

OTS SEASONAL SUMMARY 2017 (I)

OTS Survivor Stock Overwintered Handily

In my demonstration yard (which is also representative of all of my other yards) I had great success in 2017. The 2017 season kicked off with a strong momentum when the 13 OTS starts from July of 2016 all overwintering successfully. By spring swarming season, I was able to utilize the seasonal OTS procedures to build upon this valuable survivor stock by making 13 artificial swarms with the overwintered queens. These valuable queens created so much increase that I was able to make 52 July starts with these colonies.

OTS "Power Tower" Produced 300lbs of Honey

The 13 queenless cell builders, from which I had taken the overwintered queens to make the valuable artificial swarms mentioned above, were requeened by notching and then most were sold once their new OTS queens commenced laying. In the remaining starts, I pinched the queens around the first of July, notched one frame and united all of the hive boxes into a 5 high, 20 brood frame powerhouse hive that resulted in producing 300 pounds of honey as well as providing a quality July start for future survivor stock. This "OTS power tower" of honey was witnessed by the many attendees from several states at the July and August meetings (see previous postings on the website).

OTS Eliminates the Need for Miticides

One question that is constantly brought up is what I think of miticides and which is the best one to use? Of course, this is a silly question to me because I haven't used miticides in over 25 years. In 1988, when Varroa mites came onto the scene, I discovered that July starts break the mites' breeding cycle due to the brood pause built into OTS queen rearing. As a result, most OTS July starts survive the winter on the 43rd parallel in Michigan. This is also true with strong hives that supersede their queen in July causing a natural brood break until the new queen commences laying. Over one hundred years ago, G.M. Doolittle stated that honeybees prefer to supersede their queen in July. That is why 30 percent of colonies survived and 70 percent died when the mites first came in 1988. This is also why African bees survive so well--they swarm so frequently that they are constantly breaking the mites' breeding cycle.

I have not performed proper research on miticides because I don't use them but I can use the Sherlock Homes concept that "once you eliminate the impossibles what you have left is the truth whether you like it or not." The OTS queen rearing method is simply an artificial supersedure in July, which naturally causes a brood break which flushes out the mites. You also get a new, quality queen "free of charge" and healthy young bees going into winter. Remember that Doolittle also stated that if you have 6 frames of brood and 4 frames of honey you can overwinter colonies successfully in a cellar on the 43rd parallel.

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OTS Eliminates the Need for Miticides continued . . .

When Varroa mites were imported around 1987, they spread to other honeybee colonies rapidly because drones can enter any colony uncontested. As a result, all honeybee colonies were infected within a couple of years, creating an urgent market demand for miticides. However, I observed that miticides were only about 20 percent effective which is why we had the 50 percent losses all those years. This 50 percent loss was unacceptable to me because my colony survival rate was far better with OTS. In 2008, I presented the OTS method for breaking the mites' breeding cycle on my website because I was upset with the lack of initiative and problem solving in the beekeeping community. I did this to save the bees with no monetary gain. I knew that if I could do it, other beekeepers could do it. The OTS queen rearing information on my website met with great success. The Amish beekeepers asked me to write a book because they do not use computers. In 2014 I published my first book which ignited a rich dialogue from which sprung many new questions and inquiries about OTS. In 2016, I completed an expanded edition of my original book with 5 more chapters and around 50 more pages to answer the many questions and provide more in-depth explanation about how to use OTS successfully to rear quality queens and survivor stock while protecting them from the Varroa mites all the while.

Fortunately, the mites are a non-issue for beekeepers that use OTS methods properly. But for those beekeepers that have not yet had the opportunity to learn OTS, I have concluded that 30 percent of colonies will supersede their queens naturally in July thereby naturally breaking the mites' breeding cycle and the other 20 percent can be saved with miticides *if treated before the mite load of 3 mites per hundred bees*. For these beekeepers using miticides, it is very important that they apply them with the correct timing. All too often beekeepers apply miticides too late in the season, which burdens the colony with heading into winter in a wounded, toxic state. The honeybees do not handle this stress well at all. For that reason, it is very important to apply miticides well in advance of overwintering so that the honeybee colony has ample time to heal from the mite-bite wounds as well as to overcome the chemical toxicity of the miticide. This is not to be understated, as the honeybees have much to overcome since many of them have had mite bites in their exoskeletons from the time they were larvae underneath the cappings when the mites first attacked them. These non-OTS colonies need time to recover from both the mite infestation itself as well as the miticides in order to overwinter successfully.

