

KEARSARGE BEEKEEPERS

www.kbanh.org

September 2014

NEXT MEETING

SAT., SEPT. 13, 2014

9-11 A.M.

PILLSBURY LIBRARY

WARNER, NH

Agenda:

Call to order, accept last month's minutes, officers' reports.

News and upcoming events

In the hive

Get acquainted/member spotlight

Old business: bee school, holiday gathering

New business

Presentation: "Raising Queens" Troy Hall

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President's Message:

Dear beekeepers,

It is a busy time of the year for us. The goldenrod and milkweed are blooming; we are harvesting honey and beginning to think of over-wintering our hives.

We had a wonderful presentation from Mike Bayko last month about how to prepare for entering honey for an exhibit. I took his advice and entered my own honey for the first time to a fair-the Hopkinton State Fair. And I won a blue ribbon. Just goes to show you that you don't want to miss any of our meetings!

This month, Troy Hall will give us a presentation on how to raise queens. Troy has been rearing queens for quite some time, having studied with Mike Palmer. Troy has tremendous experience on this subject, and I am delighted that he has agreed to share his insights with us this Saturday in Warner.

Other than that, I hope your bees are thriving.

-Martin

Kearsarge Beekeepers' Association Meeting Minutes Saturday August 9, 2014 Warner Library

Barbara Lawler, NH State Beekeepers President, sent her compliments for our newsletter and to the editor, Barbara Burns. It looks great!

Marty Marklin reported on attending the 2014 EAS in Richmond, Kentucky. One of the 4 or 5 tracks focused on pesticides. One Florida commercial migratory beekeeper by contract charges 200 dollars per hive if it dies from pesticide exposure in the pumpkin fields. The 2015 EAS will be held at the University of Guelph in Ontario.

In the Hive with Troy Hall: this is the time to harvest one or two supers of honey if you are lucky enough to have healthy hives. After extracting, put the wet comb back on the hive for the fall flow. It is also the time to treat for mites. Symptoms of high mite levels may include spotty brood patterns and deformed wing virus. Egg laying by the queen may curtail after July and pick up now to build up the population of winter bees. If you have weak hives from chalkbrood, etc., without American foulbrood, think about combining. Take your losses in the fall.

Business: The McDonald brothers have volunteered to organize Bee School again this winter- thank you! Rob O'Neill will get the certificate of liability insurance to Kearsarge Middle School.

The NH State Beekeepers' Fall Meeting will take place at the Hellenic Center in Dover on Oct. 25. Featured speakers will be Dewy Caron and Dr. Sandra Rehan from UNH.

We will try to get the Grange in East Andover again for our November holiday potluck. Rob O'Neill will contact Irene. A backup location may be Camp Methodios in Contoocook.

