

# North Carolina **Bee Buzz**

The Official Magazine of the NCSBA



Winter2022-2023



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# North Carolina Bee Buzz Winter 2022-2023



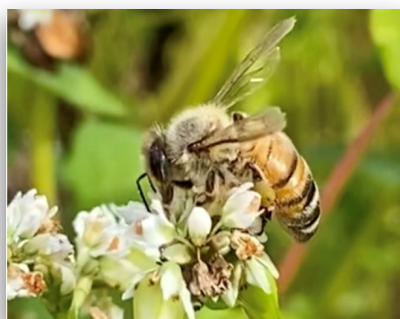
## Features



Endowment: Big News!



Installing a Package  
Using Current Research



Research Experience  
for Beekeepers

## North Carolina State Beekeepers Association

~ Since 1917 ~

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Chatham Park  
Pittsboro, NC  
Photo: Bill Oestereich



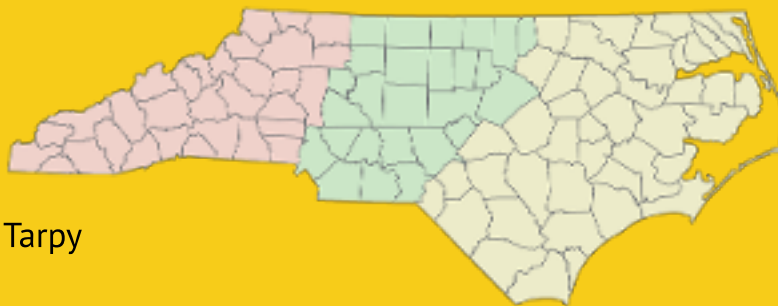
# North Carolina State Beekeepers Association



The mission of the NCSBA is to advance beekeeping in North Carolina through improved communication with members, improved education about beekeeping, and support of science enhancing the knowledge of beekeeping.

## 2022 Executive Committee

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**Sophomore:** Will Johnson

Contact information for the NCSBA Officers and Regional Directors can be found in your Yellow Book Directory and on the NCSBA website [www.ncbeekeepers.org](http://www.ncbeekeepers.org)

Webmaster Todd Walker [webmaster@ncbeekeepers.org](mailto:webmaster@ncbeekeepers.org)

## From the *Bee Buzz* Editors:

**Bee Buzz Story Submission Deadlines:** Spring : Jan 14 - Summer: Apr 21 - Fall: July 21 - Winter: Oct 21

We enthusiastically accept article and photo submissions! Please send us your articles and photos of news and information you'd like to share about your local association's latest events, successes and failures, a biography on a long-standing NCSBA member you would like to honor, or a young beekeeper you'd like to see highlighted. All honey bee-related topics will be considered for publication. While we regret that we cannot always include every submission, we will do our best to print as space permits. Submit your article in .doc or .docx format. Photos should be high quality jpg or tiff format. Please include a caption for photos. Do not embed captions in your photos or photos into your news article, but submit these as separate files. If you do not have access to a computer, we will accept typed or clearly handwritten articles. Mail written submissions to: *Bee Buzz* Submissions PO Box 1771 Pittsboro NC 27312.

**Bee Buzz Subscriptions:** Please direct subscription questions and address changes to [membership@ncbeekeepers.org](mailto:membership@ncbeekeepers.org)

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# NC BEE BUZZ EXTRA!

www.ncbeekeepers.org

OFFICIAL PUBLICATION OF THE NCSBA - SINCE 1917

November 12, 2022

## Historic Deal Inked! Apiculture Endowment to be One of a Kind

### New Apiculture Research Lab in the Works

NCSBA beekeepers successfully lobbied the NC General Assembly in 2021 for \$4 million to build a new Apiculture field lab at NCSU; a landmark achievement by the Association. Not content to rest upon their laurels, the beekeepers established a new objective; an endowment for an apiculture professor.

### NCSBA partners with CALS to create endowment

The College of Agriculture and Life Sciences (CALS) at NCSU and the North Carolina State Beekeepers Association (NCSBA) have agreed to work as partners to raise \$1 million in order to establish an endowment for a distinguished professorship in Apiculture. Once contributions to the fund reach \$667,000, the University will contribute enough to make the fund \$1 million.



**History in the making:** Wayne Rose (NC Farm Bureau), Rick Coor (NCSBA), Sonia Murphy (NCSU), Dr. Rich Bonanno (NCSU) and Dr. David Tarpy (NCSU) look on as NCSBA President Dr. Doug Vinson and CALS Interim Dean Dr. John Dole formally sign an agreement to establish the fund that will become an endowed professorship to be entitled: The North Carolina State Beekeepers Association Distinguished Professor in Apiculture

### Signing Ceremony

Officials from CALS hosted a formal signing ceremony in Raleigh on November 12 in order to recognize the resolve demonstrated by the NCSBA for support for the NCSU Apiculture program. Interim Dean Dr. John Dole spoke at the event saying in part that "there are many good ideas out there that need the right group of people and a champion to advance them. The NCSBA is the champion for this endowment."

### Without an endowment, the Apiculture program could be dismantled

Lack of funds could force the University to discontinue the Apiculture program at some point in the future. Approximately one-third of the professorships at North Carolina State University have been endowed or are in the process of becoming endowed.

### The amount that someone contributes is not as important as is the fact that they contribute.

The NCSBA has pledged \$250,000 to the fund and will work to raise the remaining required funds. Beekeepers across NC have begun making donations and pledges. Please visit [ncbeekeepers.org](http://ncbeekeepers.org) today and support the Apiculture endowment.



**NC STATE**

## **“Bee” the Solution**

Honey bees play a vital role in pollination and as a critical link in agriculture production. How vital? The collapse of the honey bee population would lead to the collapse of the national and global food supply.

“Bee” a part of the solution and help establish the North Carolina State Beekeepers Association Faculty Award in Apiculture. The endowed professorship will be the first of its kind in the United States, and critical to advancing research in honey bee health for generations to come.



**Join the hive.**

**[go.ncsu.edu/bee-fund](https://go.ncsu.edu/bee-fund)**

Thank you for helping us grow the North Carolina State Beekeepers Association Faculty Award in Apiculture to a Distinguished Professorship. Funds supporting the North Carolina State Beekeepers Association Faculty Award in Apiculture are collected and managed by The North Carolina Agricultural Foundation, Inc., a 501(c)(3) non-profit, tax id-56-6049304. You will receive an official receipt for your donation.





## Message From The President

by: Doug Vinson, NCSBA President

**I am not sure** how many noticed that my article in the fall Buzz ended abruptly and without a complementary closing, but it did. Dumbly, I saved the article as two separate documents and only submitted the first so only half was published.

This in and of itself would not be so important except that the omitted portions addressed our new endowed professorship initiative, officially known as the North Carolina State Beekeepers Association Faculty Award in Apiculture. Once funded, Faculty Award will change to Endowed Professorship.

