



# B-PLUS

BEEKEEPING REPORT FROM MICHIGAN STATE UNIVERSITY

Dept. of Entomology, E. Lansing, MI 48824-1115

**No. 22 Fall, 1991**

**Roger Hoopingarner, Editor**

## HONEY SHOW COMPETITION BY MBA DISTRICT

The Executive Board of the Michigan Beekeepers Association decided to encourage the participation in the annual Honey Show by starting a district competition. Vice President Don Reimer challenged the other six districts to match their products. I was given the job of determining the criteria for judging the best honey for 1991. In discussions with various beekeepers on the subject there have been several ways that a "composite" honey could be judged. However, I thought that maybe the best way to determine which was the "best" was to look at all types of honey. And to be fair, the honey should come from a diverse number of beekeepers. So here are the guidelines for this year.

The U.S.D.A. still recognizes seven classes of honey;

<u>Color Designation</u>	<u>Pfund Scale</u>
Water White	8 or less
Extra White	9 to 17
White	18 to 34
Extra Light Amber	35 to 50
Light Amber	51 to 85
Amber	86 to 114
Dark Amber	115 +

In addition most honey shows include classes for section (comb) honey, cut-comb honey, chunk honey, creamed (finely granulated) honey, and beeswax.

In the past we have included only about four color classes. For this competition I think we should expand a little from previous years and include 5 of the 7 classes. Dropping out the first and last classes. We rarely get water white honey in Michigan and the amber and dark amber class is often difficult for beekeepers to separate. I decided that to fairly judge all districts that we should include these 5 color classes plus the specialty classes listed above (= 10 classes). The district that has the highest ranking for all the classes will be declared the winner. For example, if a district only entered three classes and was first in each, yet another district entered 9 classes and ranked high in each, the latter district would be the winner. Two other conditions for a district

entering a class. Three different beekeepers enter two jars, or comb sections, for a total of six jars for each class. A beekeeper can only enter four classes in the district competition. (A beekeeper can enter all the classes in the open competition.) The MBA district reps will have to organize (cajole?) the beekeepers into the various classes.

Just a brief reminder on getting your honey ready for a honey show. Try to look at the criteria for judging a good jar of honey much the way a very critical customer would examine a jar they were about to purchase. Is it free from foam, dirt, partially granulated honey? Does it have a very clean jar and cap, and does the honey sparkle? A customer can see these things without opening the cover. A honey judge will open the jar and look at the inside of the cap and also test for moisture content and flavor as well. You can lower the moisture of a small amount of honey by gently warming the honey in a shallow pan. Be extra careful when pouring the honey so as not to incorporate any air bubbles. These air bubbles will end up on the top surface of the honey in the jar and will be readily seen by a judge when they remove the cap.

## TALES FROM THE LONESOME HIVE

It has been an interesting summer for the LH. The bees have never had such heights to climb. At the peak of the honey flow I had to get out the step ladder to put the supers on top. (I am not as strong, or as daring as some beekeepers that I know.) In mid July the hive consisted of 4 deep bodies and 6 (6.25 in.) supers. It was about 7 feet tall. The hive did not experience the sweet clover that was so common last year, but obviously had enough other flowers to put in a very good crop. It is not surprising that the fields were not full of sweet clover this year as it is a biennial plant. Maybe we will have it back next year.

I am a little late taking off the summer honey. I am writing this just before Labor Day. We often get a fall goldenrod flow that starts just about now. Remember that last year the LH put up another 150 pounds of fall honey. I usually like to extract during the warm days of late August as the honey flows so much faster. The viscosity of honey (flow ability) changes about three fold with each 10 degrees. Thus, if you are extracting at 90° F. the honey will extract about three times faster than at 80°. That is a lot of difference if you are trying to push through a certain amount of honey in a given time. In a commercial operation that kind of speed increase would greatly reduce the time of extracting, and that should equal less money spent on labor.

Honey bees keep teaching us lessons that we learned long before. We often think we can do something that is contrary to the bees, or we think that this time it will work differently. The LH has been an easy hive to operate and that may be why I was slack in a two-queen division this past spring. By the first of May the colony was three deep plus one shallow full of bees. Again, like last year, I decided that one of the easiest ways to prevent swarming was to run the colony as a two-queen colony. That extra pheromone usually prevents the colony from swarming. So I tried to find the queen to put a division board on the colony to raise a new young queen. I couldn't locate her even though I examined all of the colony. Since I could not find her I put the division board (double screen) into the middle of the colony. Two deep bodies below and one and a half above. I figured that I could come back in a couple of days and then know where the queen was

located. I came to the hive with the division screen in because I was confident that I would find the queen. When I couldn't find the queen I should have inserted a queen excluder. Weather and work conspired and so it was about 10 days later when I examined the colony. As luck would have it, the queen was in the top part of the hive. Not the best place as the older bees tend to be near the bottom of the hive. Since I had used a division screen instead of a queen excluder the bottom part had started to raise queen cells. I left the colony remain like it was even though I should have done it the

other way around. I returned in a week to find that the lower part of the colony had killed all of the cells and was still queenless. Since it was now about three weeks since I had made the division, and the honey flow looked like it was going to be early, I united the two parts. No two-queen colony again this year! As I said before the bees will teach you not to go against good practice. Put the old queen down low when you want to make a division to raise a queen on the top of a colony. The old queen can "handle" the older bees. A virgin, or queen cells, do not often survive under the circumstances.

