affecting the overall health of the hive. Behmer is interested in the macronutrients that bees prefer and need at the various stages of their 30-50-day lives as they take on a series of roles within the hive.

Bees are social insects, Rangel said, and they divide labor within the hive. They also have different nutritional needs as they age.

The first assignment for adult honeybee workers is as cell cleaners before they undergo a physiological change to become nurse bees around four to 10 days into their lives. Nurse bees are the main consumers of bee bread made from collected pollen. They consume the bee bread to transform it inside their bodies to produce brood food for the larvae.

The nurses then become middle-aged workers that perform centralized tasks around the hive until they

are 20-21 days old when they become foragers. Forager bees collect pollen for the hive until they die.

Behmer said researchers want to better understand how foragers go about their duties and what range of plant varieties provide balanced nutrition for bees of all ages within a healthy colony.

The understanding could provide beekeepers, agricultural production or urban development managers with prescribed guidelines for managing crops and landscapes to help honeybees, which are critical contributors to both healthy ecosystems and food production.

"Honeybees are important to humans, but they also impact wildlife and the entire food chain more broadly," Behmer said. "If we understand how to maintain a richer nutritional environment for honeybees, we can take management steps that make the entire system healthier and sustainable."

#### ALSO:

FFAR & AAVMC Announce 2023 Honey Bee Vet Fellows

https://foundationfar.org/what-we-do/scientificworkforce/vet-fellows/

The Foundation for Food & Agriculture Research (FFAR) and the American Association of Veterinary Medical Colleges (AAVMC) announced the 13 recipients of the 2023 Veterinary Student Research Fellowship (FFAR Vet Fellows). This unique fellowship creates opportunities for veterinary students around the world to conduct research advancing global food security, sustainable animal production and environmental sustainability.

Veterinarians trained in animal science and public health are critical to addressing many global challenges within the veterinary and agricultural fields. Through the FFAR Vet Fellows program, veterinary students can pursue research outside of the biomedical sciences and gain experiential learning opportunities with a qualified mentor. This fellowship culminates with student presentations at the annual Veterinary Scholars Symposium.

"There are few funding opportunities for veterinary students to gain the research experience needed to adequately prepare them to address climate change, emerging infectious diseases, antimicrobial resistance and other issues that threaten sustainable livestock production," said Nikki Dutta, FFAR interim scientific program lead for Advanced Animal Systems. "FFAR is excited to support this fifth cohort of FFAR Vet Fellows to give these students a leg up on their veterinary research and public service careers."

The 2023 FFAR Honey Bee Vet Fellows include:

Madison Rowe Texas A&M University

Honey bees are an ecologically and economically important livestock species often overlooked in veterinary agricultural research. Rowe is studying the behavioral and reproductive effects of a detrimental gastrointestinal fungus, Nosema ceranae, in honey bee queens and workers to determine the indirect impacts of infection. This research will inform future treatments and supportive care for the disease, as well as trace potential production impacts that occur prior to colony collapse.

Courtney Wallner Tufts Cummings School of Veterinary Medicine

Honey bees pollinate over 80% of all flowering plants, including many agricultural crops. They play an integral role in ecosystem health and food security but face numerous threats from parasitism to pesticide toxicity. In 2017, the U.S. Food and Drug Administration issued a directive that tasked veterinarians with overseeing their care, yet honey bees are the only food-producing species not traditionally taught in U.S. veterinary schools. To address this knowledge gap, Wallner is designing a honey bee medicine curriculum tailored to veterinary students and professionals to increase the number of veterinarians able to see honey bees as patients.

#### Foundation for Food & Agriculture Research

The Foundation for Food & Agriculture Research (FFAR) builds public-private partnerships to fund bold research addressing big food and agriculture challenges. FFAR was established in the 2014 Farm Bill to increase public agriculture research investments, fill knowledge gaps and complement the U.S. Department of Agriculture's research agenda. FFAR's model matches federal funding from Congress with private funding, delivering a powerful return on taxpayer investment. Through collaboration and partnerships, FFAR advances actionable science benefiting farmers, consumers and the environment.

