Pollen Trapping:

Keeping an eye on the pollen might help let us know what plants our bees are visiting. Some plants are good pollen producers and some don't give the bees much at all. Depending on the needs of the hive the bees may spend a fair bit of time gathering pollen instead of nectar. Very often the pollen and nectar gathering go hand in hand as both are necessary to the health of the hive. Spring is a really good time of year to trap some of the pollen that the bees are hauling in. The trapped pollen can be used to feed back to the bees in time of pollen deficiencies, eaten by the family or sold on the health market. There is a fair bit of evidence supporting the healthful benefits of eating local pollen. Ideally the best market for selling pollen to people with sensitivities to the natural air born pollen is to sell them pollen before the plants bloom and put the stuff in the air. To do this a beekeeper must trap pollen, date it and then freeze it for sale the following year. Vacuum packing will give the best chance of preserving the quality of your product. Watch the spring growth and bring your pollen on the market a few weeks prior to the actual pollen bloom. Here are a few pollen types that show up in the hive.

Willow ---------- Pale green ----------April and May
Dandelion ---------- Bright Orange ---------- May and June
Labrador tea --------- White ---------- mid June
Alaska Spirea -------- White ----------June and July
Mountain Ash -------- Pale Green ---------- May
Alder ---------- Tan ---------- May
Wild rose ---------- Greenish Grey ---------- June
White Clover --------- Olive Drab ---------- May through September
Sweet Clover -------- Tan ---------- July through August
Fireweed ---------- Purple ----------July and August

So, just how does the hive know if there is enough pollen in the hive? Well from what I understand it goes like this: Nurse bees are the ones that are responsible for feeding the developing brood a mixture of pollen and nectar. The bees that break down the pollen share food with other bees in the hive and a residual amount of pollen

gets spread throughout the hive in this shared food. Apparently, when the protein level of the shared food drops it sends a signal that there is a pollen shortage and stimulates the collection of more. Some bees are pollen collectors, some nectar gatherers, and a few are switch hitters varying their routine from pollen, to nectar, to water, depending on the needs of the hive.

Finding the Queen

This information comes to us from Weaver apiaries. I have modified it somewhat to make it more applicable to our season and have inserted some tips that I have picked up on in the last few years from other members of the group. I have put those remarks in Italics to let folks know as best as I can whose words are whose.

Weaver says: Use a bee smoker, but use a minimum amount of smoke. It is best to puff a little into the entrance, and then waft a little over the tops of the frames while your are removing the cover. If the bees are in two stories, give them a little smoke between hive bodies as you remove the top story. As you break them apart bend over and look to see if the old queen is on the top bars of the frames in the bottom story as she moves from the upper story to the bottom. Then set the upper story catty-cornered on the upside down cover which you have placed on the ground just behind the beehive. Then decide which hive body the queen is most likely to be laying in, and examine the combs in it first.

In the case of this present season I don't know of anyone that has added the second super to the brood nest yet. When we have a small population of bees as we now do we have a pretty good idea where she ought to be. Her job is to lay eggs in the brood nest and that means that she is most likely in the center 5 frames of the box. I did a hive check last week and of the 100 queens there was only one on the outside frame and there were only 3 on the second frame.

Beginners tend to see all of the thousands of bees in the hive. You are looking for the one that looks different, so try not to see any individual bees,

but concentrate on trying to see the one that looks like a queen. Try to look quickly.

Looking quickly and ignoring all the details seems to help me find her as well. Figure that your exam for the queen is similar to looking for a particular sentence or a word in paragraph. Skim first before reading in detail to find your target. Check the following paragraph for the word working using a skim first method and you will see what I mean. Another thing that I look for is an area of decreased activity and bees that seem to be in a small cluster.

We like to kneel beside the hive and remove the third comb from the near side. Look at the side toward you as you are pulling it out of the hive, then if you did not spot the queen quickly, flip it over and look on the other side. It is natural for queens to try to hide, so be sure to look in any cracks between the comb and frame. If you haven't found the queen, lean that comb against the hive body you are not working in, or against the far side of the hive you are in. Then remove the second comb from the near side, and repeat the process of examination, and lean it against the third comb that is already out. Next examine the wall comb, and look down at the wall of the hive. Sometimes the queen has run over to the wall and is running around on it. If no queen, put the wall comb back in place.

Now remove the fourth comb, looking quickly at the near side of the fifth comb before you examine the fourth comb. Put the fourth comb back into the hive against the sidewall comb, so it now becomes the second comb. Repeat that process until you have gone all the way across the hive and have examined the far sidewall. Of course you should stop this process as soon as you have found the queen. Put the far sidewall comb back into place and put the two other combs that are standing out back so the brood nest is well organized.
Keeping all the combs in the original order is a pretty good thing to do, particularly in cooler weather to keep the nest from being split.

If robbing has not started, you may now look for the queen in the other hive body. If there is brood in only two or three combs, it might be best to start with the comb that you think is the first one that will have brood.

If you have been unable to find the queen on the first time through it may be best to go through the hive again. This time, be sure to check for eggs. If

you see eggs it is very likely that she is still in there and has been laying up until less than 3 days ago. Last but not least before you button up the hive take a glance around on the ground to see if she fell off the comb during your hive exam. Any clump of bees on the ground has a potential queen in it. I find it helpful to examine the combs over the hive in case she falls off. But before you leave the area give that clump on the ground a stir with your hive tool and see if she is there.

If you can't find any evidence of the queen then you might want to consider placing a new queen in the hive. Be sure that you let the bees get used to the new queen before you let her out of her cage. Hang her in the hive for 3 or 4 days for the bees to get used to her. Make sure that she can be fed through the screen of the cage by the other bees and that she is in a place that won't be directly under a feeder that might drip on her. Before you let her loose, check once again for eggs or queen cells. The bees are sensitive to disruption at this time so feed them and don't disturb the hive unnecessarily for several more days or they may kill the new queen.
One thing that can disturb the hive is robbing from another colony so it might be wise to watch for signs of this and take preventative action. This might include something like an entrance reducer or simply placing a piece of duct tape over most of the entrance.

Steve Victors