By this time most should be aware of the journey from loss of the field bee lab at Lake Wheeler to the good news of the General Assembly's allocation of four million dollars to construct a new laboratory.

The resolution of one problem often creates another and that phenomenon is at play here. The physical lab does not ensure that the position that Dr. Tarpy now holds will be filled if he retires, resigns or worse. In fact, there is a strong sentiment that it would not. In that event, the bee lab might be assigned to another purpose not at all related to bees. That would be an incredibly sad end to the journey.

To circumvent such a sad end, a five-year plan has been developed to establish an Endowed Professorship in Apiculture at NCSU. This will guarantee the position for perpetuity and that the new field lab would be used for the purpose for which it was funded and built. This position does come with a significant price tag but one that we should be able to manage given our membership numbers.

Having an endowed professorship in apiculture at NCSU will not only be of great benefit to North Carolina beekeepers, coupled with the new field lab it will give tremendous status to the program and make recruitment of future scientists and researchers much easier.

Even though much has been presented and written about this effort, questions arise. Most commonly I am asked about the funding specifics so here is a general breakdown:

**\$250,000** from the Association

**\$283,000** from NCSU

**\$467,000** from individual members, chapters, non-members and corporate interest

As you can see, the membership is only responsible for less than half the cost of the professorship, or about \$93,000 each year for five years. If four thousand members contributed about \$25/year, that would easily cover that. That will not happen unfortunately, so please plan to do a little extra.

I cannot stress enough the significance of donations from individual members. Likely your chapter will make a five-year pledge and please be supportive of that but also seriously consider a personal donation, either as a multi-payment pledge, ongoing gift or one-time donation. We must have your involvement to be successful. I personally have chosen to donate with a multi-payment pledge. Also, we now have a \$10 Dollar Challenge method of donation through your local chapter or online renewal. Simply add \$10 to your membership renewal and earmark it for the professorship. It could not be easier. Of course, you can donate through your local chapter at any time; simply instruct the treasurer to send to "endowment."

FYI, you will see and hear from the "Endowment Committee" which is comprised of the BOD and others who have shown particular interest in this initiative. As always, I cannot thank the volunteers who make this NCSBA machine run efficiently.

The website, [www.ncbeekeepers.org](http://www.ncbeekeepers.org), has a much more detailed and eloquent description of this effort and instructions as to how to donate. One heads up, if you decide to do the multi-payment method, enter your ENTIRE pledge amount in the first box and then select your payment amounts and frequency later. If you enter your payment amount in the first box, the system thinks that is all your commitment (you are just making a one-time donation if you do this).

Mark your calendars for our 2023 statewide conferences: **Spring- March 10-11**, Union County Ag Center; **Summer- July 13-15**, Blue Ridge Community College. Our conference planning team is already hard at work to make these events happen. As always, their goal is to have a proper mix of educational opportunities, fellowship, and fun. To this end, the silent auction will be resurrected, and the honey contests upgraded and enhanced.

Given the number of NC beekeepers, our geographic and floral diversity, we have the potential to make our hive products contests one of the best anywhere. The competition of these contests fosters keen competitiveness as well as plain old fun. Bring your entries and join in! If this develops as we would like, it could increase conference interest and attendance.

Appropriately, with new emphasis on our contests, an effort is underway to standardize rules and judging for all our recognized state contests.

As a closing summary, I challenge each member to please help with the endowment, plan to attend our 2023 conferences and enter the honey show and related contests.

**Bee on board!**





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# BeeFeeders

## North Carolina Pollinator Plants

by: Ulana Stuart, NC State Extension Master Gardener Volunteer

**This is a second article** in a series on growing culinary herbs as BeeFeeders. Many plants are considered herbs; the defining feature being all herbs have fragrant properties. Herbs are used in cooking, making teas, medicinally or herbs can be purely ornamental. All the herbs in this article are from the Mediterranean area so they require at least six hours of full sun and well-drained soil to provide the maximum number of blooms for bees.

In the last issue, I wrote a paragraph about soil amendment for improved drainage but neglected to mention the use of raised beds. The initial effort to build raised beds can be challenging but the drainage benefits of raised beds will last for years.



Photo: Peter O'Conner

**Oregano (*Origanum vulgare*)**

Oregano (*Origanum vulgare*) is a culinary herb that is easy to grow throughout North Carolina (USDA Zones 6-8) providing it has adequate drainage. This 12 to 18-inch tall, fragrant perennial produces lavender to pink tubular flowers that are highly attractive to honey bees and other pollinators. It primarily produces nectar for bees but also medium-size round green pollen pellets.

Rosemary (*Salvia rosmarinus*) is an evergreen sub-shrub that grows easily in USDA Zones 8a-10b or in strategically warmer sites in Zone 7. Like all herbs, rosemary requires 6 hours of full sun and good drainage. It typically grows to 4 to 5 feet tall and 3 to 4 feet wide. With highly aromatic needles, it can be used as a hedge, specimen or even a foundation planting.

'Tuscan Blue' is a fast grower and a true favorite. Blooms last 3 to 4 weeks and they attract bees and butterflies. Honey bees get nectar and medium-sized pollen from the light blue flowers.



Photo: Debbie Roos

**Rosemary (*Salvia rosmarinus*)**

Lavender (*Lavandula* spp.) There are many species of lavenders. The lavenders that grow well in North Carolina are hybrids between English and Portuguese species. They bloom later in July and September. Some of the cultivars that grow well here are 'Grosso', 'Phenomenal' and 'Provence'. All these hybrids also require full sun and good drainage. English lavender (*L. angustifolia*) is tricky to grow in NC. It requires perfectly drained soils on the dry side and all-day sun. Lavenders produce both medium-size pollen and nectar and can be grown throughout all the zones in NC.



Photo: American Meadows

**Lavender (*Lavandula* spp.)**

Germander (*Teucrium chamaedrys*) is a low growing, very attractive evergreen sub-shrub in the mint family. Growing approximately 6 to 18 inches tall and 1 to 2 feet wide, it has dark green, shiny leaves. Germander can be used along the edges of a garden bed to neaten the appearance of the beds, especially if you prune the spent pink blooms. Like most other herbs, it prefers drainage and full sun. However, germander can tolerate poorer soils, low watering and is relatively easy to grow. The magenta pink tubular flowers are quite attractive to bees.



Photo: Franz Xaver

**Germander (*Teucrium chamaedrys*)**

Borage or Starflower (*Borago officinalis*) is an annual ornamental herb that grows 1 1/2 to 3 feet tall with woolly dark green leaves and showy flowers, both of which are entirely edible. Borage should be direct seeded because it does not transplant well. It can easily be grown from seed and can be self-seeding throughout all North Carolina. Borage can tolerate poorer soils and even some light shade, but good drainage is helpful. The unusually bright, dark blue flowers are extremely attractive to bees. The blooms contain lots of nectar and pollen and should last all summer. The pollen pellets are yellowish green to grayish.

