B-PLUS

BEEKEEPING REPORT FROM MICHIGAN STATE UNIVERSITY

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No. 39 Spring, 1996 **Roger Hoopingarner, Editor**

Pollination List - Please!

I am STILL compiling a list of ALL of Michigan beekeepers that provide colonies for pollination. The purpose of this list is to be able to send it to grower organizations, or County Extension offices, and they can pass the information onto each grower. It would also be nice to have a complete list of all pollinators and the number of colonies rented. If you want to be included in this list please send, or phone me, with the following information:

Name

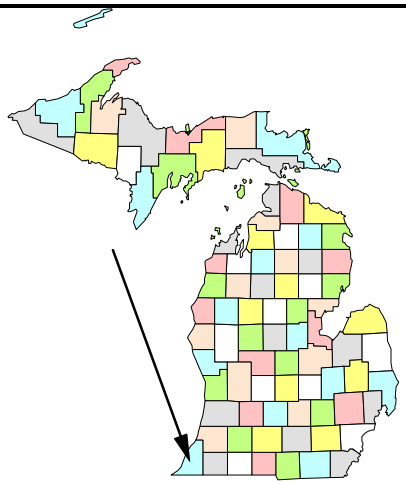
Address

Phone; (& Fax)

Number of colonies for rent

Minimum order (if any)

County, region or area that you are willing to move bees for pollination. If the area is anywhere in Michigan then so state it that way.



Michigan & Indiana Joint Summer Meeting

The meeting will take place on Saturday, July 13, 1996 at the Mendel Center of Lake Michigan College in Berrien County. The guest speaker will be Richard Taylor of New York. Dr. Taylor, who is the author of several books on bees, has always enjoyed a great following with beekeepers of this area, and I am sure you will enjoy his presentations.

The registration fee for the meeting is $12 which includes lunch.

To find LMC take the Napier exit off of I-94 and go east about 3 miles. The College is on the Left.

Inside This Issue

More on Varroa Treatment Timing

It should be apparent to most beekeepers by this time that the 1995-96 Winter was possibly the worst year for wintering bees ever! If you had less than 50% loss you probably should consider yourself either lucky, or one of the better beekeepers. I think the state-wide average loss will be near 70%, with individual beekeepers, or apiaries, losing up to 95% of their colonies. Many of the remaining colonies are certainly not as strong as they could be either. The losses have put a severe strain on the beekeepers and on their ability to provide bees for pollination.

So what went so wrong? I certainly don't have a complete answer, or maybe even the right ones. But, here are some thoughts on the matter.

The Winter was a long one, and the last month took out some colonies that might have made it in a more favorable Winter and a warmer Spring. Historically, if we considered that factor we could expect a winter loss in the range of 20-25 percent. So the difference has to be put onto the mites(?). However, in looking at some samples of dead bees it is hard to find an excess of varroa or tracheal mites. Again, that may be because the infested bees died early and I was looking at only the survivors. Honey bees are basically a tropical insect and winter is a ***very*** stressful time for them. It may be that all of the factors are adding up to exact its toll. For example, a little Nosema and some tracheal mites and varroa along with the very hard winter and we end up with the total loss that we experienced.

There may be some other factors that contributed to these large winter losses. I don't know how many beekeepers have put in old, or partially used, Apistan® strips. Often beekeepers have used one old strip and one new one in order to save money. As I indicated last month, that may have proven to be a costly mistake. There is now evidence that the strips are losing their effectiveness sooner than anyone thought. Thus by trying to save a $1.50 the colony was lost. That may not be the reason that we had such devastating losses this past winter, but any reduction of effectiveness in controlling the mites could have been critical. Remember that the bees must come in contact with the strip, AND pick up enough fluvalenate to kill the mites. If the old strip is not effective, or only partially so, the bee may not come in contact with the other. In the meanwhile the mite leaves the bee and is into a brood cell reproducing more mites.

Some recent research by the U.S.D.A. Lab in Baton Rouge indicates that treatment up to as close to the honey flow as possible is important. For that area, treatment of the mites in the broodless period of December-January was not sufficient. The colonies treated then were mostly dead by the end of the honey flow in July. It may be critical to keep the mites at a low level just prior to the honey flow. If the mites are constantly reducing the longevity of the workers that they feed upon during development, then the greater feeding in August to October may so shorten their lives that they are gone before winter even starts. Then the remaining bees are under more stress to maintain the heat and start brood rearing in January. Chances are the cluster is so small that it doesn't start brood rearing then, and then when it does start in late February or March the colony is too weak to survive any late cold spell.

In summary, if you are concerned enough to have your colonies make it through next winter, I would probably do at least all of the things that I suggest last month. Get your strips on early in the Fall. Make sure they are good strips. (Maybe with the increase in honey prices beekeepers will be able to afford the protection they need.) Treat for Nosema by feeding the bees Fumidil-B. Keep Extender Patties on most of the year to keep the tracheal mite population low, and to stop any diseases. (During the honey flow the patties only have sugar and shortening.) In all, we must provide extra protection for the bees to allow for those bees that are going to have shorter lives because of varroa mites. We need to pro-

vide as large a population as possible by controlling diseases. In short, we need to be the best possible stewards of the colony as we can.