#### About the AAVMC

The member institutions of the American Association of Veterinary Medical Colleges (AAVMC) promote and protect the health and wellbeing of people, animals and the environment by advancing the profession of veterinary medicine and preparing new generations of veterinarians to meet the evolving needs of a changing world. Founded in 1966, the AAVMC represents more than 40,000 faculty, staff and students across the global academic veterinary medical community. Our member institutions include Council on Education (COE) accredited veterinary medical colleges and schools in the United States, Canada, Mexico, the Caribbean, the United Kingdom, Europe, Asia, Australia and New Zealand, as well as departments of veterinary science and departments of comparative medicine in the U.S.

Contact: Michelle Olgers, 804.304.4200, molgers@ foundationfar.org



Members of the Rangel Honey Bee Lab helping out during our annual honey extraction event









Research Experience in Entomology for Undergraduates (REEU) student Abigail Martinez sitting at our educational booth during this year's Butterfly Release event at the Brazos Valley Museum of Natural History in Bryan, TX



### **AGRICULTURE & LIFE SCIENCES** TEXAS A&M UNIVERSITY



Dr. Rangel accepting a \$2,000 donation check from the Williamson County Beekeepers Association for the Nevin Weaver Endowed Fund. Thank you!



### At Home Beekeeping Webinar

#### **Distance Learning for Beekeepers**



We're offering beekeepers the chance to attend virtual meetings from the comfort of one's own home using a computer or mobile device. Speakers include university researchers and extension specialists from across the SE US as well as USDA ARS researchers. Each event will bring participants up to date on timely beekeeping topics with time for Q & A included.

#### All are welcome!! Join us for this free event!!

- July 25: Organic beekeeping, with R. Underwood (PSU)
- August 29: Genetic diversity of Varroa destructor in the US, with J. Rangel (TAMU)
- Sept. 26: The science of using pollen substitutes, with J. Ellis (UFL)

Last Tuesday of the month

6:30 – 7:30 pm Central Time

### Watch via Zoom Webinar https://auburn.zoom.us/j/904522838

or Facebook Live: https://www.facebook.com/LawrenceCountyextension/ Questions? Email Allyson Shabel ams0137@aces.edu

Our institutions are equal opportunity educators and employers. Everyone is welcome! Please let us know if you have accessibility needs.

SDA Notesalinstated Factinal Agriculture Julian-Heal Sciences Extension Implementation Program

### Nominations Open

Nominations for the Texas Beekeepers Association Board of Directors is now open.

Applications can be submited online and applicants will be interviewed by the 2024 nominations committee.

Applications due October 15

Join our awesome group of leaders and volunteers! Apply by clicking the link below or going to https://texasbeekeepers.org/nominations/

### 2024 Resolutions Commitee Call for Resolutions

It's that time of year again - We're looking at resolutions to guide the 2024 TBA Board.

If you'd like to review our previous resolutions or recommend a new one you can submit them online at our website. <u>https://texasbeekeepers.org/resolutions/</u>

#### Resolutions



### https://bvbeeks.org/events/bee-school/

**\$80/individual**, **\$135/couple \$15/age** 12-17 w/individual registration

### Register & more info HERE >>>

### \* 50 classes inc<mark>ludi</mark>ng

>11 "getting started" in beekeeping >landscaping bee-friendly plants >obtaining AG Valuation on property taxes

\*35 Vendors for Bee equipment & supplies \*Fajita lunch included for pre-registered attendees \*Pre-Order school tees and hive boxes \*Many exciting raffle items

Proceeds from this school supports the Brazos Valley Youth Program Registration opens July 15th



