Bee *friendly*

A Newsletter of the New Mexico Beekeepers Association

www.nmbeekeepers.org *Winter 2021*

All-Star Cast for Our Winter Conference!

Saturday, February 5, 2022, 9am-5pm via Zoom Webinar

Samuel Ramsey, Ph.D.
"Varroa Anatomy: Why it Matters to Your Bees"

Founder and director of the Ramsey Research Foundation, Ramsey dedicated his doctoral research to understanding *Varroa destructor*.

Jonathan Lundgren, Ph.D.
"We Must Heal the Soil to Save the Bees"

An agroecologist, director of the Ecdysis Foundation, and CEO for Blue Dasher Farm, Lundgren specializes in regenerative agriculture and the harmful role of neonic pesticides.

Megan Mahoney
"Successful Queen Rearing - a Technical Guide"

With her partner Ross Klett, Mahoney founded "Mahoney Bees and Queens", specializing in instrumental insemination, breeder queens, and cell production.

Marla Spivak, Ph.D.
"Why Care About Propolis"

Renowned researcher Spivak studies the role of resins, which bees collect and mix with wax to make propolis coatings on the inside of their hives, as an example of honey bee social immunity.

Quentin Geant
"Beekeeping on the Roof of Notre Dame"

Branch manager of Beeopic California, Geant works with his father Nicolas to care for 180,000 bees on top of Paris' Notre Dame Cathedral.

Julia Mahood
"Beekeeping Tips and Tricks"

A Georgia Master Beekeeper who has been keeping bees since 2004, Mahood created the citizen science website MapMyDca.com to gather data on drone congregation areas.

[Expanded bios of the speakers, as well as future updates on the conference, can be viewed on the website here.]

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NMBKA
New Mexico Beekeepers Association

Winter 2021

Our newsletter is a quarterly publication of the New Mexico Beekeepers Association (NMBKA).

Website: www.nmbeekeepers.org

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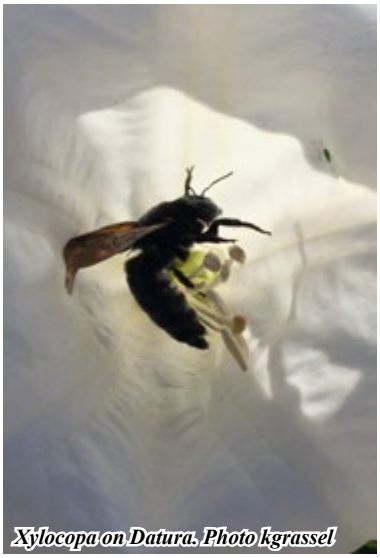


Xylocopa on Datura. Photo kgrassel

Message from the President

By Steve Black, President, Board of Directors, NMBKA

It's hard to believe the 2021 beekeeping season is over! I hope you all had as much fun as I did. I know that many of you have enjoyed abundant honey harvests due to this summer's monsoons; what a gift it was!

My apiary grew from 3 hives last year to 11 hives this year, mostly due to splits and rescues. It has been both interesting and challenging to observe the different behaviors and keep track of the health and status of each one.

In October, I completed my CBeeks Level II education, thanks in large part to our instructors, mentors and evaluators (especially for me: Mark and Beth Sommer, Amy Owen, Kate Whealan, and Carol Horwitz). The two-year program has given me additional confidence going forward and I highly recommend it to those new beekeepers who have not taken it.

This fall your NMBKA board has been busy. We have started planning efforts for our 2022 Winter Conference (February 5) are about to begin our 2022 membership drive. We continue to support local beekeeping groups and have funded several small pollinator protection projects in our state.

Due to the ongoing COVID pandemic, our winter conference will once again be held virtually via Zoom Webinar. While we will miss out on face-to-face conversations with other beekeepers, we have the advantage of bringing in five renowned speakers, including this year, Dr. Samuel Ramsey…..a true beekeeping Rock Star if there ever was one!!

This is likely to be my last president's message as I will be stepping down after the winter conference to head up the Education Committee and the Certified Beekeeper program. I have enjoyed working with our NMBKA board to continue the great work of previous leadership teams. We deliberately rotate key board positions to ensure vibrancy and forward movement as an organization. Our nominating committee is busy collecting applications for new board members to join our team.

I thank my fellow board members for their support these last two years. Happy Holidays to all my fellow NMBKA Beeks!

NMSU Honey Bee Health Project

By Amy Owen, owner of Desert Hives *LLC and NMBKA vice-president*


Amy Owen in the lab

New Mexico State University began as an agricultural school; students are referred to as the NMSU Aggies. NMSU has an Agricultural Science Center in Los Lunas, and it is here that NMSU researchers and Extension Specialists conduct research for agronomic and horticultural crops adapted to the area (Middle Rio Grande Area and portions of Central New Mexico). A pollinator study was included in this research; however, this was the first year that NMSU conducted research on honey bees specifically.


Benjamin Scott in the lab

In 2021 Dr. Amanda Skidmore (IPM Specialist), Dr. Ge Zhang (Honey Bee Researcher), and Miranda Kersten (NMSU IPM Program Manager) began a honey bee research project to determine which type of bee hives promote health and productivity of honey bees in the arid climate of New Mexico and the southwestern U.S. Funding was provided by a grant from the USDA NIFA (National Institute of Food and Agriculture). Skidmore, Zhang, and Kersten invited me and other beekeepers to some preliminary discussions on this honey bee research project, as they believed that including local beekeepers in this research would be advantageous.

