Varroa and COVID-19

By Anita Amstutz, Think Like a Bee founder and NMBKA board member

Years ago I met a man at a writing workshop who had also come under the enchanting spell of honey bees. He had begun to keep bees at a time when unbeknownst to the average beekeeper, a deadly scourge had begun to spread among the beehives.

During the winter of 2006-2007, some beekeepers began to report unusually high losses of 30 to 90 percent of their hives. As many as 50 percent of all affected colonies demonstrated symptoms inconsistent with any known causes of honey bee death. It was a sudden loss of a colony’s worker bee population with very few dead bees found near the colony. The queen and brood remained, and the colonies had relatively abundant honey and pollen reserves.

As beekeepers would come to find out, honey bee hives cannot sustain themselves without worker bees and would eventually die. This combination of events resulting in the loss of a bee colony was called Colony Collapse Disorder.

The most immediate killer would eventually be identified as the Varroa Mite, evidently imported from Asia, where bees had learned to adapt. But for the European honeybee, they were defenseless.

However, as 40+ year bee researcher Mark Winston has said, it’s not just one thing that is killing the bees, it’s “a thousand little cuts,” including habitat pollution and destruction, chemicals and our industrialized agricultural system which assaults bees regularly with glyphosate/herbicides, fungicides, pesticides, GMOs, and practices that destroy any natural habitat in lieu of big subsidized monocrops such as corn, soy, barley, and wheat.

This man told me his story with tears in his eyes. Where he lived, in Ohio, state governments grappled with too little information and an increasing epidemic of hives infected with varroa mites. Without knowing what was infecting honeybees or how it could impact the bee industry, they finally advised all beekeepers to set their hives on fire to stop the spread.

The man told me of his young son who eagerly asked to go with his dad that day to visit the hives. When the father told him to stay home and why, the child bravely said he “wanted to be with the bees,” even in their hour of death. They wept together as the father sealed the hives and poured gasoline on the hives and set them on fire.

Today, I can hardly bear to write this story. It makes my heart ache and my stomach churn.
Greetings NMBKA Members! I hope this newsletter finds all of you healthy during the ongoing COVID-19 pandemic. The coronavirus has impacted all of our lives in ways we probably never imagined….sometimes it feels like we are in the cast of a bad Hollywood movie! I for one have especially enjoyed spending time with my bees as a way to relieve some of the stress related to being stuck in our homes for weeks on end. Simply spending time watching the bees coming and going relaxes me when I am feeling irritable due to frustration, fear, and lack of social interaction.

As still being a relatively new beekeeper, I have been enjoying the addition of my first top bar hive to my apiary and it still fills me with wonder during inspection when I see new, white, perfectly made comb. I have also set up my first swarm trap…..hoping to adopt bees looking for a new home.

During our last NMBKA Board meeting, it was decided to cancel our Summer Conference. The decision was made in late April as that is when the planning process would have had to start for the event and there was so much uncertainty as to whether we would even be allowed to meet as a large group as well as consideration of the health and safety of our members and the general public. Many New Mexico annual events that draw a crowd, even the annual Festival of the Cranes, scheduled for November, has been cancelled this year.

We’re optimistically assuming that the crisis and restrictions will have abated by February and so we are focusing our energies towards the winter conference, which, as time flies, will be here before you know it. We have already rescheduled the keynote speaker (Randy Oliver) we had planned for this summer to participate in February 2021.

We are also in the process of updating our website to improve the experience and resourcefulness for our members and visitors who are curious about beekeeping in our state. Significant updates to the home page as well as the menu structure are in the planning stages.

Regarding the impact of COVID-19, we can be happy to live in a state which has done as well as we have. Hopefully, by the late summer and early fall, we will be back to “normal”…..or perhaps our “new normal.”

Bee safe, stay healthy and enjoy this busy beekeeping season!!
As beekeepers, we know the rest of the story.

We no longer destroy our hives. We have learned to live with the decimation of our hives, the 40-55% losses each winter. We have learned to get back up each spring and try again with what we have left. Honey bees continue to fly and swarm and pollinate — though there are way fewer.

