



Meetings & Programs

Tuesday, October 8, 7:00p.m. (no meal)

- Rick Cockcroft, beekeeper and brewer will give his presentation on mead making.
- Nominating Committee's slate of officers for 2014

President--James Brown
Vice President--Vern Allen
Secretary--Sam Coble
Treasurer--Jim Parker
Director--Ruth Edwards

****Nominations from the floor may be made by any GCBA member.



Tuesday, November 12, 6:30p.m. (covered dish meal)

- Election of officers for 2014
- We will be viewing a webinar about honey bee swarm behavior. The research reveals how bees decide where to locate and should help us make better swarm trap decisions.

Tuesday, December 10, 6:30p.m.

Main Building Auditorium

--**Annual Christmas Dinner-Covered Dish**-(bring enough of your favorite main dish, side dish, or dessert to share) Drinks, ice, plates, etc. and professional entertainment ["Six Pack"--a barbershop 'quartet'] provided by GCBA. Appropriate for all ages--all members and family welcome. The evening will be used to socialize and enjoy the festive spirit that the Christmas season provides.

Articles of Interest



ApiNews

Beekeepers, vintners rediscover nectar of the gods!

LISA RATHKE | September 2, 2013

GROTON, Vt. – Once called the nectar of the gods, the oldest fermented beverage is seeing a renaissance.

Beekeepers and vintners are rediscovering mead, an alcoholic drink made of fermented honey and water. These days, fruits, spices and even carbonation are being added for distinct flavors that aren't a far cry from the beverage favored by the Vikings and ancient Greeks and during the Middle Ages.

"People have been drinking fermented beverages for a couple thousand years so it's just an extension of that," said Mark Simakaski, who with his wife made his first batch while in the Peace Corps in Paraguay and launched a meadery called Artesano in Vermont in 2008.

Mead making has doubled in the last five years, said Chris Webber, president of the American Mead Makers Association, which estimates there are 200 to 250 mead makers in the U.S. Some of the new mead makers are beekeepers looking to find other ways to sell their honey. Others are former craft beer brewers.

"It is of growing interest," said Tim Tucker, vice president of the American Beekeeping Federation, which has about 1,300 members, many of whom make mead. There's even an international mead competition each year in Boulder, Colo.

Sponsored Links

David Myers, owner of Redstone Meadery in Boulder, attributes the growth in mead to more demand for craft beverages and locally made foods - from small batch craft beers to ciders and artisanal wines.

"I think there's a movement in the American drinking culture for smaller craft artisanal mentality," said Myers, whose business - one of the larger mead producers in the country - is approaching \$1 million in sales.

Redstone Meadery, which includes traditional meads and carbonated nectars, is now sold in 32 states.

Demand for local food has been a bonus for Artesano, which sells its products in 85 stores and restaurants around the state and sells out of its 20,000 bottles every year. "It would be easy just to expand and expand and expand because there's a demand for it, but I don't want to," Simakaski said.

In the back of a renovated old general store in Groton, Simakaski and his wife, Nichole Wolfgang, ferment honey and water in 250-gallon tanks. They may add fruit or spices or both, and then age it for at least a year. The latest offerings include a bourbon barrel aged, a blueberry and a chili cinnamon. "The mead's amazing because it's not super sweet and being made of honey I would have thought it would be really sweet," said Stephanie Parent, 40, Lyndonville, Vt., who stopped in with a friend for a tasting and music.

Simakaski and Wolfgang used their own honey the first year but now buy from two Vermont beekeepers. "This year, I'll ferment about 4 tons of honey, so it's a lot. That's like the job of two full beekeepers to make that much," he said.

Historically, the choice of mead as a beverage went by the wayside as grapes and grains became cheaper to produce. But now it's back, out of the Dark Ages.

"Good enough for Zeus, good enough for you" is one of the taglines at Redstone Meadery.