In April, Benjamin Scott, a local beekeeper, began working alongside Dr. Ge Zhang to complete this project. This research project included a total of 30 hives at five diverse locations in Albuquerque and surrounding areas. Each location had two Langstroth hives, two top bar hives, and two Flow Hives. Beginning in March, each hive underwent a series of observations and measurements to look at wax production, honey production, pollen gathering in a 24-hour time frame, and varroa mite levels, which were monitored biweekly. Pollen and bee samples are also being sent off to determine pollen type and if there are any pesticides present.

At the end of June, Dr. Skidmore left NMSU for another job opportunity, and Dr. Zhang did the same at the end of July. The research project was not yet complete. In June, Dr. Skidmore contacted me to see if I was interested in contracting with NMSU through my business, Desert Hives, to do the work needed to complete this project. After some Zoom meetings and proposals, NMSU accepted my contract to complete this project. Benjamin Scott remained on the project, which provided some continuity and more ease in the transition.

Starting in August, Benjamin and I worked two consecutive days, biweekly, to weigh hives, set pollen traps, and gather pollen and bee samples. We also spent about two days a month in the lab weighing pollen and performing mite washes to record varroa mite loads. Data was then sent off to Dr. Ge Zhang for analysis.

Helping complete this research project was a unique opportunity, and I am grateful that I was able to help bring it to completion. I look forward to reading about this research once the data has been analyzed and results from the bee and pollen samples have come in. Dr. Zhang's conclusions will be presented in the next newsletter when results are gathered and orginized. Hopefully at that time we will know more about a topic long discussed by beekeepers: Which type of hive is best for honey bee health and production.


Pollen samples collected

Winterizing Hives in NM: A Range of Views from North to South

By the time you're reading this, winter will be well chilled into our bones. We wrote the following pieces in October and November as we were reading, worrying, bingeing YouTubes, poring over equipment catalogs for winterizing equipment, and finally deciding if and how we would prepare our hives to give our colonies the best chance of getting through the season. We know honey bees ready themselves by packing in a four-month honey supply, evicting the drones, propolizing cracks, and reducing their size to a cluster of fat bees surrounding the queen. So why do the humans feel the need to do anything at all? One guess is that we are influenced by books that are typically authored by beekeepers in snow-driven, below-zero climes. Or we may be familiar with Dr. Tom Seeley's observations that our hives (Langstroth boxes, top bars, Warres, AZs, flow) are not the housing choice of honey bees (read here) and are inadequate to their winter survival. Thus we consider add-ons and extras that will help when weather bears down on these structures containing our bees.

My Winter Prep -- What? Me Worry?

By Steve Black-- Santa Fe, Nambe, Los Alamos

I'm not sure if other beekeepers worry about their bees in winter as much as I do ….and I'm not sure if worrying about them helps ….but I can't help it!

One strategy I use since starting beekeeping four years ago is not taking much honey from the hive, thereby leaving plenty for the bees. No biggie …..most everyone knows that.

For my Langstroth hives, I use "bee cozies"--a really nice, reusable insulation jacket that slips over the two double deep boxes. I know it's been said that bees can survive without insulation, but I believe keeping the hive insulated means that the bees don't have to work as hard to keep warm and therefore the honey stores will last longer. Plus, it makes ME feel better when I look out into the snowy apiary and hope the bees are doing well.

As winter approaches, I treat all my hives with an oxalic acid dribble despite low mite counts ….it cannot hurt, right? It's a simple, organic technique that the bees tolerate, and I can do it without a vaporizer and a respirator.

Despite my goal of leaving my bees adequate stores, I will typically add granulated sugar to the Langstroth hives on a sheet of newspaper on top of the frames (the Mountain Camp technique). Not only does this serve as emergency feed, it also will absorb excess moisture in the hive.

Speaking of ventilation, that's another thing I worry about getting right. While it is important for the hive to be sealed against winter cold, sealing too much can result in moisture condensing on the top cover and "raining" down on the bees. I have been told that bees can survive "cold" but not "cold and wet". So, I obsess about ventilation as well as insulation. Most of my hives have a screened bottom board with a slat board in between it and the first deep. Last winter, I left the screens open and the bees did fine.

In my relatively few years of beekeeping, I have not lost a hive over the winter (Just a minute while I find some wood on which to knock). Now with 10+ hives, I am preparing myself emotionally for a few of my smaller colonies that might not make it…..but I will worry, look for bees coming out to poop on warm days, and hope for the best.

I wish all of my fellow NM beekeeper's colonies good fortune this winter!

My Winter Prep -- Treat, Wrap, Pray

By Amy Owen-- Tijeras, Cerrillos, Albuquerque west side

This season has been wild. The swarms, splits and honey were plentiful. It was hard to keep up with the growth of my hives and the honey coming in; what a great problem to have! With this came some high mite loads.

For me, checking final mite loads and treating hives that need treatment is the most important thing to do as fall sets in and winter approaches. Bees need large healthy fat bodies to carry them through the winter months. (Make sure you perform mite tests throughout the season, don't wait until fall to test--by then it may be too late!)

I also make sure they have enough honey stored. I like to feed crystalized honey to my bees if I have it available, and they seem a little light on honey. I'll feed a 2:1 sugar syrup (before late fall) if I have to, and then I place fondant in all of my hives as some insurance. I will then check on the fondant once or twice in the winter to make sure they haven't gone through it.

In my Langstroth hives I place fondant in my Vivalidi boxes, and then fill the box with moisture wicking/ insulating burlap.

