"The first time that we open a hive there comes over us an emotion akin to that we might feel at profaning some unknown object, charged perhaps with dreadful surprise, as a tomb. A legend of menace and peril still clings to the bees. There is the distressful recollection of her sting, which produces a pain so characteristic that one knows not wherewith to compare it; a kind of destroying dryness, a flame of the desert rushing over the wounded limb, as though these daughters of the sun had distilled a dazzling poison from their father's angry rays, in order more effectively to defend the treasure they gather from his beneficent hours."

– Maurice Maeterlinck, <u>The Life of the Bee</u>

I met someone a year or so ago who wanted to buy some bees. "Well," I said, "you've basically got three options: nucs, packages or complete hives."

"Oh no," she replied, "I only want to buy about 20 bees."

"Say what???"

It turns out that the woman has a difficult-to-treat autoimmune disorder and she said she has been getting significant relief from bee stings, or Bee Venom Therapy (BVT). I was able to connect her with several beekeepers who live close by and they have been happy to donate a few bees to her on a regular basis.

It occurred to me that this type of community service would be a wonderful project for every bee club across the country. Beekeepers could do this on their own initiative – no bee club is needed – but an organized effort could provide greater exposure and farther reach. At the simplest level, the club's website could list members who have agreed to participate. Or the website could have a request form that is vetted by the club and then requests are assigned to members. Even better would be some solution that I can't even think of!



Stings are bad... except when they are good!

Rewind...

Okay, I've started at the end. Let me rewind a bit and give some background.

Honey bees have been stinging people for thousands of years. Bee stings create a physiological response in the creature being stung – that's the whole point. The ultimate intent is to induce death, but short of that, pain and extreme discomfort serves the bee's purposes too.

Just as substances that are supposed to help us can have side effects that harm us (for example, aspirin relieves pain but can sometimes cause bleeding in the stomach), it is quite possible that substances that are supposed to harm us may have side effects that help us in certain specific situations. For those products, the positives and the negatives must be carefully weighed so that the cure isn't worse than the problem it is supposed to address. At a societal level, that determination is made by the US Food and Drug Administration (FDA), and we should all be thankful for their oversight. (If you aren't, then a history lesson in why the FDA exists is in order for you. The short version is that tainted food and bogus medicines which caused misery, death and mayhem were common in the marketplace before we had government intervention. Look it up!)

¹ Photo by Waugsberg, CC BY-SA 3.0, https://commons.wikimedia.org/w/index.php?curid =2667096

Peter Borst has a very nice article on BVT in September's "American Bee Journal". He points out that reports of miraculous results abound in our popular culture but when carefully examined, there is also plenty of evidence of ineffectiveness and harm outweighing benefit. People who think BVT isn't mainstream therapy because of a pharmaceutical industry conspiracy or lack of financial potential are simply naïve. The reason is that on the whole, it doesn't yet pass the threshold for being reliable, safe and effective for the indications for which it has been used.

However, it is clear that for <u>some</u> people with <u>some</u> specific conditions, those people consider the benefits they receive to exceed the downsides. It isn't at all surprising that a therapy that may not work for most people does work for a select few, or that someone who has run through all other options is willing to accept a lot more risk than most people. For example, FDA usually considers that a genuine risk of death is unacceptable for most therapies that aren't for life-threatening conditions (e.g., risk of death may be acceptable for a cancer treatment but not for an acne treatment) but an individual person may choose otherwise.

In case there is any misunderstanding, let me be clear: I am not an advocate of folk remedy or counter-culture medicine. Although it is not perfect, based on my nearly 30 years' experience working in pharmaceutical R&D, I generally trust the scientific process and the FDA's standardized approach for drug development. However I am also compassionate toward people who find relief for debilitating conditions using non-commercial products when they are making treatment decisions intelligently and are including a competent medical expert in their decision-making process.

The Real Info

As I mentioned at the beginning, I believe compassionate beekeepers can be a

tremendous help to people who rely on BVT. To find more about how we can do this, I asked two people who have used BVT (Donna Devanney and Gabbie Li) for information and advice.

Q: How did you become acquainted with bee venom therapy?