The race is on. Can honeybees evolve and even adapt to mitigate all the disastrous things they face from human practices, lowered immune systems and the dreaded varroa mites? Can bee research make genetic advances that will assist?

Varroa is no different than COVID-19 virus. It is to the bee family what the bubonic plague, SARS or MERS or any epidemic virus has been to humanity. The global family, like the honey bees of the 20th century, is rendered defenseless against such potent viruses. They come as silent killers, invisible initially to the eye, but it can take apart the whole hive. Viruses, like varroa, are clever and adaptable and mutational.

In this COVID-19 pandemic, like the Varroa mite, when human governments don’t know what we’re dealing with, the worst possible measures, or lack of measures, are first applied.

What, I wonder, is the wisdom of the hive, the ability to Think Like A Bee, in our own hour of a deadly scourge for the global human family? As we will increasingly face what bees and other creatures have already faced due to the absolute degradation of our environment, what can we learn? I have more questions than answers these days... but I have observed a few things from my years of being mentored by the bees.

We are all interconnected. For many years now, beekeepers have been saying, “Bees are the canaries in the mineshaft.” Actually all living beings have been mirroring back to us signs and signals of what is coming... what is visited on one planetary community member will eventually affect us all. We are not immune from each other’s ills. In a sense, the future is here. All the assaults and insults we have visited upon our planetary immune system have ravaged not only her, but also the immune response of all creatures and beings that depend upon her. Animal and human ecology is colliding as humans invade and dismantle ecological communities.

Hive mind is the only way through this. We can no longer act as isolated entities. Actually, we must work as inter-species, humans and the natural world, acting together to solve the ills assailing us. I have tried to assist my bees to strengthen their immune system as a hive. I have tried to mitigate the varroa and other terrifying assaults on bees by keeping them in places where farming practices are organic and life affirming. Where all life is honored. Not just humans. How can we as humans listen to our natural systems for wisdom — how they are organized, their resilience and adaptation? How can we listen to other human communities besides our own tribal affiliations as we seek answers together?

Collaboration. Whether viruses or varroa, we have the information together to help and heal the whole. Think fungi and bacteria. The plant and living organism world has answers for us, and we as humans can offer safe harbor for all living beings from our backyards to our agricultural, forests and wilderness areas. We can act with deep respect and reverence in relationship with the rich biotic community that we humans live within. We are only one building block of the whole network. We all depend upon the web of life.

Gratitude. In a time of COVID-19, everything we receive is abundance. Sharing and not hoarding is critical. I am humbly aware that the gifts of the hive are ostensibly free of charge. Honey, pollen, propolis, royal jelly, even stings to boost my immune system. Yet, without gratitude, I will exploit, take for granted, take more than my share and not understand that these gifts are not free, ultimately. They require bee size back-breaking work and commitment from the hive to be sustainable for the whole community.

Social distancing in the hive is not possible with honey bees. They literally live on top of one another and swap spit regularly. But we have learned that too many bees crammed into bee yards with poor conditions lead to sharing of parasitic mite disease, mites and all kinds of other diseases. Spacing out hives allows them room to be healthy and safe, to thrive. It is a paradigm shift for how we care for our human communities—that we all become “hives” of good health, healthcare, community resources, clean air, water and food.

The good news is, I still get to visit my bees, and actually all of nature is open to visitors in this time of social quarantining, or “cloistering” as my pastor calls it. It’s a good time to think together about this “new normal.” It is a time of paying attention and being more deeply present to our interior lives and our families, our neighbors. It is a time to put into place new practices as a human family. One that honors all living communities.

Anita Amstutz has a popular blog post called “Think Like A Bee,” and her website by the same name at https://thinklikeabee.org

This column appeared as a blog post and is reprinted here with her permission. Anita is a member-at-large on the NMBKA board.
The Next Generation: Working the Bees!

Jessie Brown and daughters Hannah and Abigail Opel. Jessie was our NMBKA president for four years. Maybe the girls will be future board members! Nice gloves, Abigail. The family lives in Corrales.

Mom Amy Owen driving home to Tijeras from the beeyard in Cerrillos with kids Claire and Teddy. Says Amy, "After getting stung on the head (Claire) and face (Teddy), it’s taken some time for them to get back out there. But they are! I love how beekeeping is teaching them to connect with wonder more than fear, and embrace calm during chaos. Bees are such a blessing during these times."

