

An Interview with Corwin Bell, Founder of BackYardHive.com

Text Transcript

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Doug: Hi, this is Doug Hudiburg from backyardhive.com and I have on the phone with me my friend and colleague and also a partner in backyardhive, Corwin Bell. Corwin, how you doing today?

Corwin: I'm doing good.

Doug: Good. I wanted to just take some time and ask you some questions. Mainly let me just ask you if you could just kind of give a little bit of background on what your experience is with bees and how it sort of influenced some of the people around you.

Corwin: Uh huh. Well, you know, basically I had several access points that got me interested in bees and possibly how to keep them. I was interested and I thought, well, that's a pretty technical thing and you might have to just be a beekeeper and you might have to be like a professional at this thing, and it might take a ton of time to figure out how to do all this. So I was looking out for – I did find out about the bee population majorly dwindling and I did start looking at why that happened and why that's happening and I thought, well, that's an interesting thing. And I thought, well, if I could keep bees maybe I could do my part to help keep them established since they're such an important part of our ecosystem. And I was also interested in – important raw honey is and how important organic raw honey is and honey that hasn't had any sort of medication applied to the bees to keep them alive and so on and so forth.

Doug: Uh huh.

Corwin: So – And I was also interested in some of the other bee products that come from the hives themselves, the propolis and the royal jelly and the pollen and whatever. So I had those – Those were some of my main things. So when I started kind of looking into this I really was looking for kind of something that was not going to – a low-tech option. Was there anything else out there other than those big, tall, white boxes.

Doug: Yeah, right, I think most people when they think about it are thinking about a guy in a space suit and the smoker and a huge field of hives. It just doesn't seem accessible.

Corwin: Yeah, that's what – I didn't see myself doing that. I just wanted one, you know?

Doug: Yeah.

Corwin: I didn't want to make thousands of pounds of honey, I just needed – I just really wanted to experiment and see if I could relate to this organism and also I was really interested – I have a really nice garden and just reading about and understanding about how much they increase your produce, you know, what you get from the garden. I thought, oh, all that worked out well for me. And also just the challenge of God, can I do this. So anyway, as I started researching around it was pretty much – I realized it was a pretty big investment into it, going through the Langstroth, you know, which is the name of the white box hive.

Doug: Uh huh.

Corwin: And I – As I kind of kept digging and digging on the internet I found that there are – that these two scientists had come up with this new way of keeping hives by studying natural beehives in trees.

Doug: Ah ha.

Corwin: And what – And I was like, well, that's interesting. That's kind of what I was looking for. And then I found out they – the reason why they were researching this was to get this low-tech beekeeping technique or habitat into third world countries so that those countries – those villages and such would have another ways of making money.

Doug: Ah, okay.

Corwin: So self-sustainability for them, right?

Doug: Yeah.

Corwin: So Marty Hardison was actually one of the – is one of the definite pioneers in this and he's – he lives in Kenya and Mozambique and Africa and actually teaching them how to do these things. They can make these rough hives with what they've got there, okay? So that they can actually get these, it's called a top bar hive so it's a low tech way. They can actually get in there, they don't need the ways to extract all the honey and they don't need all the special gear and they don't need to have the special frames and all that stuff.

Doug: Yeah, so they can kind of build it with existing materials and not have to invest in a bunch of equipment.

Corwin: Yeah, yeah. And so basically this particular hive that – the top bar hive was created from a lot of – from research into how bees naturally keep their hive in the wild.

Doug: Uh huh.

Corwin: So as I started into that I made several hives myself. I actually talked to Marty a lot of kind of see what he had been doing and how successful he had been and started learning about that, and then I really realized that without all the complex tools and stuff it became almost as easy as maybe having a bird feeder, you know, I mean –

Doug: Wow, yeah.

Corwin: I mean – it was, you know, fun, and it's fun because you can sit and watch them and see what they're doing and it's just fascinating.

Doug: Yeah. And you've – And since then you've sort of introduced it to kind of some friends and you have other people doing it.

Corwin: It's – Everyone – It's like people, when they see – when they come and they see how easy this method is, it's like, they're like wait, I can do that.

Doug: Uh huh.

Corwin: A lot of my friends, Ellen Dart was one of them she has two beehives now –

Doug: Uh huh.

Corwin: And she just loves it. So what I did to add to this is basically there's no – I had to go and figure out from pictures and stuff, how to – how they made these hives, there are some specific angles that this hive's made. Okay?

