

Episode 27 PROOFED

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SPEAKERS

Amy, Jamie, Honey Bee, Guest 3, Guest 2, Guest, Stump The Chump

Jamie 00:05

Welcome to Two Bees in a Podcast brought to you by the Honey Bee Research and Extension Laboratory at the University of Florida's Institute of Food and Agricultural Sciences. It is our goal to advance the understanding of honey bees and beekeeping, grow the beekeeping community, and improve the health of honey bees everywhere. In this podcast, you'll hear research updates, beekeeping management practices discussed, and advice on beekeeping from our resident experts, beekeepers, scientists, and other program guests. Join us for today's program, and thank you for listening to Two Bees in a Podcast. In this episode of Two Bees in a Podcast, we will have two segments dedicated to Black Bee Honey. Black Bee Honey is a nonprofit organization created by young entrepreneurs with the city of Orlando, and it's giving students in low income areas a chance to create a business. In this case, it's honey. You guys will be inspired by Black Bee Honey. We've dedicated two segments to it, and after we finish those segments, we're going to do everybody's favorite, question and answer. Thank you for joining us on this episode of Two Bees in a Podcast. Amy, I'm really happy to introduce this segment. I spent some time on the website for these individuals who we'll be interviewing next, and it's just really cool what they're up to. I really look forward to sharing this with our listeners here on Two Bees in a Podcast. What we're going to be talking about specifically, is an organization called Black Bee Honey. It's based in Central Florida out of Orlando. I think it's a really cool model, something that's neat to share with people around the country and our listeners around the world. We have two individuals joining us from that group. We have Anthony Williams, who's the Black Bee Honey student, and we have Alexis Hicks, the program manager. Anthony, Alexis, thank you so much for joining us on Two Bees in a Podcast. I'm really excited about having you guys.

Guest 02:03

Thanks for having us, we are excited.

Jamie 02:06

Hey, that's cool. As I was just mentioning, I believe we actually have, even though this is a brand new podcast, we have listeners from all over the world. Here's your chance to introduce what you do to beekeepers. And I think what you do is really neat. I'm just going to start...

Amy 02:19

No pressure, no pressure,

Jamie 02:20

No pressure. I just got to start at the beginning. And I'm going to ask you guys in your own words, what is Black Bee Honey?

Guest 02:27

Black Bee Honey is a youth entrepreneurship program. It began in 2017 with a group of kids that just in the summertime, Orlando goes out and they'll disperse jobs to kids that want to work throughout the summer before school starts back, and this group of kids, they did not want to work for anyone in particular. They were just like, "can we work for ourselves?" and long story short, they created Black Bee Honey with the name, the logo, what they were going to sell, and how many different flavors they were going to sell. From that conversation, they worked with different advocates in building the program, and then they launched their product at the farmers market, Parramore Farmers Market in 2018, January. They sold out that day. Then that's when everyone started recognizing who Black Bee Honey was, and it became popular. They got invited to the Steve Harvey Show to showcase what they have been doing throughout. Yeah, it was pretty awesome for the two kids that got to go. In that time, they built partnerships with different companies throughout the downtown Orlando area as well as iGourmet.com So they gave us our first National Partnership which, we were able to be nationally recognized, and sell our product online. From that, we [were] out in the public the kids were literally, I would just say, hustling in a sense with meeting different people, networking, and building that bond and relationship with business owners, and developing something to where they could sell their honey in their stores or in bulk orders. From that, we'll teach them entrepreneurship lessons and we partner with other programs such as the Sustainability Office here, and they'll teach us more about what it is to be a beekeeper and how to man a hive and everything from what a bee is.

Jamie 04:27

I think that's so cool. I mean everything that you've discussed is stuff that people might have had to learn from scratch. Beekeeping may have been new to you, selling honey may have been new to you, and one of the first things that you said is a youth empowerment program, and it's funny that you said that because I don't mean anything negative by this, beekeepers listening, but if you go to a standard beekeeping meeting, it's for usually old people. So it's really nice to see. This is coming up from the youth. That's so exciting. I can't wait to hear more.

Amy 04:57

Yeah, I feel like you've sold Black Bee Honey. The next question I had was for Anthony, and what made you want to join Black Bee Honey? I mean, who wouldn't want to join Black Bee Honey, that's so

cool that what you guys are doing, what you're selling, and how you've started this entrepreneur[ship]. Anthony, what made you want to join Black Bee Honey?

