



CENTRAL COAST BEEKEEPERS NEWSLETTER

September 2023

NEXT Meeting September 26, 2023

Different Day of the Week, Same Place

Monthly Meeting Tuesday September 26th at 1:30

This month's meeting on **Tuesday** will feature Rick Olson clarifying some of the mysteries of treating Varroa mites. He will share his years of experience and provide observations and recommendations for Varroa treatment throughout the year. There will be plenty of time for questions and discussion.

The meeting is on **Tuesday, September 26th** at 1:30 at the Newport Library.

The rest of the year's meetings are confirmed with the library for the 4th Wednesday of the month at 1:30.



PRESIDENT'S MESSAGE

By Max Kuhn

Since we met last, members of CCBA have attended the State Fair and spent time in the OSBA beekeeping booth. Even without doing a survey of those tending the booth, I feel certain they would all agree it was a fun and exciting event again this year. For those of you who have not experienced it or other events before, I strongly suggest you give it a try. It truly is a rewarding experience.

Coming up at the September meeting we will have Rick Olson, a longtime member of the club and senior beekeeper, as the speaker for the day. Rick will give us his observations and recommendations on the treatment of Varroa mites in this area, year-round.

We will also be offering some lucky club member a free registration for this year's OSBA conference. The conference is being held in beautiful Bend Oregon at the famous "Riverhouse on the Deschutes" hotel which offers excellent accommodations with fantastic views of the fast-moving Deschutes River.

The club meeting this month is on Tuesday, the 26th at 1:30PM at the Newport public library.

So come on out and try to win that registration! See you there.



Message From the Newsletter Editor

As Max mentioned above, it is fun and exciting to participate at the state fair. I can say the same for writing the newsletter. I have been curating the newsletter for over 4 years (along with being the Treasurer and Secretary for two). I have learned so much and enjoyed being one of the first to know about upcoming events. I have decided to share the fun and I will be passing on the mantle at the end of this year. **If you are interested in becoming the next editor, please send an email to our account.** I will be happy to share my knowledge on the production and distribution of our monthly news. It doesn't take a lot of time and a working knowledge of Word is helpful. -Judi

Monthly Beekeeping Tips

by Todd Balsiger - Oregon State Beekeepers Association

Month of September

September beekeeping activities are a continuation of those started in August. You will need to tend to nest consolidation, pest and disease control, fall feeding, and winter preparation.

- Colonies should be in winter configuration -- too much space is a liability now.
- Check hives to make sure they are queenright, healthy, and have populations sufficient to overwinter. Small hives can be united.
- Check for adequate food stores -- heft hives (tilt one side up). They should be noticeably heavy. If not, feed for weight -- heavy sucrose syrup, 60% sugar by weight.
- Finish Varroa treatments and retest for Varroa to insure efficacy of treatments. Always be on the lookout for American foulbrood.
- Ensure that lids are water tight and that there is an upper ventilation hole. Dry bees can endure cold and survive, but if wet from leaky lids or condensation, they may not.
- Add entrance reducers/mouse guards.
- If possible, have an ideal winter yard. An ideal winter yard is protected from wind and pockets of cold air and exposed to the sun. Face hive entrances towards the sun and away from prevailing wind. Tilt hives so water drains away from the entrances.
- Try to prevent robbing. Don't keep hives open too long.
- Protect extracted supers from wax moths.
- Lastly, once your hive is set for winter, don't keep popping the lid off, for when the weather is cold, the bees will be unable to re-glue the lid down. Use a heavy object if you do break the seals.



What Temperature Is Too Hot for Bees? (Essential Tips!)

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BEEKEEPING FOR BEGINNERS

Bees need to maintain a specific internal environment in their hives to raise brood, ripen, and maintain the honey stores.

But how do your bees manage the internal hive temperature if the outside air temperature is hot?

And is it possible to become too hot for the bees?

In this article, I'll explain how your bees handle temperature fluctuations and a host of tips about how to help your colonies survive extreme conditions!