Doug: Uh huh.

Corwin: That all has to do with this thing called bee space, that actually you kind of simulate the long, the longer hive.

Doug: Uh huh.

Corwin: Right? That simulates more like a log situation, how they naturally keep it – the combs actually droop in it like pear shaped so it has these angled sides on it.

Doug: Uh huh.

Corwin: Yeah, and the key was – is that – the key that I found was that the more precise I made this hive that in between the places where they actually attach their comb it's called the top bars and the spaces in between that is the – the more exact that is, the more exact that the bees build their comb. Now that's really important because you have to be able to lift out one comb at a time. Now, if they've gone in there and they've done something that's – and they curved their combs and gone diagonally in the hive in any way you can't – it's a mess, you can't get in there.

Doug: Yeah, yeah.

Corwin: So what I did, I kept perfecting the hive until I made it more and more precise, down to millimeters.

Doug: Right, right.

Corwin: And then – I got to the point where my woodworking skills were not that refined, and so Carlos Dyban, he has trained for seven years in Germany as a fine woodworker, really custom furniture and stuff. So I showed him what I had done and he said, well, let's do this, and – So he went in there with all his precision tools, all his knowledge and really made a very precision hive.

Doug: Uh huh.

Corwin: And I tell you, Doug, it's like when he – when those – when the bees are in there making their combs they are as exact as the hive that we built, the backyard hive is.

Doug: Right, yeah, so they respond to the precision construction with a precision comb.

Corwin: Yep.

Doug: Yeah.

Corwin: And he really – Because of that, that is what will make this the new – a new method. Especially for people, for individuals who want to get into this.

Doug: Yeah, that's what's fascinating, that's why I wanted you to cover that ground a little bit, because I'm going to ask you, not necessarily about the hives but I want to know more about the whole ecological impact of bees and just how it affects our lives because I don't think people know. I think they're like me, they kind of have an idea but not in the way that you've taken it. So I think it's just – I'm really glad you went over that because you've researched this deeply, kind of done the hard work for us.

Corwin: Uh huh.

Doug: And not only come up with a solution but got a really good perspective on the problem which, like I said, I don't think people understand so let's take it back a few steps and take a look at that. And it really comes down to this issue of a crisis in the bee population. And I don't want to – I hesitate to use that word because I don't want people to turn off when they hear it, because you know how the media is, everything is a crisis, but this is a big thing and I – it impacts us so much. So, can you tell me a little bit about this issue of the bees are kind of going away.

Corwin: Yeah, yeah, I think in most newspapers and magazines and what not you'll – there's some pretty big statistics about what's happening; 30 to 80 percent of the bee population is wiped out and I think it's something that they say, well, one out of every third bite of food is created by a bee. And I think the main thing is that when you read these things it's like, yeah, you do think, oh, well, this is just another environmental problem that we have – that we can't do anything about.

Doug: Yeah, yeah.

Corwin: And in the U.S., in the U.S. in North America we had natural pollinators. Okay? That was the bumblebee and the, and there's another little stinky bee called a saw bee

Doug: — — Okay.

Corwin: And they, it lives in the ground and does this little thing. They're really good pollinators, okay? But then we introduced, then you know, people came in and we introduced the pesticides, okay, into the environment. So that wiped out our natural pollinators. Okay? Because now the, the bees uhm that we, that make the, that make honey, they're from Europe — —

Doug: — — Uh huh.

Corwin: Okay? So we brought them from Europe but right now the thing is that, is that the native natural pollinators that were here before their numbers are really, really reduced.

Doug: Okay.

Corwin: Okay?

Doug: Yeah.

Corwin: So we have that, but also back then they were just doing flowers and you know, native, native plants.

Doug: Hm mm.

Corwin: Okay? There wasn't millions and millions of acres of crops that they were trying to pollinate because there, there was never enough of them to do all that. Okay? To pollinate all these crops.

Doug: Enough of the bumble bees and the saw — —

Corwin: Yeah, it's just, there's just not enough natural habitat for them in the places where these, these crops are, you know, in the, in, in the center of the U.S. and all that, there's just not enough uhm, there's not enough of their natural habitat so anyway. So what you have, is you have these crops all over the, all over

the U.S. and if you think about any orchard okay? Pretty much anything that has a flower including a bean has a flower — —

Doug: — — Right.