Guest 2 05:16

Well, actually, in the year 2018, I needed a job. I had put in an application with Parramore Kidz Zone and I went to the Callahan Neighborhood Center. Basically, it was asking us what type of job we want, and I didn't pick any specific job. I said I will do anything to get a job. But not like that.

Jamie 05:43

And then they gave you bees, right?

Guest 2 05:45

They had suggested Black Bee Honey, and I remember the first day I started there was like a jar of honey, and since then, I've been very good at it. I enjoy doing it because we network multiple people and new people. And it's just a whole different experience for me. So I love it.

Amy 06:07

That's cool. Did you like honey before you liked honey? Did you like bees?

Guest 2 06:11

Oh, yeah, I liked honey. I didn't like bees.

Jamie 06:13

That was going to be my question. Have you been stung? Anthony, have you gone the whole distance?

Guest 2 06:18

I've been stung before.

Jamie 06:22

What's your favorite honey?

Guest 2 06:24

I will say orange blossom.

Jamie 06:27

Okay, that's a good one. It's funny. You guys mentioned being on the Steve Harvey Show. Well, you've now arrived because you're on Two Bees in a Podcast. I just want to make that point. Anthony, Alexis, anybody who wants to take this? What did you learn from running a business? Because you're not just learning about honey and bees and beekeeping. But you're also learning entrepreneurship. What have you learned specifically about running a business?

Guest 2 06:54

Well, what I learned was about liabilities, and knowing your needs from your wants, because we have financial classes, too. They helped us learn how to be financially literate. Like they taught us how to save money, and different ways to approach customers and work on our sales pitch.

Amy 07:17

That's awesome. Don't be rude to customers. Treat others how you'd want to be treated and don't eat all the honey, right?

Jamie 07:26

When I hear this, I wonder if they take applications from 42 year olds.

Amy 07:32

They wouldn't let you in, Jamie.

Jamie 07:36

That's so cool, though, that you guys are empowering high school students to to learn business strategies, and of course, I'm fond of it because you're using honey bees, beekeeping and honey production as a platform. This is really neat.

Amy 07:51

Anthony, you're talking about all these things that you've learned about running a business. What do you enjoy about it? What do you like the most about this?

Guest 2 07:59

Well, what I liked the most about it is when we went to a lot of events and met a lot of new people. So it's a lot of experience. I felt like I may have not done that if it wasn't for Black Bee Honey. I like meeting new people and experiencing new things. So that's the greatest thing about the program.

Amy 08:21

Yeah, I bet you're a social extrovert; you like hanging out with people and networking. That's one of my favorite things about beekeeping in general, and anything that has to do with honey bees. So that's really cool.

Jamie 08:34

So I've just got to know, I've got these questions I want to ask you, but hearing you guys describe your program makes me want to ask 1000 different questions. Do you guys manage your own colonies? You have a lot of colonies that you run for Black Bee Honey, or do you purchase the honey and bottle it? I mean, how does it work in that regard?

Guest 08:52

We'll purchase the honey. As of right now, we're outsourcing from an apiary in Gainesville. It's in High Springs, Florida, but we do have one hive that we were lucky to work with Daniel and Cara on. Pretty

much it's full. Now we just have to figure out what's the next step on harvesting the honey from the hive and how to produce it for the public.

Jamie 09:17

That's so cool. What you guys have mentioned a lot about this being a group run business. I'm curious, what have you learned about working with other people? All businesses have this structure, you've got colleagues in the business, you've got managers, etc. Since this is a group run business, what have you learned about working with other people?

Guest 2 09:37

For one, I feel like what I had learned was, without teamwork, that dream doesn't work. So the one component of the business, like a team, when one person, they want to work with the other person, it affects all of us as a whole. So I learned that we had to cooperate with one another in order to be successful and sell what we wanted to sell, which was our honey.

Amy 10:04

That's awesome, you guys. When I was working in Orange County, I remember Parramore Farmers Market getting started, and I remember hearing about Black Bee Honey selling honey at the farmers market. How was it? How are you interacting with customers? Did that take some time getting used to? Is it true that the customer's always right?

Guest 10:26

Yes.

Amy 10:28

I like how you both say that at the same exact time. What was your experience as far as interacting with customers? Did you have experience before? What was surprising about it? Working with customers.

