Sussex County Beekeepers Association

April | May 2010

President's Message

Hello,

By now the spring packages have been seeded into your yards and the queen is now busy with a population buildup. Keep feeding them as long as there is foundation in need of drawing out into comb.

The two association's packages were installed at the School of Conservation and I am happy to report that they are doing well and collecting stores. They are also a real hit with the student groups who are simply

amazed by their activity.

Now is the time to repair any woodenware you may have missed during the winter and get it painted.

Get ready to add supers as they fill the brood chamber with larvae and stores. Be careful not to wait too long to add space, as the tendency to swarm may trigger the

> creation of swarm cells. Time to get busy.

Bíll Foley

Diary of a New Beekeeper

Here are a few things I've learned in the first weeks:

- Don't freak out.
- It's really nice to have a mentor.
- Wear a veil.
- Be patient. Let the bees work their magic at their own little bee pace. When you have a new package of bees, you start with one hive body. Wait for them to work all that
- foundation, draw out the wax, get some brood going, then start adding the second hive body.
- •After you smoke your hive a little, wait for about two minutes before you open everything up. The bees will be so calm and docile you'll feel much more comfortable working with them
- Curb your curiosity.

 No matter how bad you
 want to check on them all
 day, don't do it. You have
 no real control over what's
 going on in there and it's
 better to leave them alone.
 You are going to squish
 some of your precious bees.
 This was one of the most
 heartbreaking things for me.
 I still get Be

SCBA Newsletter April/May 2010

SCBA Calendar

Clip and Refrigerate

- Saturday, May 15
 10 am Genesis Farms
 Splitting Hives, Introducing Queens and Swarm Control. Bring a dish to share for lunch, veil, bee suit, etc. and a chair
- Saturday, June 19 check the website for details
- June 21-27 National
 Pollinator Week
- Saturday, July 31 Fair set up tentative date
- August 6-15 Sussex County Farm and Horse Show
- August 21, National Honey Bee Day
- Sunday, September 12 Joint Meeting with SENY Noon at the Brodhecker's
- Saturday, October 16
 Topic to be Decided
- Saturday, November 13
 Holiday Party—Lafayette House
 Check the website

Brodheckerfarms.com/SCBA for calendar details and updates

Bees Sniffing Out Explosives

It's the ultimate honey trap. A British company has successfully trained bees to sniff out explosives, drugs and other hazardous materials, and their winged warriors could soon be on duty at airports, train stations and other potential terrorism or trafficking sites.

Honeybees have incredibly sensitive olfactory organs, which they use to help track down their favorite food -- sugary nectar -- in the wild. Realizing that the bugs can be taught to smell much more than just sweet stuff, U.K. firm Inscentinel developed a gadget that harnesses this powerful sense to identify would-be bombers or drug smugglers. And while it takes about six months and \$37,000 to train a single sniffer dog (which has a similarly strong sense of smell as the average bee), swarms of honey harvesters can be skilled up in just a few minutes. Inscentinel's bees are taught to identify suspicious substances using Pavlovian conditioning. (Russian scientist Ivan Pavlov famously taught his dogs to drool whenever they heard a bell, as they thought they were about to be fed). Up to 500 insects are placed in a special "bee hotel" and exposed to a certain odor -such as a key ingredient of TNT -- and simultaneously rewarded with a sugary liquid. bees associate the smell with food. So next time they sniff this particular smell, they will stick their tongues out.

The process is repeated up to five times, says Mathilde Briens, head of R&D at Inscentinel, by which point, "the bees associate the smell with food. So next time they sniff this particular smell, they will stick their tongues out because they expect food."

Once their odorous education is over, the bees are ready for work. Thirty-six bugs are transferred from the bee hotel into a hand-held device that resembles a portable vacuum cleaner and gently strapped down with plastic ties. That loading process is entirely automated, so non-bee experts can operate the machine without getting stung.

Once they're seated in the machine -called a VASOR (for Volatile Analysis by Specific Olfactory Recognition) -- a fan sucks air past the immobilized bugs' antennae. If they detect a trace of Semtex, for example, the bees will extend their tongues in hunger, breaking beams of light that run in front of their heads and sending a signal to the VASOR operator. That automatic warning system means that anyone can use the gadget after a few hours of basic training. In contrast, learning how to handle a sniffer dog can take many months. And as the gadget contains 36 bees, all individually testing the atmosphere, the VASOR offers.

greater accuracy than a single explosives hound's nose. "It's almost like having a pack of well-behaved sniffer dogs," Briens says

The bees' conditioning wears off after two weeks unless they're given repeated sweet treats. So after two days hunting bad guys, the bees are safely reintroduced to their hive.

The gadget may sound a little un-beelievable, but government-funded tests have repeatedly shown that Inscentinel's bugs are highly effective bomb sniffers. A 2004 study funded by the U.S. military found that trained honeybees could detect lower concentrations of TNT than commercial ion scanners. And a review last sum-

mer by Britain's Home Office noted that the bees achieved better results than a popular hand-held vapor detector. Briens savs that the VASOR, which is at an advanced prototype stage, could

be in service by next year.

So watch out terrorists and narco-traffickers: You could be soon be caught out by a real sting operation.

Diary continued...

woozy every time I think about it, but you're going to have some casualties every time you go into the hive. It's unavoidable. A bee brush is a handy tool.

Be prepared to get stung. I haven't gotten stung yet, but I figure that if I mentally prepare myself for it when I go out there, it won't hurt as bad. Besides, some types of arthritis are treated with bee venom therapy. If I get stung, I'll consider it a preventative measure.

• When you're standing over a box full of Diary of a Beekeeper is taken from the thousands of flying, buzzing, stinging

creatures. realize that you're the one that just interrupted their business and broke

into their home. Some of them might not be too happy about it. All you can do is just breathe deep and not freak out.

Brush Mountain Bee Farm newsletter

and is the account of new beekeeper Sam (Samantha) who is also an employee of Brushy Mountain Bee Farm.

We have some wonderful new beekeepers in our group and I thought they might like to see they are not alone. Welcome to our newbees and please don't hesitate to call one of us for help and advice.

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