Corwin: And a, and a squash has a flower and a melon has a flower, all the orchards have flowers, okay?

Doug: Hm mm.

Corwin: It, it's just, it's just a pear tree with flowers if there isn't a bee to pollinate it.

Doug: Okay.

Corwin: So what you have is just a pear tree but there's not a pear. There's a squash plant that has a nice big yellow flower that comes on it but it's just a squash plant.

Doug: Uh huh.

Corwin: Until it gets, it gets pollinated. There has to be something there. There's no way that, there's no way that you know, a whole field of beans with, with millions of flowers that someone could go in there and take and pollinate all those, those beans.

Doug: Yeah, it's not possible for humans to — —

Corwin: — — Not possible. It would be a big mistake to lose this, this organism, the bee that can actually send out one hive having say 5 to 10,000 bees, probably even more than that depending on just, just goes out in mass and does this whole job for us and right now, it would be an absolute mistake — —

Doug: — — Yeah.

Corwin: To do that.

Doug: A fatal almost, yeah.

Corwin: Yeah. It would, it, it's, basically you, you've got squash and beans and your, you know, fruits and melons and every, pretty much every fruit and vegetable that we, that we have in the grocery stores, there's a bee that was involved in that, making of that fruit or that vegetable — —

Doug: — — Right.

Corwin: That, that's pretty huge. That's, that's pretty huge. I think, uhm did you find, I think, Quebec had lost 50 percent of their bee population?

Doug: Yeah, in one year.

Corwin: In one year.

Doug: Yeah.

Corwin: Because of the Varroa mites okay?

Doug: Hm mm.

Corwin: Okay, So what, what we have, there's a reduction of bee population uh, across the board, okay? Across, across the planet, I mean not even a reduction, a huge uhm, kind of a uh, I mean really an epidemic, a quick, quickly the bees population is going down within years. Okay? This isn't like you know a 20-year project.

Doug: Yeah what's that uh, what's the cause of that? What's going on there?

Corwin: Well that's the, basically we have the, the, the first, the first line that's the problem is the pesticides — —

Doug: — — Okay.

Corwin: Okay? They're spraying the pesticides in the fields and the bees are bringing that home, they going into the hives. Now, uh, the hive is, is a natural filter, okay?

Doug: Uh huh.

Corwin: Natural filter, the nice thing about it is that if someone hasn't put uhm, any sort of a, a chemical or pesticide in the hive to medicate the bees the bees when they bring something home it will kill the whole hive.

Doug: Oh, okay.

Corwin: Okay? So basically that's why when you eat honey you know it's not gonna have poison in it because if it had poison in it you wouldn't have the honey.

Doug: Oh, gotcha. Okay.

Corwin: Okay? So they take, they take, if, if, bees, bees go out on a field that's been sprayed, they go to pollinate the flowers, they bring that poison, that and the nectar back, the whole hive will die, boom, within — —

Doug: — — Hm mm.

Corwin: — — within, you know, a couple of days.

Doug: Okay.

Corwin: Okay?

Doug: Yeah.

Corwin: So that, that's, that's the first thing that, that's a big problem for them. Of course, you know they get water too and if there's anything that's in the water they'll get that. The second part of the, the issue is that, is the bee keeping practices that are, that are established right now with the Langstroth hives. Okay?

Doug: Hmm.

Corwin: Now, there's, the, the main, I would say without pointing and, and saying that, that the bee keepers are doing something wrong the bee keepers are doing what they have to do to compete with overseas honey that's coming at, at, absolute, you know, bottom prices.

Doug: Okay, yeah.

Corwin: So they're, they're being forced to cut some big corners ecologically in my, you know, in, in my mind I feel like they're cutting some pretty big corners, and kind of interjecting way too much manipulation into the bee populations — —

Doug: — — Hm mm.

Corwin: And they're, they're kind of getting some problems from that.

Doug: Okay.

Corwin: Okay? So I would say the main problem is, is, you know, of course let's try to find out how to regulate the input of honey so these, these bee farmers aren't having to just, uhm, create loads of honey to even make a, you know, a cent, right?

Doug: Right, right, that's one solution, yeah.

Corwin: Yeah. That's one solution but so, what's happening is because they're cutting those corners they're, they're doing this thing that, this thing where they're actually cloning the queens — —

Doug: — — Okay.

