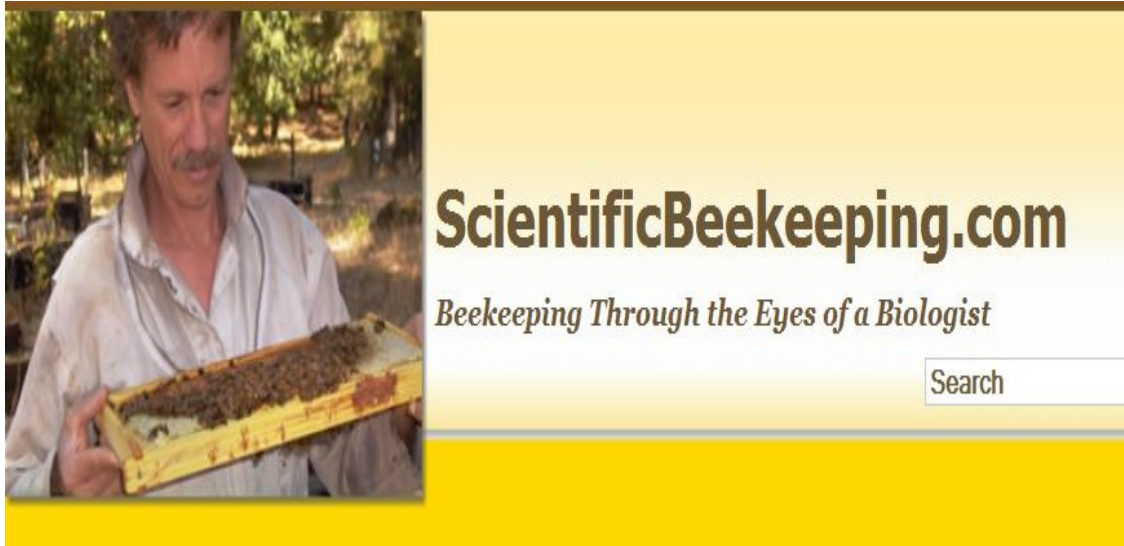


September 2014



Hi All,

I'm freshly returned from the Western Apicultural Society Conference in Missoula, where we got to see the state of the art in remote hive monitoring. It won't be long until we have some really user-friendly and affordable hive monitoring devices on the market.

We're also seeing a sea change in the awareness of the public about pesticides and their effects upon pollinators and wildlife, with the honey bee being used as a poster child. Unfortunately, the overall issue to pesticide impacts has been hijacked by a tunnel vision focus upon the neonics, with scant evidence that they are actually the main problem.

My on-the-ground truthing by visiting beekeepers all over the country finds that most beekeepers in neonic-rich corn/soy/canola landscapes report far fewer pesticide incidents than in the past. My guess is that it is other pesticides, including beekeeper-applied miticides that are more to blame.

What concerns me is that if politicians eager to appease voters

effect a ban of the neonics, that when we later find out that our pesticide problems continue, that we beekeepers will be accused of crying wolf, and get no more support from the regulators.

Better, I feel, is for us to take advantage of our moment in the sun to bring the public's attention to the sea change in land management that is eliminating pollinator and wildlife habitat across the country, and forcing pollinators to be exposed to pesticides of all sorts. I have not yet seen convincing evidence that it is either neonics or GMO's that are the main issue.

We beekeepers are going to need to work with growers and pesticide applicators for the foreseeable future; now would be a good time to use our current political bargaining advantage to reach out to farmers, applicators, regulators, and the chemical manufacturers and work collaboratively to solve our problems. I assure you that they are all eager to do so!

Here in the Sierra Foothills I'm personally stoked because our brutal California drought was at least temporarily broken by a drenching rain this week--creating a transformation of the environment as all the vegetation perked up and regreened (the rains also helped to put out the wildfires that had been immersing us in smoke).

I apologize for getting behind in posting new articles. So here's a rundown on what I've recently added to ScientificBeekeeping (I'm feeling pretty proud about figuring out how to add an image and links to this mailing--old dogs can learn new tricks!):

I'm erratically (as I find time to write) continuing my What's Happening to the Bees series, which will eventually get to my take on how we got to the situation that we and our bees are currently in, and what we need to do to get out of it.

[The Genetic Consequences of Domestication](#)

I'm beginning this article at the point in time when beekeepers first learned to select for more manageable and productive bees. At the moment that humans began controlling the reproduction of honey bee stocks, the process of domestication was begun. This process has intrinsic genetic and biological consequences, some of which have come to haunt us today.

[Is There a Difference Between Domesticated and Feral Bees?](#)

I mentioned previously how impressed I am by the difference in vigor between the Southern California feral bees and commercial domesticated stock. I also made the bold statement that the honey bees produced by most commercial queen breeders could be considered to be domesticated animals. Such statements call for some serious supporting evidence. Is there truly a difference between domesticated and wild/feral honey bees?

[Mitotypes, Genotypes, and Tradeoffs in Fitness](#)

In business or sports, success is all about being “better” than the competition. And so it is in nature, with each honey bee colony vigorously competing against the competition (other colonies) for resources, including nest cavities. And by supplying ideal nest cavities, early beekeepers gave “kept bees” a leg up on the competition. But there is no such thing as a free lunch—in nature, any advantage typically comes at a cost. Evolution is generally a zero sum game; by becoming better at any one thing (emphasizing one trait), a species must give something up in return (losing the ability to do something else as well).

And changing the subject to bee nutrition:

[A Comparative Test of the Pollen Subs](#)

Many of us beekeepers have found that feeding pollen sub at appropriate times of the season can be of great benefit to colony growth and health. The question then is, how much difference does such feeding really make, and which subs are the best?

In this LONG article, I detail a large-scale experiment that we ran to test seven different subs against each other, as well as against a positive control of natural pollen, and a negative unfed control group.

What we found may surprise you.

I'm continuing with research on pollen subs, and will have more articles on this subject coming.

[Amitraz: Red Flags or Red Herrings?](#)

Our commercial beekeeping industry, as well as many recreational beekeepers, depend upon the miticide amitraz to control varroa.

People put their trust in our governmental regulatory agencies to protect us from harmful foods, medicines, and pesticides. Few take the time to deeply investigate the potential down sides to exuberantly-advertized off-the-shelf medicines or treatments. But the truth is, that we beekeepers should practice due diligence by doing our homework about the things that we put into our hives.

The last thing that I wish to do is to be alarmist, but the rest of this article will deal with possible side effects from amitraz.

Not yet posted is a sister article to the above, in which I tested to see whether treatment with amitraz slowed the buildup of nucs-- this should be up in a few days.

Continuing Research

Thank you all for the financial support of your donations, which allow me not only to pay for the maintenance of the ScientificBeekeeping website, but also for my research. I have completed several field trials, mostly involving bee nutrition and varroa management, which I will be publishing the results of in upcoming months.

Thanks for your support!

Randy

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