

The Traynors at the SBA June 2015 Meeting

Michael and Kirsten Traynor spoke at the Susquehanna Beekeepers Association meeting on Wednesday June 10, 2015 and made two very interesting presentations during the evening, one on bee problems (pesticides, fungicides, etc) titled "Pesticides and Honeybee Health" and one on honey titled "Honey: From Blossom to Table". *Michael's photographs throughout were excellent!* Much of the information presented was stimulating and thought provoking. They covered lot of material and as a result, we did not get to ask lots of questions. However, a few SBA members collected their notes from the evening and recorded some points summarized below. (With many thanks to Rita Kryglik and Dennis Hertzog!)



Bees store nectar in a honey sac which has a one-way valves to prevent stomach contents from entering the nectar. The term "honey stomach" may be incorrect for this nectar-collecting reservoir. A worker honeybee can pass some nectar into the actual stomach if needed for energy and nourishment, but this would be a very small amount. Mainly, the nectar is passed back out to receiver/processor bees that continue to add enzymes and evaporate the moisture.

Some of what we have heard in beekeeping through the years may not be correct. For example the original study that said it takes the equivalent of 7 pounds of honey to make one pound of wax may have been flawed. The actual equivalent amount may be much less.

The Traynors suggest that each of us should question what we are being told in beekeeping. Particular techniques and procedures that could be questioned include the need for multiple sizes of supers (boxes). They keep bees in only one size box (mediums) making all their equipment interchangeable. They believe multiple sizes of boxes are counterproductive.

Bees can detoxify some toxins in their environment. One or two chemicals may not harm the bees initially; however, multiple chemicals can form interactions that can

impair bees' immune system and allow viruses spread by varroa to further weaken beehives.

Beeswax is porous. This permeable quality allows chemicals and odors to penetrate wax cappings on the comb, which could impair the honey. This is an important reason to not use the mite strips (chemicals) when honey is on the hive. Beeswax in the hive acts as a filter for contaminants. This is a function like that of the liver in the human body. The best way to remove contaminants is to remove the old wax, melt it down and make candles out of it! Old black brood comb is bad brood comb. If possible, wax for painting on plastic foundation should only come from uncappings. The Traynors are strong believers that no foreign substances should be introduced into the hive. This goes as well for honey harvesting chemicals like Bee Go, Fischer's Bee Quick, etc.

Fungicides are not water-soluble so they do not break down like some pesticides. Fungicides are also linked to bee losses. Lower pesticide levels result in higher winter survival rates.

You can practice the removal of drone brood comb to help control varroa, but they do not recommend freezing the drone brood and putting it back in the hive. (Would you want a bunch of dead larva in your house?)

We need to replace brood comb more frequently. The Traynors move drawn comb (after extracting honey) down into the brood chamber and get rid of older, dark comb from the brood chamber. One way to do this would be: after then main nectar flow is over, move the aged, black brood comb above an excluder until all the brood hatches, then discard the comb. They suggest imitating the Danish beekeepers practice of changing out all comb every 2 years. The Danes also require beginning beekeepers to graft their own queens! When successful, new beekeepers are provided with bees to go with their queen and to start their first colony.

Drawing comb is good for bees. This is a basic need for young bees.

Varroa control can be facilitated by breaking the brood cycle. (One way is to make nucs.) Varroa control needs to be a community effort or a group effort as the lack of attention by neighboring beekeepers will negatively impact your bees. When a colony fails, the mites can transfer over to other hives by hitching a ride with drones or robber bees.

In queen rearing we can select for reproduction based on gentleness and achieve significant results in 3 generations. This is what the German beekeepers and others in Europe are able to achieve.

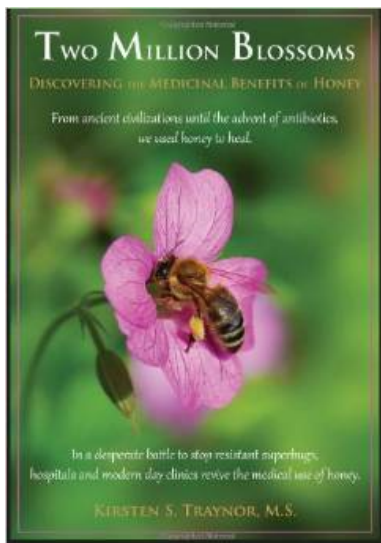
Supplementing the hive with food throughout the slow pollen and nectar periods helps keep bees healthy and strong.

Unfortunately we Americans have become a “clover intolerant” and “weed intolerant” society. This has resulted in less forage for our bees.

Kirsten’s definition of honey is: Nature’s first sweetener. It is a global commodity worth over \$2 billion annually. Honey is a complex supersaturated sugar solution containing enzymes, flavonoids, aromatic esters, minerals, vitamins, and amino acids. Sometimes honey can contain minute amounts of caffeine and the bees really like that. Flavor (taste) and smell (aroma) are completely different components of honey. Honey with glucose sugars higher than 32% will crystallize sooner than others. Honey from tree blossoms tends to have a higher fructose content and therefore are much slower to crystallize.

An extremely heavy nectar flow may result in a lower enzyme content in the honey. This is due to the bees rushing to fill the cells as quickly as possible and the amount of enzymes they are able to produce is spread into larger volumes of nectar.

Bee by-products such as propolis are being used to kill HIV and flu viruses. There are many medicinal uses for honey. When doctors encounter anti-biotic resistant organisms, sometimes the only solution is to apply honey. Some honeys have increased medical value due to their stronger properties. One of these honeys is Manuka honey. “Medically certified” honey commands a very high price. Details of the properties and uses of honeys are outlined in Kirsten’s’ 2011 book, “Two Million Blossoms, Discovering the Medicinal Benefits of Honey”. Kirsten and Michael’s other new book is also excellent. It is “Simple Smart Beekeeping” and many members bought a copy at the meeting.



According to Michael Traynor, Davy Crockett was a Beeliner. Crockett’s travels, as a frontiersman, were mainly a result of his search for bees. When he got to the Alamo, he was just in the wrong place at the wrong time.

You can't just keep one hive of bees! (Have we heard this one before?)