

Stahlman beekeeping notes for 2021

Issue # 50 Ideas to share with you – I had a chance to meet a classroom of students at the North Carolina College of Veterinary Medicine.

The issue I had written for this week will be coming next week.

First, I would like to thank Dr. Gregory A. Lewbart for inviting me to speak to his students. I was joined by some very distinguished guest speakers. I am impressed with the inclusion of honey bees into the curriculum of the College of Veterinary Medicine.

Dr. Lewbart sent me some very interesting things to give me an idea of what is going on in Veterinary education and asked me to make a presentation at a three hour lab for 2 & 3 year students. When I returned home from NC State, my interest had gone from being somewhat skeptical about our relationship to working with Veterinarians to a genuine rebirth of hope that beekeepers are included in the curriculum.

My presentation "Talk about Honey Bees!" was about Commercial beekeeping. I followed a presentation by a new beekeeper of two years, and one by two young ladies who operate 200 hives of bees that covered the basics of beekeeping.

When I make presentations, I try to get feedback from my audience. To get feedback I hand out 3 x 5 cards and ask the audience to write down questions they may have. It was important to me to find out what these young "vet's to be" were thinking!

I promised them that I would try to answer questions and send them a reply as soon as possible. Many of them wanted to get on my mailing list – this is an easy way to answer their questions. Each student was to provide me with a password which only they and I would know.

The password used with each question allows students to keep their identity private. If you have other things to say in response to their questions, I can include them in future articles. However, I have tried to give the best answer I can on short notice.

So, the student who has this password [2 Δ□] asked: "[What role do you think vets can play in Beekeeping?](#)"

Isn't it interesting that students are concerned about the role they can play in helping us to keep honey bees? This question came from several other students as well.

My answer is rather easy – even most experienced beekeepers and bee inspectors have issues with informing us of what caused a hive to die!

The role vets can provide beekeepers is to understand the stress factors facing honey bees today and assist us in the treatment of disease. They will encounter many beekeeping issues and to understand why we keep bees and how we keep bees is important to us.

They will be involved in writing prescriptions for restricted medications. Most hobby beekeepers would not know how to identify American foulbrood – it is out there. It is the most contagious disease facing honey bees. Thus, [4 OΔ] suggested that "It would be good to know more about what diseased bees look like. Also, the likelihood bees will survive from certain diseases or how often to treat certain diseases.

These students are interested in what they will face when you might need their help. They are getting a picture of beekeeping from a new beekeepers viewpoint, the intermediate beekeeper serious about beekeeping, and the view of commercial beekeepers. They will also be in hives working bees not just listening to lectures or reading books.

Factually, I could not answer all their questions but I got help from Dr. Lewbart on this one. "When you need a prescription for medications, can you ask any veterinarian or does the vet need to have a special certification?" from: [4 Δ O]

Dr. Lewbart's answer, "Any veterinarian in a state licensed to practice can write a prescription for medications – but doctor - client protocol is required. Dr. Lewbart also indicated that there are some states working to develop a relationship between the beekeeper and bee inspectors. I didn't ask but assume this means that the bee inspector can detect the disease (verify it) and the Veterinarian writes the prescription. It will depend upon the state where the beekeeper lives.

From another student [2 O Δ], "As a beekeeper do you prefer to work with a veterinarian that has beekeeping experience? And Have beekeepers generally been accepting of the VFD and willing to work with vets?"

Answer: Yes for myself, if I need medication for an outbreak of AFB, it is the only way to get medication needed for my bees legally. In actual practice – I burn any hive equipment exposed to AFB. But if I wanted to save the bees – Yes, Yes, Yes!

To the second question, I am not sure. Most beekeepers are very private individuals. We have many subcultures of beekeepers owning bees and managing them in many different ways. As a former Ohio County bee inspector, I can verify that I was not welcome to some bee yards. Ohio has a no consent law (a result of a bee inspector in the 1980's burning a beekeepers hive without a hearing – the beekeeper filed a lawsuit). The only way for an inspector to visit a bee yard in which a beekeeper has filed a no consent form is to get a court order to examine hives – (the inspector must have probable cause because neighboring beekeepers are facing outbreaks of AFB). In that case the beekeeper in Ohio would have the

choice of burning the hive or treating the hive with medication – the medication would require a prescription and a visit to the bee yard by a veterinarian to justify writing the prescription. Some of these people are very hard headed! Most would choose to burn – for the Ohio Department of Agriculture that would solve the problem.

Dealing with problem beekeepers most likely will not happen. Bee clubs and responsible beekeepers will support veterinarians. I might add that many individuals keeping bees have only a hive or two. The bees are much like a family pet. They already might have a relationship with a vet. I think most beekeepers would appreciate a vet that has knowledge of some basic management techniques used by beekeepers. Someone who can speak "beekeeping"!