One of these days I will have to take a sample of the bees from the LH and see if they are infested with tracheal mites. I have been expecting that the colony would show some effects of the parasite by this time. There are bees on the University Farm about a mile away that have mites. So the colony could be infested. I have kept extender patties on the colony for the last few years. There is some evidence that this treatment is reducing the reproduction of the mites. Maybe I have succeeded in keeping the number of infested bees below the critical level of 20 percent. In a study of mites and bees in New York, Dr. Gard Otis (Univ. Guelph) showed that if the infestation was below 20% that wintering was about normal. In any event, the LH keeps producing lots of honey and looks like a healthy colony. Monitoring your bees for both mite species is a good idea. For tracheal mites the examination must be done under a microscope, and most beekeepers do not have such equipment. Commercial sources are available, but may cost too much for routine tests. A composite sample from an apiary would tell a beekeeper how various treatments have been controlling the pest, and 1 or 2 samples from an apiary would not be all that expensive. Varroa mites can be found by any beekeeper. Always look at the drone pupae that may be exposed when separating hive bodies. If you do not have drones that are exposed in this manner, you can pull them from the cells with a pair of tweezers, or by sticking a capping scratcher through the tops of several pupae and removing them from the comb. The dark brown varroa show up very well against the white color of the drone pupae. Varroa prefer the drone pupae on which to reproduce since the life cycle within the cell is longer for the drone than that of the worker.

## **CANOLA ACREAGE INCREASES IN MICHIGAN**

The amount of land planted to canola (oil-seed rape) continues to increase. Approximately 4,000 acres were harvested in 1990, up from the 2,000 acres in 1989. The estimates for 1991 are at 13,000. This rate of increase will certainly slow in future years. Though the amount of canola that is grown could be very important for beekeepers. Any time that that you can find a crop that is allowed to bloom (set seed) the bees will have more nectar to collect.

Canola is an interesting crop from a beekeeping standpoint. First, there are two types of canola; a spring and a fall. One variety is planted in the fall and it blooms early in the spring and is harvested by about the first of June. The other variety is planted in the spring and harvested in the fall. Most of the beekeepers in Canada have experienced the spring planted type. The problem with the early spring bloom is that the bees are not always strong enough to harvest all of the nectar. It may be that it does not produce as much nectar either. The mid-summer blooming period is more conducive to a heavy harvest of honey. One possible advantage of the fall planted type of canola is that the farmer could grow about three crops in two years on the land. The farmer would have to choose the crops carefully, but it is possible. This could be one reason that more canola will be planted in the future.

There is another problem with canola. The honey granulates very rapidly. Many of the Canadians have moved to the system where they remove the honey from the colony before it is capped. This "wet" honey is put into a warming room where it is dried down to the proper moisture content and then extracted. This early removal of the honey helps them to harvest before granulation becomes a problem. I have been talking to some beekeepers that have had a little canola honey in Michigan and they report that they have not had much trouble with granulation. It is possible with different weather conditons (relative humidity and temperature) that we will not have as much trouble. Past experience has shown that once you have a little granulated honey left in the comb the next year the problem becomes worse. So it may be a problem that becomes greater each year that you have bees located near canola fields. A plus side to the granulation may be that the crystals are usually quite fine and makes for some good creamed-honey packs. The book "Directory of Important World Honey Sources" says that canola could produce up to 100 lbs. per acre. Certainly, if that amount is true, a crop that would help Michigan bkeepers.

## **AMITRAZ (SECT. 18) REGISTRATION FOR MITES**

The Michigan Department of Agriculture submitted the application for a Section 18 emergency registration for amitraz miticide on June 20, 1991. The process can have approval in 60 days. I talked to the people at EPA in Washington, D. C. and expressed my concern that the approval be as early as possible since the available treatment period for this year was getting short.

Amitraz will come with a general use permit, that is, you will not have to have a pesticide applicators license. A Section 18 registration is generally limited to one year. Extensions can be approved if there is no alternative, and the approval of a Federal general use label is expected in the future. The sticking point on the registration of amitraz seems to be that some laboratory studies indicate that one of the metabolites is a carcinogen. Under these circumstances EPA often moves rather slowly. I will notify all beekeepers on my mailing list as soon as I hear of any developments.

The nice thing about amitraz is that this miticide kills both parasitic mites, tracheal and varroa. The material will be sold as plastic impregnated strips, which are hung between frames in the broodnest. These will have to be put into the hive when there is no honey coming into the hive.

The most effective control of varroa comes when there is no brood within the hive. This allows all of the mites to become exposed since they are not in the brood cells. We do not have a very long broodless period before it gets too cold in the fall. The lower amount of brood in the fall would provide greater varroa control than if the bees were treated in the spring. I suspect that the best time to control tracheal mites may be in the spring. Within a few years we may have resistance to one, or both, mites and we will not have to be concerned with chemical treatments.