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Danielle's Discourse

The National Honey Board: Looking After Your Honey



*NHB April meeting, San Diego. Jill Clark (Chair),
Danielle Downey, Brent Barkman,
Margaret Lombard (CEO).*

The National Honey Board (NHB), under USDA oversight, has a budget from assessments on domestic and imported honey (\$0.015 per pound) from businesses marketing over 250,000 pounds a year. The NHB uses this budget for a very focused mission: to increase awareness and usage of honey. In a professional, strategic and measured way, they are working to get more people to use more honey using data driven tactics.

The NHB budget also designates 5% for Production Research. We are all aware of what makes productive hives these days—honey bee health and forage—so that research falls precisely in the wheelhouse of Project Apis m. In 2017, we were asked to manage these Production Research funds for NHB, and we are very excited to be doing that! I attended my first NHB meeting recently to present our progress—and I learned a lot about the great work NHB is doing.

The very professional, [ten-member Board](#) consists of three first handlers, two importers, one importer-handler, three producers, and one marketing cooperative representative. If you can think of a way to increase honey markets, chances are they are already doing it. They work non-stop to promote honey with their own staff, and they also hire additional experts to study honey use; develop strategies and initiatives to market; and promote honey to chefs, brewers, consumers, retailers, food service and food developers. From strategic coupon programs to intimate invite-only honey beer educational summits, they are paving the way to sell honey every which way! Be sure to read Doug Hauke's article below about how quickly breweries are increasing honey use. NHB's hard work with brewers spells opportunity for honey sales! You might think of their website as mostly recipes, but, in fact, if you want to know which kind of jars will help you sell honey, or which demographics are increasing consumption, or if you want to be listed as a seller in their directory for consumers, be sure to see their updated [website](#) launching in May. Go to www.honey.com to see all the sweet things NHB does for our industry!

Danielle Downey,
Executive Director

[Read more from Danielle here...](#)

The BIP Box

Michigan Team to Start in May!

The Bee Informed Partnership is proud to announce the start of a new technical transfer team in Michigan beginning May 2017. This will be the 6th regional team and will service migratory and honey producing commercial beekeepers in that area. Some of these commercial operations travel to CA for almond pollination and many include Florida in their route for overwintering, requeening and creating splits in addition to honey production in Michigan. It is a sister team to our already existing Florida team since the migratory routes greatly overlap. This is true also, of our Midwest (MN/ND) and Texas team. Many beekeepers travel the same paths to move to safe overwintering yards that enable them to get a jump start on the season in the winter where it would be far too cold to requeen or make splits in Michigan or North Dakota in March. Florida and Texas are warmer and allow the bees to build up for other early pollination events before honey production kicks in later in the summer.

Our Michigan team will be hosted at Michigan State University and will be part of Dr. Meghan Milbrath's lab. Meghan is the coordinator of the Michigan Pollinator Initiative at Michigan State University and wrote one of our most widely read and recirculated [blogs](#) last year. We are proud and excited to move into that part of the country and work with the Michigan beekeepers. The commercial operations in Michigan have already been very receptive to BIP and we had the opportunity to sample a few of their operations in Florida in November of 2016 to give them a feel for what BIP does and the type of services we can provide.



John Klepps, FL tech team lead, assessing a colony in the hot sun of Texas, *Photo courtesy of the Bee Informed Partnership, Inc.*

Karen Rennich, Executive Director
The Bee Informed Partnership

krennich@umd.edu
www.beeinformed.org and
www.bip2.beeinformed.org



[Read more BIP Box here...](#)

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How Much Water do Cover Crops Use?



The 2016/2017 seasonal rains were early and ample. For now, it looks like California is out of a drought. However, water is still precious, and it is important to comment on the water requirements of the seed we are providing. We have developed seed mixes that have a low moisture requirement. Sowing seeds in the fall is a great way to take advantage of fall and early winter rains. *If planted early to utilize the seasonal rains, robust, well-growing stands of the PAm Seed Mixes are possible without the use of irrigation.* Early planting also ensures forage will be available for colonies come almond bloom. When conditions aren't normal, like during the recent drought, irrigation may be necessary. The PAm Clover Mix will respond better to additional irrigation than the PAm Mustard Mix. We are working to provide more specific water requirements for each option. In the meantime, watch the precipitation you receive and monitor the growth of these seedlings to indicate if irrigation will be needed to supplement the year's rainfall.