Guest 2 10:44

Actually, I didn't have experience with sales before because it was my first job. It took a while to adjust to meeting new people, but I learned the sales pitch and learned the product more, it was easier to teach people about the product and try to convince them to buy it. It was more so easy after that, in a way, but after I learned that, it was very easy to just walk up to people and just introduce a product and promote it.

Jamie 11:21

Anthony, before we even started this, you had mentioned that you're going to turn 18 soon. That means you're 17 years old, you're a young person, you're doing this. I remember I've actually personally been keeping bees since I was 12. Amy had mentioned earlier to you that you're probably an extrovert. Well, I'm not. I had to go sell at farmer's markets, but I was always uncomfortable around people, which is why doing this over microphone online is easier for me. Were you naturally an extrovert? Were you



naturally someone who could meet other people? Or is that a skillset that you had to learn as well, since you're trying to get people to purchase your product?

Guest 2 12:02

Well, I'm both. Because when I don't know people I'll be kind of shy sometimes, but I'm very outgoing and I'm easy to like; I'm a likable character. At first I was kind of shy, but I was like, I know how to hold a conversation very well. Let me just do what I'm used to.

Jamie 12:24

And yeah, that's cool. That's so cool. There just so - this is so neat. And for those of you who are listening out there today, don't worry, we're going to make sure and link the website for Black Bee Honey in our show notes so that you guys can take a look at it. It's a well put together website. It talks a lot about the program. I'm just incredibly impressed. The listeners can't really appreciate what's happening here, but we're able to see you guys because we're seeing you on a webcam. Anthony, I see that shirt you've got on, Black Bee Honey. I've seen the the logo already by the website. Did one of you guys design that logo internally?

Guest 12:58

Not me, personally, but the first gen - I call them first generation kids - the first generation group, they actually did. Her name was Rah Rah, a group of them. It was Rah Rah, Christian, Christopher, they all designed it. Yes.

Jamie 13:12

Let me ask specifically about that. Kids move through this program, right? Is that how it works? Or does the team just keep growing with former alumni? Could you explain that part?

Guest 13:24

They'll move through the program, that's the goal, is to teach not each kid in Parramore, but every kid that we can touch in Parramore, would be great if they can learn anything from this program from Parramore Kidz Zone or Black Bee Honey. So we'll employ them for one full year within the Black Bee Honey program, teaching them these skills, and working at the markets, and then they'll move up, either working at a different center, working within the program. We're trying to create a position now with the sustainability center.

Jamie 13:58

It's just so cool. So let me ask this question within the entrepreneurship framework, what motivates you guys? And so maybe both of you answer it, maybe Anthony first and then Alexis. What motivates you to do this program?

Guest 2 14:13

Well, what motivates me is new things that we learn from the program. It expanded my horizons a little bit before because I never was closed minded, but it opened my mind more because we met new

people, and people from different walks of life, and just what motivated me the most is satisfying the customer and making sure they will come back again and building some type of connection

Amy 14:47

What about you, Alexis?

Guest 14:49

I think it's moments like this where I get to see the growth in the kids. Anthony was in the program, like you said in 2018. It's 2020 and just seeing how he is able to hold an interview, and all the things that he's learned from the program. Or even moments to where they're out and I get to see them interacting with those customers. That just gives me that extra push to find more work for them, or find a different partner that is willing to give them knowledge, because that's just what helps us connect with people.

Jamie 15:19

That's just so cool.

Amy 15:21

How many people do you have as part of the organization?

Guest 15:24

As Black Bee Honey group, or Parramore Kidz Zone? Parramore Kidz Zone is a huge group, it's at least, I would say maybe 30 of us, to 50 maybe. Black Bee Honey only has 10 youth, and me as their manager. We have a team behind the scenes for sure. Like Cara, she helps all our marketing.

Jamie 15:47

Let me ask do you have a favorite honey? You have to work with Black Bee Honey, surely there's something that starting to appeal to you.

Guest 15:55

I personally did not like honey prior to this program. I can say I absolutely love honey now. I've actually tasted it off the comb. I'm like, it's so good. Out of the four flavors that we have, wildflower, gallberry, palmetto, or orange blossom. I cook a lot with palmetto because it's easier to hide that taste, that flavor in a sense, but it's still sweet. But drinking my tea, I like wildflower.

