
THE BEE LINE

The Newsletter of the Oregon State Beekeepers Association

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MITES RESISTANT TO CHECKMITE+ IN NEW JERSEY

*News Release Detection of Varroa Resistant
to Check Mite+ (Coumaphos) in New Jersey*

--New Jersey beekeepers are facing a new challenge. This spring, honey bee colonies look great. They are very strong and they have lots of brood and food. We have thought that beekeepers will have a break from our expected annual colony loss. This thought did not last very long. I have received reports that bee colonies showed high varroa mite counts in ether-roll. Some of the colonies had dead bees with damaged wings and dead pupae in front of bee hives. I responded to these reports. For the past few days, I screened Varroa mites for resistance to Check Mite+ and Apistan using the test described by Pettis (ARS_USDA, Beltsville, MD). I found that efficacy of Check Mite+ (Coumaphos) was on the average 19%. Meanwhile, the efficacy of Apistan was on the average 75%. Pettis and I tested more colonies and found same results. It has become clear from these results that Check Mite+ resistance was found in the tested varroa mites in honey bee colonies in New Jersey. At this time, we don't know how wide-spread the Check Mite+ resistance is in New Jersey. We advised the beekeepers who have Check Mite+ resistant-Varroa mites to use Apistan. Based on our testing for Apistan resistance, beekeepers could achieve

about 75% varroa kill. This action represents the best option because we have only a short window for treating these colonies before moving them to blueberry pollination. We expect these colonies will recover and will be able to do their job in pollinating the blueberry. We will continue monitoring these colonies to find the efficacy of Apistan in controlling Varroa and the recovery of the bee population throughout the season. ----

*--Medhat Nasr, Ph. D., Extension Specialist
in Apiculture Blueberry and Cranberry
Research Center Rutgers University*

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Oregon State Beekeepers Association

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DID YOU KNOW:

How the military tank came to be called a TANK? During World War I, the British developed, in secret, a piece of military hardware. Since spies were everywhere and to keep it a secret until it got to the front, the hardware was crated and shipped to the front labeled as a "water containment vessel."

President's Message

By Ray Varner

Our son, Ric, lost his battle with leukemia on May 22nd, the day after his 34th birthday. We were with him, holding his hands and telling him we loved him, and he died peacefully. We held his memorial service on June 1st and we are now into the grieving process. Diane and I would like to thank those of you who reached out to us during this very difficult time. It has helped to know that so many were praying for us and thinking about us. This is no time to be alone.

I kept very few hives going into the season this year so I could spend my time with my family, and it is with some amusement that I keep finding swarms in my equipment near the barn. Four swarms have found new homes in old hives in the last month. The honeybees keep finding me, and I think caring for them will help in my own healing.

It is my hope you are all having a good season, that the nectar is flowing and your bees are healthy. I hope to have more to share with you next month.

Northwest Beekeeping, July

By Harry Vanderpool, WVBA

- Provide water continuously.
- Examine supers frequently but don't leave much empty comb on colonies that are light in stores in the brood nest. Add supers only to the top of the filled ones, not below them, unless hives are near a commercial crop (add supers below filled ones).
- Check colonies for queen and requeen if necessary. Requeen any colony with undesirable characteristics such as poor production, mean temper, European Foulbrood, poor brood pattern, bad attitude, etc.
- If you find a colony hopelessly queenless, or with a laying worker, move the hive several yards and place a nucleus in a brood box in its place. Shake all of the bees from the original colony on the ground. Sort through the combs and reassemble the hive. Fortify the nuc with a frame of emerging brood if available. Repeat

with 2 frames in a week. Watch their feed as fall approaches!

- Make preparations to extract. Remove supers containing well-ripened honey to extract, and then get it done before things cool down.
- Set plans in place for your fall treatment and medications. Put your plan in writing and follow it to the letter. This document will help you assess the efficacy of your pest control strategy.
- Test random colonies for Varroa load. Follow up after your fall treatment is concluded with another test. If you are unsure or do not feel confident in your testing procedures, ask a senior beekeeper for help.
- Continue to be on the lookout for American Foulbrood.
- Don't turn your best workers into robber bees by exposing honey or cappings.
- Place any extracted honey frames to be stored in a dry, cool area, with moth crystals.
- Depending on your apiary location and on the weather, a critical nectar dearth exists between July 10 and Sept. 1 in this area. Leave 40-50 lbs. of honey in each colony for fall buildup or feed equivalent amount of sugar syrup (2:1). Feed supplementary pollen patties if stored pollen is inadequate and pollen dearth exists.
- Set an hour or two aside each week to work on entries for the state fair.
- Plan to attend your next association's monthly meeting. There will be newer beekeepers attending that will appreciate your thoughts.

