



B-PLUS

BEEKEEPING REPORT FROM MICHIGAN STATE UNIVERSITY

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VARROA QUARANTINE ON - THEN OFF

A Federal quarantine was imposed on April 7, for all 13 states that found the varroa mite. Then APHIS had second thoughts and rescinded the order about four weeks later, leaving quarantines up to the individual states. In the case of Michigan the quarantine is still in effect at least until December, 1988. However, the lack of a Federal quarantine does make some difference because the Michigan quarantine basically prohibits importation into Michigan of bees from those areas known to have varroa. A Michigan beekeeper could now move out of the state if another state would agree to the move.

TREATMENT FOR VARROA ?

At the time I am writing this I see no reason for most beekeepers to be treating for varroa mites. When the Michigan Department of Agriculture, Pesticide and Plant Management Division completes their survey for varroa this summer we may have a better idea on the need and timing for treating colonies. Since mites go through many generations a year, and seem to have excellent genetic makeup for developing resistance, it is best if we can postpone any chemical treatment of these pests. However, the beekeeper needs to be vigilant since by the time you see a great decline in a colony it is often too late to treat the bees. Sampling for mites can be done by checking some drone pupae by opening their cells and removing them with a pair of tweezers. The dark mites show up quite well on the white pupae. Adult bees can also be sampled by using the ether-roll method. Take a cup of bees and put them into a round jar, and squirt in a little diesel starting fluid (mostly ether). Roll the jar around and look at the sides of the jar. The mites will stick to the sides of the glass. If mites are found, chemical treatment would normally be done in the fall, during the broodless period since the developing mites are enclosed in the brood cells and the chemical does not come in contact with them.

WHY DON'T THEY DO SOMETHING?

I have sometimes heard this complaint about beekeeping associations. The problem may be monthly programs, or state legislation. The fact is that many associations **ARE** doing something whether

you agree with it or not. For example, the Michigan Beekeeper's Association is recognized as the voice of beekeeping in Michigan. It does not matter that maybe more beekeepers do not belong than are members of MBA. The Association is organized and is recognized. (It is my understanding that the MBA is the oldest, continuously active agriculture organization in Michigan.) You can talk to your State Representative or Senator, and maybe have an effect. However, you will have greater clout if you become active in the MBA. The same is true to a lesser extent in local clubs or associations as to your voice. It doesn't matter if it is local ordinances or program material for meetings, it won't happen unless you make it so by your participation. In the past I have heard stories about beekeepers that have been told to move their bees because of some local ordinance that has been passed. Then the beekeeper asks the association for help. By then may be too late.

I don't think it can be dues that restricts membership in the beekeeper associations as they are usually so low that they often have trouble paying their mailing bills. Yet I am sometimes shocked at the low numbers of beekeepers that belong to ANY association either national, state or local. The social contacts alone must be worth the price! I would like to encourage all of you that do not belong to an association to join, at least the local level. Some of the local, or regional associations, have joint membership in the Michigan Beekeepers Association, and all of the local area associations are represented on the MBA Executive Board so they carry your concerns to the state association. Below are my listings of current beekeeper associations, National, State and local.

American Beekeeping Federation
P.O. Box 1038
Jesup, GA 31545
\$25+ /yr.

American Honey Producers Association
Rt. 3, Box 258
Alvin, TX 77511
\$20+ /yr

Michigan Beekeepers Association
P.O. Box 139
Davisburg, MI 48019 \$20/yr

Cranbrook Bee Club (Oakland Co. area)
Fritz Sanders, President
29068 Lori, Livonia, MI 48154

Holland Area Beekeepers Assoc.
c/o John Kleis
5914 Old Allegan Rd.
Hamilton, MI 49419

Michianna Beekeepers Association
(S.W. Michigan & Northern Indiana)
c/o R. Dave Laney
25725 New Rd.
North Liberty, IN 46554

Saginaw Bay Beekeepers Association
c/o John Kern
12740 E. Curtis, Frankenmuth 48134
Schoolcraft Bee Club
(Livonia - Ann Arbor area)
Roger Sutherland, Treasurer
5488 Warren, Ann Arbor, 48105