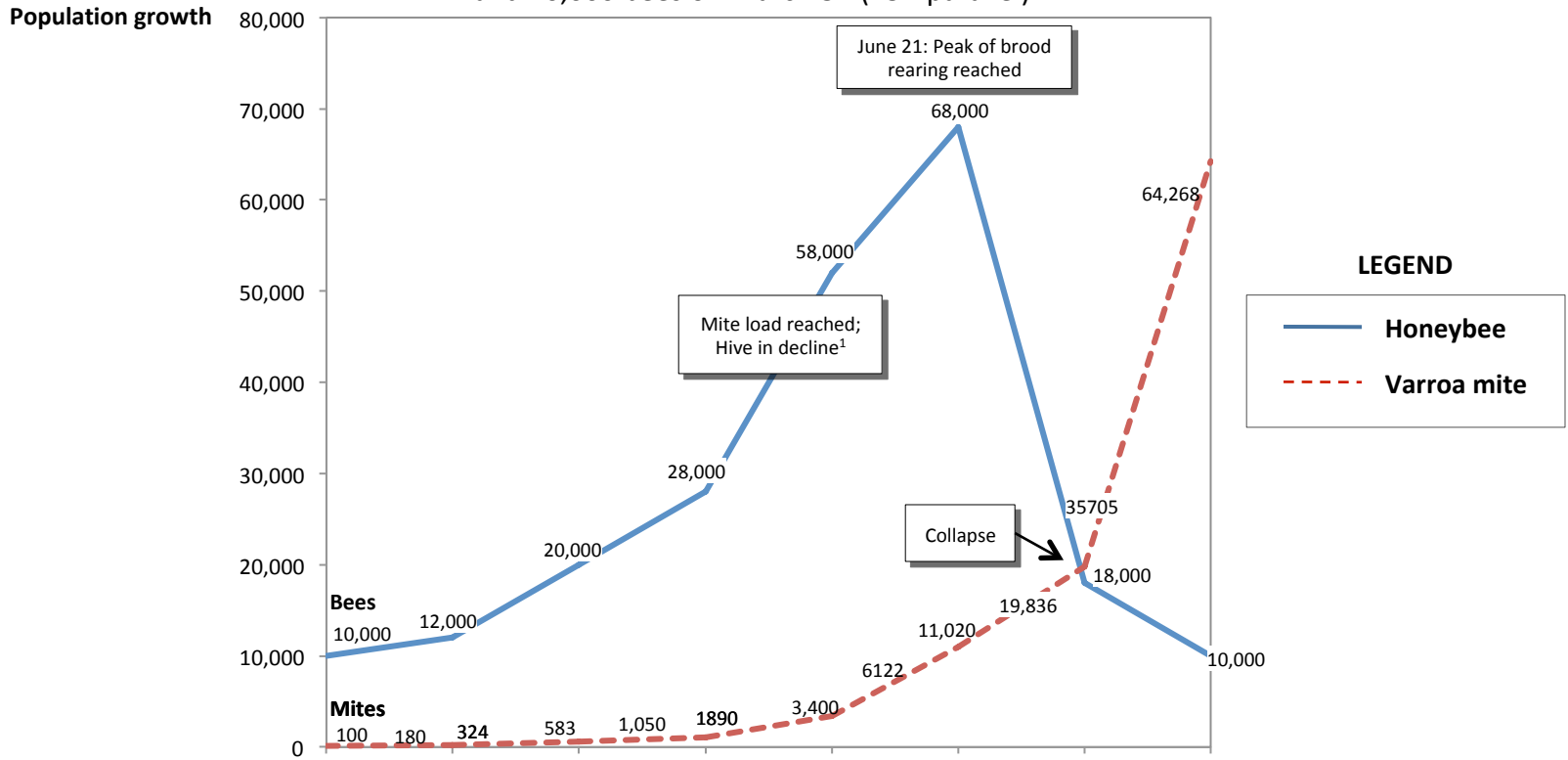
OTS SEASONAL SUMMARY 2017 (III)

Mites and Miticide Math

Let's take a look at the chart on page 105 in my book, "OTS Queen Rearing: A Survival Guide for Beekeepers Worldwide."

Varroa Mite Load

Honeybee versus Varroa mite reproduction starting with 100 mites and 10,000 bees on March 8th (43rd parallel)



21-day Honeybee gestational cycle:

8-Mar — 29-Mar — 19-Apr — 10-May — 31-May — 21-Jun — 12-Jul — 2-Aug

13-day Varroa mite gestational cycle:

8-Mar - 21-Mar - 3-Apr - 16-Apr - 29-Apr - 12-May - 25-May - 7-Jun - 20-Jun - 3-Jul - 16-Jul - 29-Jul

¹ The mite load of a honeybee colony in the USA is 3200 mites (*Mites of the Honey Bee*, Dadant & Sons Inc. 2001, page 234)

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Mites and Miticide Math continued . . .

As published by Dadant & Sons, when you reach 3,200 mites per 60,000 bees *you cannot save that colony with miticides*. Take the two zeros off the end and you have 32 mites per 600 bees. Divide 600 by 6 = 100 bees. Divide 32 by 6 = 5.33 mites. *This means that 5.33 mites per 100 bees is fatal*. Consider this: If you have 3,200 mites you can test for then there are 3 fertile females developing on each larva which will give you 9,000 more mites sucking nutrition out of your larvae. You now have around 12,000 mites piercing the exoskeletons of your bees making them exposed and vulnerable to viruses and bacteria. These wounded bees can't survive even if you get the mite count down to 1 percent like the manufacturer accurately states. That hive is already dead even though they are still flying and have a super of honey on them. The only way to save that hive is with OTS. Pinch the queen around July 1 and notch. The wounded bees are strong enough to rear a quality queen and to rear the healthy brood once the mites are entrapped on the 5-day-old larvae in August from the new queen. Once the mites are out of the way, the colony will recharge to rear a new generation of bees that are healthy and normal which is the very first requirement for overwintering successfully. Because, to overwinter honeybees successfully, you need 3 things, and in this order: healthy bees, enough stores, and good windbreaks, whether natural or homemade.

As you read this, thousands of OTS mentors are teaching novice beekeepers how to rear their very own quality queens from their own stock. I know this from the throngs of emails, messages, and personal contacts that I receive. Quite honestly, I believe that the 70 percent survival rates we are now hearing about is a direct result of the OTS disclosures that I have been sharing freely on my website since 2008. So many thanks to all of you hardworking OTS beekeepers out there for rearing quality queens to expand honeybee colony populations.

Going forward, with a growing worldwide community of experienced OTS beekeepers biologically protecting their honeybee colonies from the mites, I believe that we can reduce honeybee colony losses to fewer than 20 percent. But just be mindful that there are other issues out there, especially with respect to complex, agrichemical landscapes, so we cannot allow ourselves to become complacent or programmed.

Merry Christmas and Happy New Year!

Mel Disselkoen