Entrances are reduced, and I wrap my hives so that the bees can conserve their energy/honey. I try to mimic a thick walled hive in a tree cavity as much as possible. I'll place foam boards on top of some top bar hives, especially here in the east mountains.

Most importantly, I say a prayer for my bees and relinquish any control I thought I had over the bees and their health. Worrying about my bees will not help them, and checking any hives during cold weather could be detrimental.

Winter is a time to rest...and get all of those wax projects going!

Our Winter Prep -- Ultimate Management

By Allison Moore and Jade McLellan-- Albuquerque Southeast Heights

In preparation for winter, over the months of September, October, and November, Jade McLellan and I completed the following for two top bar hives and one Lang hive:

- Reorganized the top bar hives and located several resource bars in front of the hive with brood in the center and majority of resource bars in back.
- Fed with sugar water at 2:1 ratio and stopped around end of October.
- Created a "bar of fondant" and installed in both the top bar and Lang hives.
- Installed mouse guards (wire mesh) and reduced entrance to all hives.
- Wrapped all hives with light insulation material – light because hives are located against southeast facing wall and receive over half day of sun.
- Elevated the back of all the hives slightly.

My Winter Prep -- Sugar, Sugar

By Kathy Grassel-- East Downtown Albuquerque

My winterizing efforts have been all about SUGAR. My inspections in October revealed both of my colonies low on honey stores. I was baffled because both were heavy with honey in mid-September. I was so confident that I even offered a couple bars to a friend whose colony was slow to build up, an offer I had to retract. So I fed 2:1 syrup and crystallized honey while it was still warm. Then I made fondant, following a recipe, using nine cups sugar to two cups water, without incident (though molten sugar boiling up to the rim of the pan did set off the panic button).

A candy thermometer is a must. I poured the finished product into four pie tins and let it harden. Now what, I asked? The Lang was easy; just setting the round above the brood. For the top bar I got "creative" and fastened the round into a rescue bar stringing it in with dental floss. Somehow I knew this wasn't going to work. And it didn't. I checked a week later and the rescue bar was empty and the sugar nowhere to be found. Did they haul it all out in that short time? Eat it all in that short time? My next solution was to re-purpose a mesh bag that holds produce at the grocery store. That worked fine. Keep it simple. Since the top bar bees propolized their ventilation screens (what??), hopefully the sugar will absorb any moisture buildup. To finish up the Lang, I added a quilt board with aspen shavings, switched out the screened bottom board with a solid, and reduced the entrance. The wait begins.

No. Just no.

My Winter Prep -- Bees Do Their Thing

By Anita Amstutz-- Albuquerque South Valley

All my hives were alive and accounted for as October 2021 came to an end. All but one colony had secured and reduced their entrances with thick propolis glue. The one the bees hadn't secured had been busy requeening themselves late in the summer/fall. Though I had seen a virgin queen and later the mated queen's eggs, I did not lay eyes on Her Majesty before I closed them up for the season. I was concerned that they wouldn't be populous enough to survive winter cold snaps.

One day in early November, I decided to stop by and peek in the observation window of my small hive, hoping the queen was thriving and workers abounding. Horrified, I saw a cloud of activity around the hive door as I approached. It was close to dusk. My hive was being raided by marauding bees! The battle raged hot and heavy as I stood there, watching bees crawling and dropping along the front door. I opened the observation window, only to see bees chasing each other round and round. Who was winning—my girls or the robbers? I had no idea. Bees began to dive-bomb and sting me in order to drive me away. To them I was just one more predator. It worked. I repaired to my car, grief-stricken at failing to assist my girls. I had brought no hive tools. There was nothing I could do until the morning to help them get the upper hand. I hoped the robbers would be deterred by the encroaching darkness, and leave to return to their hive.

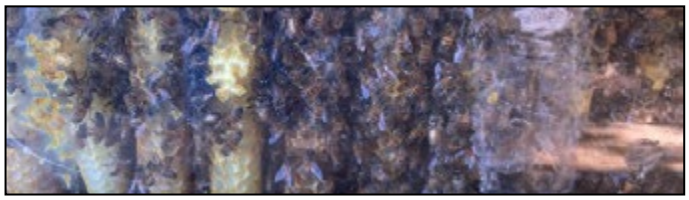
When I showed up the next day to reduce the entrance, all was quiet on the western front. Bees lazily drifted in and out the door. Peering through the glass observation window, I saw none of the rowdy face to face dueling I had seen the evening before. The girls had made it through! With a breath and a prayer, I secured the entrance down to one bee space.

I will return soon, but I have high hopes that this small but mighty hive of sassy girls will survive this winter.

My Winter Prep -- Southern Bees Winter Ready

By Anita Feil-- Las Cruces

Beekeeping in southern New Mexico starts in March and ends mid/late November. My top bar, New Mexico Girls, is a rescue from a city water meter from late July 2021. Once the hive got settled in with their new surroundings, they grew exponentially. With honey harvested and a quick look around, this hive is in great shape for winter. Now time to button down the hive by placing top bar spacers and install the false back to condense the hive size. See you in the Spring, New Mexico girls!



My Winter Prep -- Higher Elevation Challenges

By Melanie Kirby-- Northern New Mexico, Vadito in Taos County

From desert to tundra, the Land of Enchantment boasts some of the world's most intriguing and dramatic landscapes. The high-altitude location of many of our communities poses some very interesting scenarios which keep beekeepers guessing- from day to night and from season to season. Shifting climate concerns also play a confusing role.* Here's a list of common high-elevation overwintering challenges and how to manage for them:

Windbreaks: Winds can be destructive. Strapping down hives to prevent them from being knocked over helps, as do establishing wind breaks around hives. If there are trees where the hives can be placed, positioning them in between trees can help to protect from wind, excessive moisture and solar radiation.