From [2 □ 0] **"What is the most common issue treated by vets? (AFB American foulbrood)**

"How many issues do you see being treated by queen breeding rather than with treatments and antibiotics in the future vs. now?" Believe it or not, Dr. Walter Rothenbuhler in the 1960's developed a line of honey bees resistant to American foulbrood. Dr. Rothenbuhler went to The Ohio State University from Iowa State University where Dr. A.O. Park was working on developing honey bee genetics from the 1930's on. One may ask, what happened to bee breeding since Dr. Rothenbuhler retired in 1985. A lot – but that is a long story. It is hard to maintain any bee line without artificial insemination.

Another question along these lines was asked by :

[1 Δ0] **"How is Drone semen collected for Artificial insemination?"**



One of the hardest tasks in doing A.I. is collecting mature drones and extracting semen from them. People in this business are highly skilled. It is time consuming and requires expensive equipment.

Another question along these lines was asked by:

[Δ30] **"What does it mean to have a "hygienic queen?"**

Honey bees have a number of identifiable characteristics. If a mother queen of a hive has worker bees expressing the characteristic of hygienic behavior – the example I used in class – cleaning up what amounts to be sewage in a cell. Not all bees are willing to clean up a mess like that. Those hives expressing that identifiable characteristic have a queen that can pass

on that specific genetic code to any daughter queen and if the daughter queen mates with a drone from a hive that express the same characteristic, the queen mother of the virgin queen and the queen mother of the drone produce what is called a "Hygienic queen".

From: [100] ["Through artificial insemination, is it possible to breed generally altered bees that are resistant to the major losses?"](#) Answer "There are programs working on that." Check out Marla Spivak [A-Sustainable-Approach-to-Controlling-Honey-Bee-Diseases-and-Varroa-Mites.pdf](#) which I have included in the attachment of this email issue

From: [3 0 □] ["How Much Have You Worked W/veterinarians to manage your bees or get prescriptions?"](#) Only one many years ago. He was also a beekeeper.

From [2 Δ □]

["If you had to narrow down the 2 most important things to good bee housekeeping / maintenance – what would they be?"](#)

- 1) Most important inspect hives for queen productivity and disease often.
- 2) Spread my hives in the bee yard to face different directions and 10 feet apart. COVID is teaching me that what I have been doing is contributing to the spread of disease and pest. That is pretty hard for commercial beekeepers to do, but most beekeepers with just a few hives can easily do it.

From [4 Δ O]

["How have disease management protocols changed over the course of your career?"](#)

A lot. Looking back at the 1950's and 60's many chemicals were used on honeybees that are no longer available to the general public. In fact, many of them were very dangerous to use resulting in beekeeper's dying. Do any of the old beekeepers still around remember "Cyanogas"? How about sulfathiazole? What about acid boards using Carbolic acid? The story of trying to treat diseases by beekeepers ran the gambit of experimenting with various formulations "homemade". We didn't know how dangerous it was!

From [2 ΔΔ]

She asked many questions which I will answer for her personally. However, this is ["Are animal rights activists or members of PETA ever overly concerned or interested in commercial care of your invertebrates?"](#)

I have heard of several instances where bees have been killed by individuals who were upset about how bees were being managed. I was never approached or bothered! I know there are groups out there that are concerned with all animals being abused even to the extent that we are putting bees into boxes rather than allow them to exist free in nature.

From [3 □0] **"Do beekeepers that wear gloves change or sanitize them between yards? What do they do to prevent disease spread?"**

I happen to feel that one reason for disease spread is that gloves can carry spores of AFB. Hive tools as well. The common practice **is not** to change gloves from hive to hive or from beeyard to beeyard. This COVID thing gives us something to think about. I notice the nurse that gave me my shots, changed gloves with each patient. For my readers, it is an interesting thought you might give to preventing disease. Practically, washing bee gloves in bleach might be a good practice used often.

From [4 Δ0]

"What do you think is lacking most in the beekeeping field?"

Teaching beekeepers not to over populate an area that already has enough bees for survival. Adding more bees to an area reduces food resources to other bees in the area. This is becoming a common issue in suburban communities. Feeding bees sugar syrup to keep them alive is an indication that either the area cannot support bees or that the area has too many bees. This answer does not mean that feeding sugar syrup as a technique to help bees in the spring to build strong bee populations is wrong.

From [□1□]

"What are the biggest welfare issues regarding beekeeping (both hobby and commercial)?"

Do not put bees where they are not wanted! Or put bees in hazardous zones where the bees will be exposed to released chemicals that could end up in the nectar and pollen they gather.

And finally,

From [3Δ0]

"Can bees be vectors of disease for other animals?"

Other than anaphylaxis reaction to a bee sting, I do not know of anything else. I would not call reaction to a bee sting as a disease but thought I would throw that into not putting bees near horses, cows or other animals. There are many reports of animals dying from bee stings.

To those of you who wonder about the young people coming up – don't! I appreciate the enthusiasm of these students and the type of questions they had for me. I am sure that you may be surprised that the Land Grant Universities are really interested sending young people out into the world well equipped for the job they are trained to do. I tried to share with them that we as beekeepers don't always agree with each other. So, when you do visit the vet, just keep in mind that this younger generation is being well trained to meet with you and with as much concern for your bees as you may have!