#### Notice of Proposed Change to the TBA Bylaws and Constitution

The Executive Committee plans ask the TBA membership to consider and approve a change to the current Bylaws and Constitution at the 2023 Annual Meeting to be held during the TBA Convention, November 2-4, 2023, in Temple, Texas. This notice is given pursuant to Article VIII of the Bylaws and Article VII of the Constitution. The proposed change is to strike the position of Publications Director as an Officer and non-voting member of the Executive Committee. TBA will maintain a Publications Director position with similar duties, but without the responsibilities and liability of an officer of the corporation. If the change is approved, the officers of TBA will be President, Vice-President, Secretary and Treasurer, which is the typical structure for most corporations. The specific proposed changes are as follows:

#### TEXAS BEEKEEPERS ASSOCIATION BYLAWS ARTICLE II OFFICERS Section 1

The officers of this Association shall be: President, Vice President, Executive Secretary, and Treasurer, and Publications Director. The President and Vice President shall be elected annually at the annual meeting of the Association. Eligibility for any office shall be restricted to those who paid dues during the current and previous year. In addition, the nominee for President or Vice President must have served a minimum of nine consecutive months as a member of the Executive Committee. The Executive Secretary, and the Treasurer and the Publications Director shall be appointed annually by the President and confirmed by the voting members of the Executive Committee. They shall be under the supervision of the Executive Committee.

#### Section 4

#### Duties of Officers

5. The Publications Director shall be responsible for the development and production of all publications of the Association. Duties will include publishing six issues of the Texas Beekeepers Association Journal annually, special newsletters as may be directed by the Executive Committee, special publications originated by the various committees and, in general, be the primary printed and electronic media person for the Association. Editorial duties will include the responsibility to edit articles and communications for appropriateness, length and bias to reflect the collective opinions and voice of the Association. Counsel of the President will be solicited for guidance. Publications will include information relative to the beekeeping industry-local, Texas and national. In support of the Publications Director, members of the Executive Committee will be scheduled to provide articles and reports to the membership for publication in the Journal.

#### ARTICLE IV EXECUTIVE COMMITTEE Section 1

The voting members of the Executive Committee shall consist of the President and the Vice President, Immediate Past President and six (6) Directors at Large. Non-voting members shall consist of the Executive Secretary, and the Treasurer and the Publications Director. One or more of these non-voting offices may be held by one or more persons, so long as all the duties commonly incident to the separate offices are performed in a timely and satisfactory manner.

#### TEXAS BEEKEEPERS ASSOCIATION CONSTITUTION

#### ARTICLE IV OFFICERS

The officers of the Association shall be: President, Vice President, Executive Secretary, and Treasurer and Publications Director.

TBA Bylaws and Constitution can be viewed at https://texasbeekeepers.org/bylaws-and-constitution/. If there are any questions with respect to the proposed changes, please contact Leesa Hyder, Executive Secretary at execsec@texasbeekeepers.org.

### tools of the trade



#### Roger and Sue Farr

Caddo Trace Beekeeping AssociationMaster Level Beekeeper - Texas Master Beekeeper Program (Roger)

"The Continuing Journey of Two Ninth-Year Small-Scale Beekeepers"

Pictures are by the authors unless otherwise indicated.

We just finished going through our bees on a fine mid-July day. We stored extra boxes, the smoker and fuel, and our inspection tool chest in the bee shed, then walked to the garage. This photo shows some of our "tools of the trade," spread out on the chest freezer, and the methodologies we've developed over nine years of successfully keeping bees. There is a story

behind each item. 1-Liter Nalgene Water Bottle - We bring three full bottles every time we work our bees; two are filled with Gatorade for the beekeepers, and one is water to put out the smoker. Nalgenes are simple, unbreakable, and easy to carry. We have tried using hydration packs with a suck hose, but we always rely on Nalgenes. Hydration systems work well for water hydration while suited up, but they are

to show 10 colonies on each page, so we have only one to three pages to work with in the wind. We tie a pen onto

troublesome to clean if we add anything to the water.