Todd and Kat Barrick with baby Cambree giving a beekeeping lesson to the pre-school tots at the Jewish Community Center in Albuquerque. It's never too young to start loving the bees! The Barracks are from Bosque Farms.

Abigail Opel, following in mom Jessie Brown’s footsteps.

Fearless Claire Owen
**THE NEXT GENERATION—CONT. FROM PG. 4**

4-year-old Marian has been fascinated with bees almost before she could walk. Now "Auntie" Clara de la Torre is showing her how it's done. Top: "Auntie" Clara teaching Marian how to light the smoker. Center: Marian learns what to look for on the comb. Bottom: Clara, Marian, and Mom Jeanne Lambert-Kidd pose with the bees. The families live in Santa Fe. Marian's favorite book is "Homegrown Honey Bees" by Morrison & Vilaubi.

Randy Oliver with sons Eric (l) and Ian (r). His two sons do the heavy lifting working their 1500 colonies in Grass Valley, CA, so that Randy can concentrate on his scientific research. We're delighted that Randy is coming to Albuquerque as our winter conference speaker.

Dad Todd Barrick with baby Cambree in her bumble bee suit. No doubt this daughter will follow in her mother Kat's, father's, and grandfather Larry's footsteps as all three are certified beekeepers!
When most people think of mint, they think of the one plant that can run rampant in a garden bed and be the magical ingredient in a summer rum cocktail. *Lamiaceae* (pronounced LAY-mee-AY-see-ye(y)e), the mint family is actually a very large family encompassing many familiar herbs, perennials, and even shrubs and trees in our gardens. Some members include Basil, Oregano, Salvia, Vitex, Lambs Ear, and Nepeta or Flowering Catmint.

All of these are valuable plants in the landscape for their diverse colors, textures, and fragrance, as well as being edible for humans and a major food source for pollinators. The Nepeta species is one that stands out above the others for many reasons. These include: classic lavender blue flowers, fragrant silver grey green foliage, drought tolerant, deer and rabbit resistant, and a late spring blooming time that persists to frost in most parts of New Mexico, therefore providing a reliable and constant source of food for pollinators. Nepeta also has a special ability to seamlessly merge all the other surrounding plants in a landscape together whether it’s arid gravel and rock garden or a southwest style cottage garden.

The plant Nepeta is native to the Caucasus and northern Iran. The name is thought to have originated from the ancient city Nepete located north of modern day Rome and was once the center of the Etruscan civilization. Nepeta prefers a warm and slightly arid climate but can withstand moister climates with good drainage. When planting, it requires only a small amount of organic matter added to the planting hole, full sun to partial shade, and like most perennials, (native or adapted) consistent watering for a minimum of six months to a year depending on the site conditions.

Maintenance is minimal and usually consists of one to two shearings of the spent flowers and foliage during the summer to encourage another bloom and prevent the plant from getting too leggy or developing a bald spot in the middle. This can be challenging as the plants are usually covered with bees, so early morning or late in the evening are good times to prune. In the fall it’s beneficial to leave the plant intact and wait to cut back the dead foliage until late winter or early spring when new growth is seen at the base or center of plant. There are many varieties of Nepeta and many will self-seed and produce new plants. This can be both a blessing and a curse, although many New Mexico gardeners and beekeepers tend to appreciate this quality due to the challenge of growing and maintaining a garden in the desert.

Nepeta is not only indispensable in the New Mexico garden for its ability to thrive but also for its amazing ability to get along with everyone in a garden. Nepeta can act as a transitional plant – bridging the divide between tall and lower growing plant material. It has a soft mounding shape that easily tucks under branching shrubs and small trees, contrasts nicely in front of spiky perennials and ornamental grasses, and gently overlaps with lower growing groundcovers. Nepeta plants soften and blur the hard edges between gravel, flagstone and boulders and naturalize the change from the surrounding native landscape to a more cultivated and lush landscape.