Donna: I became acquainted with BVT after I went to a NCSBA meeting and Frederique Keller gave a presentation and workshop about the benefits of BVT and how it is administered. The Apitherapy Society offered a certification workshop shortly afterward so I attended and became an apitherapist.

Gabbie: I was about 1.5 years into my journey with Lyme disease. I first became acquainted through social media. Upon delving further into BVT, I came upon an NPR article about a woman named Ellie Lobel and her experience with Lyme disease and BVT. Ellie's story along with some BVT users' success stories got me into the idea. Ellie was traveling the country at that time and even spoke at the Raleigh's Lyme disease group. She was also doing household "meet ups" and I met her at one in Virginia where she gave a talk and demonstration. She covered safety procedures and important nutritional supplements that are necessary when doing BVT.

The best way to become involved in an active BVT-using group is to use Facebook, such as the Bee Venom Therapy for Lyme Disease group. The group is closed for many reasons, but feel free to message the administrator a quick note on why you're joining. They are extremely grateful for beekeepers and others to support the cause, raise awareness or become a local distributor.

Q: How do the people you know that use BVT get bees?

Gabbie: Most use a distributor; I used Ferris Apiaries in South Carolina as they were the closest. Others literally catch bees in the

² Peter L. Borst, "The Bee's Sting", *American Bee Journal*, September 2017, pp. 993-997.

backyard when the season is right. Actual doctors use a much more diluted version of bee venom and inject it in their patients.

Donna: A lot of the people buy their bees from Allen's bees and Ferris bees. They ship to your house. Some become beekeepers to help defray the cost of buying bees and to give back for what the bees have given them. Most people doing this therapy have suffered greatly and turn to this because it's affordable, it's powerful and they may be out of other options.

-- Gabbie Li

people sting 3 times a week. They begin with a test sting and slowly work their way up to 10 stings along the spine over a matter of weeks or months. Stings on other locations are eventually added in after months on the protocol. Treatment lasts about 2-3 years or 6 months after symptoms cease.

Q: How do you collect bees for BVT?

Gabbie: It depends on what the BVT user has. Some have their own hives, some ask their local beekeeper if they are lucky. I've heard of people using little bug vacuums. When I was getting them in the mail I would just transfer them to my "Bee Buddy" which is basically a little house made with 2x4s, Plexiglas, a pheromone lure and plastic honey-comb board.

Donna: After they are shipped they are put in a wooden box called a "beeza hut" with a queen pheromone, water and honey. Those of us who are beekeepers usually just go out on sting days and collect what we need.

Q: How much do people normally pay for BVT bees?

Gabbie: The suppliers have their prices listed online. I believe there are maybe three distributors in the U.S.

Donna: Some beekeepers give bees free of charge because they understand how beneficial the bees are to Lyme disease patients. Lyme disease patients pay approximately \$20 for 60 bees, plus shipping.

Q: How many bees do they need per day/ week/month/year?

Gabbie: That depends on the person and where they are in the protocol. I will briefly say that

Donna: We start off slow and work up to 10 stings a day 3 times a week for 2-3 years.

Q: Who actually stings the person?

Gabbie: Some people have bee buddies, whether it be a loved one or someone that wants to help. I usually stung myself in the mirror or my boyfriend did it in places I could not reach.

Donna: We are taught to self sting or get friends and family to help.

Q: How are stings applied?

Gabbie: Bees are caught with reverse tweezers and immediately stung along the spine. The bee is removed from the stinger. The stinger is left in for 15-20 minutes to release <u>all</u> venom, then the stinger is removed. It's really not a treatment for the weak. Most people doing this therapy have suffered greatly and turn to this because it's affordable, it's powerful and they may be out of other options.

Donna: We use reverse tweezers to catch the bee. Then we place the bee in the area we want to sting and then tap her butt so she stings. We then keep the stinger in for about 20 minutes to make sure all the venom is released. Then we use a pair of regular tweezers to remove the stinger.

Q: What do you think would help in order to connect BVT patients with beekeepers?

