

Volume 16, Number 11 November 2025 www.clinchvalleybeekeepers.org George Martin, Editor

Mext Meeting: Thursday, November 20th, 2025

Location: Treadway Fire Hall

189 Hwy 131

Treadway, TN 37881

Doors open at 6:30 pm

Meeting starts at 7:00 pm

Potluck dinner 7:30 pm

Lesson/presentation 7:45 pm

Meeting Food Theme: Giving Thanks Potluck! We've got the turkey and the ham! Please bring your favorite, traditional side dishes and desserts to share.

Scheduled Speaker: No speaker this month. We will have a round-table discussion, question and answer session, concentrating on recent developments in Varroa treatments and strategies.

Beekeeper of the Year: We will accept nominations <u>and</u> vote this meeting! If you want to nominate someone be prepared to stand up and give a brief speech in support of your choice. The winner will be announced at the December meeting.

Reminders: By now your hives should have enough stored food to last until spring keep feeding any you think are light. There will be some foraging on good days, but not much. Brood production should be over by Thanksgiving, but may continue a bit later this year if weather remains warm.

Last Meeting: Our meeting opened with a prayer. Our Treasurer reported a balance of \$16,618.43. Her report was accepted.

Festivals: Rogersville and Morristown were discussed and the volunteer schedule was adjusted.

Officer Elections: With no new nominations received our current officers will continue in their roles through next year. Various open positions were discussed. Noelia Smith had questions about the position of secretary and was quickly and unanimously appointed such.

Shed roof: The BoD decided replacing the roof was necessary and a general discussion was held on how to best proceed and how much seemed reasonable to spend. By a vote of the members it was decided that we would remove the shingles, repair any sheathing and then install tin.

Bees for spring: We have committed for 50 NUCs with local queens from Daniel Geleynse (www.sevierbees.com). He will deliver to us in late April to early May for \$175.00 each. He also has overwintered NUCs for \$250.00 but you have to arrange payment and pickup directly with Daniel for late March or first week of April.

A \$20.00 deposit per NUC is required and will apply to the final purchase price. Anyone wanting NUCs should speak with Junior so he can make your reservation. Do not wait till the last minute. We will be contacting David Winters to see if he will be selling packages next year. With no further business, we adjourned to a great dinner featuring fried chicken. Sincerest thanks to everyone who shared their favorite dishes and to those serving and cleaning up afterwards.

See you all on the 20th!

Current Events: The verdict is now in. Two recent studies show the best way to aid colony collapse and maximize profit is practicing Integrated Pest Management using <u>organic</u> treatments!

The first study focused on analyzing the unusually large losses experienced by commercial beekeepers last winter and this spring. "Viruses and vectors tied to honey bee colony losses" by Zachary S. Lamas, Frank Rinkevich, Andrew Garavito, Allison Shaulis, Dawn Boncristiani, Elizabeth Hill, Yan Ping Chen, and Jay D. Evans.

This study determined diseases passed onto bees by Varroa mites was the greatest factor destroying colonies. The mites were examined and found to be resistant to amitraz, the active ingredient in Apivar which is commonly used by commercial beekeepers. It has long been thought resistance to synthetic treatments was a major problem and now we know for sure.

The entire study is worth reading, but here is the abstract for those who are impatient.

Abstract

Commercial beekeepers in the US reported severe colony losses early in 2025, as colonies were being staged for their critical role in the almond pollination season in California. Average reported losses since the preceding spring exceeded 60%, with substantial variation among operations. Many colonies were still actively collapsing in January, 2025, when pooled and individual samples were collected then screened for levels of known honey bee pathogens and parasites. Deformed wing virus strains A and B, along with Acute bee paralysis virus, were found at unusually high levels, either in pooled colony samples or in individual bees exhibiting shaking behaviors and morbidity. Differences between these two analyses suggest that direct collections of morbid bees provide a superior diagnostic for causal viruses, a suggestion borne out by confirmation of symptoms and morbidity following isolation and new inoculations. Since these viruses are known to be vectored by parasitic *Varroa* mites, mites from collapsed colonies were in turn screened for resistance to amitraz, a critical miticide used widely by beekeepers. Miticide resistance was found in all collected *Varroa*, underscoring the urgent need for new control strategies for this parasite. While viruses are a likely end-stage cause of colony death, other stressors such as nutritional stress and agrochemicals may have also played significant roles.

The second study published in the August issue of the Journal of Economic Entomology, "Organic colony management practices are profitable for backyard beekeepers", Robyn M Underwood, Timothy W Kelsey, Nash E Turley, Margarita M López-Uribe, followed 3 apiaries of 12 colonies, from 2018 to 2020, each using 3 different management systems:

Conventional - using a mix of synthetic and organic treatments.

Organic - using only organic treatments.

Chemical free - no treatments at all.