Jamie 16:25

This is just so cool. I mean, I'm happy for you guys. I'm proud of you guys. I wonder if I had gone through a program like this when I was a kid if I'd ended up being a business person instead of a professor, because it's really neat what you guys are cooking up, and Anthony, we can see you on our webcam, you've got this infectious smile, you've been smiling the whole time we've been interviewing you guys, so that's just so cool, man. It's great to see what you guys are doing. It's great to hear about all the success of Black Bee Honey. And maybe our listeners, if you guys out there, visit the website again in our show notes, see what they're doing. It can serve as a model for youth empowerment, youth

growth and development, youth business training, etc. in the areas where you live. Everybody says that the youth is the tomorrow of our nation and things like that, but I happen to be a youth minister at church and I tell our youth you're not the tomorrow, you're the today. You can make changes today. So it's really cool. Alexis, Anthony, seeing you guys involved in such a unique program that's really empowering youth and doing so much training. Thank you guys so much for joining us on Two Bees in a Podcast.

Guest 17:33

No problem. Thanks for having us.

Guest 2 17:35

Thanks for having me.

Jamie 17:36

Absolutely, guys. That was Anthony Williams, who's the Black Bee Honey student, been working with Black Bee Honey for a couple years now, and Alexis Hicks who's the program manager for Black Bee Honey. Check out the website. I think you guys will be really impressed.

Honey Bee 17:51

Have questions or comments? Don't forget to like and follow us on Facebook, Instagram and Twitter @UFhoneybeelab.

Amy 18:03

All right, everyone. Welcome to this segment. We are going to be talking today about Black Bee Honey, how it started, and a little bit about intertwining bees and entrepreneurship and how the program got started. So with us today we have Cara Borowski, who is a sustainability project coordinator for the city of Orlando. We have Anthony Williams, Black Bee Honey student, and Alexis Hicks, the program manager. So they're going to be talking to us a little bit about how the apiary program started. We have another segment where we talk about the entrepreneurship and the business side of things, but from my understanding, they actually have one hive that they're all working on right now to learn about the process of beekeeping, which I think is really cool. So you guys, I'm just gonna let you take over what did you know about bees and honey before Black Bee Honey started?

Guest 2 18:57

Oh, well before I joined Black Bee Honey, I knew that you could use honey for your food, but that's pretty much what I knew before. I know way more now, but before, I knew that bees died when they sting you, so I already knew that, but I didn't know they don't sting you unless you're messing with them. Basically until you tempt them they won't sting you.

Jamie 19:28

Did you know that honey was bee vomit?

Guest 2 19:31

No!

Jamie 19:32

You probably don't tell people that when you sell it, right? I always tell people just as a point, vomit has to come up from the stomach and the nectar really never makes it there. It's only in the crop so it's not technically vomit. So you're safe to tell people that it's pre vomit. You're okay. Let me ask I mean, there's three of you, Cara, Anthony, Alexis, were you afraid of bees when you were getting into this? Everybody's scared of bees. What about you guys, when you were thinking about taking on this honey, and this bee project?

Guest 20:10

Definitely afraid of bees.

Guest 3 20:11

I was maybe a little hesitant, but I wasn't afraid. I had been stung before, and haven't had any reactions. It's definitely different when you're in a suit right in front of the hive and have them all around you. The first time you hear that buzz right next to your ear is a little bit nerve wracking.

Jamie 20:34

Have you been stung since you've been a part of the program?

Guest 3 20:37

I have. I have.

Jamie 20:40

Your badge of honor.

Guest 3 20:42

I'm lucky to not have any reaction to it. It just feels like a little bit of a pinch. And then it quickly goes away.

Amy 20:51

Yeah, with Anthony and Alexis, have you guys ever been into a honey bee colony or honey bee hive before Black Bee Honey? And how often do you guys go into the colonies or have you not gone in yet?

Guest 3 21:04

So because of the current situation with COVID 19, we had planned on taking them out to an apiary at the UF IFAS extension office in Orlando. But that was supposed to be in April. So the way our lessons were structured was a whole year of lessons, one a month for about an hour to an hour and a half, and first we were going to start off with basic honey bee 101 talking to them about bees in general, about the castes, and the way they communicate with each other, and throughout the months, we were going

to tack on some more lessons, eventually leading to the fourth lesson, which would be the visit to the apiary where we would get them all suited up, talk about hive tools, and all the gear that you need before going into the apiary, and then we had planned on actually having them you dig their hands in, but that was a little bit of a sad discrepancy from what we had originally planned. They have all seen the inside of the hive that we have. Our hive is actually located at our water reclamation facility. My boss Daniel Friedline started an Environmental Education Center there. Right outside of the window of the Environmental Education Center is the roof, the window looks right out onto the roof, and that's where we've placed our bees. We can actually open up the hive and actually take frames out and bring them right up to the window and show all of the students that are inside the building. So we have pretty minimal risk there as well, not being out in the heat with the students, not being out on a roof with the students, and not having them directly exposed to the bees, and still showing them everything that we've been able to see inside the hive. We also have a microphone system so we're able to talk to them and kind of point out different things that we have seen inside the hive.

