CENTRAL COAST BEEKEEPERS NEWSLETTER

February, 2026

NEXT MEETING February 19 2026

Important Notice: Join us **Thursday, February 19th at 1:30 p.m. at the OSU Extension office, 1211 SE Bay Blvd, Newport, OR,** when Dr Dewey M. Caron, an internationally renowned authority, Professor Emeritus and author, will be discussing the latest in honey bee research and his findings from the Pacific Northwest honey bee survey. Dr Caron is Emeritus Professor of Entomology & Wildlife Ecology, University of Delaware, & Affiliate Professor, Dept Horticulture, Oregon State University. Since retirement in 2009, he spends 4-6 months each year in Bolivia, where he keeps Africanized bees and teaches beekeeping (in Spanish). The rest of the year he is in the northern hemisphere lecturing and teaching everything related to honey bees. **See his article in this newsletter!**

PRESIDENT'S MESSAGE

By Dale Dawson

We are headed into a new season of beekeeping.

I know most of us have lost colonies this winter, and the challenge with those losses is ferreting out the cause. That is worthwhile because we can then potentially avoid recurrence.

With the advent of 2026, we find two new tools in varroa management.

Varroxsan, which are oxalic acid strips (actually available late last year), and Narroa which was just approved Wednesday for use in Oregon.,

Norroa is expensive, at roughly 45 dollars per double brood box, one treatment lasts 18 weeks. It prevents phoretic mites from reproducing and requires low mite loads to be successful..

We are coming into the zone I think of as Starvation alley, where the brood builds up too soon and they burn through their stores. This seems to happen more often with what you consider your strong colonies. Be vigilant for the next 6 weeks.

Swarm season , from my experience, normally starts the last week of April. Every indication I see is that it will start earlier this year, perhaps as soon as the first week in April for our environment. That means we, as beekeepers, should be ready to react to colonies which must be split early, Demaree or otherwise, or suffer the consequences of swarms being lost.

May your colonies ever be strong.

JUST A REMINDER !

The deadline for the 2026 Bee order is approaching

We will be getting bees from Henry Storch at Oso Apiaries, the supplier we have used for our bee orders for the last several years. Henry's bees are a mixed race bee he calls "Oregon hybrids." He started with Buckfast and introduced Carniolans, Caucasians, Russians. They are gentle bees, easy to work and average honey producers.

$170 – 3 lb packages (tentative delivery date – May 6th)

$210 – 5 frame Nucs (tentative delivery date – May 15th)

Marked queens add $10

Bees can be ordered either by sending a check to the club mailbox (P.O.Box 1916, Newport, OR , 97365) or by paying in person with cash or check at any meeting. Drop dead date to order is the April 17th meeting. You must be a club member to order. Bees will be delivered to Toledo, Lincoln City, Newport, Waldport, Yachats and Florence.

WARNING !!!!

The yellow-legged hornet (Vespa velutina) is an invasive species that poses a significant threat to honey bees. First detected in the United States in August 2023, this hornet is known for its aggressive predation on honey bee colonies.

Impact on Honey Bees

Predatory Behavior

- Yellow-legged hornets primarily target honey bees (Apis mellifera) as a food source.
- They capture and kill worker bees, which weakens the colonies.
- Hornets can consume up to 25 pounds of insect biomass in a season, significantly impacting local bee populations.

Nesting and Reproduction

- A single queen can establish a nest that grows to contain up to 6,000 individuals.
- Nests are typically built in trees or structures, making them accessible to honey bees.
- The predation increases during the summer months, coinciding with the peak foraging activity of honey bees.

Identification and Reporting

Distinctive Features

- Size: Approximately 0.7 to 1 inch long.

- Coloration: Mostly black head with yellow or orange markings, dark thorax, and alternating bands of dark brown or black and yellow on the abdomen.
- Legs: Brown or black near the body, ending in yellow segments.

Reporting Sightings

- Beekeepers and the public are encouraged to report any sightings to local agricultural departments to help manage and control the spread of this invasive species.