Corwin: They clone them and, they, they start up a new hive and they clone them and they start up a new hive here. Uhm, they, you know, they're using smoke to go into them, they, they're using the Langstroth hive which they, they have to take out the, the, the combs, the racks and spin out the honey, then they put them back into the, into the hives right with, you know, whatever kind of viruses or bacteria that, that uhm, you know, follow that back into that hive.

Doug: Uh huh. Yeah.

Corwin: Okay? So, several of the practices that they do causes stress to the bees. They have to move them from you know, different areas in the country according to the different seasons and different crops that are happening. So they're, they're transporting the bees and you know, in semi trucks and things like that. So that, just that big agro bee business right now is causing, it causes stress to the bee. So that, so that, what that gets us to is what I think is the key to the top bar hive in the back yard hive.

Doug: Yeah.

Corwin: Is that, is that the hive itself is I could even say, it's like, I could even say it's like a body but it is a body to this organism called the bees. Okay?

Doug: Okay.

Corwin: The bees don't act as individuals, they don't individually have prodigy They have a one queen, they have most the hive is female bees.

Doug: Hm mm.

Corwin: They all work to the betterment, you know, for the life passing on of that queen, okay? So they're like a, a swarm of bees sitting in a tree. It does not have a body. It needs to go into a, into a tree — —

Doug: — — Uh huh.

Corwin: And to have a body, that becomes its body.

Doug: Okay.

Corwin: Okay? Then they construct the combs. Okay? With all the little precision cells and stuff, that's like the bones of it, okay?

Doug: Uh huh.

Corwin: So when we create a, when we create a hive as, as, you know, trying to take care of bees, you know, you know, be a bee keeper or whatever — —

Doug: — — Uh huh.

Corwin: Uhm, what we do is we, we provide a, a body, okay? It's, it's like a home but it's like a body.

Corwin: Yes.

Doug: For this, for this group of bees.

Corwin: For the single organism really.

Corwin: Yeah, it's got a queen — —

Doug: — — it's one entity, yeah.

Corwin: Yeah, it's a queen, there's a bunch of females that work, they all, they'll give their life for the whole, for the hive, there's the drones which are the males that come for just fertilization but for the most part, it's one exact, it's one entity.

Doug: Uh huh.

Corwin: So, if that hive is, is a body — —

Doug: — — Hm mm.

Corwin: Okay if we can think about as a, as a body, any time that you go into that body, any time that you manipulate that body or open that body up, you expose it to bacteria and stuff. Okay?

Doug: Uh huh.

Corwin: So the bees have ways around, ways to take care of that. They can increase the temperature of the hive to, to get rid of uhm, you know spores that can cause things like foulbrood or something like that. They can uhm, — —

Doug: — — Now what's, what's foulbrood, just real quick?

Corwin: It's another, it's another thing that, that the bees suffer from that, uhm, can kill off the whole hive.

Doug: Okay.

Corwin: Okay?

Doug: Like a disease.

Corwin: Yeah, it's a, yep, exactly.

Doug: Okay.

Corwin: And, and the, the thing, this is a, I, I haven't, I don't have any of those in, in my hives and, you know, I can bring in some researchers and we can find out why it could be, because I don't have them close, but for the most part I, I don't have like other bee yards that are infected close to me.

Doug: Uh huh.

Corwin: So that experiment would still need to be kind of run through to, you know, to find out, to say for sure that it's the top bar method.

Doug: Yeah, to make an unequivocal claim that uh, you know, the top bar method has kept you free of mites and what's it called? Brood, foulbrood?

Corwin: Yeah, foulbrood, and the varroa mites is the other one and the, the varroa mites is what I, is, is basically, I was getting to that point where I was saying that is what is, is killing off these hives so quickly, the uhm, the bee population so quickly.

Doug: Yeah.

Corwin: Most of the bee keepers are losing half of their yard , their entire bee yard, uhm, because of these Varroa mites, which basically they, you know, get in the trachea of the bee and basically, you know, just kill them.

Doug: So the, yeah, they're a parasite that feeds off of the bees' uh, —
—

Corwin: — — fluids.

Doug: Fluids.

Corwin: Yeah.

Doug: That's why they, and they, sometimes, don't they sometimes call them the vampire mites or something really, you know, scary like that?