Solar Gain: Radiation at high elevations is much stronger than at lower elevations so if hives are in direct sunlight, even in winter, they can feel warm and bees may break cluster. This can be positive and negative. On the positive side of things, if the bees can break cluster on a relatively warmish day, they can then take cleansing flights and relieve themselves, helping to minimize dysentery and nosema from occurring inside the hive. On the negative side, the abode may feel warm and the bees will break cluster only to exit and then immediately chill in the ambient winter air temperature, which can cause them to fall to the ground and become so chilled that they cannot return to the hive.

Insulation: Too much wrapping, and the hive will feel warm and bees will exit only to be chilled by outside conditions. Not using insulation can also cause a colony to work harder to maintain a survivable interior temperature. In either case, food stores may diminish. Then as spring commences with pendulum weather between cold and warm, late frosts, high winds, and anxious keepers, the bees can struggle. Placing one sheet of insulation (1/2-2" thick) on the lids or tops of the hives can help to minimize wind-chill and solar gain fluctuations.

Ventilation: Reduction of entrances/ports during the cold season can help deter mice and prevent drafts. Including a ventilation port other than the main hive entrance can help with air flow and minimize CO^2 build-up that can asphyxiate colonies while in cluster as they aren't actively moving air (especially in top bar hives where the CO^2 doesn't have room to rise and escape). A ¾" hole drilled into upper boxes on vertical hive designs or on the opposite side and end of horizontal hive designs will allow for cross air flow. A screen can be stapled over if not wanting the bees to use it as an entrance/exit port. Bees will propolize their openings to their desired amount. If using screened bottom boards, closing them off or reducing them will prevent desiccation (excessive drying out/dehydration) of the colony.

Dehydration: Bees need water, even during cooler temperatures, to avoid dehydration and to dissolve crystalized honey for eating. Placing a water source nearby if there isn't one already available can be helpful. Be sure to include landings (rocks or twigs that float) so that bees don't drown.

* For more info see this winter's forecasted weather at: NOAA winter outlook

Interview with TJ Carr

As a well-known "institution" in beekeeping, gardening, inventing, and engineering, TJ Carr needs no introduction. Instantly recognizable in his classic bib overalls, we know him as swarm catcher, mentor to beekeepers, top bar hive designer and advocate, and especially the promoter of the honey bee for the simple love of bees. Many of us wouldn't be using top bar hives if it weren't for TJ Carr. TJ designed and standardized it, then made the plans available and downloadable to anyone. You can download TJ's top bar hive design here. And don't forget TJ's design of that long angled hive tool forged from steel, ideal for use in working top bar hives. He regularly donates one (retail is now at $75) for NMBKA's twice-annual fundraiser auction. We talked to TJ in October, busy as ever he was, already preparing his soil for next year's gardening season.

TJ, good morning! How many years have you been beekeeping?

I have been keeping bees in Top Bar Hives in the foothills of Albuquerque for 30 years.

What was the thing that got you into beekeeping?

I have kept a productive garden at my home for many years. At one point I discovered that I had lots of cucumber blossoms but no fruit. I utilized a sable-hair brush to pollinate the cucumbers, had lots of fruit as a result, and came to the realization that no honey bees were in my garden. Hand pollination is very time-consuming tedious work.


A corner of TJ's lush garden

What have been your favorite memories of beekeeping?

Meeting beekeepers, whether experienced or beginners.

You are quite well-known as Albuquerque's premier swarm catcher. When was your first swarm and how did it go?

I responded to a swarm wrapped around the branches of a peach tree in the far northeast heights of Albuquerque. The bees came from a canale on one property and clustered on this neighboring property. The owner of the peach tree was terrified. I collected this late October hive, took them home in a cardboard hive recovery box, placed them in a top bar hive and they prospered. Needless to say, I provided feed over the winter. In spring, they were out foraging and developed into a gentle and productive hive.

How many swarms do you estimate that you have caught over the years?


With students at OSVC beeyard

For many years there were only a few individuals collecting swarms. We would trade around on calls according to geographic location. As an example, when I received a swarm call in Los Lunas, I would refer it to Les Crowder; for the deep south valley Megan Mahoney or Lew Yoder. They would call me about swarms in the Albuquerque area. It worked out well for all.

For many years early on, I collected a hundred or more swarms each year.

What have you done with all the swarms you've caught? (the ones you didn't keep at home)

Early on, we had no bee school. Les Crowder held a two-day beekeeping course occasionally and I assisted with the effort. I met new beekeepers and was able to pass the swarms on. Over the years, all of the swarms I recovered went to the Open Space Visitor Center where the bee school hives are held, or to other beekeepers, free of charge.

What are your feelings about varroa?

Varroa is a difficult topic. Many senior beekeepers say "do not treat." These senior folk say that if we leave the bees alone, they will fix the mites by themselves. Others

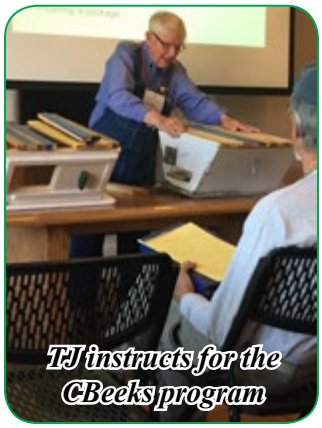
say "treat-treat-treat." One sideliner beekeeper I know says that he cannot afford new bees each season.