Tales From The Lonesome Hive

The LH joined the thousands of other colonies and died sometime in early winter. I had indicated in my last newsletter that I thought the colony did not look good when I put the Apistan strips into it very late last Fall. As I said in the previous article, I think that varroa kills off the workers very early and the remaining bees do not have the numbers to maintain the cluster. In any event I have lots of honey, mostly granulated in about three supers.

It was sort of sad to see the colony gone. It has been with me for about 20 years without replacement. The stock was outstanding – at least as far as temperament and honey production was concerned. It was not very resistant to tracheal mites and certainly not to varroa.

I installed a 3-pound package late in the evening of the 21st of April. It was very nice then but the bees have not been able to fly since that time. It has been a difficult Spring for the bees. I put the Apistan® strip from the package into the colony along with an Extender patty. With all the honey that was left by the dead colony they should be able to develop quite well.

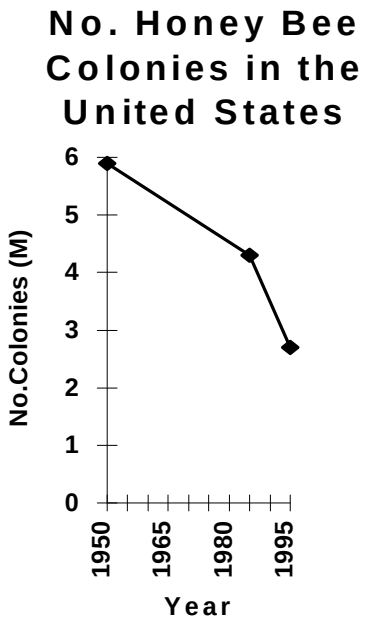
Management of the LH will probably change dramatically this year. Package bees are a virtual snap compared to an over-wintered colony. I will continue to produce the Half-comb cassettes, but will probably put the comb honey supers on early. With a package colony they usually do not reach their peak population until well into the honey flow. This eliminates most of the swarming problems. This is one of the reasons that beginners find producing comb honey simple the first year, and then give up on comb honey in later years when all they produce are swarms.

I have plans to give the LH a new home this year. A major reason for the relocation is that what was a large undeveloped field behind my house is now fast filling with new homes. I will have one neighbor's back yard only a few feet from the bees. The hive is fenced in and surrounded by shrubs and vines, but still somewhat visible. Therefore I have plans on building a garden house for Barbara, and then housing the LH in one corner of the building. This will give them some anonymity from the neighbors and also some winter protection as well. I will keep you posted on the development and moving of the hive.

B-Plus on the World Wide Web

This issue of the newsletter, and all subsequent ones, will be available on the Web. To view the issues and also other items from the Department of Entomology's Home Page go to:

http://www.ent.msu.edu



I saw this data on the number of colonies in the United States and decided I needed to plot it out. I think the picture speaks volumes. First, the big inflection starts the year after the tracheal mites arrived in the U.S. (1985). There has been over a 37 percent decline in the past 10 years. There are less than half the colonies today that were here 45 years ago. If you add to this the fact that almost all of the wild (feral) colonies are dead. Plus the fact that the wild colonies made up about half of the pollinating force before the mites arrived. This would mean that there are only about one-quarter the bees that are pollinating crops for us, and producing seeds and berries for our wildlife. Little wonder that I often get phone calls from home owners asking, "Where are all the bees?" Home owners have been one of the most affected groups by the loss of bees.

Change in Apiculture at Michigan State University

For those of you that have not been at some of the recent beekeeper's meetings, I have announced my plans to retire. The effective dates are a little mixed as I will begin my terminal "Consultative" year on July 1, 1996. I will be fully retired a year after that - July 1, 1997. I plan on continuing the important project on selection and testing for varroa resistance with John Harbo, of the U.S.D.A. Lab in Baton Rouge. I could not leave that research to die as its just too important to bees and beekeeping.

After this summer I will begin to close down my operation. I have several manuscripts to finish, and a book to complete. Thus, I will be quite busy this next year as well. Then I hope to do different kinds of bee work. You will still have to put up with some of my writing, and seeing me at your bee meetings.

I plan on staying in my home here as Michigan is just too nice a place to leave. I also have some plans to do more woodworking in my shop, and working some for the Nature Conservancy.

I wish I could tell you what the future brings for Apiculture at M.S.U. The current plans are not to replace me, as the University actually bought me out (slightly early). There has been an Apiculturist here in Michigan almost continuously since A. J. Cook came to M.A.C. in 1867. With Michigan's large fruit industry, I think the State does need someone to do research and extension on bees and pollination. The fruit industry is over a $700 million addition to Michigan's economy, and without pollination there would be no fruit. Time will tell what may unfold concerning this position.