


Be sure that you replace all these frames with well-drawn frames of worker comb at first. As the weather warms and you start to see white wax on the top bars of your frames, you can start adding undrawn frames if you still need to get some drawn. Be careful to not break up the brood nest too much and remember you may need to rotate the outermost frames, a few at a time, towards the warm, populous center of the hive to get them fully drawn. If using plastic 'pre-waxed' foundation, be sure to add extra wax. This process of removing impediments from the brood boxes and providing open, worker comb is known as 'opening up the brood nest'.

So, you have got all that extra honey out of your brood nest, how to prevent it just filling up again with nectar from Eucalyptus and other early sources? Super! Correctly! Promptly! Bees will not move capped honey up, so you want them to put it in the super in the first place or you will be back to having

a 'honey bound' brood nest again in a matter of weeks. Ideally, your supers will contain at least some drawn comb to help entice the bees to use them and draw the rest of your frames. If you are an unlucky beginner with no extra drawn comb at all, consider removing your queen excluder until the bees start working the super, drawing out your hopefully lavishly and freshly waxed foundation. Remember, bees can't draw and fill frames that are in the garage, so get your supers ready, even if your colonies are a bit slower and not ready for them quite yet. Super according to your hive's needs, not the calendar.

By opening up the brood nest and supering properly as soon as possible you help your bees build up a much larger colony, make more honey and hive products for you, and you also postpone swarming. Note that I said 'postpone', not 'prevent for the rest of the year', but that's a topic for another time! 

CARTOON CONTEST Seeking Creative Artists!

The education committee is working on a project that requires an original bee-themed cartoon suitable for young kids and adults. We will give you credit for your work in our San Mateo County Fair booth display, (and in an upcoming newsletter if you choose).

Please submit your first and last name with a scan of your hand drawing or jpg of your cartoon to newsletter@sanmateobeeguild.org

Submission deadline is 5 pm on April 23. You can submit as many entries as you like.

For more info, contact Shannon Shankle or Brigitte Roay. 

Genetically Engineered Gut Microbes Can Defend Honeybees

There's a new technique being explored to fight bee-compromising varroa mites, and by extension, the viruses they transmit. *Snodgrassella* — a bacterial species present in honeybees' digestive systems — has been modified by researchers to synthesize and excrete RNA molecules that down-regulate key genes in the aforementioned mites and viruses. As an added benefit, this technique appears to kill the mites without compromising the safety of surrounding species that pose no threat.

Previous research had indicated that if bees are given a direct dose of the specialized RNA, it's just as effective. However, the downside of treating bees directly with modified RNA is the high cost of creating purified RNA and RNA's rapid rate of degradation (the RNA accumulates small changes in its structure over time that render it ineffective). By dosing the bees with bacteria that excrete the special RNA, there is no need to collect and purify it (the modified bacteria essentially serves as a tiny 'factory' producing the RNA), and the bees pass the beneficial bacteria between each other during daily feeding and grooming behaviors, ensuring that the hive remains 'treated' over time.

Data suggest that administration of engineered gut microbes to combat mites was particularly effective when given to younger bees. On average, there was a 37 percent higher rate of survival in treated bees who were exposed to Deformed Wing Virus. Even more impressive, mites that fed on the bees carrying the modified bacteria were 70% more likely to die than those feeding on untreated bees.

While the research is groundbreaking and holds great potential, scientists warn that being able to use this kind of treatment technique "in the real world" is a long way off and that careful consideration needs to be given to whether/how to use genetically engineered species to tackle agricultural issues.

You can read the full article at Science News online. 

