CENTRAL COAST BEEKEEPERS NEWSLETTER

August 2023

NEXT Meeting August 23 , 2023

Annual BBQ Picnic Saturday, August 19th at Noon

Meeting Wednesday, August 23rd at 1:30

Picnic: Pat Wackford will be hosting the annual BBQ Picnic at her house and apiary at 187 Olalla Road, Toledo, OR.

There will be hamburgers and hotdogs with all the trimmings provided.

Bring a dish to share and what you would like to drink. Bottled water will be available.

Directions from Newport: From hiway101 turn east on hiway20. Go about 7 miles until you see the Dairy Queen. Continue on hiway20 about one more mile getting into the left lane to turn onto Olalla Road. Pat's house is on the left side. The house and garage are a sandy beige color. Plenty of parking is available.

Meeting: We will also be meeting on August 23rd at 1:30 at the Newport Library. Steve Niles will be sharing some insights into winter preparations. See you then!

PRESIDENT'S MESSAGE

By Max Kuhn

In a nutshell, my message this month is Treat, Treat, TREAT!

August is the month when Varroa Mites overtake the honey bee. On the Honey bee health coalition's website there is a graphic which illustrates exactly what I mean. So please, log on and have a look. https://honeybeehealthcoalition.org/resources/varroa-management/

Beginning this time of year, the honey bee's effort to raise young decreases and soon the population of bees within the hive will drop off sharply. The Varroa mite on the other hand has been playing "catch-up" all Spring and Summer. As the Honey Bee was building population, Varroa was lagging behind. Now Varroa is reaching its peak just as the honey bee population drops off. Where a month or two ago one honey bee brood cell might contain one "Matron" or Mother mite, it may now contain two. Effectively doubling the mite population is a very short time. Now is the most important time of the year to treat. Monitor your mite load and treat! Your bees will thank you for it. And your neighbors also.

Great Beekeeping Kit

The listed equipment below is for sale as one unit in total. It is in new or like new condition. It belongs to a former CCBA member who has become ill and needs to sell it. All questions should be directed to Max (Club President) and purchase, pickup, or returns will be handled by him. Phone 541-999-0744.
2-complete "8" frame sets of brood boxes, outer covers, inner covers, 4-boxes, slatted racks, and screened bottom boards. Also a lightly used smoker, queen catcher, hive tool, 5 queen marking pens, one "easycheck" mite collection system. Includes one ex-large metal bucket for gear. (7-8 gal?) Does not include any frames.
Please call or email Max with any questions and/or bids.
Thank you.

Monthly Beekeeping Tips

by Todd Balsiger - Oregon State Beekeepers Association

Month of August

August is a difficult time to work bees - The days are hot, and the bees have a strong inclination to rob. There are vital tasks to be done that will greatly increase the odds for winter survival that we must do.

• Remove all supers and configure colonies into winter configuration (generally two deeps). Do this regardless of how populous you think your colony is!

• Treat for Varroa in early August - the latest you should delay is the 15th. Our objective is to raise a healthy crop of winter bees. Some of our mite treatments are hard on the bees too, and that is partly why you must begin your treatments early, so that they have time to recover.

• Find queenless hives and requeen with a nuc or close them down.

• Be cognizant of the problem of robbing at this time of year. Do your best to prevent this bee yard problem. Once robbing begins, the pandemonium is hard to stop. Try to work quickly, and at either end of the day (morning/evening) when there is diminished flight. If you only have a few hives, this probably won't be a problem.

• As usual, keep a lookout for American foulbrood. Inspect weak hives and find out why they're in that condition. Weak hives (which could be caused by AFB) are prime candidates to be robbed.

• Check for both American and European foulbroods. If you suspect foulbrood, take some pictures with your phone, and send the information to one of the TVBC mentors. Act quickly as there's not a lot of time to get an infected hive ready for winter.

• Extract as soon as possible after removing supers. Wax moths are very active at this time of year and will quickly find brood and pollen in supers. Wax moths and their larvae are a nuisance during extraction - best to avoid them altogether.

• Provide water continuously if the bees don't have access to a reliable source.

The Secret of Winter Bees vs Summer Bees

How Long Do Bees Live and Why?

November 27, 2022 Author : Rusty Burlew

Winter bees and summer bees look exactly the same on the outside. But if you dissect each, you will see an amazing difference inside the abdomen.

We all know that female honeybees are divided into two castes: workers and queens. Although they both arise from normal fertilized eggs, the larvae that hatch from those eggs are nurtured differently. By the time they are adults, workers and queens are structurally distinct and they serve different functions in the colony.

Both workers and queens receive royal jelly for the first few days of life, then their diets diverge. Worker larvae receive less royal jelly and more bee bread, a delicacy derived from fermented pollen and honey. Queens, on the other hand, continue on a diet of royal jelly alone—a diet, indeed, fit for a queen.