Herbs rarely get insect damage when they are planted with plenty of sun, good drainage, and air circulation. Herb plants also provide the great benefit to gardeners of deer and rabbit resistance. Finally, you can plant herbs over the winter in most locations of North Carolina.



Photo: Jon Sullivan

**Borage (*Borago officinalis*)**

For more information on gardening use the North Carolina Extension Gardener Plant Toolbox at [plants.ces.ncsu.edu](http://plants.ces.ncsu.edu).



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## In the Apiary: Winter 2022-2023

by Shirley Harris & Bridget Gross  
Apiary Inspectors, NCDA&CS



**As we welcome 2023**, let us think about how we can be improving on our beekeeping skills. Think like a bee! Remember, honey bees are on a different calendar than we are. When we are trying to figure out what to fix for dinner, the bees are planning a few weeks ahead. As a beekeeper, planning for winter should be behind us. Now is the time to plan for spring. What should we be doing during these cold winter days? There is always something we can be doing to get ready for the next season. Among a few winter tasks are painting bee boxes, assembling frames, ordering wax foundation or other supplies, or ordering bees. Waiting too late to order may mean a longer wait as many items become backordered at the height of spring. In addition, packages and nucs are in limited supply so order early to ensure their availability. Shop local when you can. There are many beekeeping supply stores and bee suppliers that are looking forward to serving you with excellent customer service and beekeeping advice.

There is so much we should be doing in preparation for the spring nectar flow and swarm season. The bees may be clustered to stay warm, but this doesn't mean we should stop learning. Winter is a good time to catch up on your reading. There are so many great beekeeping books as well as the latest research and social media news about honey bees. You can search the Web for talks by many well-known apiculture researchers and numerous YouTube videos on just about any topic you want to learn about. Just be sure to consult reputable sites and resources.

Use this time to learn more about something that interests you, such as how to catch a swarm, how to make splits, or better control of varroa mites, to name a few. We can learn some good techniques from these experienced beekeepers.

Winter is also a good time to assess our situation and evaluate how well (or poorly) last season was in hopes of doing better in the coming year. Start by asking, have we done enough to be successful in the spring? Will our bees make it through winter? Were we successful in maintaining low levels of mites and keeping the bees healthy? Did we have a good queen/brood pattern going into the fall, and did they have enough food to make it through the long winter months? If not, we may be in for a surprise when we open the hive on the first day of spring.



**Feeding For Winter**

The goal now is to keep the colony alive through winter, which at this point in the season means making sure they have enough food. To assess food stores, monitor the weight of hives by lifting the back of the hive just until the back edge come off the stand. If it is hard to lift, then there is probably enough honey inside. If the hive is very easy to lift, the colony may need some food. On warm days we could offer the colony some 2:1 sugar syrup; on colder days we could provide them with a winter pollen patty, candy board or granulated sugar placed on the top bars with some newspaper.

These cold months are a good time to repair equipment and look back at last year's management of your hives and see what worked and what didn't. Use this information in the new year by applying what you learned. Remember to work smarter, not harder! Beekeeping is a never-ending learning process. It takes quite a few years of making mistakes and learning a little more each time to have a firm handle on it. Every beekeeper makes mistakes, but the goal is to learn from them to become a better beekeeper.





## Meet Robert Smith

NCSBA 2022 Person of the Year



I started beekeeping in 1987 just in time to be wiped out by varroa mites. As time and failures went on, I joined a bee club ( Catawba Valley Beekeepers ) and learned how to keep bees alive. Shortly after this time my daughter said that it would be nice for her son (my grandson) to have his first job in my bee yard. At that moment I realized (maybe I had bragged too much) that my 7 beehives would not fill the bill, so I started expanding.

Today I operate about 85 hives. I sell nucs, honey, and pollinate farm crops. I serve as co-coordinator of the Master Beekeeper Committee and I am concentrating on stopping the downward spiral of our bee clubs caused by Covid. Currently, I am promoting the endowed professorship at NCSU. I have served as coordinator of the 4-H grant committee and as district director. My grandson is currently a Junior in college and has never shown any interest in honey bees.

# Master Beekeeper Program:

## Master Beekeeping Program by the Numbers

by Randall Austin MBP Co-Chair



**Beekeepers like numbers:** number of colonies, number of pounds of honey harvested, number of Varroa mites per 100 bees, number of blue ribbons won in honey competitions at the State Fair, etc. With that in mind, here are some numbers for the NCSBA Master Beekeeper Program. Hopefully they'll inspire you to progress in the program and to encourage others to do the same.

**Active NCSBA members (as of 10/16/22): 4,654**

**Active members who have achieved:**

- Certified status: **1,597** (34%)
- Journeyman status: **263** (6%)
- Master status: **114** (2%)
- Master Craftsman status: **12** (0.3%)

**Within the past 12 months, number of new:**

- Certified: **352**
- Journeyman: **10**
- Master: **5**
- Master Craftsman: **2**

**Chapters with at least one Master Beekeeper: 50**

**Chapters with the largest number of Master Beekeepers:**

- Neuse Regional: **8**
- Orange: **7**
- Chatham: **6**
- Buncombe: **5**
- Onslow: **5**

**Earliest date in database for earning:**

- Certified: November 14, 1982
- Journeyman: April 25, 1983
- Master: May 29, 1985
- Master Craftsman: July 19, 1996

**Number of questions on the Certified Written Exam:**

**50** (25 true/false, 25 multiple choice). 70% correct required to pass.

**Number of questions on the most recent Journeyman Written Exam:**

**50** (mix of true/false, multiple choice and fill-in-the-blank). 75% correct required to pass.

**Number of questions on the most recent Master Written Exam:**

**45** (mix of true/false, multiple choice, fill-in-the-blank, short answer and essay). 80% correct required to pass.

**Percentage of people who the Master Beekeeper Program Committee would like to help progress in the program: 100%**

**Percentage of people who will progress in the program if they never try: 0%**

The next regularly scheduled testing opportunities are at the NCSBA Spring Conference, March 10-11, 2023, in Monroe and the Summer Conference, July 13-15, 2023, in Flat Rock. Review the level-specific materials that were described in last quarter's *Bee Buzz*, then come have your knowledge tested. There is no cost so the only risk is that you may earn your way toward the next MBP level! And remember, although we do assess skills and knowledge, the NCSBA Master Beekeeper Program isn't about how much you know – it is fundamentally about how much you share what you know.



Whether you are a participant in the Program or not, share generally-recognized best practices with other beekeepers in your area. The better informed your neighbor beekeepers are, the better they'll be able to keep healthy, thriving colonies, and that benefits all of us.