What is your prediction for honey bee health for the future?


Bib overalls are TJ's bee suit

Honeybee health in the coming years is problematic. The various chemical treatments used in the past have caused the mites to become immune to the treatments. At the same time, the chemicals have saturated the wax that commercial packagers and commercial beekeepers use on the foundation. The reproductive systems of both queens and drones have become compromised to the extent that most commercial beekeepers re-queen twice a year—a very costly exercise. Check out this article by Scott McArt in the *American Bee Journal* August 2018.

How was your season this year?


TJ instructs for the CBeeks program

I went into winter for 2020 with five strong and calm bee colonies. I now have three strong hives going into winter for 2021. They are taking feed at this time.

Many of us know you as an instructor of top bar hives for many years for the Certified Beekeepers program. And many beekeepers have purchased or built top bar hives using your design. How would you compare qualities of Top Bar Hives vis-à-vis Langstroth?

There are five reasons to keep bees: 1) to sell bees; 2) to sell queens; 3) to sell honey and hive products; 4) pollination; and, 5) for the love of bees.

Langstroth commented that his moveable-frame hive made beekeeping easy for the honey producer. The Langstroth system is capital-intensive.


Showing how to handle comb from a top bar hive

If bees are salvaged from, say, a stud wall, one will notice that they always start the comb at the top and hang the comb at a 60-degree angle. When one examines a two-thirds completed Langstroth frame, the bees populate a triangular section just like in the wild.

The Top Bar Hive system is a more natural system for the bees as this is how they create their hives in the wild without human intervention. The bees make their own wax new each season and make cells according to their needs for size and numbers for drones and workers.

The TBH system is labor-intensive; the TBH beekeeper should open the hive every two weeks during the honey flow season to check for and correct any cross-comb situations.

With the TBH system, the honey can be harvested and strained with regular kitchen equipment. By and large the honey from a TBH is better than honey from foundations because contamination of the TBH wax is less likely to occur.

Less Crowder managed both TBH and Langstroth equipment for many years. He discovered that the production from the two hive types was equal for equal forage and weather conditions.

TBH beekeeping is a better fit for a beekeeper working for the love of bees. Lots of fun to work the bees up to the elbow.

What is your impression of Long Langs? I'm knowing some beekeepers who are trying them out as a hybrid between Langs and TBHs.

Yes, there is a movement within the Langstroth community promoting a hive called the *Long Lang*. The hive box is built to mimic the internal design and function of the Langstroth hive, except that the frames are arranged for horizontal expansion instead of vertical by installation of supers. Most often these hives are built on a sturdy unmovable stand, many are six feet long, or longer, and can be fabricated back-to-back, which facilitates having two hives in one spot. The photos of these hives illustrate an awkward and heavy hive configuration that makes its movement and relocation a challenge.

The advantage of this configuration, however, is that it allows beekeepers to remove the plastic/wax foundation, and add a beeswax-coated hardwood spline to the remaining Langstroth frame. This allows the bees to hang their combs within the boundaries of the Langstroth frame. The bees then produce new wax,

avoiding any chemical contamination from old wax, and size the cells to that which is needed. This is essentially Top Bar beekeeping. It follows that the crush and strain method would likely be the preferred method of harvest. Overall, this appears to be a very bee-friendly use of the Langstroth equipment.

I have toured your huge garden and yard. What flowers have you noticed that are your bees' favorites for foraging?

For the Middle Rio Grande Valley, Russian Sage is a great season-long producer. Rosemary blooms twice a year and is very productive (do not plant it near your mail box). Yellow Sweet Clover is an all-time favorite. This clover in the right year can fill a TBH in a week. Yellow Sweet Clover is a bi-annual. I have two crops planted such that I have production each year.

Beginning beekeepers have a first question for me, "How much honey will I get each year?" The answer is simple. If the new beekeeper will tell me in advance how much snow in winter, rain in the spring, and rain in the summer, the answer is simple. With good conditions, beekeepers can expect 130 pounds of honey per established hive. The more moisture, the more blossoms.

If it's beekeeping and gardening in spring, summer and fall that keeps you busy, what takes up your time in winter?

The substantial work in the garden is done after the first frost: Making compost, gathering, and grinding leaves; tilling; removing the soaker hose for storage and re-use next year; cleaning pots; grinding cardboard for the compost; and turning the compost heap. With care and hard work, the garden will be ready to plant after the last frost.

What has been your biggest beekeeping mistake (and funniest thing) that ever happened between you and your bees?

I took a call at my office and was made aware of a swarm in my front yard. I collected the swarm, figured out which hive that it came from, and reinstalled the bees in that hive. Same thing happened four times in four days. Each time, the swarm was smaller. When the bees swarm, they are looking for a new ZIP code. The beekeeper simply cannot trick them. Better to move the swarm about two miles away and, after 30 days, put them anywhere, including in the home apiary.

The latest late-season TJ adventure: A bee call this month on Dec. 7!! TJ writes:

"Joe Wesbrook and I responded to a bee call near Pennsylvania and Menaul late today. We covered the bees with several layers of tarp to provide warmth and protection from wind and rain. Expected low tonight is 29 deg F. When the weather is more conducive to moving the bees, we will place branch and all in a cardboard box to provide temporary shelter in a bee yard."

Hyssop, Anise Mint, Hummingbird Mint, or Licorice Mint?