major weeds--common lamb's-quarters, giant foxtail, velvetleaf, smooth pigweed and Canada thistle--in greenhouse and field studies. They hand-sprayed the weeds with various solutions of vinegar, uniformly coating the leaves. The researchers found that 5- and 10-percent concentrations killed the weeds during their first two weeks of life. Older plants required higher concentrations of vinegar to kill them. At the higher concentrations, vinegar had an 85- to 100-percent kill rate at all growth stages. A bottle of household vinegar is about a 5-percent concentration. Canada thistle, one of the most tenacious weeds in the world, proved the most susceptible; the 5-percent concentration had a 100-percent kill rate of the perennial's top growth. The 20-percent concentration can do this in about 2 hours. Spot spraying of cornfields with 20 percent vinegar killed 80 to 100 percent of weeds without harming the corn, but the scientists stress the need for more research. If the vinegar were sprayed over an entire field, it would cost about \$65 per acre. If applied to local weed infestations only, such as may occur in the crop row after cultivation, it may only cost about \$20 to \$30. The researchers use only vinegar made from fruits or grains, to conform to organic farming standards.

--ARS is the U.S. Department of Agriculture's chief scientific research agency.

ORGANIC WEED CONTROL, SAFE AROUND BEEHIVES

Spray Weeds With Vinegar? Some home gardeners already use vinegar as a herbicide, and some garden stores sell vinegar pesticides. But no one has tested it scientifically until now. Agricultural Research Service scientists offer the first scientific evidence that it may be a potent weedkiller that is inexpensive and environmentally safe--perfect for organic farmers. ARS researchers Jay Radhakrishnan, John R. Teasdale and Ben Coffman in Beltsville, Md., tested vinegar on

ROUNDTABLE PARTICIPANTS PROPOSE NEW PROGRAM

LONGMONT, CO (5/21/02) – The National Honey Board hosted a honey industry roundtable meeting on May 17-18 in Chicago. Roundtable participants discussed parameters for a new honey research and promotion program. Representatives from six major honey industry groups attended including the American Beekeeping Federation, American Honey Producers Association, Mid U.S. Honey Producers, National Honey Packers and Dealers Association, Sioux Honey Association and Western States Packers and Dealers.

The proposed new program would focus on four areas – quality, protecting the image of honey, research and promotion. The group will implement the new program through legislation enacted in 1996 called the “Generic Statute.” This statute allows the USDA to implement research and promotion boards more quickly than might otherwise be possible (such as by amending the National Honey Board legislation).

Under the proposed program, handlers and importers of greater than 250,000 pounds of honey annually would pay the assessment. It is estimated that 95 percent of current NHB funding levels would be maintained but the number of entities paying assessments would decline to approximately 100. The proposed new board would be led by nine honey industry members—four handlers, two importers, one representative of the honey marketing cooperative and two honey producers. Each year, the proposed board would set aside 5 percent of the budget for production research, to be returned to the general fund if no appropriate work was funded.

Should the proposed program fail in its authorized referendum, each industry organization agreed to pay a share of the USDA charges (approximately \$100,000) that are required to bring the proposed program to referendum. If the referendum passes, the USDA would be paid from assessments collected by the new Board. Only those subject to paying the assessment (packers and importers) would be eligible to vote in the referendum for the new program. Additional information on the proposal is attached.*

“We are pleased that the National Honey Board hosted a forum in which industry leaders devised a program that may meet industry needs,” said National Honey Board Chairman Gene Brandi. Brandi noted that the four areas of focus for the proposed program are the same as the focus of the current National Honey Board.

For 15 years the mission of the National Honey Board has been “to serve the honey industry by increasing demand for honey and honey products.” The structure and operation of the Board, as dictated by the Honey Research, Promotion and Consumer

Information Act, has remained generally stable since its inception.

*The complete summary of the NHB program can be viewed on their Website at www.nhb.org

LET ‘EM EAT . . . *BEES*???

In many African and Asian countries, brood combs are considered a delicacy and consumed immediately when available. They are also particularly rich in protein since they usually contain quantities of beebread, i.e. the slightly fermented pollen stores of the hive. In some Asian countries, worker or drone pupae (in their white stage) are also prepared for human consumption by pickling or boiling. In canned form, they are found in some European or American specialty stores and can be considered a value added product, even if there is not much demand or a broad market perspective in the West.



Bees: they're what's for *dinner*???

MEAD MAKERS & DRINKERS WILL APPRECIATE KNOWING THIS! ANTI-OXIDANT PROPERTIES OF MEAD

C. L. WINTERSTEEN¹, N. C. Gheldof, and N. J. Engeseth. (1) Dept. of Food Science and Human Nutrition, University of Illinois, Rm 259 Edward Madigan Lab, 1201 W. Gregory Dr., Urbana, IL 61801

Honey serves as a natural source of antioxidants effective in prevention of oxidative deterioration reactions in foods. Our laboratory has established a correlation between antioxidant capacity of honey and total phenolics. It is also widely established that wine can contribute positive health benefits with respect to prevention of cardiovascular disease (attributed both to polyphenols and alcohol). It was anticipated that mead, a fermented honey beverage, may have similar health benefits and that these antioxidant properties are affected by processing.