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# Wolfpack's Waggle: BUILDING A BUILDING: STEP 1—SITE SELECTION

by Dr. David Tarpy NC State Extension Apiculturist



NORTH CAROLINA STATE UNIVERSITY  
**APICULTURE PROGRAM**

**It is often said** that in any great endeavor, the first step is the most difficult. For the construction of the new Apiculture Facility at NC State University, it is no different...

Thanks to the tremendous opportunity afforded us by the NCSBA and the overall beekeeper community in NC, the \$4M in state-appropriated funds for a new Apiculture Facility on the Lake Wheeler Research Farm complex is now in the hands of the Facilities Division at NC State. Since this past spring, their team of architects, structural engineers, and environmental assessors have been busy selecting the best architectural firm to handle the building design and development. They advertised and solicited bids in April, from which they received nine. From there, they followed their well-established protocols of determining the top three, which were then invited for in-depth virtual interviews in June. From there, the top firm—biloba Architecture (who, by the way, purposefully spell their name without the first letter capitalized)—was offered the contract and they accepted (see the columns from Mr. Heatherly, who has nicely written about their business in Charlotte).

Over the summer and into the fall semester, we have had multiple meetings to tour Lake Wheeler and identify potential locations for the new building. While this may seem straight forward, this site-selection process is by no means easy since there are so many different factors to consider with many competing interests. Figure 1 shows only some of the potential sites that have been considered and discussed. For reference, the location of the previous and now-condemned facility is located at 3B, the demolition of which will be paid for from the building funds.

We have yet to define the final site, as we are still going back and forth between the pros and cons of each site. No single site is best in all ways, so it comes down to a balancing act between different factors. For example, the original site (3B) has a proven track record for an apiary location and out of the way to avoid potential issues with neighbors. However, the driveway would have to be completely rebuilt (increasing costs on site development thus significantly decreasing the amount left for the building itself), many trees would have to be cleared to facilitate construction (further increasing costs), and the potential for a large parking

lot for extension events would be minimal. There is discussion of placing the building directly on Inwood Drive in front of the old facility (3A), which would reduce such costs, but it would also be directly adjacent to an apartment building for Lake Wheeler personnel.

***"It is important that we do our due diligence in selecting the final site"***

There are several locations that have been discussed that are directly associated with the "Fish Barn" (1B) or immediately adjacent to it (1A and 1C). There is a clear upside here, in that this aquaculture facility is also part of our Department of Applied Ecology and thus would provide a contiguous footprint for our whole department on the farm. These are also conveniently located off Inwood Drive, near utilities and high-speed data, and greatly increases the visibility and profile of the new facility. However, the proximity to the swine unit and pig lagoon (1A) or exceedingly high costs of demolishing previous buildings (1B) make these options problematic. The other options south on Inwood (1C and 2) are also areas used by the farm to spread cow manure several times a week during the summer, which is necessary for continued farm function.

The final two sites that have been discussed represent some out-of-the-box thinking. Site 5 is the furthest south on Inwood Drive and is on the edge of the farm property. It is currently dominated by pine forest, which would have to be cleared but is otherwise nice and flat. The main concern with this site is that to its immediate south is a sprawling property of suburban housing (including swimming pools), which may or may not mix with dozens of colonies of honey bees. Site 4 is the only location not located on Inwood Drive; being directly on Lake Wheeler Road, it would be an excellent location for visibility and access but at the expense of high traffic and noise pollution. It has a good potential footprint for a large structure and even





Potential Sites

potential overflow parking in the church lot immediately adjacent to it, and the utility and data costs would be minimal.

It is important that we do our due diligence in selecting the final site so that we can optimize all the various aspects that go into a new building and pending some final number-crunching we hope to be able to do so in the next few months. We are all looking forward to finalizing this important decision of site selection so that we can move onto the next phase of actual building design.

Of course, none of this would even be possible without the many, many steps that came before this through the fundraising efforts by the NCSBA and others. So really, this is the first step of a new phase, and not the first step overall, which only underscores how collaborative and cooperative this endeavor really is. We thank everyone who has been—and will be—involved.

# CYPRESS HIVES

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## Know Your Numbers



- ▶ There has been a 2.96 million decline in honey bee colonies in the US since the 1940s
- ▶ The bee population in the US decreased by 30.7% between October 2017 and April 2018.
- ▶ The E.U. imports 20% of their honey from Ukraine annually
- ▶ There are 81 million western honey bee hives globally
- ▶ The honey bee population decline has led to 2.6 million colonies being brought cross-country to pollinate US crops

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# So Happy Together!

## 2022 NC State Fair Highlights, Bees and Honey Competition







## Honey Show Report:

### Message from the Judge

2022 NC State Fair Raleigh, NC

THANK YOU, to everyone who entered! There were some very nice entries. For the most part it was a high scoring show. Remember, this is where the public sees the art and science of beekeeping diversity. You owe it to your craft to do your very best.

#### SUGGESTIONS

First things first: Read, Understand and Follow the show rules!

We make it a point to leave comments on the score sheets to explain why points were deducted; we also noted full points as well. Most lost points on container appearance. This is an easy place to gain points. Clean your jars before you enter them. Simply wipe with a glass cleaner and newspaper (black and white). The jar will sparkle. Please AVOID plastic jars as they scratch easily and do not allow your product to shine.

Fill Level, Crystals and Foam were the other areas that cost many entrants points. Proper fill is to the TOP of the fill ring. Be consistent. Crystals and foam can be greatly reduced by gently warming the honey. My suggestion is to pack a dozen jars for entry, over fill them a bit, then warm to eliminate crystals. Foam will rise to the top. Skim it off. Let the honey cool, then adjust the fill level using a straw, spoon, etc. Clean the jars, including the rim, threads, and cap. Among those dozen jars, pick the three best jars or whatever the show rules specify to enter. Give them one last cleaning at the time of entry.

Many entrants could have been First Place or Best of Show winners had the basics been followed. The Eastern Apiculture Society website is a wealth of information. Go to "Honey Show" on their website. Following these suggestions will ensure higher scores. While the score cards may be slightly different the basic judging criteria are the same. Most state and local honey shows use the EAS show rules as the guidelines for their show. Again, following these suggestions will ensure higher scores.

Best of luck on your next honey show!

- Bob Wellemeyer Extracted Judge



*Congratulations to all the winners and participants of the 2022 NC State Fair! A complete list of winners can be found at <https://www.ncstatefair.org> under the Honey Competition link.*



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# New Apiary Inspector Shirley Harris

The North Carolina Department of Agriculture and Consumer Services (NCDA&CS) recently welcomed Apiary Inspector Shirley Harris to its Apiary Inspection Program. Shirley's territory includes Anson, Chatham, Cumberland, Harnett, Hoke, Lee, Montgomery, Moore, Randolph, Richmond, Robeson, Scotland, Stanly, and Union Counties.