The lavender blue flowers and grey green foliage of Nepeta complement just about every type of color combination in the landscape. They can cool down a hot color palette of red, gold and orange flowering perennials such as Coreopsis, Red flowering false yucca, and Gaillardia. They also add depth to cooler color combinations of pastel pinks, white, and lemon yellow with perennials such as Pink evening primrose, Whirling butterflies, and Chocolate flower.

Easy to grow, it blooms nonstop from spring to fall and is a huge pollinator attractor; it is easy to see how Nepeta could become not only most the popular plant in the garden but also the most successful!
Nepetas are many!

Here are some of the many varieties of Nepeta (Flowering Catmint) that typically do well in New Mexico, all blooming from early to late summer:

Nepeta cataria - The classic catnip plant and the original flowering catmint. It is less ornamental with light pink or white flowers and can aggressively reseed in a garden.

Nepeta x faassenii – Mature height and width 18” to 24”. Classic flowering catmint and very reliable.

Nepeta x faassenii ‘Six Hills Giant’ - Mature height and width 24” to 36”. Covers large area and acts like a small herbaceous shrub.

Nepeta x faassenii ‘Walkers Low’ - Mature height 18” to 24” and 2’ to 3’ spread.

Nepeta x Little Trudy - Mature height 8” to 12” and width 18” to 24”. Also acts as a groundcover.

In case you haven't heard, we can all calm down about the big bug that the media made such a buzz about not long ago. In fact, one entomologist (May Berrenbaum, U of Illinois) weighed in to declare that the scariest insect out there is the mosquito. That's the real murder insect. Here's some humor from the internet..... author unknown.
Ever since I began beekeeping, I have used various chemical treatments for varroa mites but have been looking for effective non-chemical alternatives.

I came across a thermal treatment device, known as the Mighty Mite Killer, that raises the temperature of the brood box hive to a point that kills Varroa, both phoretic mites and mites in capped brood, but does not harm the bees or damage the comb. It consists of a heated plate that slides between the bottom board and the bottom box, to slowly heat the hive to a temperature of 106 degrees Fahrenheit. It uses 110V power supply, combined with precise internal temperature control, via a thermistor probe, to heat the entire hive body, single or double deep to the “mite kill” temperature. Once the set point temperature is reached, it is maintained for approximately 2 ½ hours.

The idea of killing mites with heat is not new. This mite kill method is based on decades-old research proving that the varroa mites are far more sensitive to heat than honey bees, and so it is widely known that a carefully applied heat treatment has the potential to selectively kill varroa, without resorting to chemicals. The heater power is small, by design, and as such can typically only reach mite kill temperatures in the hive when ambient temperatures are above 70 degrees F.

While this technique is more labor intensive than simply inserting acaricides (chemical agents that kill mites) into the hive, it is most appealing to beekeepers with small to moderate sized apiaries. An additional benefit is that the treatment can be done with honey supers on the hive.

One of the things about the device that is most appealing to me is the level of customer support provided by the Mighty Mite developer, Lynn Williams. Since there is not a lot of research on the technique, he realizes that his customers are doing the field research and he wants them to be successful. There is a Facebook page for Mighty Mite users, which currently has over 2,400 members. Search Mighty Mite Thermal Treatment Users to join the group.

Williams, who has sold over 1,600 units, calculates that users have performed 8- to 10,000 successful treatments. He brings his system to many beekeeping meetings and conferences during the year. I have purchased a Mighty Mite for my 10-frame Langstroth Hives (they also make 8-frame and nuc-sized units), and I am looking forward to doing my first treatment this beekeeping season!

An extensive article on the Mighty Mite was featured in this past January’s edition of American Bee Journal. You can read an excerpt at www.americanbeejournal.com under “thermal-treatments-for-varroa”. The article goes into some cons as well as pros.

Contact info for Lynn Williams is www.beehivethermalindustries.com or phone 803-504-9313.
Report a Swarm... Or, Request a Removal

We have provided a list of our beekeepers that are available for collecting bee swarms in different areas of New Mexico. Give a beekeeper a call as soon as possible! This listing is also on the website nmbeekeepers.org. Click on Resources and select Report a Swarm. If you need a removal, these contacts can put you in touch with the proper source. Any beekeeper group or individual beekeeper may ask to be included on the website list by contacting NMBKA at info@nmbka.org.