The objective of this study was to evaluate the effects of specific heat treatments and overall processing of honey into mead on antioxidant capacity of the final mead.

Soy and buckwheat honey musts were subjected to: 1)gentle heating to 60°C and 2)boiling followed by skimming of the protein-tannin complexes. Sulfites and yeast nutrient were added, followed by inoculation and fermentation for 6 weeks. General wine analysis was conducted. Antioxidant capacity of the meads, and commercial wines, was determined by DPPH assay followed by the more sensitive ORAC assay. Total phenolics and HPLC phenolic profiles were determined.

Fermentation of soy musts resulted in meads ranging from 6-8% alcohol and 15-20% residual sugars while that of buckwheat resulted in meads of 10-11 % alcohol and 2-3 % residual sugars. The antioxidant capacity of buckwheat mead, while not as high as red wine, was 131 % higher than that of soy mead, which was comparable to white wine and commercial mead. Meads produced from boiled must had 25-34% higher antioxidant capacity than those from gently heated must.

Results of this study suggest that mead may contribute similar health benefits as are contributed by wines, due to dietary consumption of antioxidants. Dramatic heat treatments that are often avoided because of their flavor impact in mead production have been demonstrated to enhance antioxidant capacity of mead.

[2002 Annual Meeting and Food Expo - Anaheim, California](#)

MORE ANTIOXIDANT RESEARCH WITH HONEY

Researchers at the University of Illinois released sweet news titled, "Honey—the darker the better—has potential as dietary antioxidant." One study at the U of I showed that honey's antioxidant qualities preserve meat without compromising taste. Another study, published online April 6 in the Journal of Agricultural & Food Chemistry, examined honey's effect on human blood. The study reported that honey's antioxidants are equal to those in many fruits and vegetables in their ability to counter the degenerating activity of highly reactive molecules known as free radicals.

JOHN CAMPBELL PASSES AWAY

John Campbell had been the Vice President of the Southern Oregon Beekeepers Association for the past (maybe 9?) years, and several years before that, John was the President.

John was born in Sedro Wooley, WA and spent most of his growing up years in Boulder Creek, CA. His father was a professor at Stanford. John moved to Oregon about 30 years ago and was a journeyman carpenter.

John had wanted to be a beekeeper all of his life and he has been a beekeeper for at least 25 years. His wife, Sharon, used to accuse him of being around them so much that he, too, liked to be out in the hot weather and to hibernate in the winter.

At one time, John had as many as 500 hives and then the mites hit and he lost a lot of bees. He was recouping his losses when the flood hit in the late 90's and took about half of them, boxes and all, down Bear Creek. He had been able to get up to 230 hives at the time of his death.

John used to pollinate in Bandon up until the last 2 years; he also took hives to Central California around Modesto to pollinate the almonds. He also hired his bees out for pollination to the local pear and peach growers here in the Medford area. When it was down time for pollination, he would work on

his bee equipment and/or hire out as a carpenter on construction jobs.

John had 2 grown sons, who worked with the bees while they were growing up, and his younger son still helped him whenever he was in town.

John had had a few episodes of dizziness for about a week before his death, and he promised Sharon that he would call the doctor and make an appointment to find out the cause. Sharon went to work on Monday morning, May 6th, and came home to find that he had been sick and had gone home to be with the Lord that same morning -- probably not long after she went to work.

A friend/neighbor phoned John to invite him over for coffee about 8:00 AM, but John declined, saying that he wasn't feeling well and was going to lie down for a while. The doctor said that he probably died shortly afterwards. John's death was caused by a brain stem stroke; everything immediately stopped - all the internal organs just ceased to function immediately. When the medical examiner did the autopsy, he found that John had severe ischemic atherosclerotic cerebral vascular disease (all of the arteries in his brain were plugged/hardened), and he also had severe cardiovascular disease. He was very seriously ill and didn't even know it; he shouldn't even have been able to be up and around!

John's memorial service was on May 11th at the Emanuel Temple, an independent Pentecostal Church in Medford, OR.

If anyone would like to send a memorial gift, Sharon has requested that it be sent to their church:

Emanuel Temple
345 Mary St.
Medford, OR 97504

*A note from Sharon: "Not only John, but I know of many beekeepers who do not keep good records, if any. **It is very important to keep good records and to have everything in order.** John kept all of his receipts (in a brown paper bag!), but no records. It is a nightmare trying to figure out where John took his bees, who paid him and who didn't. Please tell everyone to have a will too. I am having a horrible*

time trying to get things ready for probate - and the cost is horrific - in both time and money."

NOTE: One of the other beekeepers in the SOBA has taken John's honey and will process it and sell it for some of the profits, and another beekeeper has bought his hives - bees and all.