By Allison Moore, Landscape Architect and NMBKA board member

I have been slowly putting my garden to bed for the fall, and this year I decided to leave even more of the perennials and shrubs intact with their spent flower heads, stalks and branches for insects and animals to make use of during the colder dormant months. As I spread compost and organic fertilizer in and around the plants, I brush up against the stems of one particular perennial and a wonderful sweet minty fragrance is released reminding me of summer sunshine. This particular plant has many common names (Hyssop, Anise mint, Hummingbird mint, and Licorice mint to name a few) and is instantly recognizable by its colorful flowers and distinctive aromatic foliage – fragrant even when half dead and going dormant.

The official Latin name is Agastache and is often used as the common name to identify this unique perennial. There are over thirty different species to choose from in a range of colors from light blue to hot pink to coral red. Most are native to North America and many do especially well in the southwest part of the United States. They prefer lean soils (not overly fertile) and hot, dry and sunny conditions although some varieties will tolerate a little shade and additional moisture. All Agastache plants contain spires with two lipped flowers – each side with varying colors creating a wonderful eye catching affect and often with the aromatic minty foliage. The foliage tends to dissuade deer and rabbits from nibbling on them while the flowers tend to attract beneficial insects and hummingbirds. Plants range in size from 1.5 feet to 3 feet tall and look appropriate in the dry desert like landscape as well as the southwest inspired perennial garden.

Overall Agastache plants are tough, low maintenance, and provide showy color from late summer to frost. And even after frost, the dried seed heads and stalks create interesting textures and silhouettes in the winter garden. The fragrant foliage is a wonderful bonus and is slightly addictive so be sure to place near pathways or at the edge of the garden in order to brush up against and touch.

There are several varieties that do especially well in New Mexico and are most readily available at most plant nurseries. These include:

Agastache 'Blue Fortune', Blue Fortune Anise Hyssop
Size: 2-4 ft tall x 1.5-2 ft wide
Flower: Blue
Growing conditions: Low water and full sun but will adapt to more moisture and does well with a little afternoon shade especially in southern New Mexico.
Special note: One of the few blue flowering varieties that will do well in NM.

Agastache rupestris, Sunset Hyssop
Size: 2-3 ft tall x 2-3 ft wide
Flower: Orange pink
Growing conditions: Low water and full sun but will tolerate filtered shade
Special note: Foliage is an attractive finely cut leaf with silver grey color

Agastache Coronado Red, Coronado Red Hyssop
Size: 15-18 in tall x 12-1 in wide
Flower: Red
Growing conditions: Low water, full sun to filtered shade
Special note: Wonderful rich red with shades of orange color

Sources:
www.gardenia.net
www.highcountrygardens.com

Feeding the Bees

By Anita Amstutz, Think Like A Bee, NMBKA board member

If you want someone to show up and care about something or someone, ask a nurse. If you want someone who has time and will go the extra mile for something or someone, ask a ***retired*** nurse.

Terry Dettweiler is one of those unique and amazing nurses. She contacted me last year about doing a special project for her University of New Mexico (UNM) neighborhood to support bees. She noticed that her neighborhood beekeeper no longer brought her the requisite annual jar of honey. When asking the beekeeper about this loss, her friend said that she hung up her beekeeping veil when she could no longer keep the beehives alive. She noted a dreary lack of pollinator plants in the neighborhood.

Terry, a master gardener, became concerned after this conversation. She loved plants. She loved honey. And so, it made sense that she loved bees! Knowing that bee populations were crashing, she began to look at her own urban community as a solution. She began to understand that bees need a smorgasbord of habitat all three growing and harvest seasons—from March through October. They could fly up to five miles to pursue their banquet of nectar and pollen. So what was happening in her neighborhood? She set out to find out. What she saw was a food desert for bees. Without enough local flowers, bushes and trees blooming throughout the growing season in their neighborhood, honey bees were unable to sustain their hives. Perhaps the ground nesting wild bees were doing better with all the unplanted dirt spaces!

Soon Terry and her daughter Eva embarked on a Covid year project to raise money from the city and her local neighborhood association. This "seed money" would help create pollinator plant corridors in their UNM neighborhood. Terry's goal was to inspire neighbors by giving away free native plants and begin to create oases of pollinator habitat. She also wanted to educate her community about bees and plants indigenous to the Southwest high desert. Eva, who works for the Quivira Coalition, wrote an amazing grant that they then pitched to city council leaders for funding.

I was stirred to excitement as I remembered our NMBKA Burque Bee City resolution that we passed in 2016 through the Albuquerque 22nd city council. Unanimously, I might add.

One of the defining goals is:

Whereas communities have the opportunity to support bees and other pollinators on both public and private land through reduced and pesticide free zones: working in collaboration with city officials to manage and increase healthy habitat for pollinators—including but not limited to roadsides, medians, open spaces and parks.

The good news is that Terry raised so much money from her City Councilors, Ike Benton and Pat Davis, and Commissioner Adrian Barboa, that she has money left over for another project in 2022! She was able to work with the Santa Ana Pueblo nursery to purchase plants at wholesale prices.

And so she commenced with the pollinator plant giveaway on September 25 and 26, 2021, shortly after Fall Equinox. Enthusiasm abounded amongst the neighbors. They worked hard as an association to organize, set up and show up the days of the giveaway. Both days dawned with the usual blue skies and autumnal sunshine bathing the city. People showed up with dogs on leashes, partners pulling wagons, parents pushing children in strollers. People came armed with bags and buckets. They hauled away armloads and boxes of coral penstemon, indigo sages, multitudes of grasses, endless chocolate flowers, echinacea, gaillardia, flowering bushes and more… Teachers came eager to bring plants back for their schools and students. 500-700 plants went out the door each day.