This following article is extensive, covering about 10 pages like this. You may find it on your own or email me & I will forward the remaining pages to you via email. Thought you may be curious about this part of the world and their concerns about honey bee problems....worth the read. editor

The **Scientific World Journal** Volume 2012 (2012), Article ID 930849, 9 pages <http://dx.doi.org/10.1100/2012/930849>

Review Article

Antibiotic, Pesticide, and Microbial Contaminants of Honey: Human Health Hazards

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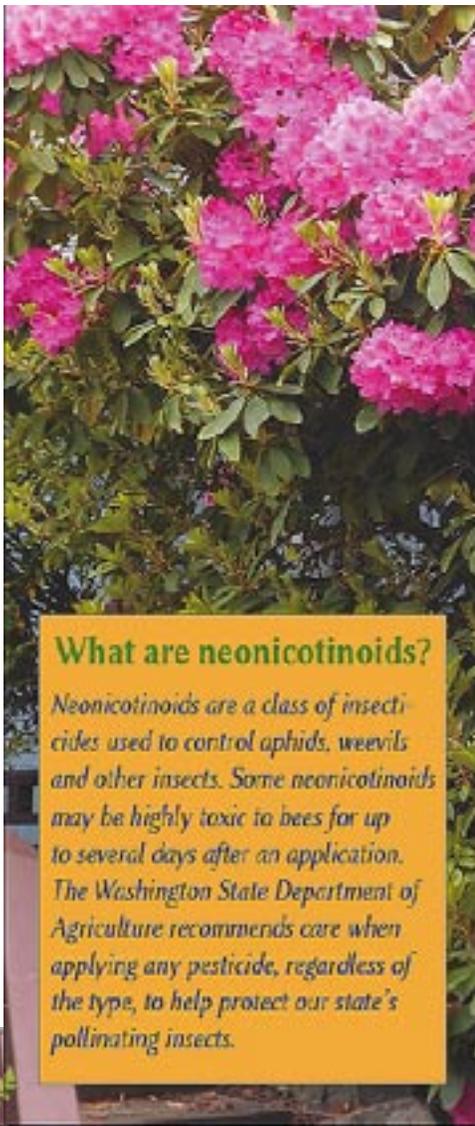
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Abstract

Agricultural contamination with pesticides and antibiotics is a challenging problem that needs to be fully addressed. Bee products, such as honey, are widely consumed as food and medicine and their contamination may carry serious health hazards. Honey and other bee products are polluted by pesticides, heavy metals, bacteria and radioactive materials. Pesticide residues cause genetic mutations and cellular degradation and presence of antibiotics might increase resistant human or animal's pathogens. Many cases of infant botulisms have been attributed to contaminated honey. Honey may be very toxic when produced from certain plants. Ingestion of honey without knowing its source and safety might be problematic. Honey should be labeled to explore its origin, composition, and clear statement that it is free from contaminants. Honey that is not subjected for analysis and sterilization should not be used in infants, and should not be applied to wounds or used for medicinal purposes. This article reviews the extent and health impact of honey contamination and stresses on the introduction of a strict monitoring system and validation of acceptable minimal concentrations of pollutants or identifying maximum residue limits for bee products, in particular, honey.

1. Introduction

History has revealed that humans had used bee products such as honey for thousands of years in all societies worldwide. Honey has been mentioned in the Talmud, the old and new testaments of the Bible, and the Holy Quran (1400 years ago). There is a large chapter (SORA) in Holy Quran named Bee (Al Nahl) and part of it says "And thy LORD taught the bee to build its cells in hills, on trees and in men's habitations, then to eat of all the produce of the earth and find with skill the spacious paths of its LORD, there issues from within their bodies a drink of varying colors, wherein is healing for men, verily in this



What are neonicotinoids?

Neonicotinoids are a class of insecticides used to control aphids, weevils and other insects. Some neonicotinoids may be highly toxic to bees for up to several days after an application. The Washington State Department of Agriculture recommends care when applying any pesticide, regardless of the type, to help protect our state's pollinating insects.