In recent years, many bee researchers have recognized a third category of female honey bees. These bees are so distinct from their sisters—both in structure and in function—that some scientists believe they constitute a third caste. Beekeepers refer to them as "winter bees." Technically, they are called "diutinus," a Latin word that means "long lasting."

Diutinus: The technical name for winter bees that are capable of surviving the lengthy period of dormancy in winter climates until new brood-rearing commences in the spring by storing food reserves in their fat bodies.

Vitellogenin Prolongs Bee Life

The natural world is filled with oddly spectacular things, and a diutinus bee is a good example. To appreciate how special they are, first think of a normal honey bee worker.

A normal worker develops through complete metamorphosis—egg to adult—in roughly 21 days. Once she emerges as an adult bee, she will live, on average, four to six more weeks. This is completely normal. In nearly all species of bees, the adult stage is the same length. It may seem that honey bees live longer, but that's an illusion created by a colony that constantly replaces its losses. In reality, the bees you have in August are not the bees you had in June.

The queen is an exception, and it's possible for a queen to live multiple years, perhaps five or more. A substance called vitellogenin is credited with keeping the queen alive. Vitellogenin is produced in the fat bodies of bees and enhances immune function and increases lifespan. Some call it a "fountain of youth" for bees.

But another exception to the short life span—and one that's even more mysterious — is the winter bee. Even though most workers live only four to six weeks, diutinus bees survive through winter, many living six months or more. These "winter wonders," as I like to call them, are the bees that make colony overwintering possible. Not surprisingly, their bodies are loaded with vitellogenin.

Bee Life in Winter

In winter, egg laying slows dramatically or stops altogether. There is no collection of nectar or pollen. The days are cold and the nights are worse. Slowly the bees eat through their food supply and the winter cluster struggles to keep warm.

But winter survival is not even the hard part. The hard part comes when the colony must build up its population for spring nectar flow, pollen collection, drone rearing, and possible swarming. Who does all this work when the colony is nearly out of pollen? How do you feed the first spring brood if there is no bee bread? The answer lies in the bodies of winter bees.

Bee Body Structure

If you recall, a caste is "a physically distinct individual or groups of individuals specialized to perform certain functions." It is easy to visualize some of the physical differences of a queen. She is large with short wings and a long abdomen, and she has legs that splay to the side, spider-fashion. Internally, she has a spermatheca to store sperm and an enormous warehouse of eggs. She appears different from a worker both inside and out.

Winter bees and summer bees look exactly the same on the outside. You cannot look at a winter bee and recognize her. But if you were to dissect both a winter bee and a summer bee, you would see an amazing difference inside the abdomen. Whereas the inside of a summer bee is dark and watery-looking, the inside of winter bees is stuffed with a white, fluffy-looking substance.

A Protein Warehouse

The white fluffies inside a winter bee are fat bodies. Fat bodies perform many functions related to health and nutrition. The fat bodies can break down proteins, carbohydrates, and other nutrients and reassemble the components into new chemicals. In addition, fat bodies produce the vitellogenin that increases lifespan.

In short, the real treasure trove of protein in a winter hive is not found in bee bread or stored in the comb. Instead, it is stored in the fat bodies of winter bees. Because of plentiful fat bodies and an enlarged hypopharyngeal gland, a winter bee can secrete enormous amounts of royal jelly, even six months after eating any protein herself. Luckily, the constant production of vitellogenin keeps her alive and healthy. Without winter bees, a colony would perish before spring build up.

A Change in Food Supply

Just as the quality of food determines whether an egg becomes a queen or worker, the quality of food determines the type of worker that will develop. In spring, when pollen is plentiful, summer bees develop from all the eggs. But in late summer when the food supply begins to dwindle, the pollen becomes scarce and lower in quality. This deficient diet triggers the formation of winter bees. It signals that winter is coming and now is the time to store protein for spring.

Keep Your Winter Bees Healthy

Because colony survival is dependent on winter bee health, it is important to treat for mites before winter bees are born. If winter bees are infected with varroa mites that spread viral disease and feed on the fat bodies, a colony will not make it through winter. Although the timing of winter bee development will vary with the pollen supply in each region, a good rule of thumb is to treat for mites by mid-August. This gives you about 60 days to grow winter bees before cold weather curtails brood rearing.

Remember that killing varroa mites *after* they have transmitted disease doesn't help the bees at all. Proactive treatment that kills the mites *before* they transmit disease is vital to overwintering success.

A good queen is important, too, but without healthy winter bees, the best of queens cannot sustain a colony. So baby your winter wonders. Take care of them. Those protein-filled abdomens are your only hope for a crop of spring bees.

Have you ever opened a winter bee to see the glistening white fat bodies? Pretty cool, right?

Save

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Club Info

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