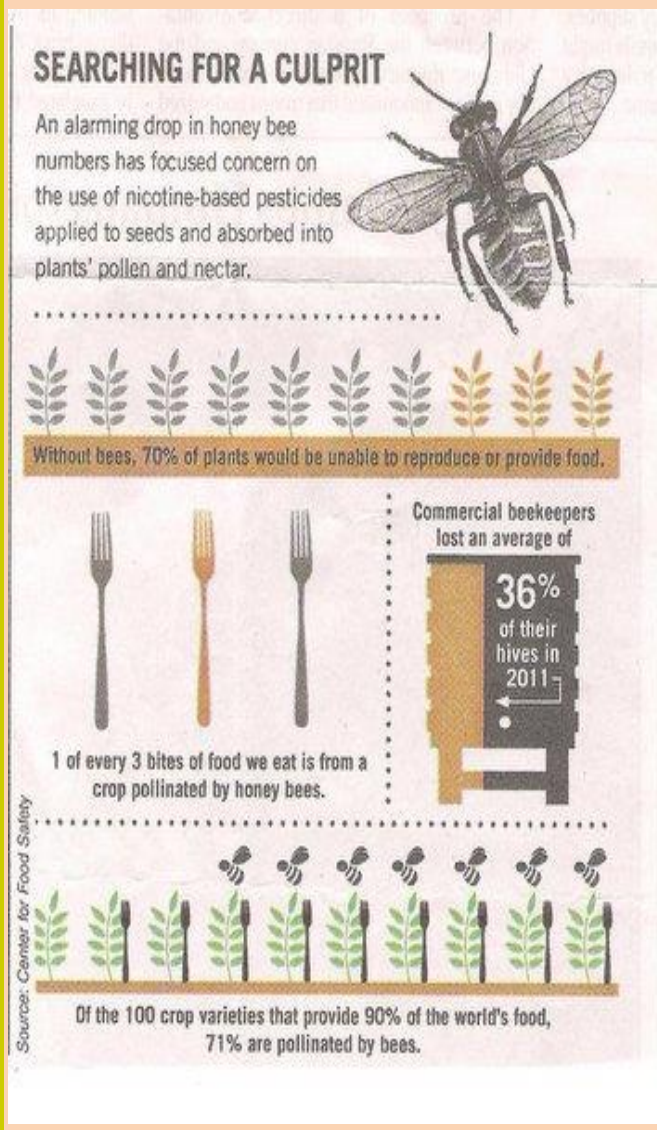
Mike Bayko, longtime honey judge and beekeeper, gave a presentation on preparing honey for showing. He remarked that you don't have to win a blue ribbon the first year, it is a learning experience and the judge will write comments on the slip. Most shows require 2 or 3 jars. Let honey sit for 3 or 4 days for dirt to settle to the bottom and air bubbles to rise to the top of the bottling bucket. Fill glass queenline bottles by running honey down the side of the jar to help eliminate bubbles. The fill line is the top of the rim –not over, not under. Take extra caps to the show and change the caps before you turn them in for judging as any remaining 'dirt' will be attracted to the original cap and the new cap will be clean. Try to keep fingerprints off the jar. The judge uses a calibrated refractometer to measure water content between 15.5 and 17.0% for the most points. Most honey falls between 17 and 17.9% water. Store supers in a dry room if not extracting right away. You can also use a dehumidifier to dry out the air in a closed space. Bottle from the middle of the tank for show and put filled jars in warm water if you need to get bubbles to the top. Use a nylon strainer in addition to the double wire screen to get honey clearer. Mike handed out a copy of the judge's scorecard for everyone. Barbara Burns has done a lot of research for showing honey at the local fairs if you have questions. Applications for entering honey can be found at each Fair's website. Entering is free and prizes are usually around three dollars for a blue ribbon. The real value of winning a ribbon is to display at your table if you sell honey.

Next meeting Saturday, September 13, 2014 at the Warner Library at 9:00 a.m.

Submitted by Kim Tuttle, Secretary.

IN THE NEWS:

The August 15 edition of the Valley News out of Lebanon ran a front page story on honeybees titled "Making Life Better for Bees." The article centered on the banning of the class of pesticides called neonicotinoids on the campus of the Vermont Law School. It is the first institution of higher education in the country to do so. Quoted in the article were KBA club members Richard Brewster of Andover, Troy Hall of Plainfield, and Barbara Lawler, NHBA President. Visit the Valley News archives to see the full article. The graphic "Searching for Culprit" from the article is shown here.



Radio frequency ID tags on honey bees reveal hive dynamics

CHAMPAIGN, ILL. — Scientists attached radio-frequency identification (RFID) tags to hundreds of individual honey bees and tracked them for several weeks. The effort yielded two discoveries: Some foraging bees are much busier than others; and if those busy bees disappear, others will take their place.

The findings are reported in the journal *Animal Behavior*.

Tagging the bees revealed that about 20 percent of the foraging bees in a hive brought home more than half of the nectar and pollen gathered to feed the hive. "We found that some bees are working very, very hard — as we would have expected," said University of Illinois Institute for Genomic Biology director Gene E. Robinson, who led the research. "But then we found some other bees that were not working as hard as the others."

Citizen scientist Paul Tenczar developed the technique for attaching RFID tags to bees and tracking their flight activity with monitors. He and Neuroscience Program graduate student Claudia Lutz measured the foraging activities of bees in several locations, including some in hives in a controlled foraging environment. ([Watch a video about this work.](#))

Vikyath Rao, a graduate student in the laboratory of U. of I. physics professor Nigel Goldenfeld, analyzed the data using a computer model Rao and Goldenfeld developed. Previous studies, primarily in ants, have found that some social insects work much harder than others in the same colony, Robinson said.

"The assumption has always been that these 'elite' individuals are in some way intrinsically better, that they were born that way," he said. While it is well known that genetic differences underlie differences in many types of behavior, the new findings show that "sometimes it is important to give individuals a chance in a different situation to truly find out how different they are from each other," Robinson said.