*I started my beekeeping experience in 2007, with a swarm of honey bees that moved to a box on the edge of our front yard. After finding the bees, I signed up for a local beginner beekeeping class, and on my first field day, Master Craftsman Beekeeper, Ellis Hardison handed me a frame of bees with the queen. I was hooked! After that I found our local bee club, my husband and I joined, we started learning and have been busy as a bee ever since. We were so fortunate to have had two mentors that helped and encouraged us along the way, JR Mashburn and Fred Bailey.*

*I have served Montgomery County Beekeeper's Association as the vice president, secretary, program chair and most recently as president. I have been a longtime member of NCSBA, a lifetime member of Montgomery County Beekeepers, and an NC Journeyman Beekeeper.*

**NCDA&CS Apiary Inspector**

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# Getting Back to Normal

## Silent Auctions are Back!

by: Pat Weisbrodt, NC Master Beekeeper

**“ANYTHING GOES”** will be our theme for the silent auction at the NCSBA state conference on March 10-11, 2023, in Monroe, NC. The Chatham County Beekeepers have taken on the task of organizing auctions next year. We challenge every association to donate a few treasures. No worries if you are not attending but would like to donate. Regional directors, our state inspectors, or a member from your association that is attending the conference can collect items for the auction.

We have not had a silent auction in a few years. For those who have not participated in one, the following explanation should help you understand the procedure. First, donate items for the auction. Each item will be accompanied by a bidding sheet that will include the item information, value of gift, minimum/opening bid, and what dollar amount for increased bids. For example, an item valued at \$35.00 could have an opening bid of \$15.00 with \$2.00 increments (next bid is \$17.00). The bidding deadline is the end of the morning break on Saturday, March 11th. Top bidders can pay for and collect items at lunchtime on March 11th.

We all love our “bee stuff” but please consider donating those birthday or Christmas gifts that don’t fit your style to ANYTHING GOES Silent Auction. Items that are typically found at our auctions include hive equipment and tools, products of the hive, bee plants, bee jewelry, photography or art work, books, decorated

hive bodies, pottery, mead, wine, and more. You get the idea!

Please help by contributing to our silent auction. More information will follow when the conference schedule is finalized.

If anybody has questions, please email Pat Weisbrodt, [beegalpat@gmail.com](mailto:beegalpat@gmail.com).

Thank you!



## NCSBA Library Update:

The library circulation data show that four DVDs were checked out this quarter.

There was one concern that a DVD was not playing correctly. Upon its return, the DVD was troubleshooted by the library staff. It played normally on their DVD player. A big Thank You to the library staff who support the Fred Deer Library and do all the behind-the-scenes work it entails. We appreciate them and appreciate Wayne Community College for its support.

That’s the report for this quarter!

If you have a favorite DVD, if it is still available on DVD, and you think it would make a good addition the NCSBA Library collection, please let me know at either contact listed below.

Also, due to some recent concerns, patrons will be limited to checking out one DVD at a time.

**Bob Kemper, NCSBA Fred Deer Librarian**

[kemper27530@gmail.com](mailto:kemper27530@gmail.com) 919-731-2146

# Installing a Package

## Using the Current Research

by: Eric Talley, NC Master Craftsman



### Almost every piece of literature

written about honey bees contains information on how to install a package of bees into woodenware.

However, new research in various areas of honey bee behavior and biology have been completed and most beekeepers are either not aware of or have not linked the research to package installation. To successfully install a package of bees, or introduce a queen to an established colony, knowing and applying this updated information can be the difference between success or failure.

### Preparations beforehand

1. Pre-stage the woodenware on the hive stands before you pick up the packages. Once you have the packages in hand, things need to move rather rapidly; having the equipment in place will reduce your stress level. I recommend (if you can get them) having a frame of drawn comb, a frame of honey and open nectar, and two frames of wax foundation ready to use during the package install. If you don't have these resources available, start with four frames of foundation. By joining and attending a local beekeepers association, and having an experienced beekeeper as a mentor, you may be able to talk them into providing, maybe at a cost, the drawn comb and frame of honey.

2. Mix the sugar syrup (1:1) two days before the packages arrive. This will allow you to agitate the syrup again if it isn't completely dissolved. Mixing sugar isn't an exact science; a gallon of water weighs 8.34 pounds so add about 8 1/3 to 8 1/2 pounds of sugar to a gallon of water and mix. You will also need a spray bottle of 1:1 sugar syrup to complete the installation.



Photo 1

### Packages in hand

When you're ready to install the package, spray a little 1:1 sugar syrup (Photo 1) onto the bees in the package. Don't drown them! Next, remove the wooden plate covering the syrup can and the staple holding the queen cage strap. With your finger on the queen cage strap, gently tip the package sideways and allow the syrup can to come out a little (Photo 2).



Photo 2

Once you have the can in hand gently set the package onto the corner of the hive body, remove the syrup can and queen cage and quickly replace the wooden plate over the hole in the package (Photo 3) to prevent the bees from escaping.



Photo 3

Hold the queen cage up so that you can see the queen (Photo 4). Verify that she is alive and not damaged in any visible way. Very rarely queens are damaged during caging or transport and arrive dead.





**Photo 4**

Next, remove the strap from the queen cage and reposition it so that the long end is trailing away from the screen side of the cage, preparing to install the queen (Photo 5).



**Photo 5**

Text books show the “old” standard method we used and taught for years, which was to place the candy end of the Benton queen cage standing up so that any attendants that died would not plug up the exit hole and the queen would be released without problems when the worker bees had eaten the candy from the exit hole.

I have seen photos that show queen cage candy that melted and ran down into the cage. Whether the bees, or hot weather overheated the queen cage candy doesn't really matter. How often this occurs I suspect is very rarely but I don't take the chance anymore. When you remove the cage in a few days, and see that the candy and all bees are out, you'll assume the queen was released and accepted since the cage is clear of bees, the queen and the candy. Whether the candy melted and ran onto the queen and killed her, or hostile bees got to her too soon is not the point if the queen is no longer present with the packaged bees you installed. Some writings suggest placing a small hole in the queen cage candy to allow a faster release of the queen. I do not recommend this because if the queen is released too soon, she may be killed by the bees.

I recommend that you install the queen cage with the screen facing downwards onto the frame of drawn comb, cork out of the candy end, so that if the candy melts it won't kill the queen and will allow a successful introduction (Photo 6). This can be done by using a staple in the side of the cage and one in the top bar, or by using a large rubber band to hold the cage in position. Although this method makes it harder to verify queen release without removing the cage it appears to be the safest method.



**Photo 6**

Next, you want to place a frame of open brood containing larvae of all stages next to the frame holding the queen cage (Photo 7). (See my research, “Influence of brood pheromone on honey bee colony establishment and queen replacement” that has been published in the Journal of Apiculture Research as an open access document, <https://tinyurl.com/talley-pheromone>, and the American Bee Journal, May 2021, pages 525-528). By placing a frame of open brood into the colony when having a package, you will significantly reduce the chance of the new queen being superseded. Here is where you need to have an experienced beekeeper for a mentor as they may be able to supply the frame of open brood.



