



B-PLUS

BEEKEEPING REPORT FROM MICHIGAN STATE UNIVERSITY

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BEGINNINGS

Hello! This is the first issue of this newsletter - a process that we will try to publish on a quarterly basis. The purpose is to give Michigan beekeepers some timely hints, news, and as the title implies, other items of interest to beekeepers. This first mailing is to a rather select group; those whose names and addresses happen to be in my file. Please let other beekeepers know of the newsletter and have them drop me a line if they would like to be included on the mailing list.

TRACHEAL MITES

These mites continue to be a hot topic at most beekeeper's meetings. At the time of this writing they have not yet been detected in Michigan. Though with both Wisconsin and Ohio as well as many other states infested, their occurrence here is probably only a matter of time. The peninsular nature of Michigan helps us to keep such infestations restricted IF interstate movement can be also limited. That is the reason for the current quarantine on bee movement from areas that have known infestations of the mite. The question most often asked is how harmful is this mite going to be or will it be harmful at all. Based on what has been published, and my understanding of biology, is that the mite certainly will have an effect. It is not possible to have a parasite without having some effect. To what extent this will be in Michigan is still not known, and will not be known until they are actually here. I suspect that it will not be an important pest since the Europeans have not tried to control it for the 50+ years that *Acarapis woodi* has been recognized as a pest. However, to return to my first statement, there will be an effect and possibly there will be a compounding problem associated with some of the other "stress" diseases such as EFB, sacbrood, chalkbrood, and nosema. It is also apparent that the Europeans have selected the strains that are resistant to the tracheal mites. This may mean a transition period where we experience more effect of the mites until this selection occurs. In the United States there are no chemicals (acaricides) that are registered for use against mites on bees. And it will not be easy to register many of the possible pesticides where a food product is involved. So for the immediate future we can only hope for the quarantine to work, resistance to be relatively easy to develop, or that the mites are of only minor importance.

HONEY VISCOSITY

We are at the time when beekeepers will begin to extract honey. Fortunately for most Michigan beekeepers the viscosity or "flowability" of honey is usually not a severe problem if they extract in August or early September. There are some points about viscosity that are probably worth remembering. 1) With each percent of moisture decrease the viscosity will increase between 1.25 and 1.5 times. What this can mean to you is that if you heat your supers in a warming room or warming stack prior to uncapping moisture is usually lost and the honey will become "thicker". 2) For each 10° C. (approximate 17° F.) increase in temperature, viscosity will decrease more or less logarithmically. Within the range of 70-100° F. it is between 2.5 to 3 times. So if you can warm your honey in a heated room and raise the temperature 10 degrees, the honey will flow about twice as fast. The important point is that warming the honey will remove moisture (good for most Michigan honey) which will also increase the viscosity, but not as much as the decrease by raising the temperature. Now you know why it was easier and faster to extract honey on the warm August afternoon than the cool September evening.

NOSEMA CONTROL AND HONEY PRODUCTION

Recent research by Dr. J. Woyke of Warsaw, Poland has shown that early spring feeding of fumagillin (70 mg actual antibiotic/colony) increased honey production by an average of 58%. The reason that the colonies were more productive was that brood production and length of worker life were increased by 20%, and these increased colony population by 40%. In light of these findings we may have to re-evaluate the recommendations for spring treatment of nosema. Certainly, most beekeepers would be excited about 50% increases in productivity. The only problem is that Woyke kept the antibiotic on for approximately 2.5 weeks so maybe that is the secret of success. We may have to learn how to keep a little antibiotic coming into the colony over a long enough period to accomplish the same results.