Removal of the elite bees "was associated with an almost five-fold increase in activity level in previously low-activity foragers," the researchers wrote. The change occurred within 24 hours, Tenczar said. This demonstrates that other individuals within the hive also have the capacity to become elites when necessary, Robinson said.

"It is still possible that there truly are elite bees that have some differential abilities to work harder than others, but it's a larger group than first estimated," Robinson said. "Or it could be that all bees are capable of working at this level and there's some kind of colony-level regulation that has some of them working really, really hard, making many trips while others make fewer trips."

Perhaps the less-busy bees function as a kind of reserve force that can kick into high gear if something happens to the super-foragers, Robinson said. "Our observation is that the colony bounces back to a situation where some bees are very active and some are less active," he said. "Why is that? We don't know. Do all bees have that capability? We still don't know." From "Catch the Buzz"

SEPTEMBER IS NATIONAL HONEY MONTH

Here are some articles of interest:

From www.benefits-of-honey.com

There are abundant honey recipes out there. Honey is such a versatile ingredient in cooking and has such a distinctive flavor that it brings a magical touch to almost all foods -- cakes, pastries, homemade cookies, barbecue meats, desserts, puddings, salad dressing, etc.

Different countries and cultures use honey differently in their food and cooking. In western countries, people seem to use more honey as a spread on their [bread](#) and have plenty of honey recipes for baking, whereas people in eastern countries seem to do less of that and mostly prefer to go for just a refreshing chilled honey drink - honey mixed with icy water. Generally, the younger generations do not seem to appreciate the benefits of honey as much as the older folks.

Start using honey in your meals straightaway:



1. As a drizzle for [desserts](#) such as pudding, pancakes, ice-cream, oats and corn flakes.
2. As a sweetener for your [tea](#), coffee, or [smoothie recipes](#).
3. As a seasoning for barbecue spare ribs, pork chops or chicken wings before cooking.
4. As a salad dressing with [olive oil](#) and vinegar for the extra body.

From the National Honey Board, www.honey.com

Honey not only tastes good. It sounds good.

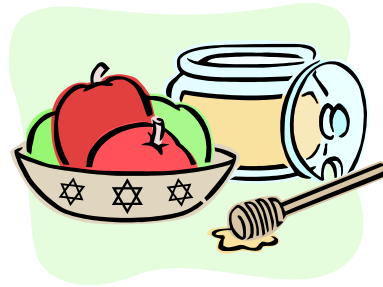
That is why so many bakers not only use honey in their products, but they also add “honey” to the names of their bakery foods. Honey truly is the ideal bakery ingredient, benefiting the flavor, functionality and marketing of bakery foods.

BAKERY RESEARCH PROVES HONEY’S VALUE AS IN INGREDIENT

- 90% of those surveyed indicated that the use of honey in a product “raises product value”
- 71% of bakers value the flavor of honey
- 75% of bakers believe consumers are willing to pay more for a product advertised as “made with honey”

CONSUMER RESEARCH ALSO SHOWS HONEY'S VALUE:

- Two-thirds of consumers in one survey said they are willing to pay up to 15% more for products made with honey
- The terms “pure honey” and “100% honey” connote the highest quality to consumers
- Consumers regard honey as “natural.” 94% of both honey users and non-users in the survey give the product an all-natural rating
- 45.6% of respondents see honey as “very” nutritious as opposed to only 10.6% who see corn syrup as nutritious
- More than 49% of respondents prefer a product with honey added
- When a label says honey added, nearly 50% of respondents expect the majority of the sweetener to be honey



ENTERING HONEY CONTESTS TIPS FROM MIKE BAYKO, HONEY JUDGE

Here are some tips from Mike, as presented at our August 2014 meeting:

- Fill show jars from the middle of the tank, after the first 4 or 5 have been drawn off
- Use standard honey jars without any labels
- Allow honey to settle 1-2 days before bottling, but not where it can absorb moisture
- Tip jars when filling to minimize bubbles
- You can heat honey to 80-90 degrees if necessary
- OK to put jars in warm water to make bubbles come to the top
- Fill line is to the top of the rim with no space showing after capping; all jars exactly alike
- Use a nylon paint strainer or nylon stocking filter to avoid any lint
- Choose your best jars with no imperfections
- Wear gloves to prevent fingerprints on jars
- Take extra clean/new caps to the show so you can put them on at the last minute
- Check for any debris, crystals, bubbles; foam can be carefully skimmed
- Flavor and color can vary, but there must be no off taste, bad smell or fermentation
- Moisture range: 18.6% -15.5%; under 15.5% is even better
- Comb honey should have no open cells, watermarks or travel stains

Invertebrate numbers nearly halve as human population doubles

Invertebrate numbers have decreased by 45% on average over a 35 year period in which the human population doubled, reports a study on the impact of humans on declining animal numbers. This decline matters because of the enormous benefits invertebrates such as insects, spiders, crustaceans, slugs and worms bring to our day-to-day lives, including pollination and pest control for crops, decomposition for nutrient cycling, water filtration and human health.