Corwin: Yeah, yeah. Well they are scary if you , if you know, they, a little disk, shiny disk shape thing that, that attaches to the body of the bee. Uhm, so then if we, so then if I take that, okay, that's, that's the, the, the virus, okay? That's the parasites, the virus' parasite, there's, you know, those, those kind of things, we're exposed to those, our bodies are exposed to all those. But we've got this thing called an immune system, all right?

Doug: Uh huh. Right.

Corwin: And that immune system protects us because those things are always all around us. Okay?

Doug: Yes.

Corwin: And this is, this, if our immune systems are strong it can actually create an antibody against this, even a new virus that is never seen before.

Doug: Hm mm.

Corwin: Okay? But you have to have a strong, a strong immune system. Now the hive needs a strong immune system, okay?

Doug: Sure. That makes sense.

Corwin: Yep. And, and if you , the less stress that you can put on that body, the better its immune system is gonna be.

Doug: Hm mm.

Corwin: And also the body itself, the shape and the structure and the space of the backyard beehive has, it's more natural to what they've been doing through evolution.

Doug: Uh huh.

Corwin: Living in, in tree--

Doug: In like a, yeah fallen, hollow log — —

Corwin: — — Or even a log that's died, mostly it's, it's a tree that's died and it's still upright because it's safer, okay?

Doug: Okay. Uh huh.

Corwin: And they, they go in there and they, they'll go into a flicker hole and you know, create, create the hive in there. So, that, that's why, that's, so that's one thing right off the bat that the structure of the hive is a lot different than the Langstroth hive. The Langstroth hives stand upright, okay? So it would be almost like the bee's going in and say uhm, getting into a stump. Okay?

Doug: Uh huh. Yeah.

Corwin: And I'm sure they do that but that's not a preferred situation for them,

Doug: Yes.

Corwin: So, the first thing we would do to increase their immune system is put them in a really nice body or hive — —

Doug: — — Hm mm.

Corwin: Okay, something that's, that's, uhm, through evolution, they're more adaptable to that.

Doug: Right. Sure.

Corwin: And then, the other thing is that now basically we are sharing this thing, I'm kind of protecting them, I kind of feed them if they need it, in the winter. There's things that I do, it's a relationship that's, that's involved. But part of the tradeoff is that I get to go in there and, and, and get some of the, some of the honey that they've worked on, right?

Doug: Right.

Corwin: Okay?

Doug: Oh, yeah.

Corwin: That's the fun part and maybe get some propolis and maybe get some pollen and stuff but uhm, that's invasive to this hive, this body. Because I have to open up the top, I have to take and actually go into this, this organism and move, remove things out of it, okay?

Doug: Uh huh.

Corwin: So this is the key design difference of the two hives. Uhm, this is why I'm kind of saying that this is kind of like this is a new technology in a way.

Doug: Right.

Corwin: Of, of how to keep bees.

Doug: Uh huh.

Corwin: You know, bees have been kept in skegs and uhm, for years, you know, way back to the, all the way to the Egypt, to the Egyptians, right?

Doug: Okay, yeah.

Corwin: Right?

Doug: Yeah.

Corwin: But uhm, this is, this is a, a kind of a new model, okay?

Doug: Yeah, I mean it's, it's probably nothing totally new in the world of, of bee keeping but it's, it's you've taken it to a point where it's so well refined that it's addressing the modern problems of bees.

Corwin: Yeah.

Corwin: Yeah. Keeping the hives, the combs have to be straight and that's why you get the precision in them, that's why they haven't really been accepted I think by the, the bee keepers is because they, the bee keepers really have to have the precision, they have to have them all on these racks so that they can just pull them out and put them in, pull them out, take the honey out and put them back in. Okay?

Doug: Uh huh.

Corwin: So the difference is is that if I go to a Langstroth hive and I take off the lid, I basically exposed all the bees to the air.

Doug: Hm mm.

Corwin: Okay? I've opened them all up, they all look up through the bars and the frames and they see me and they all come out. Okay, so now I've got kind of a big problem because I've got a lot of bees that know I'm there, and know I'm up to something.

Doug: Right.

Corwin: So I, that's, that's a, that's, that's a big shock to them and big shock to me so they're gonna come out and they're gonna, they're, you know, they're not gonna be very happy with that big surprise and so that's why I have to if I was working at the Langstroth hive I would smoke them. I would lift up the lid, I would smoke them all.

Doug: Okay.

Corwin: Okay?

Doug: Yeah.