The yellow-legged hornet's aggressive nature and its impact on honey bee populations make it a serious concern for beekeepers and agricultural ecosystems.

Status as of 2025 and Estimated Habitat Suitability in the US Yellow-legged hornets (YLH) include at least 13 color forms (Perrard et al. 2014). YLH (color form nigrithorax) were recently found near Savannah, Georgia, in July 2023 (Hoebeke et al. 2024). Shortly after the first sighting of YLH in Savannah, the Georgia Department of Agriculture (GDA) deployed over 300 bait traps containing grape juice and brown sugar. These bait traps were monitored weekly during subsequent months. In addition to bait traps, GDA used miniature trackers on YLH individuals; these trackers used radio frequencies to transfer data about potential nest locations, and a handful of YLH nests were located and destroyed (GDA 2024). Additionally, there were a couple more confirmed YLH sightings in November 2023 and observations of YLH preying on honey bee colonies in July 2024 in South Carolina (Hoebeke et al. 2024). Efforts are still underway to eradicate YLH before it establishes and spreads within the United States, and the public is encouraged to report any potential findings of YLH. Based on species distribution modeling by Barbet-Massin et al. (2020), there may be suitable habitat for YLH in the Pacific Northwest and this region also appears to be increasingly suitable under future global climate scenarios (Figures 4 and 5). If this hornet becomes established in the US or is introduced to the western US, it will have a severe and damaging impact on honey bee populations and the beekeeping industry. Beekeepers, naturalists, agriculturalists, pest consultants, gardeners, and concerned citizens are a crucial line of defense by reporting sightings, locating, and identifying these hornets.

The Case of the Missing Bees

It seems every year in early March as days get longer and warmer we anticipate the emergence of bees from our hives. When the doorsteps of the hive are empty and a knock on the side reveals only silence, we investigate further. Gad zooks! The bees are gone! Did they abscond or did they die? Why? We must become Dead Out Detectives. What are the clues?

1. The colony was big and looked healthy in the fall

2. Lots of honey is left in the top supers

3. The cluster is now small, maybe the size of a softball

4. Near or just below the cluster is a patch of spotty brood – some fully capped, and some with bees dying on emergence (heads facing out, tongues sticking out).

5. If you look closely in the cells around the brood, you will see white crystals stuck to the cell walls, looking like someone sprinkled coarse salt in the brood nest.

6. You don't have records showing that varroa was under control.

Sound familiar? Many beekeepers think that winter-time losses are due to the cold weather. Bees, like lots of animals, can handle cold weather if they are healthy. This issue is that the bees are not healthy going into winter (even if they look like they are in autumn). In this article, I'll describe the most common type of wintertime honeybee loss for small scale beekeepers in the Oregon. The sad news is that these losses continue to be occurring at high rates. U.S. beekeepers had a disastrous winter last year. Between June 2024 and January 2025, a full 62% of commercial honey bee colonies in the United States died, according to an extensive survey. It was the largest die-off on record, coming on the heels of a 55% die-off the previous winter. The good news is that beekeepers can take actions to reduce the risk and to keep their bees in good health. We see this classic set of symptoms over and over in the states with a period of winter stress. A big colony seems to just shrink down and disappear. Many people want to use the term colony collapse for this type of death, and while collapse is a good descriptor

of what happens, this is not true colony collapse disorder. This is death by varroa-associated viruses. How does it happen?