Amy 23:08

You know what I think Daniel did, Jamie, I think Daniel came to our office and stole all our ideas and took it back to the city of Orlando because I do work with Daniel and he's - I'm just joking around - he's a great individual. I'm so happy he started this. Yeah, I'm so happy about that. I think urban beekeeping is so cool. Anthony and Alexis, have you guys looked through the observation window? Has that changed your view about bees at all? Are you still a little hesitant?

Guest 23:38

it's a cool view because like we said it's a lot of ease in that, it's cool though. It's really cool to see.

Amy 23:47

Yeah, what about you Anthony?

Guest 2 23:48

I'm hesitant, but I'm really not, because they said with the proper equipment won't hurt as much if you do get stung

Amy 23:59

Depends on your pain tolerance, I think.

Jamie 24:01

I think that's key. I was interested, Cara, when you said it felt like a pinch. I was like man, whatever bees you're working I want to get a hold of, because I feel like a sledgehammer. Anyway, you kind of got a couple of issues at play, right? You've got this business that you're running, this Black Bee Honey where you're teaching entrepreneurship and all these responsibilities and business etc, but now you're trying to transition to where you're not just purchasing and bottling honey but you're actually having your own hives and making honey. Cara you just mentioned that you guys have one colony on a roof. I'm assuming if you're wanting to bottle your own honey, there are plans to expand that? To get more

colonies? My guess is if you do that, leave actual interest in beekeeping. The beekeeping part of the business will grow as well. Can you guys talk a little bit about the direction that you're taking in this regard?

Guest 3 24:02

Yes. I've been with the city of Orlando for a little bit over a year now. I know that they had discussed somehow being able to put bees on our property and produce honey off of that. I know Daniel, once he found out that Black Bee Honey was actually traveling to go purchase honey, that it would be a great opportunity for us to be able to introduce the bees into our program. Extra incentive of keeping and teaching the students about bees, and being able to provide honey for the program, and I think Alexis can touch on how much of a business sense that would make for us to be able to do that.

Guest 25:50

That pretty much just cuts out the middleman in a sense, we don't have to go to Gainesville anymore, we can literally harvest 50 bottles or 100 bottles from our one colony. Once we have more than one after that, we're having multiple meetings, we'll figure more out for the future.

Amy 26:11

Yeah, so you guys have one hive, right?

Guest 3 26:14

We actually now have three. We started off with one because you always want to make sure, I have heard that it's best to have more than one hive, you have things to compare to when you're starting out, but from a monetary sense, we just didn't have the funds to do that right off the bat. So we started our first hive last October. The students actually helped us construct the hive that we had purchased. Then in November, we had our very first lesson with the bees placed in the hive and they've been doing really well for the past few months. We felt it was time, and we had the resources, to be able to purchase two new hives. A little bit later, I'll go into everyone who has helped us do that, but recently, within the past month, we have placed two more hives on the roof top and everything seems to be going really well so far.

Amy 27:14

That's great. How high is this roof top that you're talking about?

Guest 2 27:18

Um, it's on top of the second story of the building.

Amy 27:23

I bet that was fun to bring the bees up there.

Guest 3 27:26

It was logistically very difficult.

Amy 27:29

I can imagine.

Guest 3 27:31

But when you have a cherry picker, it gets a little bit easier.

Jamie 27:34

Well, you mentioned, I'm going off script a little here, you mentioned specifically fund shortage. Are there ways that people can support you guys to help you get more colonies or more equipment or things like that? Do you guys have a system set up to take those kinds of donations, either financial, or physical equipment and bees too?

Guest 27:56

Just simply by purchasing the honey, we could just keep it that way for now.

Jamie 28:00

That's really good.

Guest 3 28:02

Yeah, and anyone who is interested, can look up Black Bee Honey's website. Or if you're specifically interested in the education program, the apiary program, if anyone wanted to reach out to myself or Daniel specifically, we can field any questions and we'd be more than happy to talk to anybody about the program.