Corwin: And what the smoke does it doesn't so much calm them down as it makes them basically what, what happens in their minds is they say, or their instincts, whatever — —

Doug: — — Uh huh.

Corwin: You can say, they uhm, they, they go, oh there's a forest fire. Okay?

Doug: Okay.

Corwin: They smell smoke, the smoke says that we need to take and eat all our honey, just totally camel up on our, our nectar reserves and get ready to go fly to another tree — —

Doug: — — Yeah.

Corwin: Outside of this fire burn.

Doug: Ah, yeah. Okay.

Corwin: Okay, so basically that's what the beekeeper then is working with is a bunch of bees that are just full. They're just full of honey and they're kind of, so they're definitely not being aggressive.

Corwin: Oh, yeah. They're full and tired, you know, like they need a nap. They had a bunch of —

Doug: Yeah.

Corwin: -- a bunch of food and they're just really sluggish.

Corwin: Sluggish.

Doug: Yeah.

Corwin: They're sluggish. So then, okay, now, but if you do this several times a year during the honey season, that's like the bees have to go through several forest fire going to their, you know, going by their home. Okay?

Doug: Oh, yeah.

Corwin: If they have to go in there and move around brood comb and this and that, constantly organizing this thing, they'll also introduce stress into the hive. Okay?

Doug: Yeah.

Corwin: These stressors, just like our main system, make them vulnerable. It reduces their immune system, their ability to fight off these different viruses and parasites.

Doug: Yeah, see that's the part that makes so much sense when you explain it. I mean, so the traditional high-volume commercial production, you're basically

taking the bees, putting them in an environment that's not ideal, a different shaped home that's not normally what they would look for; you're opening up that body and taking things out and putting things in, almost like having surgery on a regular basis. Uh, so you're introducing, um, the potential for viruses and everything else. You're exposing them to crisis situations where they want to evacuate, like it's a forest fire several times during the year and, and also, you're, you're rearranging sort of their home all of the time on a regular basis.

Corwin: You're constantly going in and every time you open up the top of it, you're introducing anything that's in the ... airborne, virus bacteria, whatever

Doug: Right.

Corwin: Now the key with the top bar hive, I take out the lid and it's still closed. Okay?

Doug: Okay.

Corwin: I take off the lid and it's still closed. Cause what I'm seeing is the the top of the bars. Okay, the bars that they attach their comb, their pear-shaped combs to.

Doug: Sure, so you have all these bars lined up and their combs hang down from that.

Corwin: Yeah, it's perfectly precisioned.

Doug: Yeah.

Corwin: And what I do is I take out ... I go to the back of the hive; I'll take out, I'll take out the first ones that are usually kind of, that are usually empty. Actually, let me tell you what I do. This is the cool design thing with the backyard hive.

Doug: Uh-huh.

Corwin: We have a window, okay?

Doug: Oh, right. Right.

Corwin: I don't even, I don't even, and this is what makes it simple. If I'm wondering what's going on in my hive, and I'm like, God, I wonder if I need to do anything or if there's something, you know, how much honey there is and how much brood there is or whatever, um, I just, there's a big long window along the side and I take off the cover and I look in there and I just see exactly what's going on. So from the outside, it's like an ant farm. You know, I can see exactly what's going on and, for the most part, that's all it takes. I don't have to go into the hive and open it up and, you know, put on any bee gear or anything. I can just look in there and see what's going on and say, "Oh, okay. They're fine."

Doug: Wow.

Corwin: And continue on. So that reduces several times that I really have to do anything.

Doug: That makes so much sense.

Corwin: Yeah, it's great. So then, so then, let's just say I go and I say, well, oh, I can actually take out a couple of these bars of honey. I can see them in there cause I can identify which ones are honey and which ones are brood from the window and then when I take off the lid, then I'll take out the first, you know, let's say I'll start from the back and I'll take out a couple of the bars and then what I'll do is I kind of move through the hive like a filing cabinet. Okay? So there's only about a two to four-inch slot that's ever exposed. So that by the time I go, say I'm getting to the center of the hive, the back of the hive is all closed up.

Doug: Mm-mm.

Corwin: Again, cause I've been sliding the bars back to themselves, right?

Doug: Yeah.

Corwin: So then I'm only exposed to the bees that will come out of that little slot. I'm only exposed to that amount of bees. I'm only exposing them to that much air coming into their hive and cooling them down really fast. Okay, cause the outside air temperature. Okay?

Doug: Uh-huh.