Anita Amstutz has a popular blog post and non-profit called Think Like A Bee. Thanks to Anita, Albuquerque has been designated a Bee City USA, the first in the Southwest.

How to Bee in a Changing World

By Jade McLellan

Pollinators, it goes without saying, are crucial to the future of global food systems, human and non-human alike. Although many of us are familiar with the threats posed by pesticides, pathogens, and habitat loss, the fact is we're living in a shifting world and climate change is yet another threat to both honey bees and native bees. But what does this mean?

How does climate change impact bees?

- Warmer temperatures: ecosystems are shifting, plant communities are being altered
- Unpredictable precipitation: less annual rain & dry winters, resulting in fewer flowers
- Earlier leaf-out: flowers die in cold snaps, or bloom before native bees are ready to hatch
- Longer, hotter summers: longer growing season, but also more frequent & hotter wildfires

In order to foster a resilient landscape for the future, we need to support complex networks of interactions between species—which means treating honey bees more like livestock and less like wild animals. It's easy to forget that beekeeping was brought to the Americas by the Spanish during the 1500s; although honey bees can supplement ecological services, honey bees benefit people, but not necessarily ecosystems. The truth is that these relationships are incredibly complex and the real problems occur when they fall out of balance.

New Mexico has over 1,000 native bee species, one of the highest levels of bee biodiversity in the world! How do their needs differ from those honey bees?

- Most are specialists, visiting just a few kinds of plants
  - They have more specialized diets & are less strong fliers, with fewer options when native plants are unavailable or competition is high
  - Honey bees are shown to preferentially pollinate weedy/invasive species over native plants, reducing native plant numbers & changing local plant communities
- Most native bees are solitary, raising young by themselves
  - Native bees are more susceptible to pesticides and herbicides, as they don't get the strong buffering effect of a large colony
- In size, native bees range from smaller than a grain of rice to bigger than my thumb, but most are much smaller than honey bees
  - Studies have shown that over a single season, 40 hives of honey bees collect the pollen equivalent of 4 million wild bees, using double the resources (or more)

This results in fewer numbers of wild bees, *and* fewer wild species.

What can we do as beekeepers?

Conscientious Management

- Downsize your apiaries - consider having even one less hive. Research shows that the greatest impacts on wild bees occur within 1200m-1km from hives, so density matters
- Mindful placement - as much as possible, hives should not be placed in protected or uncultivated (wild) spaces
- Ensure adequate forage - plant more than you think you need to support sustainable "grazing" (native, arid-adapted flowering plants)
- Test & Treat - monitor your hives year-round for signs of disease, as honey bees spread deformed wing virus, black queen cell virus, Nosema, Crithidia, & other pathogens to wild bees. These are invasive diseases & parasites, so please treat to reduce the spread!

Vote for the conservation of wild bee habitat and against the use of neonicotinoids.

Write to your representatives on the critical need to expand and protect natural areas, and to minimize the detrimental effects of agricultural intensification.

Start documenting your wild bees.

Try to snap a picture every time you see a native bee. Apps like iNaturalist provide valuable data used by scientists to track wildlife, so it *does* make a difference! You can also try Insight Citizen Science or Beecology.

Support small-scale apiaries, not industrial ones.

This includes the production of honey as well as commercially-pollinated crops like almonds, blueberries, and cranberries.

Honey bees are a significant component of human history, culture, and even spirituality—it can be difficult to consider the ways that our beloved bees may be harmful to their wild cousins. However, it *is* possible to opt for more balanced hive management; just as farmers can choose more sustainable farming practices, beekeepers can make choices that are better for wild pollinators (and wild spaces). We as a community have advocated long and hard for honey bees, and it is our responsibility to continue engaging in education and advocacy that prioritize the resilience of our diverse ecosystems. The fact is that our planet is rapidly shifting—but we still have the opportunity to protect pollinators and give them a fighting chance in a changing world.

Jade McLellan has a BS in Biology and Sustainability Studies, and is the Poetry Editor for the Santa Fe Literary Review. A beekeeper for the past 3 years, Jade is passionate about exploring the relationships between pollinators, place, and people.

Happenings in Southern New Mexico

NMSU AG Day

NMBKA, Paseo Del Norte Beekeepers and Mesilla Valley Top Bar Beekeepers displayed at the NMSU AG Day in Las Cruces on Saturday, September 25th. This was our first year to participate but not the last. As anticipated there was was good turn out of students, local farmers and ranchers. Thanks for the support from the following beekeepers:

Anita Feil	Bob Reneau	Billl Hooten
Scott Anderson	Michael Hallberg	Don Stepp, Sr
	Don Stepp, Jr	

Sacramento Mountains Beekeepers

Over the past several year Rob Sheplar has increased the to 317 followers of Facebook. SMB covers Alamogordo and Ruidoso, NM. Jennifer Clark continues to produce well thought out video clips with her working the bees.

Pecos Valley Beekeepers

Our newest club in southeastern NM. Hugo Hernandez has 63 followers on Facebook. Job well done Hugo! We may also have a new NMBKA board member from southern New Mexico. Andrew Davidson has submitted his name as a board candidate to be selected at the February, 2022 annual meeting.

High Plains Beekeepers

In the Clovis/Portales area, Paul Hopkins has brought this club to 214 followers on Facebook. Paul also continues to support the Roswell beekeepers when needed.

Eastern New Mexico Beekeepers

Located in Clovis New mexico, ENMB has 101 followers on Facebook. Ken Davis has been conducting Zoom classes on Essential Oils to control pests in the hive. Keep up the good work.