- www.entomology.umn.edu/cues/pollinators – Center for Urban Ecology and Sustainability / Pollinator Conservation
- www.npic.orst.edu – National Pesticide Information Center
- www.pesticidestewardship.org – Pesticide Environmental Stewardship (click Pollinator Protection link)
- www.pollinator.org – Pollinator Partnership
- extension.wsu.edu/wsprs/Pages/default.aspx – WSU PICOL
- pep.wsu.edu – WSU Urban Integrated Pest Management and Pesticide Safety Education

Questions?

Contact WSDA at pestreg@agr.wa.gov or Erik Johansen at (360) 902-2078. You can also visit agr.wa.gov for more information.

AGR PUB 701-388 (N/8/13)

Do you need this publication in an alternate format? Contact the WSDA Receptionist at (360) 902-1974 or TTY Relay (800) 883-6381.

Photos courtesy of Erik Johansen.



Washington State Department of Agriculture
Pesticide Management Division

We need bees!

Honey bees, bumble bees, mason bees and other pollinating insects pollinate your fruit and vegetable gardens, native plants, and are critical for our environment and our economy.

Certain pesticides, including those in the class of neonicotinoids, may pose a potential risk to bees and other insects that benefit us. But you can help reduce that risk.

How you can help protect our bees

1. Avoid applying any pesticides, including insecticides and fungicides, during bloom on ornamental plants that attract bees, like heather, lavender, linden, rhododendron and rose. Bees and other insects may be harmed if they consume nectar or pollen containing pesticides.
2. Apply pesticides only after flower petals have fallen, when ornamental plants are less attractive to bees. This will reduce the risk to bees coming in contact with pesticides.
3. If you must spray ornamental plants that are in bloom, WSDA recommends you choose a pesticide that is less toxic to bees. The Oregon State University extension publication "[How to Reduce Bee Poisoning from Pesticides](#)" has information on the



toxicity of pesticides to bees. Visit pubs.wsu.edu for a copy of this publication.

4. Follow any specific requirements to protect bees on the pesticide label. The [WSU Pesticide Information Center Online](#) (PICOL) has a database of pesticides approved for sale in Washington.
5. Read the label to see if the pesticide contains a neonicotinoid insecticide with these ingredients:
 - Clothianidin
 - Dinotefuran
 - Imidacloprid
 - Thiamethoxam
6. Avoid applying these neonicotinoid insecticides by soil drench or tree injection methods to plants known to attract bees. These methods may contaminate nectar and pollen for up to several years after the insecticide is applied.
7. If you must use soil drench or tree injection to apply these neonicotinoid insecticides, do it after flower petals have fallen and use the lowest possible effective dosage to help reduce the risk to bees. Also, try to select an insecticide that offers the shortest persistence in ornamental plants while still controlling the pest.
8. When purchasing ornamental plants that are known to attract bees, try to purchase plants that were not treated with these neonicotinoid insecticides. Ask the nursery if the plants were treated.
9. For more advice on pesticide use and protecting bees, consider contacting your local branch of the Washington State University Master Gardener Program by visiting gardening.wsu.edu and look for the Master Gardener link.

Know Your Pesticides is a small bulletin from Washington state and has helpful suggestions for Beekeepers. You may be able to get a copy on line as I did but Adobe has upgraded Acrobat so I had to screen photo these.

USA- BEEKEEPERS' CHALLENGUE

Friday, 30 August 2013 07:54 Written By Bill Mares

As serious beekeeping hobbyists, researchers and lecturers from Kenya, the United Kingdom, Bolivia, and Canada recently gathered in Pennsylvania to discuss the global crisis in beekeeping, the atmosphere was somber.

Death hung over the conference like a pall. The jargon was riddled with references to mortality: LD-50, sub-lethal doses, Dead-outs. People bemoaned bee deaths by pesticides and herbicides, death by pests and pathogens, death from a host of viruses.