There is evidence to suggest *planting cover crops can actually increase water use efficiency and water availability.* Cover crops add organic matter to the soil. Organic matter is excellent at holding water, it works like a sponge that traps and retains water.

- Organic matter holds 18-20 times its weight in water (USDA NRCS 2013). One can expect the PAm Seed Mixes to provide 3,000 to 5,000 tons of organic matter per acre.
- There are 1,000,000 tons of soil in 6-inch deep acre plot, so growing a cover crop to about waist high will provide 0.03%-0.05% of organic matter every year. Just 1% organic matter in the top six inches holds up to 27,000 gallons of water! (USDA NRCS 2013)
- Organic matter helps water stay where it's needed most, around the root systems of crops. But cover crops also use water, so let's take a closer look at how much water cover crops use in an orchard system.

Cover crops grown in the fall and winter months will need less water due to shorter days and cooler temperatures. More research needs to be done to determine how much water cover crops use from October to March. Typically, this is the time of the year Seeds for Bees cover crops are growing.

However, there is still something to be learned from a cover crop study that took place in an almond orchard from April to August. The results were published in California Agriculture in 1989 in an article titled, "Orchard water use and soil characteristics," by Prichard, et al. The results are shown in Table 1 (below). Resident vegetation (weeds), clover, brome grass, and herbicide (bare ground) were the four treatments that were compared in two orchards, a newly planted one (Orchard A) and a mature one with 70% soil shading (Orchard B). The herbicide (bare ground) treatment used the least amount of water. Brome grass used from 4% less to 18% more water than bare ground. Clover used more than brome grass, 14% to 29%. The most water was used by weedy resident vegetation, from 17% to 36% more than bare ground. **A clover cover crop used less water than resident weeds!** If something is growing on the orchard floor, it might as well be a cover crop. **It will use less water than the weeds.**

Billy Synk
Director of Pollination Programs

Table 1. Seasonal water use in treatments at orchards A [newly planted] and B [mature orchard with 70% soil shading]

Treatment	Seasonal water use*			
	Seasonal (Inches)	Per-cent	Seasonal (Inches)	Per-cent
	1984 4/7 - 8/18		1986 4/29 - 7/29	
ORCHARD A				
Resident vegetation	18.6 a	136	24.9 b	124
Clover	17.6 ab	129	25.9 a	129
Bromegrass	16.1 b	118	21.7 c	108
Residual herbicide	13.7 c	100	20.1 d	100
	1985 4/10 - 10/3		1986 4/22 - 8/22	
ORCHARD B				
Resident vegetation	40.8 a	123	31.9 a	117
Clover	41.0 a	123	30.8 a	114
Bromegrass	32.1 b	96	26.8 b	99
Residual herbicide	33.2 b	100	27.1 b	100
Chemical mow	33.9 b	102	27.0 b	99

References:

USDANRCS (2013) Soil Health Key Points

PrichardL., Terry (1989) Orchard water sue and soil characteristics. CaliforniaAgriculture. July-August: 23-25

Please contact Billy Synk for questions, oomments, or seedorders at (614) 330-6932 or billy@projectapism.org.

[Read more Billy's Blog here...](#)

The Sounding Board



PAm board member Doug Hauke manages the Hauke Honey Corporation, a 3,000 colony operation which produces and packages honey at its FDA/USDA-inspected facility in Marshfield, Wisconsin, and he also produces nucs and queens in East Texas. Doug serves on the Board of the American Honey Producers Association (AHPA) and had the opportunity to work several seasons at the Madison Bee Lab under Dr. Eric Erickson and E.R. Harp. Doug earned degrees in bacteriology and virology from the University of Wisconsin.