Clipboard – We have tried many recordkeeping methods and tools over the years. We started with a separate notebook for each colony, but that was frustrating as we lost colonies, created new ones, and sold nucleus colonies. We have tried taking notes in the apiary on electronic devices, but we always

the clipboard, because we have dropped one too many in the apiary. We use a wide rubber band on windy days to secure the right side of the paper. 4 lb. Sugar

Bag - We harvest honey in November, so combproduction is important during the summer nectar dearth in northeast Texas. We are intentionally feeding our bees, and each colony is taking that feed and drawing comb. Our feed preparation is simple and works for us. We pour 4 lbs. of sugar into an empty one-gallon plastic milk jug, fill with tap water, and

stumbled with getting propolis on the device or with keeping the cover on the device! We now take notes using paper and pen, and one of us maintains and prints a simple spreadsheet. The sheet shows each colony's queen status, last inspection date and results, specific things we're looking for on this inspection, the results of this inspection, the next inspection date, and future to-do items for the colony. We format the spreadsheet

shake. We also take along a jug of water, since not all the sugar dissolves with the first filling of water. This method gives us a light syrup; the bees consume about 1 quart per day. Since we make and sell nucleus colonies in the spring, we consume lots of comb

and honey from our production colonies to make the nucs. The late spring into mid-summer feeding gives the bees the carbohydrate they need to draw comb in preparation for the fall nectar flow.

Used Apivar Strips - We treat our bees for varroa mites. We use oxalic acid vapor in December. We begin monthly sugar-roll testing of our mite loads in March. By late spring to mid-summer, our varroa counts are usually at or above 3% (nine mites per 300 bees), so we need to treat. We use Apivar since the temperatures are usually too hot for any other product. This year we placed the strips after our May test showed 3% or more in most colonies. We followed the label directions and removed the strips 56 days later, during today's inspections. The sugar bag provided a



convenient receptacle to contain the used strips until we could get to the rubbish bin. We tested the colonies again, using sugar-roll tests, and the numbers were 0 to 2 mites per 300 bees. If you're wondering about using Apivar with "honey supers" on, don't. Most of the stored reserves are consumed during the dearth. We only harvest honey in November, so any Apivar has cleared the colonies.

Full Bee Suits – We have tried all types of bee PPE. Inspection jackets with Carhartt pants works just fine...until it doesn't. We've gone to the ventilated full suit, so we don't have to worry about being protected in case a colony blows up on us, which does happen on occasion. We like the three-layer ventilated suits with round veils. We usually turn up our shirt collars to prevent stings to the back of the neck, and we often wear a ball cap under the veil to prevent stings on the top of our heads. We wear breathable undies,

> long pants, and long-sleeved shirts underneath the suit, boot socks, and tall Muck boots. When we get a sweat layer going with this kit, we're cool even in July. We remove the veils, zip all zippers, and launder the suits once or twice a year.

Bee Gloves – We started out saying, "We'll be gentle with our bees, so we don't need gloves." That worked well until honey drips coat fingers with bees. Now, we like goat skin gloves with no ventilation panel and cotton sleeves with elastic closures. One of us replaces the elastic when needed. These gloves are inexpensive when we buy them by the dozen. One of us uses a Sharpie to write the name, and month and year on the new pair of gloves we begin

to use, so we can easily find the right pair. We do wash them by hand, when needed, and lay them out to dry in the shade. We usually get six months or so from a pair and replace them when the propolis sticks our fingers together.

These are our tools of the trade as small-scale beekeepers. They are simple, practical, and effective.

We'd love to hear about what works for you in your operation!