Corwin: So I'm able to, and so that reduces the amount of bees that are coming out to, you know, to me, right?

Doug: Yeah.

Corwin: So for this part, I just do it very slow and very methodically and I don't use the smoke and I don't use the bee suit. Um, you definitely want to use the bee suit when you start you know, just cause it makes you feel more comfortable; until you get used to it, you're not jarring the hive and whatnot, it's best to always do that but, so no smoke –

Doug: Yeah.

Corwin: -- so I reduced that and I have the windows so I can look in and see what I need to do or what I want to do before I actually go in there to.

Doug: Right. Okay.

Corwin: Yep.

Doug: Yeah. So you're basically taking these issues of exposure, you're not lifting off the top and having all the bees just come out and panic and you're not having to use the smoke so you're reduced ... if I understand this correctly, it's, you know, reducing the stress on the body.

Corwin: On the hive, the body and so that gives them a much stronger position to, um, to fight off any, you know, any of these viruses. You know, they've done experiments. The foul brood is, it's like a mold, right, you know, mildew type of thing that turns everything to chalk –

Doug: Uh-huh.

Corwin: -- in the hive, including the brood, mainly the brood. It's really gnarly. Um, I've only seen pictures of it.

Doug: Yeah.

Corwin: They've, um, if you take, they take a thermometer and put it in the hive –

Doug: Uh-huh.

Corwin: -- in a hive and got the base temperature there and then they take and they put in one spore into the hive and as soon as that one spore is identified, the temperature of the hive rises up to like one degree below where it actually kills the bees.

Doug: Wow.

Corwin: That shows kind of what their, their immune system is like. They actually, just like us, they get a fever.

Doug: Ah.

Corwin: That fever kills that, that spore. That's a good immune system.

Doug: That's fascinating.

Corwin: And they do that by flexing their wing muscles, not flapping their wings or, you know –

Doug: Uh-huh.

Corwin: But just flexing their wing muscles to increase the heat.

Doug: Wow, so these, how many bees you think would be in a hive?

Corwin: Yeah, it really depends, you know, there's thousands, you know.

Doug: Yeah. So thousands, ten thousand bees are all working up a sweat basically.

Corwin: Mm-mm.

Doug: Pumping their muscles and burning out the infection.

Corwin: Yeah. See how it just starts to make sense.

Doug: It does. It totally does. What's fascinating about it is the, you know, as soon as you understand that it's a body, one entity working together and has an immune system, it totally makes sense that if you constantly, constantly stress and deplete

that immune system, it's going to be susceptible to all kinds of natural dangers that can destroy the health.

Corwin: Mm-mm.

Doug: Of the bee

Corwin: Yeah, and so the conclusion to that bee problem is not, I feel, is let's not come up with a new chemical, let's not come up with a new genetically formed bee that's resistant to the, let's not manipulate any more, let's take these bees and let's give them what they need to be the strongest they can be. And that's what we should be, you know, that's what we do for ourselves –

Doug: Uh-huh, yeah.

Corwin: -- you know, when its cold season comes along. So you're, you know, you're sharp, you're doing your vitamin C or whatever.

Doug: Yeah.

Corwin: You know, to keep your immune system strong so, cause you're going to be, if it's not Varroa mites it's going to be something else.

Doug: Yeah.

Corwin: You know?

Doug: You're going to be exposed.

Corwin: Yeah.

Doug: Mm-mm.

Corwin: So I would say, you know, the cloning queen thing that they, that, um, that they're having to do to kind of create bee swarm after bee swarm after bee swarm to install into these hundreds of hives to try and keep up, you know, try and get enough honey going is the other part that's, I think, is, you know, it's just manipulating nature beyond what's reasonable.

Doug: Yeah. So that means you might mean you just have the bees being confused or agitated and just not functioning the way they should.

Corwin: And you're, what you're doing is you're putting a queen in with other bees that it's not even its prodigy; they don't even know each other.

Doug: Yeah.

Corwin: It's like that's just a confused body. It's like doing a heart transplant. I mean, you know, from a natural perspective, it seems really bizarre. From a beekeeper's perspective, a professional beekeeper's perspective, it totally makes sense because they have to go into production mode in order to keep up with the low prices that are coming in. So that's another issue that we can't really do anything about as individuals, other than lobby and try and get some –

Doug: Right. Right.