Beer Honey = Beer Money

Recently I was asked to write about honey used in craft beer brewing for this newsletter. My first thoughts were, "Rats...homework!" Being the dedicated board member I am, I set out to first figure a graceful way out of my assignment, without incurring Danielle's wrath. Then, it dawned on me there may be some unforeseen benefits to working on this article. No way could I write an informed article without first doing some research! After all, PAm demands excellence in all it touches... So I headed straight to the nearest brew pub. In hindsight that might not have been the best starting place. Oh believe me, in my zeal, I learned a lot about craft beer brewing, and maybe slightly more about craft beer drinking. By the time I left the Pub everything was one big blur, literally. But I did make it back to my writing assignment.

Currently 90% of my honey crop is processed for craft breweries—in pails, drums and totes; my largest brewery order to date has been 80,000 lbs., with a two-week window to prepare the honey for shipment. But most of my orders are in the 5-30,000 lb. range. Being from Wisconsin, it makes sense to sell to breweries, and for any motivated honey producer, seeking out the local craft breweries may provide an additional revenue stream and maybe some discounts on craft beers! If the Brewery or Brew Pub doesn't use honey, the beekeeper can always direct them to the NHB for startup recipes and technical assistance using honey for their next marketable idea. All the breweries I deal with require the honey to be filtered and pasteurized. The largest brewery to which I sell Wisconsin honey requires my facility be Kosher and FDA inspected, with a batch certificate of analysis for quality control. No honey leaves my

A volumetric study, conducted by the NHB in conjunction with the Arland Group, showed that over 25 million pounds of honey were used in 2016 brewing beer. That's a lot of honey and a large potential market for beekeepers to capitalize on!

One conservative estimate places the number of craft breweries over 5,000 nationwide. These artisanal brewers are springing up coast to coast, with a wide variety of interesting craft beers. Everything, ingredient wise, is fair game in craft brewing, with each brewer trying to outdo the other with their oddly concocted libations. As one 'bearded brewer' told me, "We sell everything brewed, at least once!" There's always a line of local craft beer enthusiasts waiting for the next creative brew. They may only buy it once, but no misguided craft beer creation goes to waste. Adding to the excitement, most of these brewers use locally sourced, farm-to-table, high quality ingredients to give the beers a regional flavor. Small batches of regionally produced artisanal beer provide a great local marketing tool for enhanced pricing; customers want to know where their beer is made. That's where beekeepers come in, with our local honeys. Honey varieties, generally between 2-10%, add a wide range of complex flavors and aromas while smoothing the craft beer. It's best to use pasteurized honey to avoid adding any undesirable bacteria to the craft brewing equation.

plant without being processed. I've been turning down smaller brewers, due to their small volume and required prep time. Even as I'm writing I have to process a 30,000 lb., 40,000 lb., 5,000 lb. and two 1200 lb. batches of honey for various breweries...all in a two-week window! Time is always a problem.

I'm a beekeeper first and have to move and work bees. I'm living the Dream...at least that's what I keep telling myself!



Doug Hauke inspecting totes to fill with brewery-bound honey

So, next time while enjoying your favorite craft beer, whether it's a Honey Blonde, Honey Weis or my personal favorite—a Triple Honey Hoe with 30% honey and an ABV of over 10%—remember craft beer honey equals craft beer dollars, and that makes for happy and "relaxed" beekeepers.

Doug Hauke,
Board Member, Project Apis m.

[Read more from The Sounding Board here...](#)

May Bee Husbandry

- Requeen if needed. All hives that have 2 year or older queens should be requeened by June. Requeen after that in an emergency.
- Select stocks that are reproductive and disease & pest resistant.
- Encourage high drone densities during mating season to provide well-mated queens and genetically diverse crops.
- Mitigate swarming. Make nucs and/or splits. By this time of year each apiary will have obvious strong and weak colonies. Shake excess bees from strong colonies onto weak colonies. Use powdered sugar!
- Buy/make honey supers. You will need them soon. Do you have enough queen excluders for when the colony needs a honey super?
- Check hives for pests and diseases. Early detection is key.
- Use diagnostic services for objective colony assessment.
- Follow regional guidelines for action thresholds for Varroa and Nosema control.

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