*Roger and Sue Farr; rdfarr@gmail.com; sue.farr1@ gmail.com* 

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### TBA treasurer position

contact Leesa Hyder at execsec@texasbeekeepers.org if interested

#### **Bookkeeper Duties**

- \* Record all transactions in Quickbooks Online
- \* Make cash disbursements and ensure expenditures are approved
- \* Reconcile bank and credit card accounts
- \* Prepare quarterly sales tax returns

#### Treasurer Duties

- \* Attend (somewhat monthly) Board meetings via Zoom
- \* Prepare financial statements for Board (fund accounting)
- \* Monitor budgeted vs actual expenses and record changes to the budget
- \* Monitor overall current and future cash flow requirements
- \* Accumulate data regarding description and FMW of all cash and noncash donations and ensure the IRS required charitable acknowledgements are sent to donors
- \* Monitor organization's activities so they remain in line with IRS requirements for tax exempt entities.
- \* Prepare annual Form 1096/1099's to nonemployee contractors
- \* Work with external CPA for annual Form 990 filings

#### BORNTRAGER BEE FARM - 2022 PRICES

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Our plans are to have Nucs available in April and May, 2023. Please place your orders early to insure availabilty.

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The easiest way to contact us is via mail. We can call you if desired. You can try calling and leave a message with whoever answers the phone and I will return your call. Often I return calls late Evening. We look forward to doing business with you and we appreciate your patronage.

	1-24	25-99	100-up
Five Frame Nuc	\$190	\$170	\$150
Single Starter Hive with five Frames of Bees	\$235	\$215	-

	1-9	10-24	25-99	100-up
Queens	\$29	\$26	\$24	\$23
Virgins	\$10	-	-	-

Queen Cells

\$3

## local clubs

#### TBA member clubs

#### Austin Area Beekeepers Association

Lester Wetherell - (512) 758-0818 austinareabeekeepers@gmail.com facebook.com/groups/Austin/AreaBeekeeperAssociation www.meetup.com/Austin-Urban-Beekeeping/. Meeting: 3rd Monday of each month at 7pm Frank Fickett Scout Training and Service Center 12500 N I-35 (Near Parmer Lane) Austin, TX 78753

#### Bastrop County Beekeepers Association

Joseph Hakkinen - (713) 408-1260 jwhakkinen@gmail.com https://www.facebook.com/groups/1511905162469905/ Meetings: 2nd Tuesday of the month at 7 pm Bastrop Fire Station #4 1432 North S.H. 95 Bastrop, TX 78602

#### Bees in the East Club

Mark de Kiewiet- (210) 863-8024 beesintheeast@att.net Meetings 4th Saturday of each month at 10am Water Garden Gems, 3230 Bolton Road, Marion,

#### Bell/Coryell Beekeepers Association

Nan Helmke (254) 289-5802 bellcoryellbeeclub@gmail.com http://www.bellcoryellbeeclub.org Meetings: 3rd Tuesday of each month (except December) at Refuge Ministries, 2602 S. FM 116, Copperas Cove - 7pm

#### **Big Country Beekeepers Association**

Chrissy Ward (325) 665-4045 Chrissyward@gmail.com Third Thursday of each month 6:30 - 8:00 PM Ridgemont Baptist Church 4857 Buffalo Gap Road, Abilene

#### Blanco County Beekeepers Association

Teri Albright - (512) 636-9900 blancocountybeekeepers@gmail.com Meetings: 3rd Thursday of each month at 6:30 pm Blanco United Methodist Church - Social Hall, 61 Pecan St., Blanco

#### Brazoria County Beekeepers Association

Lance Ladewig ladewigle@gmail.com www.brazoria-county-beekeepers-association.com Meetings: 2nd Monday of each month Brazoria County Extension Office, 21017 CR 171, Angleton @ 6:45 pm

#### **Brazos Valley Beekeepers Association**

Justin Russell - (979) 492-4114 info@bvbeeks.org www.bvbeeks.org Meetings: 3rd. Tuesday of each month (except Dec. at 6:30 pm) Bryan High School, 3450 Campus Dr. Bryan from 6pm