**Photo 7**

Once the caged queen has been placed onto a frame and the frame of open brood placed next to it in the box, at this point you should have one frame of honey, one frame of drawn comb with the queen attached and one frame of open brood.

Place three additional frames (for 10-frame equipment) leaving an empty space in the hive body that would hold five frames. Gently place the package into the hive body and take the wooden plate off the hole in the top of the package (Photo 8) to allow the bees to come out on their own into the box. Some beekeepers say to shake the bees out of the package into the hive body. I don't recommend shaking bees out because there are 3,500 bees in a pound, so you have received approximately 10,500 bees and a queen. Once the queen is released and starts to lay eggs, it will take about 42 days before the first eggs she deposits into cells develop, complete hive chores, and start to forage. All the while the 10,500 bees that you received are slowly decreasing in numbers due to normal deaths and attrition. Placing the cage into the hive body and allowing the bees to exit on their own reduces the risk of killing or injuring bees in the process.



**Photo 8**

Next, place the inner cover onto the hive body and put the feeders into an empty hive body placed on top of the inner cover. I place the shipping can of syrup, holes down, on 2 sticks and let the new colony use the syrup. I also place a quart jar of sugar syrup over one end of the hole in the inner cover, as well as a one-gallon frame feeder filled with syrup (Photo 9).



**Photo 9**

Remember that this new colony has no resources on which to rely except what you give them. For most of the country package bees arrive well before the nectar flow begins. Colonies started from packages need energy to draw comb and store enough resources to

survive until the nectar flow. Check the sugar syrup in your feeders every couple of days as they will require a lot of carbohydrates to get started.

The day after installing the package, remove the empty package and place the remaining five frames into the hive body.

Four to five days later check to see if the queen has been released. I remove the outer frame and then spread the two frames that the queen cage is between. I don't remove frames to find the queen but simply remove the cage and make sure she has been released (Photo 10).



**Photo 10**

If the queen has not been released, use your hive tool to remove a staple holding the screen on the end away from the candy. Turn the cage to face downwards and hold it close to a gap between two frames. Gently pull the screen back and let the queen walk from the cage down into the colony. Caution should be taken to not release the queen while the cage is facing away from the gap in the frames as she could fly away and not return to the colony.



**Photo 11**

Once the queen has been released, she should start to lay eggs that day or the next. Three days later there will be a need within the colony for pollen to create brood food. On the coast of North Carolina, we normally have plenty of natural pollen sources in late March, but I normally place a pollen patty on the colony using the pollen patty feeder (Photo 11) as published in the American Bee Journal, January 2022 pages 100-101. Inclement weather, and cold temperatures can keep the developing colony restricted to the hive body. By providing a pollen substitute, the colony has what it needs to feed developing brood.





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# Building for Bees

## A Simple Wooden Beehive Stand

by: Richard Dunnagan, NC Certified Beekeeper



**I have experimented** with a lot of different means of supporting my bee hives. Looking for something sturdy, inexpensive, and more attractive, I came upon the following design for a wooden hive stand.

There are two main components to the stand, and a third optional component. This design only requires two pieces of pressure-treated wood: one 2"x 4" x 8' to cut the legs and one 1"x 4" x 8' to cut the horizontal braces which become the hive support. I will describe the optional third component later.



**Cut materials needed for assembly**

Cut the 2 x 4 into four 21" pieces. These will become the four legs of the stand. If you want the hive taller or shorter, you can adjust the length of the legs accordingly. My measurement sets the hive at 20" off the ground and allows for the legs to extend up 1" above the hive supports to prevent the hive from slipping off the stand sideways.

The front-to-back bracing requires two pieces of the 1 x 4 cut to 18" in length. This dimension is the only critical one in this plan. These pieces determine the spacing between the extensions, which form a convenient frame support.

The two horizontal braces, which will be the primary support of the hive, are cut from the 1 x 4 to a length of 26". Any slight variation of this length is OK. The extension of this piece beyond the 18" width of the legs is to create a frame support on one side.

Use 1 1/2" or 2" deck screws to attach the 1 x 4 pieces to the 2 x 4 legs. Lay two legs parallel with the wide dimension of the 2 x 4 flat on the workbench. Measure down 1" from what will be the top of each. Place one

18" piece of the 1 x 4 with the top flush with that mark on each leg. The ends of the 1 x 4 should be flush with the outside edges of the 2 x 4 legs. This will appear like an 18" wide "H" with only 1" tall for the part above the horizontal.



**Side leg assembly**

Install one screw to attach the 1 x 4 to one of the legs. Use a framing square to make sure the two pieces are at a true right angle. Once square, add three more screws in the 1 x 4, spacing them out in the shape of a box. This pattern will give rigidity to the stand. Repeat this process for the other side to complete the first side assembly of the stand. Set this piece aside and construct the other two 2 x 4 legs and 18" 1 x 4 in the same way.

Before you attach the 26" pieces of 1 x 4 to either set of side legs, orient the two assemblies so that the 18" piece of 1 x 4 will be on the inside of the stand facing each other. This means that the two side components create a mirror image. The following descriptions will assume that the extensions are on the right side of the completed stand.



**Attaching the front and back rails**



The top of the 26" 1 x 4 will also be held down from the top of the leg by 1". Use the spacing on the other 1 x 4 to align the tops. Attach the 26" 1 x 4 to the left leg composite by flushing the end of the 2 x 4 with the outside of the 2 x 4 leg. Attach only one screw and check that the two pieces are at a right angle, then add 3 more screws to secure, repeating the box pattern. Attach the other 26" piece the same way on the outside back of the left leg assembly.

For a standard Langstroth hive box, the distance between the two leg assemblies should be about  $\frac{1}{4}$ " more than the width of your hive. If you use a 10-frame box, which is typically  $16\frac{1}{4}$ " wide, then this space between the front legs should be  $16\frac{1}{2}$ ". You can adjust that width accordingly if you use an 8, 6 or 5-frame system. It is only the bottom board that will fit between the two leg assemblies, so measure the base you intend to use to be sure of your actual dimensions, as different manufacturers may vary.

Once you have marked on the 26" piece the spacing you need between the two leg assemblies, attach the second leg assembly. Again, always check to make sure the two pieces are square before installing all the screws.

When completed, the base should sit between the 1" vertical extension of the two leg assemblies with just enough width between so you can easily place or remove the base from the stand. If you use a smaller system than a 10-frame, you can also reduce the length of the 26" pieces by the same amount. With a 10-frame, this 26" allows you to hang up to 4 frames as you do an inspection.



**Completed hive stand with solid bottom board and frame in hanger space**

You now have a completed hive stand, which will sit firmly on a flat, level surface. Double-check your measurements to be sure the stand size is right before you place it into service. The hive bears on the 1x4's which extend past the stand. The measurement from the outside-to-outside, front-to-back supports should

be  $19\frac{1}{2}$ ". A Langstroth hive bottom board is usually 2"-3" longer than the hive box. That should give you sufficient support for your base with 1" overhang on both the front and the back.

