

Economics

A beekeeping newsletter is a strange place to find an article on economics so I thought that I would put one in this month. I thought that I would write a short article on economic thresholds. I have had a number of beekeepers ask me questions starting with the few words “Steve is it worth it to...” Invariably the answer is: well it depends on the situation. I did an experiment a number of years ago on starting a package of bees with two queens in it. The premise was that if the queen produced enough bees to increase hive yields by 2 or 3 pounds of honey she had paid for herself and the economic threshold was met. For those that have read my paper on the hive system you know that clearly the advantages far outweigh the disadvantages. The system crosses the economic threshold in a positive manner. I have run a number of beekeeping items through the economic wash and thought that I would report my findings to the group in case anyone might be remotely interested.

In the build it or buy it category the things that score well are all in the easy to build category. Building 10 hive tops is a pretty good deal if you have the tools. A full sheet of plywood yields 10 tops if you include a couple of one by twelve’s for the rims. The cost involved is about four or five dollars for each one. Bottom boards also fall into this class of easy to make stuff, frames do not. Part of the trick is to have no leftover materials.

Most projects take some setup and takedown time and this also has to come into the equation as well. For me to try to build one complete beehive from the raw materials would be a lot of time and energy even though I have all the tools to do the job. To set up the shop for a full day of building deep supers is a different proposition altogether. The economics change when we add more of the same item to the project list. The same is true for hives of bees. Part of the time on task involves getting geared up to do the job. For example it takes me about the length of a song on the radio to hive a package of bees, but only if I just finished hiving the last one. I have my sack of marshmallows out, my little sticks to suspend the queen cage, my feeder jar ready to put on the hive, sugar spray bottle is filled up, and I am fully dressed with my veil...

There is no doubt that there is economy in numbers but many beekeepers don’t have large numbers of hives to spread the cost of gearing up and gearing down for their operation.

Most all beekeepers should know what the cost is in keeping a hive of bees through harvest but in case some don't I thought that I would list a number of factors that are involved.

Package of bees	\$80
10 pounds of Sugar	\$5
Pollen Patty	\$2
Hours of labor	
Hiving	.5
First hive check	.1
Second hive check	.2
Third hive check	.5
Hive checks 3-10	.5
Harvest	1
Extracting	3

If we add the costs together we can easily come up with \$87 and almost 9 hours of labor that you have tied up in your project. If we can figure ten dollars per hour for the time cost we get a total of 177 dollars per hive.

Now let's set the price of honey at \$5 per pound. At this rate we need to get about 35 pounds of honey out of the hive before we pay for our costs. Remember we have not filtered or bottled our honey yet which will add to the cost of production. From this point we can play with the numbers a bit to figure what the cost is and what we need to charge for a bottle of honey and all beekeepers should do this to some extent.

The picture changes quite a bit when we add in the cost of an extractor or a bottling tank. A good economic viewpoint also will include price of combs that need replacing as well as other things that tend to wear out. Your analysis can become as complex as you want it to be.

I started out this article as a discussion of economic thresholds. 35 pounds per hive seems to fit as a threshold number in the rough sketch that we drew in the above example.

Another economic threshold that we may be facing involves the cost of a package of bees and the question that comes from the ever rising cost of the packages. At what point do we find that the efforts and costs of wintering outweigh the cost of a new package of bees? While I am not entirely sure what the ideal hive weight should be going into the winter is it would not surprise me if a couple of sacks of sugar were not required to give the bees a good chance at coming out the other end of the season. 50 pounds of sugar will cost about \$20. If this were the only cost of wintering

bees then we could make some interesting scenarios from this. They might go as follows: if we were able to winter through with one out of three colonies successfully then we would spend \$60 for sugar for all three colonies. Only one would be able to make it through so we would have spent \$60 for that colony in the spring. At a package price of \$60 it just meets the economic threshold. When the package price of bees rises to \$80 then we have to be successful only one out of every four colonies. I suspect that there will be a number of beekeepers that will be giving a go at overwintering this year. When we look at the odds of one out of four colonies surviving it seems that this is an attainable goal and it makes economic sense to try it.

One thing that we must not lose sight of is the pleasurable aspect of keeping bees. Sometimes an economic analysis doesn't tell the whole story and there are many things that add to the quality of our life that should not be analyzed on an economic scale only. I once did a cost analysis of the tomatoes that we grew one summer, it was pretty interesting. Even more shocking was the cost of a ptarmigan dinner in the Wrangles one August (we were looking for sheep). In comparison bees are pretty cheap...

Steve Victors