#### **Caddo Trace Beekeepers Association**

Dale Vanhoose - (903) 573-6954 dcv836@gmail.com https://www.facebook.com/groups/818862742106557/ Meetings: 2nd Monday of each month Titus County Agrilife Ext. Bldg., 1708 Industrial Rd., Mount Pleasant at 7 pm

#### **Central Texas Beekeepers Association**

Karl Cottrell- (979) 645-0832 CentralTexasBeekeepers@gmail.com www.centraltexasbeekeepers.org Meetings: Monthly on the 4th Thursday (except November and December) Washington County Fairgrounds, 1305 E Bluebell Rd., Brenham at 7pm

#### **Chisholm Trail Beekeepers**

Keith Crow Keithcrow2000@yahoo.com Meetings: Last Monday of each month Burleson Bible Church, 260 South Hurst Road,Burleson

#### Collin County Hobby Beekeepers Assn.

John (Skip) Talbert (706) 761-7893 president@cchba.org www.cchba.org Meetings: 2nd Monday of each month at 6:30 pm Collin College Conference Center, (Central Park Campus) 2400 CommunityDr. , McKinney

#### **Colorado County Beekeepers Association**

David Behlen (832) 230-5740 coloradocountybeekeepers@gmail.com Meetings: 2nd Thursday of each month at 6:00 pm 316 Spring Street, Columbus

#### **Concho Valley Beekeepers Association**

Jeremy Granato (325) 227-7676 cvbeekeeper@gmail.com Meetings: 3rd Tuesday of each month Jan-Nov at 6:30 pm Texas A&M Res. & Ext. Center, 7887 US Hwy 87 N, San Angel

#### Deep East Texas Beekeepers Association

Ellen Reeder - (337) 499-6826 ellenswartz@sbcglobal.net Not Currently Meeting

#### **Denton County Beekeepers Association**

Shane Jordan board@dentonbees.com www.dentonbees.com Meetings: 2nd Tuesday of each month at 6:30 pm Joseph A Carroll Bldg, 401 W. Hickory St, Denton

#### **Dino-Beekeepers Association**

Chip Hough (817) 559-0564 dino-beeclub@hotmail.com www.dino-bee.com Meetings: 2nd Tuesday of month at 6:30 pm Glen Rose Citizens Center, 209 SW Barnard St., Glen Rose

#### East Texas Beekeepers Association

Jim Biles (281) 451-6069 www.etba.info Meetings: 1st Thursday of each month at 6:45 pm Whitehouse Methodist Ch., 405 W Main (Hwy 346) Whitehouse

#### **Elm Fork Beekeepers Association**

Tim Branam 903-814-6686 branam@verizon.net http://www.elmforkbeekeepers.org Meetings: 3rd Thursday of each month The VFW Hall, 3332 North Grand Ave, Gainesville

#### **Fayette County Beekeepers Association**

Bruce Ford (713) 818-7348 rosscreekhoneybees@gmail.com Meetings: First Saturday of the month, Feb, April, June, August, October and December at 5:30 pm Fayette County Ag. Bldg., 240 Svoboda Ln., La Grange

#### Fort Bend Beekeepers Association

Lynne Jones - (713) 304-8880 info@fortbendbeekeepers.org Meetings: 2nd Tuesday of each month (except Dec.) at 7:30 pm Bud O'Shieles Community Center 1330 Band Rd, Rosenberg 77473

#### Kaufman Area Beekeepers Association

John Guthrie - (214) 686-8585 kaufmanbeekeepers@gmail.com Meetings: 2nd Tuesday of each month at 6:30 pm Kaufman United Methodist Church, 208 S Houston St, Kaufman

#### Longview Beekeepers Association

Myra Smith (903) 639-2910 Meetings: 1st Tuesday of each month at 6 pm Texas Agrilife Extension Office, 405 E Marshall St., Longview