Albuquerque Area
Albuquerque Beekeepers (ABQ Beeks)
Website: https://abqbeeks.org/page/swarm-call-list

Alamogordo & Ruidoso Area
Sacramento Mountains Beekeepers
Facebook Page: https://www.facebook.com/groups/483236118374096/
Point of Contact: Rob Sheplar

Belen/Valencia County Area
Raymond Espinosa (505) 861-1693, antiguasdelnorte@att.net

Bosque Farms Area
Ken Hays (505) 869-2369

Carlsbad Area
Efrain Nieto (575) 302-0737

Clovis Area
High Plains Beekeepers
Facebook Page: https://www.facebook.com/groups/1670238479881226/
Point of Contact: Paul Hopkins

Cotton City/Hildago County Area
Southwest NM Beekeepers
Facebook Page: https://www.facebook.com/groups/2299960260060163/
Point of Contact: Kyle Josefy (575) 496-1037

Farmington Area
Jim Marquis (505) 861-2360

Las Cruces Area
Paseo Del Norte Beekeepers Association
Website: https://pdnbeekeepers.org/reportswarm/
Point of Contact: Tom Soltero (505) 934-2178

Red Rock / Grants County
Red Rock Honey Co.
Point of Contact: Lynn Whatley (505) 269-8199

Rio Rancho Area
John and Laura Hunter (505) 366-9184

Roswell/Artesia Area
Pecos Valley Beekeepers Association
Point of Contact Hugo Hernandez (505) 410-1781
email: hherna01@gmail.com
Kevin Thatcher (575) 973-7422

Santa Fe Area
Sangre De Cristo Beekeepers
Website: https://sdcbeeks.org/reportswarm/

Santa Teresa, Doña Aña County and El Paso County, TX
Paseo Del Norte Beekeepers Association
Website: https://pdnbeekeepers.org/reportswarm/
Point of Contact: Josh Meier (830) 357-8207

Silver City/Grant County Area
Grant County Beekeepers
Website: https://www.grantcountynmbeekeepers.org/bee-removal

Updated June 20, 2020.

Who ya gonna call?? In this case, Michael Rushton of Bye Bees Live Bee Removal LLC. Done in two days! Michael operates out of southwest New Mexico (Las Cruces area) and El Paso. This one below was in base housing at Ft. Bliss.

Massive Removal!!
How to Make a Push-In Cage for Queen Introduction

**By Bob Reneau, Paseo del Norte Beekeepers Association immediate past president and NMBKA vice-president**

Having trouble introducing a new queen to a colony? You might want to try using a “Push-In Cage” to introduce the queen. The cage will greatly improve your success rate when requeening a colony.

**Do:** Position the cage on a brood frame over capped brood, empty cells and nectar if possible.

**Don’t:** Don’t allow any adult bees from the colony in the cage with the queen.

No adult bees because they may try to kill the queen. Hopefully, some capped brood will hatch, providing more nurse bees to attend to the queen and along with the eggs that the new queen will lay helps the colony accept the new queen. Double whammy, mandibular and brood pheromone hasten the acceptance of the new queen.

Use the same time interval for introduction taught by your mentor or certification class

A push in cage is easily made using KWIKMESH available at Home Depot or Lowe’s in the roofing section. The mesh comes in width from 6 to 12 inches. Or you may use # 8 hardware cloth. A 6 x 6-inch piece will result in a push-in cage 4 1/2 x 4 1/2-inch in size. This is large enough to introduce a new queen, or you may make to any size you desire. If you use a Benton or California Mini queen cage you can modify the design to make a door type entrance to make loading the queen easier. To form a door, make two cuts along one side, bend the wire up to form a door for introduction. After the queen and her attendants are in the push-in cage, bend the mesh back into shape. If you are using a roller type queen cage, transfer the queen and her attendants to a Benton cage that is more easily handled.

Form the cage by cutting the mesh or hardware cloth to 6 inches x 6 inches and mark your fold lines and cut lines. You will have 2 cut lines along one side and 4 cut lines along the other side if you want to allow for a door. Form the fold lines using a 4 3/4 inch x 4 3/4 inch block or any square edge. Some beekeepers form everything by hand. The layout will give you a wrap-around piece of screen at each corner that you can secure with thin wire, rivets or solder.