Their results validate one of the tips (#10 Practice Integrated Pest Management) we heard from our speaker, Theresa J. Martin earlier this year. The study is easy to read and contains a lot of valuable information so I highly recommend it to everyone.

The following is a University of Pennsylvania article which summarizes the study:

psu.edu

Organic beekeeping can be even more profitable than conventional methods | Penn State University By Katie Bohn

UNIVERSITY PARK, Pa. — Organic beekeeping can support healthy and productive honey bee colonies, and a new study led by researchers in Penn State's College of Agricultural Sciences found that adopting organic honey bee colony management is not only profitable, but in some cases, it can be even more profitable than conventional management.

The study, published in the <u>Journal of Economic Entomology</u>, found that beekeepers adhering to organic management standards earn profits comparable to those of beekeepers who use conventional management practices. The United States does not offer official organic certification for honey in the continental U.S., even if organic management standards are followed, because the <u>standards</u> require any crops or plants within 1.8 miles of hives be free of synthetic chemicals and that cannot be guaranteed in this geographic area.

The researchers also found that if beekeepers use organic management practices over time, they even can produce 50% more honey than when following conventional management practices.

Margarita López-Uribe, Lorenzo L. Langstroth Early Career Professor in the College of Agricultural Sciences, said she hopes the findings will incentivize beekeepers to consider organic management practices as an option for their operations.

"Our research demonstrates that you can manage your colonies following organic standards and don't need to use synthetic pesticides to keep colonies healthy," she said. "It also provides evidence-based recommendations for what beekeepers can do to avoid these synthetic pesticides."

Organic beekeeping comes with benefits, the researchers said. For example, products coming from the colonies will have lower amounts of pesticides, and the beekeepers themselves have less direct exposure to pesticides.

"Avoiding the use of synthetic miticides circumvents the impacts of miticide-resistant parasitic mites, which were a <u>major factor</u> in overwintering colony losses across the country during the 2024–25 winter," added Robyn Underwood, Penn State Extension apiculture educator and a co-author on the paper.

But despite these benefits, López-Uribe said there are many barriers to the practice being more widespread, including confusion about what organic beekeeping actually means.

"Organic beekeeping is not chemical-free beekeeping, and it does not mean that you do not control any of the pests that you have in the colony," she said. "On the contrary, it involves having a deep care for the welfare of the colony in such a way that if, for example, Varroa mite levels go above a certain threshold, you take an active role in controlling them."

A <u>previous study</u> from the researchers found that beekeepers can manage healthy and strong honey bee colonies using organic practices. With the current study, the team wanted to examine whether organic beekeeping management practices could be profitable, too.

The researchers compared three honey bee colony management systems — conventional, chemical-free and organic — over three years.

In the chemical-free approach, the beekeepers avoided any products not derived from bees, which means Varroa mites — a parasite that causes significant damage to bee colonies — are not controlled by miticides. Instead, beekeepers relied on stocking their colonies with mite-resistant bees or using nonchemical ways to control them.

While the organic approach prohibited synthetic pesticides, beekeepers could use organic acids, essential oils

and integrated pest management approaches following the <u>National Organic Program's</u> recommendations.

For their experiment, the researchers established multiple colonies utilizing each management system on four certified organic farms across Pennsylvania. Over the next three years, they visited each colony every few weeks to monitor the bees. The researchers also tracked the revenue, profits and colony survival across the different system operations.

The researchers found that the chemical-free management system resulted in economic losses, while operations using the conventional or organic system generated revenue. Honey production and bee production were highest in the organic and conventional management systems, resulting in profits that were 14 and 11 times higher, respectively, than in the chemical-free management system.

By the third year, honey production was 50% higher in operations using an organic management system than in operations using a conventional management system.

López-Uribe said the findings suggest that mite control is critical for the profitability of bee colonies, especially since 2025 has been the worst year on record for honey bee colony losses in the U.S. She added that the study shows that beekeepers can follow organic beekeeping practices while still controlling these harmful pests.

The researchers said that in the future, additional studies could help in creating more specific recommendations for management practices that will help maximize profits for small and mid-size beekeeping operations.

Timothy Kelsey, professor of agricultural economics at Penn State, and Nash Turley, postdoctoral scholar in the Department of Entomology at Penn State, were also co-authors on this paper.

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MEMBERSHIP

Dues are payable upon membership application and renewable January 1st of each year you want to continue being a member.

Regular membership \$10 Family (one vote/family) \$15 Youth Single (No vote) \$5 See a CVBA officer to complete a new membership form or find it on our web site. Checks should be made payable to CVBA and mailed to the Treasurer (address is above). Please let us know if any of your information has changed.

We want to make sure you can stay connected with the club and help you get the most out of your membership!

Dues are not prorated. New member dues paid in or after October in any calendar year shall count for the following year. Renewal dues are payable January 1 of each fiscal year. Members who fail to renew before April 1 will be dropped. Only members in good standing prior to August 1 may vote in the October election.

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