What Temperature Is Too Hot for Bees?

Individual bees can tolerate temperatures between 28°F or -2°C to 113°F or 45°C, making temperatures above 113°F fatal to bees. Bee larvae are less tolerant to temperature changes and require a range of 89.6°F and 97°F or 32°C and 36°C to survive. Bee larvae die in temperatures above 97°F.

The most critical reason bees maintain a specific temperature range in the hive is to protect the brood and raise strong, healthy workers. Of course, other reasons for keeping the hive temperature within certain limits exist. But if there are no new workers, the colony cannot gather the required resources to survive. Raising brood is, therefore, a priority.

In cool weather, the bees will actively work to heat the hive. But, as the outside temperature rises, they need to reverse their activities to cool the interior.

In most cases, the winter months are a quiet season in the hive, and there is no brood to protect, so the colony can withstand cooler temperatures.

In contrast, the summer season is the busiest time. It requires more workers to replace worn-out workers and keep resources flowing into the hive. This requires brood, or larvae, which are sensitive to fluctuations in temperature and can die if the temperature becomes too high.

Adult bees can also suffer in the hotter parts of the year and during prolonged heat wave periods, which can be detrimental to the colony.

How Hot Is Too Hot for Bees?

There are two primary beekeeping aspects to consider when the temperatures soar in the warmer months. What temperature is too hot for the larvae, and what is too hot for adult bees?

The internal temperature of the hive must be maintained between 89.6°F and 97°F or 32°C and 36°C for optimal brood-raising conditions. Adult bees can survive much warmer temperatures, but not when the heat rises above 113°F.

Understanding what temperatures are too hot for your bees and the rest of the colony helps you to manage your bees. So if conditions get extreme, you can take corrective steps to help your bees survive.

What Temperature Can Bees Survive?

Bees have a relatively wide temperature tolerance and can survive surprisingly well in hot temperatures. Honey bees adapt incredibly well! They have been found to live in desert heat as well as rather cold climates.

Bee temperature tolerance ranges from 28°F or -2°C to 113°F or 45°C, which is a broad scope for such a tiny insect.

Various bee species have evolved to handle the heat in their natural environment, which allows them to thrive in their habitat, even in high temperatures.

This summer, for example, we had quite an unusual heat wave! Bees were obviously struggling with these exceptional conditions. But climate change makes me wonder whether beekeepers will be forced to evolve their practices or work with more heat-tolerant species of honey bees!?

So, at what temperature do bees die? In general, the bees can survive temperatures up to 113°F or 45°C; in temperatures beyond this point, the bees will die. Bees become reluctant to fly in temperatures above 110°F or 43.3°C since this temperature is too high for them to exert themselves excessively.

What Temperature Kills Bee Brood?

Bee brood, consisting of larvae and eggs, is less tolerant of temperature change than adult bees. This is because the larvae require a relatively narrow temperature spectrum to thrive.

The larvae in the brood chamber must be kept within a range of 89.6°F and 97°F or 32°C and 36°C. The ideal temperature being 95°F or 35°C.

While the larvae **will** survive slightly higher or lower temperatures in this range, this can result in weaker adult bees. For example, [studies have shown](#) that larvae raised at a temperature of 91.4°F or 33°C resulted in adult bees being less tolerant to insecticide.

This consideration is essential if you are keeping bees where pesticides could be an issue, such as in agricultural areas. The cut-off at which the larvae will begin to die is once the temperature rises above 97°F or 36°C.