The study, published in *Science* and led by UCL, Stanford and UCSB, focused on the demise of invertebrates in particular, as large vertebrates have been extensively studied. They found similar widespread changes in both, with an on-going decline in invertebrates surprising scientists, as they had previously been viewed as nature's survivors.

The decrease in invertebrate numbers is due to two main factors – habitat loss and climate disruption on a global scale. In the UK alone, scientists noted the areas inhabited by common insects such as beetles, butterflies, bees and wasps saw a 30-60% decline over the last 40 years.

The diminishing status of invertebrate populations greatly compromise nature's ability to provide us with what we need. In economic terms, they provide us with important services, often worth billions of GBPE:

- Pollination – insect pollination is required for 75% of all the world's food crops and is estimated to be worth ~10% of the economic value of the world's entire food supply. Globally, pollinators appear to be strongly declining in both abundance and diversity.
- Pest control – in the US alone, the value of pest control by native predators is estimated at \$4.5 billion annually, these costs could escalate with the decline in predator number.

- Nutrient cycling and decomposition – insects and vertebrates (birds, for example) are important for cycling nutrients and moving them over long distances, without which the integrity of other ecosystem functions such as plant productivity could be compromised.
- Water quality – declines in amphibian populations has led to increased algae and the biomass of waste matter, which in turn reduces nitrogen uptake.
- Human Health – decreasing invertebrate numbers are known to compromise food production due to reduced pollination, seed dispersal and insect predation but the impact the continuing loss of animals, including invertebrates, has on the spread of human disease needs to be better understood as a priority.

Scientists believe there is a growing understanding of how ecosystems are changing but to tackle these issues, better predictions of the impact of changes are needed together with effective policies to reverse the losses currently seen. Using this approach, conservation of species can be prioritized with the benefit of protecting processes that serve human needs, and successful campaigns scaled-up to effect a positive change globally.

Dr Ben Collen (UCL Biosciences), last author of the study, said: "We were shocked to find similar losses in invertebrates as with larger animals, as we previously thought invertebrates to be more resilient. While we don't fully understand what the long-term impact of these declining numbers will be, currently we are in the potentially dangerous position of losing integral parts of ecosystems without knowing what roles they play within it.

"Prevention of further declines will require us to better understand what species are winning and losing in the fight for survival and from studying the winners, apply what we

learn to improve conservation projects. We also need to develop predictive tools for modelling the impact of changes to the ecosystem so we can prioritize conservation efforts, working with governments globally to create supportive policy to reverse the worrying trends we are seeing."

Professor Rodolfo Dirzo (Stanford Woods Institute for the Environment), lead author of the study, said: "Where human density is high, you get high rates of defaunation, high incidence of rodents, and thus high levels of pathogens, which increases the risks of disease transmission. Who would have thought that just defaunation would have all these dramatic consequences, but it can be a vicious circle.

"We tend to think about extinction as loss of a species from the face of Earth, and that's very important, but there's a loss of critical ecosystem functioning in which animals play a central role that we need to pay attention to as well. Ironically, we have long considered that defaunation is a cryptic phenomenon, but I think we will end up with a situation that is noncryptic because of the increasingly obvious consequences to the planet and to human well-being.

Also taken from "Catch the Buzz" online news from Kim Flottum

KEARSARGE BEEKEEPERS ASSOCIATION

2014 MEMBERSHIP FORM

Name(s) _____

Street or PO Box _____ Town _____

State _____ ZIP _____ Phone _____

E-Mail _____

Check: New or Renewal

Check one:

I would like to receive my newsletter by downloading it from the club website _____
(Saves \$ for the club) www.kbanh.org

OR

Please send a printed newsletter to my mailing address above _____

2014 DUES ARE \$15.00
2015 DUES WILL INCREASE TO \$25.00

Please make checks payable to: **KBA**
MAIL TO: Robin Gray

PO Box 275
Warner, NH 03278