Jamie 28:25

But your long-term goal is to be able to have your own bees and interact with them specifically and make and sell the honey that your bees themselves are producing in the Orlando area.

Guest 3 28:36

Yes, part one of the long-term goal is to have hives on multiple parts of city property that we're able to maintain. And part two would be grabbing any of the graduated Black Bee Honey students who are passionate about it and having them being employed by the city of Orlando, specifically to maintain the hives that we have.

Amy 29:00

That's awesome. I think that's really great. My next question is for Anthony and Alexis, and I'm wondering, Anthony, as soon as you start college here, and you're away from Black Bee Honey and maybe not involved with it anymore. What would you like to see happen moving forward for Black Bee Honey, what's your vision for it?

Guest 2 29:22

Well, my vision for it is that more youth get exposed to it, because it's a very good eye opener for some of them. It teaches them responsibility and ways to manage money and how to become a business minded person. I just want them to get more exposure so they can educate themselves on bees, because everybody has this stereotype of bees and bees are not bad unless you mess with one. And I learned that.

Amy 29:53

That's awesome. Yeah, honey used for food and then they're stinging insects. Those are the two things that people automatically think about when they're talking about honey bees or any stinging insect actually, what about you, Alexis?

Guest 30:08

As far as the program, I think it would be great to just see more kids again, like Anthony said, going through it and learning these lessons, as well as keeping onto the lessons by creating their own businesses after Black Bee Honey to see and be able to sustain for themselves. I think it would also be great for Black Bee Honey to continue to grow and get within different markets and areas in stores or online with our own online database. That would be great.

Amy 30:37

That's great.

Jamie 30:39

Cara, a program of this magnitude must have a lot of people involved. Of course, we've been talking to you and Anthony and Alexis today, but surely there's probably a lot of people. You've been mentioning an individual named Daniel, and I'm sure there are others. Can you tell us who's involved in this program?

Guest 3 30:54

Definitely, we've had a lot of help being able to set this up. It's really a unique partnership between three entities specifically, that would be Black Bee Honey, my office, the Office of Sustainability and Resilience, and then Public Works, because our water reclamation center falls under that. Rick Howard really has been instrumental. He is the Director of Public Works, helping us get the traction and get the approvals, going through risk management, and really getting everyone on board within the city specifically with this program. Now talking about beekeepers and environmental scientists that have helped us set this up. I had met Andrew Beard, who last year was the president of Orange Blossom Beekeepers Association, and he was very excited to really help us get this program off the ground, because their motto at Orange Blossom Beekeepers Association, is just to get more people to be beekeepers. And this is really the perfect way of them doing that. Andrew Beard and OBBA helped us set up our very first hive and helped us with the bees. They donated the bees to us and have been there with us every step of the way, checking on them and helping Daniel and I learn everything that we really needed to know. One of their members Jimmy Westman took me out for the very first time. Daniel had been around an apiary before, but he had taken both of us out to an apiary and that was the

very first time I had put on the suit and opened up a hive and really got to see the nitty gritty of everything that goes on inside the hive. That was really the first time that I was exposed to that. I really want to thank him. Our newest hives we partnered with Jesse Azzam at S&S Apiary over in New Smyrna. He has an incredibly large aviary with thousands of bees [and] beehives over there. He helped us with our most recent two hives that we were able to purchase from him. He loved the idea of Black Bee Honey, and what we were doing, trying to foster a new generation of young beekeepers in Orlando. He was able to help us out with that. Finally, over at the UF IFAS extension, JK Yarborough, I know Amy, you know him. He has been helping us teach the lessons. I met him a bit last year and he was very excited about the program as well. He had helped me make up the slides and teach the lessons to the kids. He's been really, really instrumental in getting this up as well.

Amy 33:59

That is so amazing. I love all the people that you just stated, I actually used to work with them and they're all fantastic people. I love seeing local beekeepers helping upcoming new bees, so to speak. I think that's just amazing. I think that's great. Anthony, I hope in the future, you become a beekeeper and you're able to also mentor someone. You probably know more than so many other people about bees. Just by going and being a part of Black Bee Honey. I think that is fantastic. And that's really, really awesome, guys. Thank you so much for being on the segment today.

Guest 3 34:35

Can I say one last thing?

Amy 34:37

You can say one last thing. Absolutely.