Concerns about rising bee mortality has been going on for about seven years. During this time there's been a lot of loose talk about how, if the bees die, we die. Wrong. How a third of our diet comes from honey bees. Wrong. How the bee losses were caused by cell phones, GM plants, or The Rapture. All of which is Wrong.

Anti-pesticide crusaders have made bees a poster child for their apocalyptic predictions. But beekeepers themselves share in the blame by having used illegal pesticides - that also harm bees - to treat the pests that are the real culprits - because legal pesticides are ineffective, too expensive, or unavailable.

The chief villain is the aptly named mite varroa destructor, a parasite of the Asian honey bee that jumped species 100 years ago and has plagued European honey bees ever since. It has resisted frantic, but mostly ineffectual attempts at breeding resistance, as well as eradication by numerous chemicals and mechanical treatments. And its worst characteristic is that it spreads throughout all the bees of a hive, causing rapid and widespread death of entire colonies.

There's more. At the industrial level, bees in the U.S. have become their own kind of monoculture, linked at the hip to several crops but dominated by California almonds. Almonds have become both the engine that drives the beekeeping industry, and the bane of our existence. As Kim Flottum, the editor of a national beekeeping magazine says, "Beekeepers have become almond junkies, mainlining pollination fees for survival."

The most talked about new factor at this conference was how to provide enough good food for our bees all year long. Planting soybeans and corn to the absolute edges of our fields, and using herbicides to kill other plants and weeds deprive bees of a balanced diet. And the combination of herbicides, fungicides and limitless insecticides constitute a poisonous synergy that brings the battle between Big Ag and Little Ag into sharp focus.

The big challenge now is to fix these problems. And that's hard work. Science and agriculture must change. Agriculture must make land available for honey bees and all pollinators. Science must get serious about choosing bees that resist Varroa. And everyone must stop using the poisons.

Without the bees, we wouldn't starve, but our diet would be a lot duller. Reminds me of something fellow-Vermonters and professional beekeeper Kirk Webster has said of this marvelous creature, "...bees are the color; everything else is black and white."



Protection: EPA Actions to Protect Pollinators

USDA: •Pollinator Protection •Advancing the Science •Strategic Plan

Pesticide risk management must be based on sound science, consistent with the laws under which pesticides are regulated in the United States. EPA has been working aggressively to protect bees and other pollinators from pesticide exposures. EPA is:

- Taking immediate steps to change pesticide labels to limit applications to protect bees and to be more clear and precise for bees.
 - August 15, 2013, letter sent to registrants explains new labeling the EPA will require on neonicotinoid pesticides to improve protection
 - Bee labeling info graphic explains in detail how the new labeling will improve pollinator protection.
 - July 22, 2013, letter to registrants
- Together with the U.S. Department of Agriculture, we are working with agricultural equipment manufacturers and the pesticide and seed industry to develop and apply [technologies to reduce pesticide dust drift](#) during planting activities.
- Sharing best management practices with beekeepers on the use of pesticides to control Varroa mites in their colonies.
- Collaborating with state agencies and the North American Pollinator Campaign to advance education and training modules in pesticide applicator certification courses.
- We issued [new enforcement guidance](#) (35 pp, 1.3 MB, to federal, state and tribal enforcement officials to help them investigate bee kills
- Working with global partners such as the Organization for Economic Cooperation and Development’s Pesticide Effects on Insect Pollinators working group, the International Commission on Plant Pollinator Relationships, and the European Food Safety Authority to develop and implement appropriate tests for evaluating both exposure to and effects of pesticides on honey bees.
- Implementing new data requirements and risk assessment approaches for pollinators as we review the registrations of all of the neonicotinoid pesticides. These advances in assessing pollinator risk are based on a public, external, [scientific peer review](#) that was held in the fall of 2012; and they reflect a collaborative effort with experts in California, Canada and Europe, including both regulatory authorities and scientists. These new techniques will assess the sublethal effects of pesticides on all life stages of the honey bee, as well as effects on colony health in field settings.
- As part of the neonicotinoid Registration Review, six new pollinator studies are currently under way.
- EPA has also accelerated and coordinated the review of the neonicotinoid pesticides in our [Registration Review program](#). The registration review schedule for each of the neonicotinoid compounds is listed below.