#### Magnolia SWARM Beekeepers

Andy Knight - (281) 305-4072 magnoliaswarm@gmail.com http://www.magnoliaswarm.org Meetings: 1st Tuesday of the month Various Locations (go to website)

#### **Marshall Beekeeping Association**

Beth Derr - (936) 591-2399 marshallbeekeeping@gmail.com Meetings: 2nd Thursday of each month at 5:30 pm Cumberland Presbyterian Church. 501 Indian Springs Dr., Marshall

#### **Metro Beekeepers Association**

Russ Killingsworth - (817) 751-9513 president@metrobeekeepers.net http://www.metrobeekeepers.net Meetings: 2nd Monday of each month 6:30 - 8:30 Southside Preservation Hall, 1519 Lipscomb St. Ft. Worth

#### Montgomery County Beekeepers Assn.

Matt Thomas mocobees@gmail.com www.mocobees.com Meetings: 3rd Monday of each month at 6:30 pm Montgomery County Extension Office, Tom Leroy Education Bldg., 9020 Airport Road, Conroe

#### Northeast Texas Beekeepers Association

Rebecca Vaughan - (972) 841-3751 contactnetba@gmail.com Meetings: 2nd Monday of each month at 5:45 pm Canton Baptist Church, 303 South Athens St., Canton, TX 75103

#### **Pineywoods Beekeepers Association**

Walter McLendon (936) 632-7099 wem@mail.com Meetings: 3rd Thursday of each month at 6:30 pm Lufkin/Angelina County Chamber of Commerce 1615 S Chestnut St. Lufkin (just off Loop 287)

#### Red River Valley Beekeepers Assn.

Larry Roderick (940) 237-2814 roderickwaterwells@gmail.com Meetings: 3rd Tuesday of each month (except December) at 7pm Bolin Science Hall Room 209, Mid West State University, 310 Taft Blvd., Wichita Falls

#### San Jacinto County Beekeepers

Andy Knight - (281) 305-4072 sanjacbeekeepers@gmail.com https://www.facebook.com/SanJacintoCountyBeekeepers Meetings: 2nd Tuesday of each month Calvary Baptist Church, 65 Petroleum Rd., Coldspring 77331

## local clubs

#### TBA member clubs

San Marcos Area Bee Wranglers Gay Fraser (512) 264-2021 smabeewranglers@gmail.com Meetings: 2nd Thursday, 7 pm to 9:15 pm

#### Temple Area Beekeepers Association

Jim Billings (254) 760-2053 holly21351@aol.com Meetings: 2nd Thursday of each month at 7pm Troy Community Center, 201 East Main Street, Troy

#### Walker County Area Beekeepers Assn.

Larry Fuchs - (936) 661-0633 walkercountybeekeepers@gmail.com Meetings: Last Thursday of each month at 7 pm (not Nov or Dec) Walker Education Center, 1402 19th St., Huntsville

#### Williamson County Area Beekeepers Assn.

Gillian Mattinson - (512) 961-9955 gillmatties@gmail.com www.wcaba.org Meetings: 4th Tuesday of each month at 7 pm (except December) Georgetown Public Library, 402 W 8th St., Georgetown

#### Wood County Beekeepers Association

Aubrie Jones woodcountybeekeepers@gmail.com Meetings: First Tuesday of every month at 7 pm Winnsboro Civic Center, Hope Ln, Winnsboro

> Please forward any changes or additions to Leesa Hyder at execsec@texasbeekeepers.org For Club Meeting info, view club location map on texasbeekeepers.org

### 2023 TBA Journal Advertising Rates

6 issues for \$625 full page

6 issues for \$375 half page

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## local clubs

#### TBA non-member clubs

The following Texas beekeeping clubs are not currently members of TBA but, as we gathered this information from reliable sources, we believe it is accurate.