Corwin: or something. But as individuals, what's really nice about this hive is that we can, you know, set this up and we're, we're introducing, we're providing homes for these, and bodies for these bees and these bees will multiply. You know, they'll create, our hive, if we have one hive, it will create another queen or create another group of bees and they'll go off and create another feral colony, you know?

Doug: Uh-huh. Right.

Corwin: That's, that's probably the, I mean, man that's a lot, a lot of people doing that could really bring that population back quick.

Doug: Yeah, that's what I think is so appealing is, um, I mean you don't have to be a rabid environmentalist or anything to see that they're, to understand that this is an issue that affects everybody and it's one of the few things ... I personally don't feel empowered to do anything about global warming. I take it seriously and I, you know, try to use political power or whatever, but it's not, I can't do much other than, recycle and try to drive my car less, but this is something you can have an impact really pretty, pretty major impact in your local environment, your backyard and the surrounding area and, um, having watched you do it and seeing other people do it, it's not hard. It's something you can easily do.

Corwin: Yeah and I also think that probably one of the stronger aspects of it is that it really becomes, with the window and everything, something that you can share. I mean what goes on in the beehive and the stuff that they, you know, the honey and all the different ways that they interact, it's an amazing example of nature at its prime.

Doug: Mm-mm.

Corwin: I mean it's something that you can, that the kids can learn and they can have, you know, the courage to get in there and they're totally fascinated with it, just totally fascinated with it.

Doug: Yeah.

Corwin: You know. And they learn respect for that, for that organism and how that organism survives and what their little cycles are and all that stuff so it's really nice, kind of ecological training thing to, or training or learning tool.

Doug: Yeah, a connection to nature, a way to learn and it's fascinating. It's sort of an adventure which I think, um, that's, as much as anything, um, a great way to do, a reason to do it, it's just it's fun and it's a whole new thing that you can get involved in that's completely outside of most people's experience which is just exhilarating. It gives you something to share with your friends and, you know, it's kind of the perfect cocktail party conversation.

Corwin: Another thing, too, is it really allows, it really, because when you work with the, when you go in to work with the bees, you have to maintain, you know, a really calm, even graceful, movement and breathing and keeping yourself calm, keeping yourself steady as you're going through that. You can hear when you start getting agitated and start hurrying, you can hear the sound; you get feedback right away that, whoa, they're starting to get upset so you just, you slow down and then you hear the sound of the hum goes back and it's the most, it's really a mesmerizing sound, just that hum when you're in there, especially when they're accepting you, you know, doing what you need to, you know, doing what you want to do in there.

Doug: Uh-huh.

Corwin: So that's a really nice, um, aspect of it. Another nice aspect is that, you know, that I find fascinating is that my, when I start to see flowers in a totally different way because I'm looking for my bees on them.

Doug: Oh, wow. Your bees, yeah.

Corwin: Yeah and so I can be, you know, you know, they can go up to three miles to go find something and so you can think about anywhere around your neighborhood, it could be your bee on your neighbor's flowers over there and they don't even know it.

Doug: Yeah.

Corwin: But what happens is that each one of these flowers, um, group of flowers, will have a particular nectar flow. It's a particular time of day or, you know, in the year or whatever that they'll, that the nectar will flow from them. Okay? So you can watch your bees and all of a sudden you go by your bee, your hive and you're like, wow, they're really busy right now. For maybe two hours they'll be really busy and you can kind of go out and you look around and you can see that there's a specific flower that's, that has that nectar flow going.

Doug: Huh.

Corwin: So that's another nice, that's a nice part about it.

Doug: Yeah, that's really neat. Definitely. Um, well I think, you know, we've put together a great amount of information on the website as well which I think people will find, if this has sparked your interest and you've listened to this, please just come by the website and, um, take a look at what, you know, the rest of the story and what we have to offer there. The website is, um, www.backyardhive.com and, um, I think you'll find that this could be the start of a great adventure and give you that empowerment that, you know, not only you're doing something fun and cool and getting some really wonderful tasting honey out of it which we've hardly even mentioned, you know, that's great. But it's, it has a measurable impact on solving a problem that's going to, that is affecting all of us and certainly has the potential.

Corwin: Yeah, and your garden, too.

Doug: I'm sorry?

Corwin: It has a good impact on your garden.

Doug: Yeah, that's right. You get a much higher yield.

Corwin: Yeah.

Doug: More flowers, bigger flowers, better vegetables