To correct any dimension that may be off, all you need to do is back out screws and adjust the member to the right measurement and reattach. The frame holding extensions can be either on the left or right side of the stand, as you prefer.

## Optional Third Component

For uneven ground or if you want to anchor your stand more securely, you can proceed with the following additions to the stand you just built. A good size for this use is a  $\frac{3}{8}$ " steel rod you can buy from a local home center. Cut that rod into approximate 8" lengths. If your soil is hard, you could shorten that size to 6", and if you have softer soil or sand, you could lengthen it to 12".



**Installing the steel rod leg anchors**

Drill a  $\frac{3}{8}$ " hole into the bottom of each leg to the full depth of the bit, approximately 3-4". Hammer in a cut piece of the steel rod into each hole until fully inserted. If you want, you can grind a point on the external end of the rod, but that is not necessary.



**Completed hive with steel rods installed**



Hive stand in use

When you reach the apiary with your new stand, place it in the proper position. Use your weight to push the rods partially into the ground, but not quite all the way up to the bottom of the wooden legs. Use a level and a hammer to adjust the penetration of the rods into the soil so you get a sturdy level hive from side to side and a slight slope from back to front. In hard soil it is not necessary that the rods be buried up to the wood.

If the stand does not feel sturdy enough, move it slightly and try again. The friction of the steel rods into the soil is what holds the stand in place and allows you some means of adjustment to level the stand without having to dig or build up soil underneath.

©2022. Richard Dunnagan is a skilled craftsman who builds custom designed hives and woodenware. He uses a variety of wood species and materials to construct his hand-crafted hives, with a special focus on custom roofs. His one-of-a-kind pieces elevate the standard Langstroth configuration into something truly special. Richard's company, Boutique Beekeeping, also offers educational and field services, including cutouts and consultations. To see more of Richard's custom wares or services, or to place an order, visit <https://boutiquebeekeeping.com>.

Richard is a NC Certified Beekeeper and a member of Person, Granville, Durham, Wake and Orange County Beekeepers.



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# Re-Beeek:

## Research Experience for Beekeepers

by: Mark H. Case, Sr., M.S. President Randolph County Beekeepers



**There is sometimes** a disconnect between science-based honey bee research and the need or application of the research in hobby beekeeper apiaries. Using liquid nitrogen to do varroa mite counts is extremely accurate, but hobby beekeepers do not have the training or access to the nitrogen. There are other examples that work great in the academic world but not practical in the field.



*Hemaris thysbe* clearwing hummingbird moth  
foraging on cowpeas

I met with Dr. Kaira Wagoner from University of North Carolina Biology Department about assisting with the research they are doing. Dr. Wagoner quickly replied she needed help on a survey that needed to be completed soon. The research was taking inventory of honey bees and other pollinators on crop species at the NC A&T farms. I met with Dr. Wagoner and her research assistant Zachary Bunch on August 9-11 to help with the research. Even though I was able to fulfill my 10 hours within those three days, I returned on August 12 to help complete the data collection needed.

This was a very enjoyable experience. Due to the ongoing upcoming publication of the data, I cannot report the data but can report on the experience. Dr. Wagoner said our time was valuable because she learned what hobby and commercial beekeepers needed. At the same time, I was able to learn firsthand what research is hoping to accomplish and get to beekeepers within the next couple years. Research takes time. There is no magic wand to take what is learned today and make a product ready for people to use. Here are the top nine things I learned through this experience.

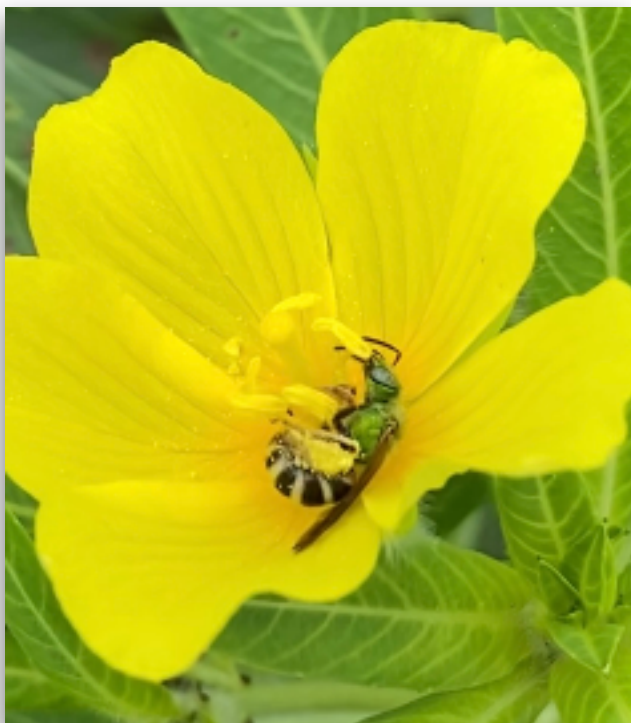


*Apis mellifera* honey bee  
foraging on buckwheat

**Ask questions.** During my short experience at the research station, I met over half a dozen scientists all working on the same or similar crops, looking at different perspectives. I would ask questions and many of them would stop, think, and write them down. “I don’t know”, was a common answer. Scientists will tell you, that is one of the most powerful statements they can utter. It causes them to investigate and discover more. I wrote down over two dozen questions on my data collection sheet and Dr. Wagoner kept saying:



“That would make a great study!” or, “Maybe we can get a grant to study that.” An example of what I would ask was, “Are the different insects going after the same thing in the same flower or different resources? How can one flower hold so much resource? Several bees have foraged the same flower in the past five minutes.” Dr. Wagoner said that if we can get a grant, she may be able to hire me to investigate.



*Agapostemon virescens* bicolor striped sweat bee foraging on water primrose

**Listen to the conversation.** The conversations of colleagues and other researchers would often give insight and perspective on what we were doing. It was not eavesdropping but rather paying attention to the discoveries, observations, and questions of others. One such instance was finding out there were other crops nearby. We found the honey bees we were looking for on those crops!

**Experiment within the experiment.** On the last day, I observed buckwheat for 30 minutes. I wondered if my presence affected the forager activity. Zachary had wondered the same thing. During our observation in buckwheat, we changed our position several times. There seemed to be no effect on the forager activity. The foragers ignored our presence and continued their gathering. Dr. Wagoner was pleased that we made this observation and had explored our question.

**Use your resources.** In trying to identify specific plant and insect species, Zachary used iNaturalist app and I used Google image search. Together we were able to identify all but one insect we found foraging.

Zachary was able to teach Dr. Wagoner a new field tool!

