



B-PLUS

BEEKEEPING REPORT FROM MICHIGAN STATE UNIVERSITY

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WINTER-SPRING 1987 REPORT

As I write this newsletter there are some surprises from the past winter and a couple of problems anticipated for spring and summer. First, when we did a serious survey of beekeepers within the state it came out that winter loss was greater than first thought. It would appear that most of the loss was just plain starvation. Our cold wet September took its toll as not only did the bees not make honey from goldenrod and aster, but they were digging into their stores during this time. Often bees starve in winter because they can't leave the cluster to find honey on outer frames, though this year the colonies just didn't have anything left. On the good side is the fact that those colonies that did make it through the winter are in great shape. In fact we had our first swarm report the 15th of April. I suspect that is a preview of things to come. It is best to remember to give the bees lots of room -in the broodnest. It is young bees, that have nothing to do until the honey flow begins, that leave with a swarm.

Another problem that could occur this spring is that the period between the early honey plants and the major flow may be longer than in some years. This was one of the earliest fruit blooms that we have experienced. We may have everything move up accordingly but then we could have a period of dearth. If a colony of bees finds its honey stores low (approximately 15 pounds) then they may stop rearing more young, or in some cases even throw out half grown larvae. Needless to say, any loss or reduction in brood rearing at that time will cut into the forager population during the honey flow later in the summer. To be successful in beekeeping you need to keep your colonies growing well during the spring and early summer. The ideal is to have the colony reach its peak growth in late June to early July in Michigan. Maybe slightly earlier in the southern part of the state.

Keeping this goal in mind it is possible to calculate how many brood cycles can occur between installing a package of bees, or making a division of a colony. While a queen is laying every day there is just so much room in a broodnest, because of the ability of the bees to maintain the proper temperature, and the queen can not lay in a cell that already has a larva within it. Thus any one cell can only produce a bee every 21 days. Using a given date as the goal you then can count forward (in 3 week units) to see if your bees are going to "make it", or by moving backward from some ideal date know when to start packages or divisions.

REQUEENING- FINDING QUEENS

One of the most important operations of a beekeeper is requeening. Yet it is one of the jobs that probably is neglected by more beekeepers for the simple reason that they have trouble finding the queen (at least when they want to). There are some color patterns of certain queens that make them more difficult to find than others. The behavior of some strains also make it more difficult to find the queens as well. For example, if the bees are nervous and runny the queen is often lost along the walls or bottom board. Large populations call for more work and a greater chance to miss the queen under a curtain of bees. What are some of the ways, or "rules", to find queens? Here are some of my tips that may help you to be better at this task. None of them work all of the time and in some cases you may have to resort to drastic measures to be successful.

- 1) Use as little smoke as possible so the bees don't start to run or move down in the hive bodies.
- 2) Quickly separate the hive bodies and cover the ones you are not examining.
- 3) Start examining frames from the sunny side in cool weather and the shady side in hot weather. After looking on the first side, roll the frame with the bottom bar toward you to look at the other side. Sometime queens will hide right along the bottom. Spend your time looking only at brood frames, at least the first time through. Next examine the other brood chamber(s) the same way.
- 4) If it is necessary to find the queen on the first trip, and you have not located her the first time through, examine the most likely body (emerging brood) from side to side including honey combs.
- 5) If you can wait a day or two to find the queen and you have not located her at this time, then insert a queen excluder between the chambers and come back when you can find eggs in one chamber or the other...at least you have her isolated on 9 or 10 frames.
- 6) A sometimes workable "rule" is that the queen is in the top of the brood chamber in the morning (cool outside) and in the bottom in the afternoon (hot outside and cooler near the bottom).I remember the rule by thinking of the Irish greeting, "Top o' the Morning..." There is one serious problem of going through lots of chambers with combs spread all over, and that is if there is no nectar coming in, robbing can start very easy. Keep everything not being examined covered. A water dampened cloth draped over the supers works quite well.

MARKING AND CLIPPING QUEENS

The easiest way to find queens is to have them always marked. Though you either have to buy them that way or find them to mark them the first time. Marking queens is relatively easy, and to gain confidence mark a few drones at first. We use model airplane enamel to put a dab on the top of the thorax. This can be purchased in most hobby shops in a variety of colors. There is a 5 year color code that can be employed if you desire to keep track of how long a queen lives in your colony. This is the code:

Year Ending in	Color
0 or 5	Blue
1 or 6	White (Grey)
2 or 7	Yellow
3 or 8	Red
4 or 9	Green

Chose the lighter, brighter tones of these colors. I use a paper clip that has one end straightened out and this delivers just about the right amount of enamel. It is possible to paint a queen where she is on the comb, but usually not very often with success. I pick them up by grasping their wings and then holding them carefully between my fingers I clip the tip of the wing off (left side odd years and right on even), and then paint them. The enamel takes just a few seconds to dry. There have been various arguments about clipping wings and the ability of queens to lay eggs. I have seen some of the best patterns on queens that the beekeeper removed ALL of the wings. In some carefully done experiments comparing sister queens, no differences could be seen from clipping the wings. By removing the tip the queen will be unable to fly, and if by chance the paint is lost you still would know that the queen is one or two years old (left or right clip).

An additional point worth making regarding painting or clipping and that is in regard to the movement of the Africanized bees into the U.S. in 1988 or 1989. It seems reasonable that beekeepers might be asked to certify, or be certified, that their queens are not Africanized. One easy way will be by having your queens marked. So now is the time to learn how to paint your queens. I suspect you will be surprised at how often queens are replaced. They really don't last four or five years as is given in some books. Maybe occasionally, but it is not the rule. The only way to know the age of a queen is by having her marked. We usually clip and mark our queens before they are introduced via the push-in cage. That way we don't have to find them later. You do have to be careful with removing a queen from a mailing cage as they often can fly. Open them in your house or car so that if they do escape they will fly to a window where you can catch them.