Apis Esoteria 29

Hobbyist vs. Commercial

This is not a contest and there are three players so you can't choose up sides. All beekeepers have the same objectives in mind in pursuit of the same goals.

GOALS

1. Raising honeybees in a way they will survive
2. Producing honey
3. Pollination

Wax, pollen, and propolis are by products incidental to the management practices of raising honeybees.

Man has been interested in honeybees for 13000 years as documented by the earliest cave painting showing the collection of honey. However, honey must be the second most important goal.

To get honey you must have live bees, so keeping the bees alive becomes the most important goal.

OBJECTIVES

Your objectives of beekeeping are more personally articulated. What do I want my bees to do for me?

1. Pollinate my garden

2. Create honey, wax, propolis for personal consumption

3. Make me money, at least to cover all costs

4. Help me participate in agricultural crop production by pollination

5. Use bees as input factory for business, “Burt’s Bees” & “Savannah Honey Co.” both of which do not keep honeybees.

6. Grow honeybees to sell honeybees

The divergence between “Hobbyist” (1-5 hives), the “Sideliner (6-25 hives), and the “Commercial” (more than 25 hives) is the size, attitude, and scope of production. Size is obvious but not exclusive. You can have a few hives and run as a business. Attitude is nebulous. Why you keep bees can range from, I just like to watch them to I want “clean” honey for my family. Scope of production focuses on a definitive end product. I just want to pollinate my garden. Or I want to save the world by helping produce enough food through pollination so everyone can eat 2-3 meals a day.

Depending on your individual objectives you can modify your beekeeping practices as needed. However, you can not violate Goal #1: keeping your bees alive.

So, what to do? Select a “survivor” queen. This is important to the hobbyist, sideliner, and commercial bee producer. The hobbyist might get one. The sideliner might luck out and get 50% survivor queens. The commercial beekeeper needs thousands but will only get a few percent survivors.

Why can’t everyone get a “survivor” queen? Because there are too many tattooed, motorcycle riding, snuff chewing drones out there. One “survivor” drone produces 1/15th of the offspring in a survivor colony. You luck out with the quality of your first “survivor” queen. When supersession naturally occurs your chances

of getting a daughter queen which has the genetics to be a “survivor” are less than 1 in 15. When that virgin goes off to mate the chances of her offspring being survivor stock are (1/15) squared or 1 in 225. The chances of that colony being a “survivor” colony are very slim.

Currently the only way to beat those odds is to by using artificial insemination on all successive queens so that you know they are bred with survivor drones. This will create 100% chance of improving the offspring. Visualize a commercial bee producer with a factory sized facility extracting semen (which kills the drone) and inseminating the virgin survivor queens with the semen from 20 drones. And, oh by the way, he has to produce 100,000 queens a year. Will any beekeeper pay the price for that quality of a queen? These queens can run $300-$700. Some bee breeders do start with a “breeder” queen that costs this much. But unless they artificially inseminate her progeny the quality deteriorates with every successive generation.

Farmers will pay this type of pricing for cattle, hogs, and chickens. Have you noticed the price change in meat over the past 20 years? You can pay $500,000 for a good bull today. Naturally that bull can service 40-50 cows during the breeding season. Artificially, he can breed thousands of cows a year. You do not kill the bull or the cow doing artificial insemination on cattle, but the cost is covered by the consumer.

Compared to the cattle improvements, we are in 1880 with the bees. It took 100 years of selective breeding to create the quality national cattle herd we have today. It will take 100 years to fix our European honeybee. In eastern Russia (Siberia) the honeybee disappeared in about the 1930’s. The communist government didn’t much care. Those people had been exiled to the “Gulag” for a reason. They took with them their eastern European honeybees. The Chinese varroa mite discovered those bees, the same as what happened in America in the

1980's, the bees all died out. In the 1970's the bees started coming back naturally in Siberia. One queen must have been a "survivor" queen. It took a long time for the natural selection process to regenerate the domesticated honeybee into a feral bee. One element that helped develop the "Russian" honeybee as a little tougher bee, is that there were only "survivor" drones for the "survivor" queens to mate with. We don't have that situation in the world today. We are in year 35 now. However, we are improving.

How many queens are needed each year? Most commercial pollinators requeen every year. They get paid by the number of bees in the colony box. They can't have a queen supersession in the middle of the pollination season with the associated 30-day drop in egg laying. It takes 1.5 million hives just to pollinate the almonds.

Hobbyists can find a hardy queen through local selection. This can occur in your beehive or your neighbors. Commercial beekeepers won't see that one "super" colony in a field of 1000. Once a survivor queen has been identified locally it is incumbent on the owner to maximize her genetics by raising queens from her. At the same time the owner must manage the survivor queen so she will lay lots of drones. It serves no purpose to let the good queen's hive supersede with very few good drones for her to mate with.

Hobbyists are usually the most gentle and attentive beekeepers. Nurturing a few hives is much simpler than managing 10 or more. Once you have 5 hives you are in the bee business. With all the other activities in one's life the large hobbyist and sideliner don't have the time to provide personal care to all the hives. This forces management decisions that are less than the best for creating a new super honeybee. All beekeepers want to work toward the end of a super honeybee, but…. You must optimize your honey collection. Or you must force your bees in

ways to beat the weather (droughts and rain). This is not good but may be necessary.

Every locale will have different constraints on nurturing the bees. In southern Georgia there may not be much nectar after July. Can a bee colony put up enough honey to make it through the season without supplements? In the prairie western states there are very few floral sources to sustain a bee colony. That is why the migrating beekeepers just pass through when the clover is blooming and then move the bees to a better location. Rare is the locale in the United States where there are natural flowers 9 months of the year to provide enough stored honey for the bees to make it the other 3 months. If you must leave 2-3 honey supers on a hive for bee food, what is there left to collect to put on the biscuits?

We all want to be as gentle and nurturing as possible with our bees. The frustration level can be the highest in the hobbyist beekeeper. If 10-30% die off is normal for bee colonies and you only have one hive, 10% die off means you can lose your hive every year for 10 years out of 100. This can happen statistically year after year not just every tenth year. If that is the first 10 years of your bee keeping career, will you stay in business as a hobby? Beekeepers with more hives steel themselves against their losses as they are determined to be beekeepers as a way to some other objective, like selling honey.

Cattle farmers accept 3% loss from birth to market. Sheep farmers accept 10% losses. Beekeepers cannot economically continue to suffer 10-40% percent losses or more as the industry annual average. Someone must suffer much larger losses to keep the average up. We are starting to see the lack of economics in our practices. Between now and the super honeybee, most beekeepers must mitigate the deleterious conditions affecting their bees. Different practices work better in different locales. Different local conditions change the effectiveness of the pathogens attacking our bees. Hence, beekeepers in each locale must work

together to validate what bee keeping practices generally work best for that locale. Conversely, each locale will have a slightly different honeybee that works best in that microclimate with those local pathogens. This requires locally produced queens and drones.