	● Initiation	● Data	●
	● Dec. 2008	● 2010-2015	● 2016-2017
	● Dec. 2011	● 2013-2016	● 2017-2018
	● Dec. 2011	● 2013-2016	● 2017-2018
	● Dec. 2011	● 2013-2016	● 2017-2018
	● Dec. 2012	● 2014-2017	● 2018-2019
	● Dec. 2012	● 2014-2017	● 2018-2019

Does 2019 make you feel Better?

USA - POLLINATION POISONS. BEE DON'T HAVE A CHANCE

Wednesday, 21 August 2013 08:44 Article written by Alan Harman

British environmentalists are becoming increasingly concerned about the future of the UK bee population after reading new U.S. research highlighting for the first time the diversity of “chemical cocktails” that bees are ingesting.

The UK organic group Soil Association says the U.S. study raises new concerns on the effects of chemical mixtures and on additional pesticides used in farming that previously were not thought to be so lethal to bees.

These include fungicides used widely on crops requiring bee pollination.

The association says the new research shows these pesticides at field-realistic doses affect honey bees by doubling or even tripling their susceptibility to disease.

The report, published in the journal *PLOS ONE*, was compiled by a group of top bee scientists including the authoritative Jeffery S. Pettis of the USDA's Bee Research Laboratory in Beltsville, Maryland.

“This moves us on from the recent focus of just neonicotinoids and from a UK perspective is worrying,” the UK association says in a statement. “This study found nine different pesticides in pollen, but according to Defra (Department of Environment, Food and Rural Affairs) data, we are applying huge numbers of pesticides.

“An average of 20 different pesticides are applied to fruit, meaning our bees are likely to be coming into regular contact with mixtures of pesticides with combined effects potentially much worse than previously thought.”

Association head of policy Emma Hockridge says this is an extremely worrying finding which should raise alarm bells. “The study demonstrated that we may be massively underestimating the impacts of pesticides on our pollinators,” she says. “In the UK, we use an extremely diverse array of pesticides.

“While the U.S. study found on average nine different pesticides in pollen, in the UK an average of 20 different pesticides are applied to fruit, 12 to vegetables and 16 to arable crops.”

For strawberries, the average number of different pesticides used in the UK last year was nearly 30. “This means bees are likely to be coming into regular contact with mixtures of pesticides with combined effects potentially much worse than previously thought,” Hockridge says.

The new study shows these chemicals are having unpredictable indirect effects and European research has already shown neonicotinoid insecticides increase the impact of *Varroa* mites on honey bees.

“This study found common fungicides increase the risk of honey bees contracting a widespread and potentially lethal gut pathogen,” Hockridge says. “We are calling for urgent research into the cocktail effect of pesticides to be examined for similar indirect effects.

“We need to get off the chemical treadmill and focus on alternative ways of controlling pests and fungal disease, for example by using agro-ecological approaches such as organic farming.”

The association calls the U.S. research ground-breaking in that it is one of the first to examine exactly what pesticides bees are actually consuming in the wild. “Their findings are startling,” it says. “Honey bees were collecting pollen containing a cocktail of chemicals - as many as 21 different types of pesticides and in high quantities.”

The scientists tested the indirect effect of these chemical cocktails, and used bees' susceptibility to *Nosema ceranae* as a model. They found it was fungicides, usually overlooked, which doubled and even tripled disease risk.

One surprising finding of the U.S. study was that the high pesticide loads found in the pollen they collected were mostly from wildflowers surrounding the crops, which had been contaminated by pesticide application on the nearby farmland.

In terms of the three fungicides identified in the American research - myclobutanil, chlorothalonil and pyraclostrobin - about 1,728 tonnes are applied each year in the UK.