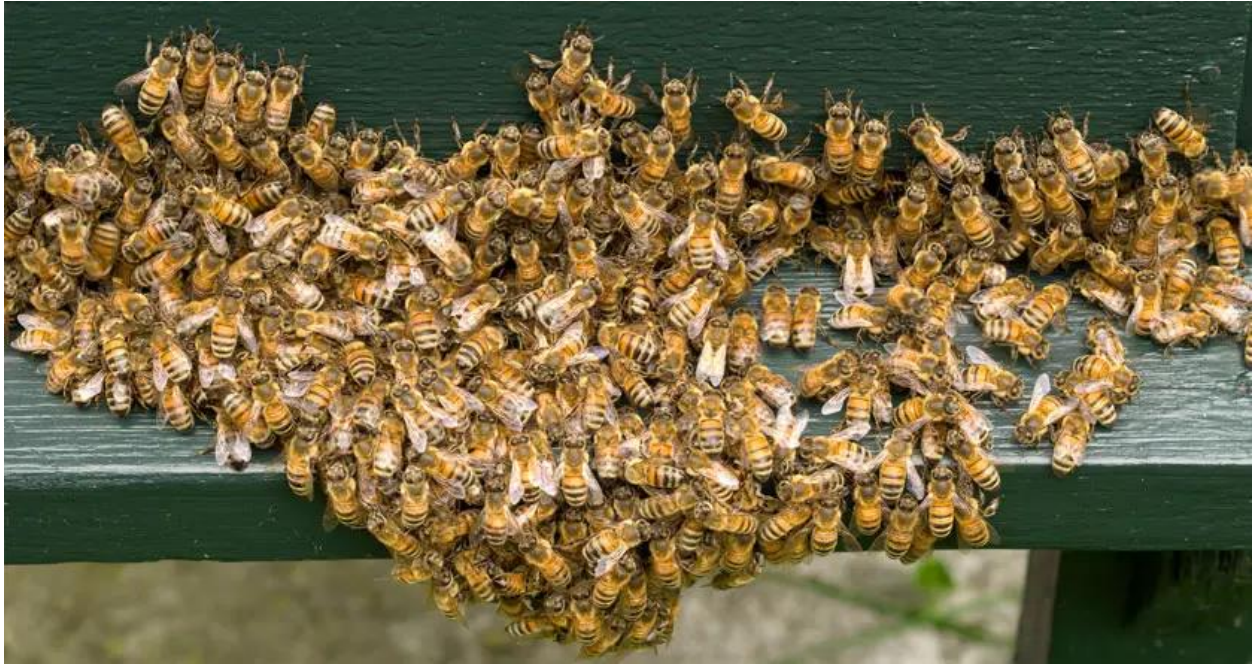
How Do You Know If Bees Are Too Hot?

Bee behavior in hot weather changes. This is handy because it gives us, the beekeeper, clues that the bees are beginning to struggle with the high temperatures.

Noticing the behavior change will allow the beekeeper to make some adjustments to help the bees to cope with the heat.

One of the first signs that the bees are becoming hot is a large number of bees gathering outside the hive. This behavior is often called **bearding** because the bees cluster in a way that makes the

front of the beehive look like it is sporting a bee beard!



The bearding activity aims to get bees out of the hive to prevent overcrowding inside, which restricts airflow.

Bees fanning vigorously at the hive's entrance indicate that the inside conditions are becoming too hot. The bees fan their wings to extract warm air from the interior and draw fresh air into the hive.

There will also be other bees inside the hive fanning to circulate the fresh air and cool it down. In addition, the bees will actively bring water into the hive, deposit it on the comb and fan their wings to cool the hive by evaporating it.

Beehive temperature sensor equipment is a good way of remotely checking the hive's internal temperature. Unfortunately, there are few suppliers of this technology.

The [BeeMinder internal hive temperature sensor](#) is a small electronic sensor placed inside the bee hive. It transmits the temperature data to an app installed on your mobile phone.

I'm sure more of these kinds of tools will be more and more available.

How To Prevent Beehive From Overheating

Keeping bees cool in hot weather is an essential aspect of beekeeping. It requires monitoring the hives in hot weather and taking the necessary steps to help the bees cool the hive down.

One of the best methods of helping your bees to keep cool in hot weather is to provide an easily accessible and safe water source for the bees close to the bee hive.

Positioning the water source close to the hive means the bees do not have to expend too much energy collecting water from afar. A close water supply means the bees can bring water back to the hive more easily. They can evaporate it to cool it much faster than if the water supply was more distant.