S. E. Michigan Beekeepers Association
Roger Stutherland, Treasurer
5488 Warren, Ann Arbor, 48105

S. W. Michigan Beekeepers Association
P.O. Box 1067
Benton Harbor, MI 49022

Superior Beekeepers Association
(Eastern Upper Peninsula)
Robert Smith, President
Barbeau, MI 49710

SELECTING BREEDING STOCK: WHAT TO LOOK FOR

Most beekeepers do not do enough conscious selection of their stock. There is, however, a fair amount of "natural" selection by winters, diseases, predators and beekeeper's mistakes. When this selection happens only the colonies best adapted survive, and you can take advantage of what this natural selection has already done for you - IF you like the results. However, often what is good for the honey bee colony may not be ideal for you. A good example would be temper, as it is probably in the colony's best interest to be mean. Though generally one of the most important characteristics that beekeepers select against.

Some beekeepers feel that you have to learn artificial (instrumental) insemination (A.I.) in order to breed, or select, bees. While A.I. will often hurry along any selection processes, it is not essential. The queen has a greater than 60% influence on selection simply because of the haploid inheritance of the drone and the fact that queens are multiply mated to 12 or more drones. Armed with this information you can begin your selection process, and each year that you continue will improve the stock along the lines you desire because you will begin to influence other colonies in the area through drones from your selection.

You start the selection process by raising your own queens. The problem comes down to which colony, or colonies, are to be chosen. Of course if you only have one colony the decision is made for you. But even under that circumstance there may be a chance to improve the qualities of your bees. If you don't like some of the characteristics of your bees, you could check out other beekeepers in the area and use larvae from one of their best colonies to improve your stock. Grafted larvae in queen cell cups could be transported some distance wrapped in a moistened towel.

Below is my annotated list of selection criteria for improving your stock. It isn't everything that you could look for in breeding better bees, but should be a start.

1. **Temper** - Including what some call temperament, that is, not only do bees not sting, but remain quiet on the combs when you examine them. I have seen many colonies that are gentle but you can't keep them in the hive.
2. **Production** - Honey yield is important but you see it is second on my list. Often the meanest colonies are some of the most productive, though it does not have to be so. There are many top producing colonies that are very gentle.
3. **Wintering** - Here Mother Nature does most of the work for you. However, there are degrees of success here as well and you should check honey consumption, placement of stores, etc. This is an area where Michigan beekeepers could make a significant improvement in their overall success.
4. **Disease and Mite Resistance**- This may be one of the most difficult for the un-trained breeder to select. Though by using a frozen (killed) brood insert into a colony you could check for the hygienic behavior traits that certainly help in disease control. Tracheal mite resistance has been selected in Europe and I see no reason that we can't do the same in the U.S. It will take some good observation on your part, and probably some natural selection to help as well. Varroa resistance will probably come in the selection of a shorter capped (sealed brood) stage.
5. **Swarming & Population Growth**- It is important to have good strong colonies when the honey flow begins, but it is not good to have the colony too strong too early. You can make good strides in preventing swarming by selection, yet still have strong colonies by honey flow time. The bees should be timed for YOUR nectar flows and not someone elses.
6. **Beeswax & Capping Production**- If you are producing comb honey sections, or cut-comb honey, then having a good looking capping is important. However, as Don Peer pointed out to us a year ago at ANR Week, extra wax production is not productive.
7. **Broodnest & Honey Placement**- Beekeepers have often looked at solid frames of brood as ideal. However, a mobile, active queen may be producing more brood. The location of the brood throughout the hive may not be good if removal of honey is impaired, or the colony does not put up a good food chamber for winter. It may be that this character is selected to some extent in wintering behavior. If a colony tends to put a honey cap on brood frames the queen will rarely cross over and thus not go into supers. This trait then makes queen excluders not needed.
8. **Color** - Many beekeepers make the mistake of using this as an important character -it is not! Color can be used if some other trait is linked with it such as wintering ability of dark bees, or the cappings surface of comb honey by dark bees. (Maybe you have detected that I favor darker bees.) Though to be exact, most if not all the traits of the "races" of bees have been mixed so well in this country that I think you could have most all of the characters we have been talking about in any combination of color.

Start looking at your bees with a critical eye. We have the beekeepers and the genes in our stock to greatly improve bees and beekeeping.