Here is a link to a short video by Lynn Whatley of Redrock Honey Company showing how he uses the push-in cage. [https://nmbeekeepers.org/wp-content/uploads/2020/06/Queen-Intro-Video.mp4](https://nmbeekeepers.org/wp-content/uploads/2020/06/Queen-Intro-Video.mp4)
New Mexico’s first-ever pollinator protection license plate is now available! Proceeds from the plate will help create pollinator habitat on New Mexico roads.

Thanks to the hard work of students, teachers, and supporters, the New Mexico legislature passed a bill creating the plate in 2019.

The project was led by Wild Friends, a science and civics education program based at the UNM School of Law. Over the past several years Wild Friends students have studied pollinators and their critical role in sustaining both food systems and natural ecosystems, and sponsored legislation to protect and educate about pollinators.

In 2019 Wild Friends students in 4th through 9th grade traveled to the Roundhouse from 11 schools in communities across New Mexico, including Rio Rancho, Albuquerque, Silver City, Las Cruces, Farmington, and Santa Fe, to meet with key legislators about the bill that they helped create, speaking with them about the importance of protecting pollinators and testifying in committee hearings.

The license plate project enhances existing efforts by the Department of Transportation to implement habitat-friendly practices on New Mexico roadsides, including reducing mowing and spraying of herbicides. The project will fund increased habitat through seeding roadsides with native plants and creating educational gardens.

The license plate features artwork by Jazlyn Smith, a 6th grade student at Albuquerque Sign Language Academy. Jazlyn, a lifelong artist, illustrated a blanketflower and green sweat bee to portray the relationship between native flowers and pollinators. Jazlyn said, “I think the license plate will help people understand that it’s important to try to protect plants and pollinators in any way we can.”

Jazlyn’s art was chosen by a panel of esteemed judges, including bee scientist Olivia Messinger Carril, butterfly expert Steve Cary, and botanist Steve Gisler, from entries submitted by Wild Friends students from around New Mexico.

The license plate costs $25 for the initial purchase and $15 for yearly renewal. Plates may be purchased online at www.mvd.newmexico.gov.

Wild Friends director Sue George commented, “We are thrilled with the beautiful license plate that students worked hard to create to protect pollinators, and appreciate the partnership with MVD and DOT to bring it to life.”
Join the 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 New Mexico bees. Dues are $30 for the year.

Members receive perks like admission to events, website listings and newsletters. Plus it’s just the right thing to do.

You can join or renew through PayPal on the website www.nmbeekeepers.org. Click on the membership tab. Or if you prefer to join or renew by mail, use the information below, include dues and mail to:

NMBKA
PO Box 7188
Albuquerque, NM 87194

Make your check payable to NM Beekeepers Association.

Name: __________________________________________
Address: ________________________________________
Email: ___________________________________________

Thank you, current and future members!

Burque Bee City Pollination Celebration Coming June 24th-28th!

Join educators, community members, and experts on plants, bees, and other pollinators for the fourth annual Burque Bee City Pollination Celebration, now online, free, and virtual! Enjoy five days of workshops and tours from the comfort of your home. Highlights include a talk on native bees by Dr. Olivia Messinger Carril; a tour of the Open Space Visitor Center bee hives with Anita Amstutz and Amy Owen; a nighttime pollinators talk by Xerces Society educator; and a pollinator-plant tour with BioPark entomologist Jason Schaller. Check out the whole schedule at www.cabq.gov/bees

Save this Date:

Winter Conference Coming Up Feb. 5-6th!

Randy Oliver, who was scheduled to be here for our now cancelled summer conference, has agreed to "pencil us in" for the winter conference scheduled for Feb. 5-6. No one knows how long COVID-19 will be a menace in our midst or what kind of restrictions may still be in place, but we're determined to follow the rules while making it happen. So, beekeepers, pencil yourselves in to attend your winter conference in February! Look for updates in newsletters to come and on Facebook.

South Broadway Cultural Center
1025 Broadway SE, Albuquerque, NM 87102