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STAHLMAN

BEEKEEPING NOTES

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Published free as a public service to anyone interested in honeybees. Email me to be added to my mailing list.
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Winter isn't Over

The weather this February is like a YoYo! Up and Down. Just Hang in there!

Welcome many of you new readers to these notes. I really appreciate the effort by some clubs to share the notes with members and new beekeepers. I will try to provide information for both those just getting started and those who have been keeping bees for some time.

I lost a hive of bees this week. It just dwindled down to nothing – no queen and just a few bees. Looks like the mites got them. I ordered a package of bees and because of that, I would like to pass on some valuable information – get your orders in fast. The first I could buy bees was for an order in late March and I did not have a choice of queens. I have a talk coming up next week on Races of Honeybees and I thought it might be interesting to start sharing information that might be helpful about queens. Later in these notes is some information given out by the Honey Bee Health Coalition about bee losses.



This is one of the best pictures I have found showing three of European Races of bees.

As you may know most of our current bee stock is very hybridized.

All these European bees are members of a family called *A.m. mellifera*. The European species has a number of sub-

species which all are grouped as Western honey bees limited to Africa, Europe, and geographical distribution by Europeans.

Generally the term ‘geographic races’ would include “giant honeybees” *Apis dorsata* found in Southeast Asia, “the dwarf bee” *Apis florea* found in India to Iran, “the Indian or Asian Honeybee” *Apis cerana* found in Indonesia, and Southeast Asia and these races are not found in the United States. The bee adapted to Europe and Africa and transported to foreign lands such as the United States, are bees referred to as the *Aphis mellifera* race. When you see a bee called “an Italian bee” we are talking about a sub-species of the *Aphis mellifera* race called *Aphis mellifera ligustica*.

Back to the picture on page 1. You can check ads in bee journal for queens. Almost nowhere will you find names in Latin. When we refer to Italian queens we are talking about a subspecies that originated in Italy.

Of the bees pictured on page 1, you will not find pure races or subspecies in the U.S. Our bees have been hybridized with open mating between all members of the *Aphis mellifera* race. We still refer to the majority of bees in the U.S. as Italian and have often a choice of Carniolan bees.

One may even find that there are rare listings for a bee called caucasian.



Lets take a look at some interesting facts about bees.

All eggs laid by this queen will have two parents except for drones. Of all the worker bees in a colony, many will have different drone fathers due to open mating. Thus, a queen that is yellow may produce a mixture of bees from yellow to brown to black or a combination of those colors. Her daughters are referred to as super sisters. They have different traits depending on the genetics of both the queen and the various (up to 20 drones) she mates with.

A new member of the *Aphis mellifera* family was introduced from Africa to Brazil and it migrated northward and has now been positively identified as coming into the U.S. It is known as *Aphis mellifera scutellata* “the African honeybee”. We are now finding some traces of *Scutellata* DNA in bees being sold in the United State.

Thus, let me conclude with a warning. Check your bees to see if you recognize aggressive behavior. If the bees follow you from the hive to the back door of your house, you may have some of that *scutellata* DNA in your bees. If your neighbors are being stung it may be likely you will have to move the bees and replace the queen. You can not see genes but you can see characteristics on display by the bees in a hive.

Check out the term: **Parthenogenesis for drone reproduction to understand why drones have no father.**

News Bulletin.....

I opened my computer to check my email and found an alarming message from the Honey Bee Health Coalition that something is going on with honey bee colonies. They are reporting on a 2024-25 survey from 234 commercial beekeepers reporting losses of 50% or

more this winter season. You might be aware that 90% of commercial beekeepers send bees to California to pollinate almonds.

Colonies of bees sent to California must meet a standard of having strong hives in double deep hive bodies with usually 8 frames of brood and a laying queen. The Adee family, the largest beekeeping operation in the U.S. and others reported and gathered information on losses this year. The information was gathered in January:

Real time information was used to determine if these losses were regional or widespread. The result were reported as well over 50% had severe losses of brood and bees. It may impact food supplies through inadequate pollination. The effort has shown that losses were nationwide and severe. The cause has not yet been identified, however **the usual causes of loss, including winter management and high levels of parasitic mites, are not currently indicated causes of these losses.**

The good news:

Due to the swift collaborative effort, a comprehensive analysis of pathogens, parasite and chemical residues will be performed. In addition to the diseases and pesticide analyses from Beltsville, USDA-ARS, laboratories in Tucson, Baton Rouge, Davis, Stoneville, and Logan will apply their expertise analyzing field data, weather patterns, and chemical risks as factors in these severe losses. Things to be analyzed are:

- Known Virus levels in dying and surviving bees
- Parasitic Varroa mites genes of resistance to Amitraz treatment.
- Pesticide residues in adult bees, wax and pollen
- Genetic screening for novel viruses and metagenomic analyses of composition of microbial communities.

Wow! My neighboring near-by beekeeping friend that lost both her colonies this winter wonders what she did wrong!

Bees can be treated for varroa mites and still die. They can be well fed and still die. They can be managed using all sound techniques to care for a hive and they still die. Are we back to 2006 and Colony Collapse Disorder (CCD). The current symptoms for these losses are a bit different:

- Colonies die with ample honey stores
- Small patches of brood with all the adult bees missing
- The rapid dwindling of surviving colonies often within ten days of being inspected and passing health inspections (Bees arriving in California for almond pollination).

When some “all knowing expert beekeeper” tells you that your bees died because of mismanagement consider - what has been happening to those beekeepers who depend on keeping their colonies in top shape for the income they produce.

Fortunately, bees are available to replace those that die. Package prices may seem to be high but they might get higher. Look at what has happened with eggs and poltry products. **If you are ordering bees, get your order in now!**