



STAHLMAN

BEEKEEPING NOTES

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It has been an interesting few weeks for me. I was invited to help the North Carolina State Vet. School helping students learn more about keeping bees. I was struck with the enthusiasm of students (20 of them). I must admit that I learned far more about honey bees than I expected when asked to help actual hands-on work with hives. My visit lasted the full week of class instruction, 4 hours in the mornings – classes began at 8:00 sharp and the afternoon was spent with hands-on training in the bee yard.



I sat through the entire 5 days of class sessions and I worked with students in the afternoon assisting in hive inspections and reinforcing material taught in class. I have often been involved in bee schools but nothing like this. These students were getting college credit and the material being taught was basic and some really technical material such as pheromones and diseases. The subject of extracting honey never came up. These students are going to be future veterinarians. A few may become beekeepers but most likely many will not. The goal was to introduce them to something foreign to the past educational requirements such as operating on

a dog or cat. By the way, I did have an opportunity to visit an operating room while a dog was being operated on. Veterinary medicine is about animals. Honey bees are animals.

Fortunately for North Carolina State University College of Veterinary Medicine, a few staff members were beekeepers. They understood the situation that veterinarians have been put into and they really didn't ask for this or anticipate this. Let me turn that statement around, How many of you ever thought you might have to go to a veterinarian to get a prescription to treat a hive of bees?

I have a beekeeping friend from New Jersey that visited this past month. He asked this question, Why should I have to get to a vet for a prescription? If you want an antibiotic such as Terramycin the law now requires one to get a prescription for it.

Back in the old days of beekeeping, one could buy terramycin at local farm stores (before 2017). A 6.4 oz. package could be purchased for around \$5.00. It was mixed with powder sugar to treat European foulbrood and American foulbrood. Farmers could purchase it to mix with feed for chickens, hogs and other livestock. In fact, Terramycin was sold in 5 pound to 50 pound bags if one wanted that much. The strength of terramycin would vary from TM – 10 to TM-50D.

We are living in a world that has changed. We have laws now to protect us from ourselves. These laws will take some adjustments for beekeepers who like me have been able in the past to go to the local farm supply store or bee supplier to get antibiotics such as terramycin and Tylan.

The reason: **Antimicrobial resistance poses a concern that bacteria have capabilities to develop mechanisms to become resistant to chemicals we use. Once it gets into our food chain, it will involve human and animal health. This is becoming a serious problem. Thus, don't blame the veterinarian who must validate a disease problem in your hive prior to issuing a prescription for a VFD drug.**

Veterinary students are going to be able to understand and address disease issues in the bee hive. I think nothing about going to my doctor to get a prescription. I have to visit the doctor even if it requires me to sit in the waiting room for an hour because I need the medication that only he can prescribe.

I fully understand how a Veterinarian - who doesn't have a protective suit required to visit a hive of bees- may react. The law as written requires a personal inspection so a prescription is justified for your hive of bees. In fact, can you find a vet that knows what American foulbrood is? Or one that is willing to visit your bees.



Equipment decisions

I was asked what my take is on running single deep brood hives vs. double all deep brood hives.

The great thing about keeping bees is we are free to choose what ever works for us. It really should be a question of what would the bees think about the box you put them into. If they stay and you manage them to survive and get some honey, what difference does it make how I house my bees!

This is a photo of a friend taken in 2009. I was told these four hives produced about 600 pounds of honey.

If you look closely, he was using both deep and medium supers on hives gathering honey. When bees gather nectar they need some place to store it. It really doesn't make much difference if medium boxes or deep boxes are used. I

would be worried more about how much weight that hive stand could hold.

I started keeping bees in Ohio carrying on a tradition of a family business using deep hive bodies rather than singles or medium supers. This was beekeeping many years ago. Overwintering hives usually required two deep supers. Some beekeepers overwintered hives in 3 deep boxes. It was always impressed on me that the bees needed 60 pounds of winter stores. The two deep supers made wintering bees reasonable. It was called a food chamber hive.

I fully understand that there are advantages to the single deep brood chamber during the summer beekeeping season. In fact, one method I use is called the Demaree system of beekeeping to prevent swarming. It uses two deep brood boxes with one located above honey supers. Capped frames of brood are moved from the brood chamber (the box placed on the bottom board) to the deep box placed above honey supers. Since the frames in a deep box in the brood chamber are to be transferred, a deep box to hold those frames is needed above.

Beekeeping in the south is a bit different from beekeeping in the north. I can over-winter a hive here in Raleigh as a single deep. I can feed it when needed. During the summer many beekeepers reduce a double deep down to a single brood box by placing a queen excluder on the single brood box to get a honey crop. This is often practiced when making splits for a later honey flow.

The one disadvantage of keeping bees in a single deep brood box is swarming. Bees do and can overwinter in a single brood box. As I visit beekeepers, I don't see very many using the single deep brood box. I see variations such as deep plus a medium. I see hives in all medium boxes. I see eight frame hives. Thus, how one decides to keep bees, the biology of keeping bees is this: Honey bees adapt to being kept in boxes. If the box is too small, bees will abandon it. Swarming will be an issue regardless of the way or how many boxes are used. Beekeepers for ages have sought out the perfect hive. Bees would most likely consider a cavity in a tree more desirable.

The choice is up to the beekeeper.

I would recommend to those of us who have aged to shift to boxes that weigh less than that of a full 10 frame deep super.

Some single deep hives such as the Dadant hive and Root Buckeye hive were large. The change from larger hives to smaller hives came when commercial beekeepers were required to move hives of bees for pollination.

Prior to the 1900's there was a common thought that deeper frames were better than smaller less deep frames. Thus, one will find in beekeeping history mention of Gallup, Adair, American and Quinby frames. All of those frames were at least 11 inches deep or more. Some hives had as many as 12 frames.

The selection of hives were based upon the people manufacturing hive equipment. At the head of the class were Charles Dadant and A.I. Root. I am not sure if you have heard of the Buckeye hive or the Dadant hive? Both were large and not designed for easy movement.

My experience is that bees use the bottom brood box for brood rearing and store honey in the box above. The winter cluster moves upward to the honey during the winter season. Thus, they

abandon the bottom box and end up in the top box by spring. At that point it is possible for the beekeeper to reduce the hive to a single deep sometime in early winter when no brood is being raised.

Why I use two brood boxes:

This does three things for me:

- **It eliminates the need to store boxes and it allows for additional brood production.**
- **Another advantage is bees have a large supply of honey reserves to carry them thru the winter season.**
- **Plus, I am not stressed in the spring with two immediate issues: feeding and swarming.**

Wintering success still depends on:

- **A queen that produces healthy bees and a lot of brood.**
- **A dry home with proper ventilation.**
- **And enough food to carry the hive through winter.**

I note that many beekeepers are moving to deep 8 frame boxes. Lifting 10 frame boxes full of bees and honey requires strength and help. I feel that the 8 frame box certainly is going to make keeping bees for those who cannot lift heavy weights a better fit. But I will stick to my thoughts about using a double deep brood arrangement for keeping bees.

Many beekeepers have shifted to all medium boxes rather than having both deep and medium frame boxes. All of this due to the weight that must be lifted from a hive and moving frames from one size of hive to another and I see the value of this as I grow older.