BEE BITS NEWSLETTER

Bee Bits is the newsletter the Mount Baker Beekeepers Association (MBBA)
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Meeting Date: Wednesday, September 20
(Meetings are the third Wednesday of the month)
Time: 7 PM
Place: Gateway Centre Suites,
1313 E. Maple St, Bellingham, WA
The Rainier Room, Ste. 301

Your picnic *with* bees | Your picnic *without* bees

AND THEN THERE'S THE MBBA PICNIC!

When: Sunday, September 17, 1:00 – 6:00 pm

Where: Lake Padden Park, 4882 Samish Way, Bellingham, covered pavilion south side (use the east entrance to the park)

Who: Mount Baker Beekeepers, family, friends, and anyone who loves bees!

Other stuff: Plastic eating utensils will be available, but bring serving utensils for your potluck dishes.

And since you don't want yellow jackets at your picnic—or in your hives—here's a simple trap that works great: youtube.com/watch?v=ng-ylBN43PA

You might also like to know that
September is Honey Month at:
SALISH LODGE & SPA
https://www.salishlodge.com/honey.php

BIG NEWS IN THE WAR ON VARROA

From EurekAlert, "The Global Source for Science News" this promising new research comes to us courtesy of Janet Wilson

Visible varroa mite attached to a honey bee

EAST LANSING, Mich. - Seemingly indestructible Varroa mites have decimated honeybee populations and are a primary cause of colony collapse disorder, or CCD.

Michigan State University scientists have found genetic holes in the pests' armor that could potentially reduce or eliminate the marauding invaders. The team's results, published in the current issue of *Insect Science*, have identified four genes critical for survival and two that directly affect reproduction.

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"The Varroa mite is the worst threat to honeybee health worldwide," said Zachary Huang, MSU entomologist. "They have developed resistance to many pesticides, so it's urgent that we explore and target these genes to develop better control methods."

The mite sucks the blood of honeybees and transmits deadly viruses. Its lifecycle consists of two phases: one where they feed on adult bees, called the phoretic phase, and a reproductive phase that takes place within a sealed honeycomb cell, where the mites lay eggs on a developing bee larva.

Having the double-whammy of eating bees and spreading disease makes Varroa mites the number-one suspect of honeybee population declines worldwide.

Controlling pests like Varroa mites succeeds by either eliminating them or reducing their ability to reproduce. The team used RNA interference to identify the key genes, which could achieve these outcomes. They injected the mites with double-stranded RNA, or dsRNA.

Interfering reduces transcription of a specific gene, the first step of making a gene, a piece of DNA, into a protein. This process, also known as "gene knockdown," has been successful in reducing the mating success and the number of eggs produced by cattle ticks, which threaten cows and other livestock around the world.

Using this approach, the team identified two genes that caused high mortality in Varroa mites - Da and Pros26S. In fact, Da killed more than 96 percent of mites. They also identified four genes - RpL8, RpL11, RpP0 and RpS13 - that control reproduction.

Earlier research has shown that a combination of dsRNAs can be fed to bees at the colony level. Varroa mites absorb the "genetic cocktail" via bee blood and their population was reduced. Future research will explore whether a single-gene approach can be scaled up and achieve the same effect at a colony-wide setting. Using a single gene with a known mechanism will be more cost effective and safe to the honeybees.

The results may have applications beyond honeybees, too.

"It's worth noting that Da reduced reproduction in species of mosquitoes and Drosophila," Huang said. "Future research could help not only protect honeybees, but also reduce disease-carrying mosquitoes or crop-damaging pests."

Additional MSU researchers contributing to this study include Guowu Bian and Zhiyong Xi. Xianbing Xie, with Nanchang University (China), also was part of this paper.

This study was supported by the Almond Board of California, the Foundation for the Preservation of Honey Bees, the National Honey Board, MSU's Project GREEEN, Michigan Beekeepers Association, National Natural Science Foundation of China, General Project of Jiangxi Provincial Department of Education and a fellowship from the China Scholarship Council.

Michigan State University has been working to advance the common good in uncommon ways for more than 150 years. Keep up with their bee research at: msutoday.msu.edu/environment/

Thanks to all the volunteers who made the MBBA booth at this year's Northwest Washington Fair a great success!

Photo by Patri Crellin

Tom Lini guides curious queen seekers on a journey through the observation hive.

KIRK WEBSTER IN VANCOUVER

The Richmond Beekeepers Association is bringing Kirk Webster to Vancouver October 14th and 15th and is extending an invitation for the event to other bee clubs in the area.

"Kirk Webster is a treatment-free beekeeper in New Haven, Vermont. He maintains 300 colonies for honey production and 400 baby nucs for breeding queens. He provides an additional 400-500 treatment free overwintered nucs for sale. His bees and queens are sought after for their ability to survive varroa mites and extreme weather conditions. He will be coming to Vancouver on October 14th and 15th to present his experience with treatment-free beekeeping and working with the mites rather than fighting against them." --Fiona Gold, Richmond Beekeepers

Kirk's complete story can be found in this link to *Bee Culture* magazine: beeculture.com/kirk-webster/ and Kirk's own website: http://kirkwebster.com/

For ticket prices and more info: richmondbeekeepers.ca/event/kirk-webster-presentation/

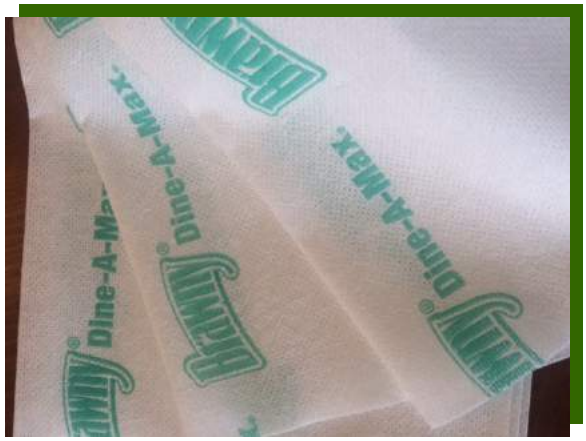
WANT YOUR BEES TO SURVIVE THE WINTER?

If you want happy, healthy bees in the spring, you *must* prepare them for the winter. If this is your first year, or your efforts haven't been quite enough in the past, you might consider hiring expert help:

Getting Started with Bees
Hive Inspections
Vacation Care for Your Hives
Queen Introduction and Marking
Custom Apiary Maintenance

Michael Jaross
Whatcom Bee Help
A Consulting Service for Beekeepers
http://whatcombeehelp.com/
(360) 483-9754

TEST AND/OR TRAP FOR SMALL HIVE BEETLE



What do these special paper towels have to do with small hive beetles? Since there have been some reports of them in Washington state, as well as north of the border, you may want to find out in this YouTube video: youtube.com/watch?v=canC6rfQfmg&feature=youtu.be&t=2m19s

Attendees got a lot out of Randy Oliver's presentation in Everett this month. His talk was divided into "managing bees" and "managing varroa." Of special interest was the introduction of his management spreadsheet that he'll be offering to beekeepers for free. To get updates on that and everything that he's working on, sign up for his monthly newsletter at: http://scientificbeekeeping.com/