Mustard Seed Pollinator Garden Open House

Paseo Del Norte Beekeepers and the staff of Mustard Seed Garden held an open house in El Paso at the pollinator garden on November 6th for gardeners and local citizens. This was the first occasion to see our new signage for the Native Bees. We were fortunate to occupy the entire pergola and had 2 rows of flowering basil. Both the honeybees and the native bees were very active making it easy to teach the many gardenersin attendance. The native bee habitats have been up since late summer and many of the cavities had been utilized by native bees. Assisting with the open house were Michael Hallberg, Bob Reneau and Don Stepp, Jr.

Paseo Del Norte Beekeepers, Dona Ana County & El Paso County

PDNBeekeepers, with 515 followers on Facebook have been meeting in person since in Las Cruces and El Paso since August. At the November Meeting a new team of leaders to finish the year and through 2022. The New Officers are:

Josh Meier, President — Michael Hallberg, Vie President
Michele Ungarsky, Treasurer — Alissia Shaunessey, Sectretary
Jared Kiminiski, At-Large Dona Ana County
Scott Anderson, At-Large El Paso County

Southwest New Mexico Beekeepers

Organized and led by Kyle Josephy of Cotton City, our smallest club has 25 followers on Facebook. The boothill of New Mexico is primarily desert and farmland void of trees. Kyle uses unique 5 gallon bucswarm traps mounted on fence posts. Watch for a feature article in the spring on this effective method for swarms throughout the year.

RedRock Honey Co.

After losing one of Lynn and Sharon Whatley's bee yard and 2/3 of their colonies to bears this past year, they will not be selling NUCs to the beekeeping community. All splits will be used to build back their yards.

Note: This is our first effort to report what is happenin with our beekeepers and clubs in southern New Mexico. If you would like your club included, please drop an email to Treasurer@NMBeekeepers.org with a short news article.

Magical Sunflowers

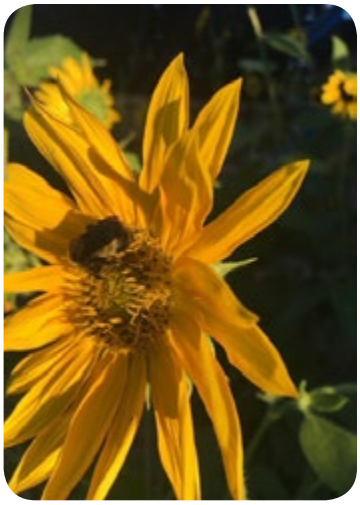
By Anita Feil, NMBKA Secretary, beekeeper and gardener

Sunflowers are known as the "happy flower" with their cheerful look making it the first choice for floral arrangements and a wonderful addition to one's garden. Planting sunflowers in your garden will give an abundance of visual happiness as bees load up on pollen and nectar. Sunflowers, hands down, are the win-win to plant in your garden.

Flowers for bees, perform best by planting in large groupings. The bees fly from flower to flower gathering greater amounts of pollen and nectar within a concentrated area. Selecting an area will be whatever your gardener eye desires. Flowers could be planted in a hedge or clumped together with their happy faces reaching for the sky.

Selecting sunflower packets will be the hardest job due to all the varieties available at the local store, catalogue or on-line, yet also a lot of fun! Check to make sure they are open-pollination seeds as the they will provide the needed pollen. A bare root option called Maximilian Sunflower, aka Prairie Sunflower is a perennial and you just cut them back at the end of season. This sunflower blooms later and lasts to the end of summer.

During the summer days you can venture out seeing your sunflowers and watch the comings and goings of all the different bee populations.



Request for Beekeepers

The NMBKA received the following message from Olivia Wischmeyer of Vida Verde Farms. Olivia and the manager of Vida Verde Seth Matlick are seeking to partner with beekeepers who need land to keep hives.

My name is Olivia Wischmeyer and I will be working at Vida Verde Farms in North Valley Albuquerque in January. Seth, the manager of Vida Verde, and I are hoping to partner with some beekeepers who may need land to keep hives. We have several acres and grow lots of organic veggies and flowers. We have had others keep bees on the property in years past, but they have moved out of state. This coming summer I would love to ensure that we have bees around and that the available land is able to be in the hands of those who need land to keep hives. I wanted to reach out to you in hopes of getting some pointers with whom to find beekeepers to partner. Similarly, I wanted see if you know of anyone in search of land. Thank you so much for your time and the work you do! I grew up with my mom keeping bees in the backyard and having the best honey every summer. I am a lover of bees and cannot wait to eventually have time and finances to start keeping bees outside my own door.

Please contact them if you are interested:
Olivia Wischmeyer, owischmeyer@gmail.com, 720-474-0591
Seth Matlick, vidaverdefarm@gmail.com, 505-933-1106

Heads up! Look down! We have a new PO Box No.

Become a Member of NMBKA

Join the NMBKA Hive for $30! Help support NMBKA by becoming a paid member. NMBKA is an all-volunteer not-for-profit organization, so all of your contributions are going toward supporting our programs including the Certified Beekeeper program and this newsletter. Annual dues are only $30 for the family.

Membership includes admission to the Winter Conference, Summer Conference and any other program. Plus it's the right thing to do to support beekeeping in New Mexico.

You can join or renew on the our website www.nmbeekeepers.org. Or if you prefer to join or renew by mail, please request a membership form on the website, complete, and mail along with $30 to:

NMBKA
PO Box 21615
Albuquerque, NM 87154

Thank you! We can't do it without you!

Happy Holidays!

Bee Merry!