There is no box in research! As we conducted the survey, we found that there was not enough room on the data sheet for all our observations. Our observation sheets almost looked like a battle plan with several observations. With the core research data intact, we wrote questions and observations on the sides, the bottom, the back of the data tabulations. We also texted and emailed ideas and questions while in the field and well after the experience was over!

**It's OK to not know how to ask the question.** Other researchers were gathering data on similar crops from a totally different perspective. I noticed some pollinators on their crops but not on the same crops we were observing. Language barriers, not knowing terminology and lack of experience in this area of science discouraged me from asking questions. The researchers working on the other experiment were patient and helped me figure out how to ask the question. They said it was good for them to learn more about English and how to relay what they are doing to farmers.



*Scolia dubia* blue-winged scoliid wasp foraging on buckwheat adjacent to honey bees

**It takes a VERY LONG TIME to get a good picture.** All three of us tried to document the various pollinators. We tried dozens of pictures, most of them were blurry or missed the insect all together. I finally remembered a tip from a Discovery Education seminar: use the video mode on HD60. Record and go frame by frame to find suitable photos. I spent nearly 15 hours going through my recordings to get the 20+ pictures I provided to Dr. Wagoner. This 10-hour field research took a lot longer than anticipated, but the pictures were worth the effort.

**Research is fun!** I forgot how much fun field work and research could be. It's been 30+ years since college. Doing organized original research is so refreshing, it makes me want to do more!



The research team during my experience: Zachary Bunch, recent graduate from UNCG and research assistant. Dr. Kaira Wagoner, Research Scientist, UNCG Biology Department, Mark Case

**Don't wait.** When you have an idea, act. The longer you wait, the greater the chances you won't do it. Part of our conversations gave me some ideas on other

areas of hive management and handling hive beetles. I spent time researching and designing on my 3D software the tool I want to try. I designed all three versions, will print them, and soon try them. Dr. Wagoner and I talked about this article you are reading. I started right away.

I encourage you to contact the closest university doing honey bee research and start a conversation. There is something for everyone to do and learn to make our hobby safer and healthier for our bees.



Mark Case is a certified environmental educator and high school science teacher. He is past president of the North Carolina Science Teachers Association and current president of Randolph County Beekeepers Association. <https://www.facebook.com/JustinCaseBeeProducts>.



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# NCSBA Spring Conference - March 10-11, 2023

Union County Agricultural Center, Monroe, NC

Registration begins early January at [www.ncbeekeepers.org](http://www.ncbeekeepers.org)

## Main Stage Speakers



**Cory Stevens** comes to us from his 27-acre farm in Bloomfield, MO, which he manages for wildlife and pollinator habitat. Cory and his wife Jaime own Stevens Bee Company where they select for mite resistant VSH stock. Cory is a past president of Missouri State Beekeepers Association and earned an MS degree in Entomology from University of Nebraska - Lincoln. He was certified as a Master Beekeeper by EAS in 2013 and trained by Sue Cobey in 2014 to instrumentally inseminate queen bees. He slips bees into random conversation with strangers and annoys his wife by constantly talking about bees!



**Kamon Reynolds** is the co-founder of one of North America's largest bee conferences, Hive Live <https://www.hivelifeconference.com/>. He is the founder of Tennessee's Bees and has been keeping bees in North Central Tennessee for 20 years. Kamon keeps 300 hives with his wife Laurel. Kamon and Laurel have filmed hundreds of educational videos to help new and veteran beekeepers around the world keep their bees successfully. Though Kamon does 99% of the talking, Laurel has been beekeeping for 16 years and is invaluable to their business, Tennessee's Bees LLC. Tennessee's Bees specializes in quality bee genetics, pure Tennessee honey, and honey bee education. Their videos can be found at <https://www.youtube.com/channel/UCkoAuqRak>. Kamon currently has over 50,000 followers on YouTube.



**Dr. Morgan Roth, Ph.D.**, Assistant Professor of Biology, Department of Biology & Chemistry at Liberty University. After completing a B.S. degree in Zoology, Morgan started working for Dr. Aaron Gross as a research assistant and M.S. student at Virginia Tech in 2017. Throughout her M.S. program, she studied varroa mite acaricide resistance in VA and tested several known and novel acaricides against small hive beetle larvae and honey bees. After completing an M.S. Degree, Morgan continued to research small hive beetle physiology and behavior as part of her Ph.D. research at Virginia Tech. The Ph.D. research included testing small hive beetle antennal responses to a series of attractant and repellent compounds and contrasting these responses with a behavioral test performed on small hive beetles using olfactometry experiments. Throughout this work, Morgan was able to discover which repellents were most effective against small hive beetles and found that some repellents could obscure responses to attractants in behavioral testing. After graduating with a Ph.D. this past spring, Morgan began working as an assistant professor at Liberty University, where she is currently working to establish an apiary, both for teaching beekeeping to students and continuing her work with honey bee pests. Morgan's hope is that her research can one day be applied in apiary settings in the form of safe and effective repellents, which could help prevent small hive beetles from discovering and entering apiaries.

## Also, for Spring 2023:

**Black Jar Honey Competition:** More information to follow. Participants should bring a 16oz jar of honey in a plastic squeeze bottle. Ribbons will be awarded for winners. The rules are posted on the NCSBA website.

**Silent Auction:** There will be a silent auction beginning on Friday with load of items to bid on. See pg. 23 for more information.

**Become a Honey Show Judge:** Welsh Honey Judge Training will take place on Thursday March 9. Full details on back cover.

**Catered Meal:** Saturday March 10, 2023, there will be a catered BBQ meal option that may be added to registration. Otherwise, lunch will be on your own Friday and Saturday.

**We will be opening doors early** Friday and Saturday to account for the shortened 2-day conference, so plan to arrive early or come into town early and take advantage of the training session on Thursday March 9th.



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## WELSH HONEY JUDGE

Training & Certification Course

**March 9, 2023**

Union County Agricultural Center Monroe, NC



Ever thought about becoming a honey show judge or wonder how to prepare items for entry into a honey show? We have just the class for you! The NCSBA and the faculty of the American Honey Show Training Council will be offering the Introductory Training for the Welsh Honey Judge Program on March 9, 2023, at the Union County Extension Office in Monroe, NC. The training will be held on the Thursday immediately prior to the NCSBA Spring Conference, and it will be an all-day affair. Program curriculum and requirements will be identical to those posted on the Young Harris-UGA Beekeeping Institute website:  
<https://bees.caes.uga.edu/yhc-uga-beekeeping-institute/welsh-honey-judge-licensing.html>

**Cost: \$75**

**Time: 8:30am-4:00pm. Attendees should plan to arrive at 8:00am.**

**Location: Simpson Event Center - Union County Agricultural Center**

The class includes: An all-day training/instruction with senior honey judges and honey show experts, thumb drive with all reference materials, white honey steward/judge smock lab coat, and Certificate of Completion of Level 1 Training in the Welsh Honey Judge Program.

**Lunch will be provided. Pre-Registration is required for this event.**