Gabbie: This is a great question. Possibly the local lyme group in Raleigh, the NC Lyme Disease Foundation. Most doctors "watching" their Lyme patients cannot specifically endorse the treatment since patients are really self-treating. But that does not mean that they discourage it. Asking this question on the BVT Facebook page is a great way to start. Social media has been a powerful tool in learning pathways to recovery for me. I myself was in contact with my doctor by phone throughout the course of my treatment but it's a very DIY treatment. It took a lot of support from my family and planning (for the hives).

Donna: I think the biggest problem is beekeepers think they are liable therefore will not give bees to people. So, educating people to the benefits of BVT for Lyme disease and Multiple Sclerosis etc. might help ease the fear that beekeepers have. They are not liable if anything happens. It is recommended that BVT users have an epinephrine pen for emergencies.

Q: Can you share any personal anecdotes about benefits of BVT?

Gabbie: I'll be completely honest; I did BVT for only a few months. I ramped up stings accordingly, took the supplements necessary to e.g. protect the adrenals (liposomal vitamin C), and no doubt would have continued but my body wasn't having it. I made it to 10 stings 3 times a week along my spine. For some reason instead of the protocol desensitizing me to bee stings, I developed a hypersensitivity to bee venom and developed a horrible histamine overload. Like, unnaturally high. So I had 24/7 cluster headaches, full body rashes and high toxicity. There are a lot of factors going into this. There are so many compounds and proteins in the venom that I still believe are extremely healing, it's just that when paired with the intricacies and complexities of a single individual, people are of course going to have

differing results. There are genetics, methylation issues, pyrroles, predisposition towards histamine intolerance, you name it. (Other issues such as mold toxicity or metal toxicity become other layers that may delay progress or have to be addressed first.)

I became extremely weak and had to return to my doctor across the country. I believe that the venom wasn't right for me at that time. I had other issues that weren't exactly Lyme anymore. (Before I did BVT I had intense immunotherapy on the other side of the country but was having residual symptoms and damage months later. That's why I began BVT.) What I believe is amazing about the venom is that it is a broad spectrum anti-bacterial and anti-viral treatment that essentially works as an immune modulator. Immune modulation is usually key when recovering from such a multilayered chronic, mystery, Lyme-like illness. Of course bee venom isn't the only immune modulating treatment out there, but that concept has helped me immensely. The body knows how to heal and for some, the bee venom unlocks that for them. I absolutely do not regret trying BVT whatsoever, as I was just doing my best to heal. Along the way, I've learned so much about bees and have grown to love them. I now have three hives in my backyard that are doing well.

Donna: I am able to work and have a pretty normal life because of BVT. I have Lyme disease and BVT pretty much saved my life. It is not an easy treatment but there is really no alternative.

Can you help?

I hope that Donna and Gabbie have given you something to think about. As beekeepers we can do a lot of good in ways we may not have previously considered. Acquiring bees for BVT is a very expensive undertaking for normal people but is trivial for you and me. Consider how you or your bee club may be able to help others in your community in this way.

Please note a few important things. First, unless you are a licensed medical professional,

do not go around recommending BVT to everybody for everything. I get really angry when well-meaning but ignorant beekeepers spout off to anyone who will listen about how honey, pollen, royal jelly, venom or what-haveyou supposedly cures every imaginable human malady. If you make a medical claim about one of your products and that claim isn't approved by the FDA, you are breaking Federal law and are, in my opinion, both immoral and irresponsible. However, if someone comes to you wanting to buy a hive product for whatever purpose they already have in mind and you make no claims about it, that is a different matter. Beekeepers must only sell hive products, not health outcomes.

Similarly, if I were to provide bees for BVT, personally, I would never administer the stings to the individual myself. I am not licensed to administer medical therapy. If something goes

wrong, I don't want there to be any question whatsoever about my role. I am a beekeeper who provided bees. The recipient of those bees is responsible for anything that occurs once they leave my hive.

Those two caveats are extremely easy to satisfy. I encourage all of us to seek out opportunities to help others in our communities, and providing honey bees for BVT is an easy way to do it!

Randall Austin is a NC Master Beekeeper who keeps a few honey bee hives in northern Orange County, NC. He can be reached at s.randall.austin@gmail.com.

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