1. **The big colonies –**While beekeepers are often surprised that their big colonies are the ones that are gone first, it makes perfect sense in terms of varroa growth. Since varroa mites reproduce in capped brood, the colonies that make the most brood (i.e. got the biggest) are the ones most at risk of having a high population of varroa. Colonies that swarmed, or didn't take off, or even fought a disease like chalk brood are less at risk from high varroa populations, because they didn't consistently have a large amount of brood where varroa can reproduce. You should have good notes that say you had a large cluster going into winter, but even if you don't, you can see the large circle of food eaten by a large cluster, indicating a high population of bees.
2. **Lots of Honey -**When you check your hives, it appears that they have several frames filled with capped honey, indicating that the bees died early, and starvation was not the culprit. No dead bees or larva anywhere on the frame.
3. **Small cluster –** Varroa levels peak right when the winter bees are forming. The bees that emerge from varroa infested cells are weakened, and more importantly, are riddled with viruses. Varroa mites are notorious for carrying deformed wing virus (DWV) but are known to transmit many more. In winter, the older summer bees die off, and there aren't enough healthy winter bees that are strong enough to handle the stress of the cold. It is common to see some spotting (bee poop) near the dead cluster, leading many beekeepers to blame nosema. While Nosema Apis can cause dysentery, it isn't the only cause it would be expected that a tiny, stressed cluster wouldn't be able to properly take cleansing flights. When a colony starves, the bees stick in the cells and drop to the bottom board, and you end up with a pile of dead bees in the hive. When bees get sick with viruses and other pathogens, however, they often f ly away. Sick bees by nature leave the colony to die in the field, an act designed to prevent pathogen transmission in the colony. When most bees are sick, they either fly away, or are too weak to return after cleansing flights. An early fall illness means that a lot of the bodies probably got removed by workers too. Sometimes, when the brood is too sick, the whole

colony will abscond. Many people call these fall swarms, but often it is the colony leaving because the varroa or viruses are too numerous.

4. **Patch of spotty brood / Bees dying on emergence** - When a colony succumbs to varroa-associated viruses or parasitic mite syndrome (PMS), we see a lot of effects in the brood. Unlike American Foulbrood (AFB), which attacks the larvae at one particular stage, PMS will affect developing bees at many stages of development. It is one of the only diseases where you see bees dying right as they emerge.
5. **White crystals in the brood –** Around the cells where the brood died (the last place of the brood nest), you will often see white crystals stuck to the walls of the cells. These are dry (not suspended in liquid like crystalized honey), and are the crystalized pee of varroa. Varroa mites defecate in the cells, and the resulting guanine crystals are left behind, and visible to the naked eye. The open cell to the lower right of the drone brood (picture on previous page) contains small crystals of guanine acid, indicating varroa defecation. The mite frass is dry and stuck to the walls on the cells. Many dead hives will also contain crystalized honey, but it will appear wet/liquid appearance, and largely in the bottom of the cell.
6. **No records that varroa was under control.** Notice that this says 'varroa was under control', and not that the colony was treated'. You may have applied a treatment, but it may have been too little, or (more likely) too late. 2024/2025 was a particularly difficult year for this, because Oregon, like many places had a really late summer – it stayed warm enough for beekeepers to go into their hives well into October. Many beekeepers took the extra time to put on a varroa treatment, thinking that they were lucky to get one in. While that treatment could help the bees for next season (by giving it a clean start to the next year), it was too late for that winter because the winter bees were already damaged. September and October treatments would have been applied after varroa had gotten to their winter bees. Winter bees are born in the fall, and with their special fat deposits that allow them to live through the winter months, they are the ones who carry the colony to the next season. If the winter bees have already been infected with viruses, the damage is done. No amount of treatment or varroa drop after winter bees are damaged can bring a colony back. The only way to

know that you have varroa under control is to monitor using a sugar roll or an alcohol wash. Just looking at the bees does not work; varroa mites are so sneaky that you rarely ever see them, unless the infestation is out of control, and by then it is too late. Many beekeepers say that they never see varroa in their hives, so they don't think that they have a problem. In fact, a varroa infested hive can look like it is thriving. Underneath the lovely brood capping's, and away from our view, the mites are reproducing and biting the developing bees. The colony can look healthy until the mites reach a threshold, and the colony succumbs to disease. By the time you see parasitic mite syndrome, or see varroa crawling on bees, it is often too late for that colony (especially if winter is just around the corner). Getting on a schedule of monitoring and managing mites will give you peace of mind that your healthy-looking colony is indeed healthy.