Alamo Area Beekeepers Association Rob Holliday president@alamobees.org www.alamobees.org

Caprock Beekeepers Association Victoria Watts - (806) 392-2355 mystique175@att.net

Comal County Beekeepers Association James Cobarruvias (210) 858-9011 jcobarruvias@att.net

Erath County Beekeepers Club

Fredricksburg Area Beekeepers Association

Harris County Beekeepers Association Jim Orr - (713) 213-7080 rjfarmandapiary@gmail.com www.harriscountybeekeepers.org

Hays County Beekeepers Asociation Goergia Miguez(512) 827-6239 Hayscountyba@gmail.com

Heart of Texas Beekeepers Association Gary Bowles (254) 214-4514 gm.bowles@yahoo.com

Henderson County Beekeepers Association Elizabeth Hudson

Hopkins County Beekeepers Association Jon Dalzell (214)395-1730 dalzelljon@aol.com

Houston Beekeepers Association info@houstonbeekeepers.org www.houstonbeekeepers.org

Hunt County Beekeepers Association Jay Gilmer, BeeHappyBee@gmail.com

Johnson County Beekeepers Association Bruce Watts, Jr. - (817) 992-2294 bruce.jr@sbcglobal.net

Johnson County Beekeepers Association Bruce Watts, Jr. (817) 992-2294 bruce.jr@sbcglobal.net

Lamar County Beekeepers Association Kevin Young - (903) 715-0208 lamarcoba@gmail.com

Liberty County Beekeepers Association

Palo Duro Bee Club Paige Nester (806)678-8048 nesterpaige@gmail.com

Rio Grande Valley Beekeepers Association

San Marcos Area Bee Wranglers Gay Fraser (512) 264-2021 smabeewranglers@gmail.com

Texarkana Beekeepers Association Sarah Clinesmith - (903) 277-2145 sarahaddie@aol.com

Texas Hill Country Beekeepers Association Linda Williams - (830) 688-0560 texashillcountrybeekeepers@gmail.com facebook.com/TXHillCountryBKAssn/

Tri County Beekeepers Association David Huffman huffmaninsurance@glade.net

Trinity Valley Beekeepers Association

Tyler County Bee Club Scott Martin - (409) 283-4507 tcbclub16@gmail.com

Wise Texas Bee Club Donny Johns (817) 939-3249

#### we need your

## help with the Journal

#### Do you want to help with this journal?

Contact Michelle Boerst publications@texasbeekeepers.org

#### Help can include:

- Obtaining suitable articles
- Working with Adobe products to format articles
- Other editorial activities as needed

#### club info

## changed?

New Officers for 2023?

Meeting time/location changed?

Send all club updates to Leesa Hyder at execsec@texasbeekeepers.org

## join us or renew your membership

#### www.texasbeekeepers.org

(Look for the Honey Locator and Events Calendar)

If you change your address or email, please contact Shirley Doggett

at membership@texasbeekeepers.org or call (512) 924-5051

## directors at-large



Charles McMaster charles.mcmaster@texasbeekeepers.org (703) 624-1337

Barbi Rose barbi.rose@texasbeekeepers.org (512) 799-0616

Jake Moore jake.moore@texasbeekeepers.org (409) 790-5885

Monica Siwiak monica.siwiak@texasbeekeepers.org (281) 627-7700

Gary Barber gary.barber@texasbeekeepers.org (972) 768-5505

Andy Knight andy.knight@texasbeekeepers.org (281) 305-4072

#### Texas Beekeepers Association

Michelle Boerst 409 S. Magnolia St. Aubrey, TX 76227

publications@texasbeekeepers.org

#### Texas Beekeepers Association Officers - 2023

President Dodie Stillman president@texasbeekeepers.org (512) 560-7550 Vice-President Byron Compton vp@texasbeekeepers.org (512) 560-7550

Past President Ashley Ralph pastpresident@texasbeekeepers.org (979) 777-2529

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