In 2012, more than 23,000 hectares of fruit crops that are pollinated by honey bees and wild pollinators were sprayed with these products. In the very wet growing season

Articles of INTEREST

The August issue of Time Magazine contains good one. **A WORLD WITHOUT BEES, THE PRICE WE'LL PAY IF WE DON'T FIGURE OUT WHAT'S KILLING THE HONEY BEE** by Bryan Walsh. Covers about 8 pages with some interesting photos & information.

<http://www.apinews.com/en/component/k2/item/23235> This is Marla Spivak's presentation (UTube) at the conference in Edinburg on June 2013. I hope you can receive it as Ms Spivak is an outstanding researcher and presenter. If you can't pick it up off of this letter, email me & I will send you a reference to, hopefully, get you in touch. This one is worth the effort!



**Allergies or not!!!
NO MORE SNEEZING..**

and harvest of 2012, some crops were sprayed with fungicides up to a dozen times. The association says the fact that these fungicides, and other pesticides, increase the susceptibility of bees to the disease *Nosema ceranae* is a major worry for the UK.

N. ceranae was first found in the UK in 2007 and now is widespread, infecting 30-60% of colonies between 2009 and 2011. The association says research shows that infection results in reduced lifespan and disturbed hive production and that this results in dwindling colonies and eventual collapse for no apparent reason. A UK government review of the evidence suggested that where this disease has been linked to a higher threat to bees, it may be interacting with other factors. Possible factors they suggest include associations with other pests and pathogens, local weather, local beekeeping practices or regional differences in the ability of the local honey bee races to tolerate infection.

“This new research suggests that the use of pesticides may be the missing factor,” the association says. “Although the U.S. study only examined disease susceptibility to the gut pathogen *N. ceranae*, if these pesticides are causing a weakened immune system (as is true for neonicotinoids, it may be that they also increase susceptibility to *Varroa* mite infestation, which in turn leads to the use of chemical treatments which appear to exacerbate disease risk.”

The American scientists ended their report by calling for more research into not only fungicides, but the dangerous cocktail of chemicals bees and other pollinators face on farms.

“The significant increase in *Nosema* infection following exposure to the fungicides in pollen we found therefore indicates a pressing need for further research on lethal and sub-lethal effects of fungicides on bees,” they wrote.

“Given the diverse routes of exposure to pesticides we show, and increasing evidence that pesticide blends harm bees, there is a pressing need for further research on the mechanisms underlying pesticide-pesticide and pesticide-disease synergistic effects on honey bee health”

The U.S. research: Pettis, J. S., Lichtenberg, E. M., Andree, M., Stitzinger, J., Rose, R. and vanEngelsdorp D. (2013) ‘Crop Pollination Exposes Honey Bees to Pesticides Which Alters Their Susceptibility to the Gut Pathogen *Nosema ceranae*’ PLOS ONE, 8 (7) 70182

•••USA- LIQUOR COMPANY LAUNCHED A PLAN TO DONATE MONEY TO SAVE THE BEES ...Monday, 19 August 2013 10:13 by Analia Manriquez

This is a press release of Jim Beam® Honey Bourbon Whiskey...

“Jim Beam® Honey, a new Kentucky Straight Bourbon Whiskey infused with **real** honey and liqueur, is distressed by the current plight of the honey bees. A condition called Colony Collapse is causing honey bees to die at alarming rates. Fewer bees means less honey.” *Something surely needs to be done about this, wouldn't you say?*

Our web site, www.guilfordbeekeepers.org is your source for local beekeeping information, questions, and answers. Sign up for our forum board and join the conversation!

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Newsletter Editor, Norman Faircloth

- Don Hopkins, State Inspector: (336) 376-8250
- Guilford County Beekeepers Association web site www.guilfordbeekeepers.org
- North Carolina State Beekeepers Association www.ncbeekeepers.org



Guilford County Beekeepers Association

A LOCAL CHAPTER OF THE NORTH CAROLINA STATE BEEKEEPERS
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