If you keep bees in a location with hot summers, it is wise to use hives with **adjustable ventilation** ports. Many beekeepers in hot climates customize their beehives with these ventilation ports at the top of the beehive.

Becoming a woodworker is pretty much a prerequisite for a beekeeper! You will find many opportunities to customize hives or build your own beehives to better suit beekeeping in your region.

Some beekeepers cut round holes in the upper part of the hive, cover it with hardware cloth or mesh, and install a [hive entrance gate](#) over the hole to provide adjustable ventilation. (*Amazon*)

Another method to help bees in hot weather is to give them more space in the hive. This can be done by adding a honey super on top of the existing boxes, with frames and foundation sheets. This relatively empty chamber will allow heat to rise into this box, allowing the lower brood chamber to cool down.

Adding an extra empty honey super is a standard method beekeepers use in warm climates to help bees in hot weather and prevent the brood from dying.

Providing shade for your bees is another way of helping the bees keep the hive cool. Direct sunlight on the beehive will rapidly increase the internal temperature.

While it's OK to have the hive receive early morning and evening direct sunlight, it is recommended that it is protected from direct sunlight in the heat of the day.

The shade can be natural in the form of a tree or artificial, such as erecting a shade cloth cover above the hive to protect it from direct sunlight.

Painting your beehives white will help reflect sunlight and keep the interior cooler than in a dark-colored hive. It is a common practice for many beekeepers to paint their hives white or another light color to reflect the sun's heat rather than absorb it.

Another method beekeepers use in hot climates is to **fit the beehive lid with a thin, shiny aluminum sheet cover to reflect the sun's rays. This can significantly reduce internal temperatures.**

Screened bottom boards are another method beekeepers can employ to keep the hive cool. A hole is cut in the hive baseboard and covered with [1/8 inch hardware cloth](#). This allows much-improved ventilation while keeping out unwanted pests.

To Sum Up

Beekeeping varies from region to region, with some beekeepers needing to contend with cold winters. In contrast, others must combat hot summers to help their bees survive and thrive.

Heat waves and hot summers can devastate a bee colony,

Monitoring your bees is a must.

Happy bees are productive bees and will reward your efforts with a good honey yield!

Buzz around Honey Bee coin pays off with 2022 Coin of the Year award

By [Anna Macdonald](#) at The Manderin

The Royal Australian Mint has taken home two awards at the 2022 Coin of the Year awards. It has won Best Circulating Coin and Most Artistic Coin.

The awards were respectively for the \$2 Honey Bee coin and the Beauty Rich and Rare — Great Barrier Reef coins.

The Honey Bee coin was [made to mark the bicentenary of the Australian honey bee industry](#), and designed by Aleksandra Stokic.

2022 \$2 circulating coloured honey bee



The Beauty Rich and Rare — Great Barrier Reef coins were to celebrate the diverse sea life that lives in the natural wonder. Bronwyn Scott designed it, with silver and gold versions.

2022 Beauty Rich and Rare – Great Barrier Reef \$5 silver coloured domed proof coin

Royal Australian Mint CEO Leigh Gordon said the recognition from the “international numismatic community” was something all Australians should be proud of.

“For every beautiful coin the Mint produces, there’s an entire team of dedicated people who put their dedication, craftsmanship and expertise into every aspect of that coin’s manufacture — starting with product development about two years before it is released, right through to polishing and packing and every stage in between,” Gordon said.

“To produce coins as intricate and detailed as these remarkable examples, the process is intensive and can only be created by true artists and artisans.

“This type of hard work and dedication by dozens of people goes into creating the coins produced by the Royal Australian Mint every single day.”

Treasury assistant minister Andrew Leigh said the winning coins exemplified the term “mint condition”.

“The Royal Australian Mint’s designers, technicians and artisans work hard to translate our stories into artwork that can be enjoyed by future generations,” Leigh said.

Winning these awards brings the total number of Coin of the Year awards the Mint has won to 15. World Coin News presented 2022 Coin of the Year.

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Club Info

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