The silver lining of the above scenario is familiar, don't despair. First, you are not alone. Many beekeepers got caught off guard with varroa. They didn't realize how bad it was, or got thrown off by odd weather patterns. Second, when the bees die, the varroa mites die too. We don't yet have evidence that the viruses would stay in the equipment, so you can reuse your old frames. The honey that is left can be extracted to enjoy (if you didn't feed or medicate), and frames of drawn comb can be given to new colonies. Most importantly, if you recognize the above scenario in your colonies, you now have more knowledge as to what is harming your bees, and you can take positive action. You have time for this season to develop a strategy. Monitor your varroa mite levels using a sugar roll kit, or alcohol wash, read about integrated pest management for varroa, and make a commitment to prevent high mite levels this year before your winter bees are developing. This is going to be the year!

Thanks to Meghan Milbrath, University of Michigan and Carolyn Breece, Oregon State Master Beekeepers Program, and Joanna Thompson, USDA Research, for information in this article.

The Winter Cluster by Dewey M. Caron

The basis of honey bee winter survival lies in their ability to form a winter cluster. The winter cluster is a precisely organized, dynamic structure that functions like a biological heating system. It is worker bees instinctively gathering together, centered around the queen and brood. Ideally the winter cluster will form between boxes (in 2-3 box hive configurations). It moves upward as the season progresses to enable the bees to remain in contact with honey stores. This initial positioning facilitates communication from one frame to another – something difficult at lower temperatures when bees can't easily pass between full curtain frames. Clustering bees arrange themselves in layers. The outer layer of bees, termed the insulating shell, is formed by tightly interlocked bees with their heads facing inward. This crush of bodies creates a thick blanket designed to minimize heat loss. There is less congestion deeper within the huddle of bees, where, incredible as it may sound, bees are able to move freely around. Heat generation within the cluster core is an active, metabolic process produced by isometric vibrating thoracic flight muscles without moving the wings. When developing brood is present, heater bees, workers that can greatly elevate their body temperature over a capped brood or within an empty cell with brood in immediately adjacent cells, will also contribute to heat production. The colony transitions from a dispersed state to the beginning of a cohesive, insulated outer and inner heat-generating structure when the ambient temperature drops to about 57 degrees F. As the hive temperature continues to drop, normal movement is reduced inside the hive. The mantle cluster is fully formed around 50 degrees F. On the coldest days/nights the cluster will contract more tightly – when it is warmer the bees relax, the insulating shell may break down and bees move about. Some bees may even attempt to leave to forage or to excrete excess waste. Outside temperatures may be lower and these individual bees may not be able to keep their body warm enough for a return flight home. If there is brood present, the core temperature will be from 91 to 97 degrees F.; if the hive lacks brood, the core will be cooler --- anywhere from 64 to 85 degrees F. As the body temperature of the shell bees get colder, bees go into a state of torpor or chill coma - some state that as individual body temperature lowers, they will move inward toward the warmer core. However, in the torpor state, they are sluggish and their nervous system may not be able to decide to move. That may mean they must be pushed inward. Is it push or pull? A good contradiction for a student to study. Chill coma for Individual bees is 50 degrees. Absolute lowest temperature at which a bee will die is a function of both time and temperature. Bees that remain in a chill coma for 48 hours at or below 50 degrees F. will die. The absolute cold death temperature for a honey bee generally falls between 20-

and 30-degrees F. Good information on temperatures and behavior can be found in Science Insights article. https://scienceinsights.org/what-temperature-is-too-cold-for-bees/ It is often stated that a greater mass of bees provides superior insulation during winter. Honey stores allow the colony to generate heat with less individual effort, resulting in lower total honey consumption per bee. Honey is also good insulation. Conversely, small or weakly populated colonies will survive winter too, although may lack the biomass needed to create a dense mantle, leading to inefficient heat retention and a higher likelihood of collapse.