Guest 3 34:39

Wonderful. I just want to say that this is an incredible opportunity for other local governments to be able to work with local beekeepers and different beekeeping organizations within their communities. We can serve as sort of a framework for how other cities can help bring this type of program and initiative into their environments and help foster a new generation of beekeepers throughout the United States. If anyone has any questions about how we were able to get this program started, if you want to reach out to Daniel or myself, we'd be more than willing to share all the information that we've gathered and hopefully be able to see this type of program in other cities across the United States.

Amy 35:28

Yeah, Cara, I hope that you end up with 50 plus emails from all of the states asking how to how to start this in the country. I think that's great. What we'll do is we'll go ahead and put your information if you're okay with that, we'll put your email, we'll put the Black Bee Honey website on our show notes, and in our additional resources, so anyone who would like to contact you all will be able to do that from our information. All right, everyone. That was Cara Boroski, the sustainability project coordinator with the city of Orlando, Anthony Williams, one of the Black Bee Honey students, and Alexis Hicks, the program manager for Black Bee Honey that we had today, here on Two Bees in a Podcast.

Stump The Chump 36:14

It's everybody's favorite game show, Stump The Chump.

Amy 36:25

Alrighty. It is question and answer time. I've got three questions. Yep, favorite time of the day.

Jamie 36:33

It's definitely got the best lead in music, that's for sure.

Amy 36:36

Oh, that is for sure. I laugh every time I listen to it.

Jamie 36:39

My kids always want to hear it.

Amy 36:41

That's it. They just want to hear that section.

Jamie 36:43

"Dad, are you going to do your podcast again." I'm like, "Yeah." "You're gonna get your question and answer?!" They get so stoked, anyway.

Amy 36:50

I know it just gets you so pumped. All right. The first question is from Tim from Facebook. And he recently read that honey is not advisable to eat for pregnant ladies, or for infants due to the bacteria that causes botulism, and other toxins.

Jamie 37:07

Absolutely. Thanks Tim, for that question. I certainly cannot pretend to be an expert on this topic. And I'm going to start with I've never been pregnant woman, but my wife has four times. I was an infant, in my memory, from being under one year old. No, in all seriousness, I cannot give medical recommendation. Legally, I cannot give medical recommendations. However, I will tell you a little bit of the history around this issue. And I'll tell you what you should do to find out more information. Number one, there is a disease or an issue, it's not really a disease, an issue called botulism, and it's caused by a spore forming bacterium called *Clostridium botulinum*. Now, this bacteria, under certain circumstances can get inside of humans and produce a toxin that is this really bad for people. The whole process is called botulism. It can even be life threatening. This particular bacteria is spore forming. It reminds me a lot of American foul brood in that way. In the spore forming stage, it can survive a lot of different climate related issues that's thrown at it, and it's just persistent. When it gets to the right environment, then it starts germinating, it produces this toxin, etc. This bacterium is actually found everywhere, it's in the soil, it's in other food, it's just all over the place. But for some reason, in

certain people, it can be a problem and it can pop up produce this toxic and make people very sick. Well, it has been found, this bacteria has been found in honey before, and as a result of that, there came a long standing recommendation that when I was young, that children under two shouldn't eat honey and then it oscillated to children under one and then I want to stress 1000 times over I'm not a medical doctor. My comment to you is that any women who find themselves pregnant should check with their OBGYN, obstetrician gynecologist, I am saying that terrible obstetrician gynecologist. In other words, they need to check with the doctor who is seeing them through their pregnancy and double check recommendations on consuming honey for pregnant women. Then on behalf of the child once the child is born, they need to consult with their pediatrician on the latest recommendations regarding children eating honey. I've never heard that for pregnant women, but I have heard it countless times for children. That's why I always suggest that women should check with their OBGYN for their own health and their pediatrician for the health of their child. I will tell you that my team and I produced a document on infant botulism in honey some years if you can find it. As one of our University of Florida fact pages on honey bees. It's called Infant Botulism And Honey. We're gonna make sure to link that document in our show notes for this particular question, and you'll be able to read a lot more about it. Great question, and again, it's always best for me to recommend that you check with your doctors to see what the current latest recommendations are regarding consuming honey.

Amy 40:21

Sure, this is the second part of the question. Does that bacteria affect the bees?

Jamie 40:28

It is not known to affect the bees. No. Or at least I've not heard that is the case. But that's an interesting question. I've not heard that. I hate to make a blanket statement. No, it can affect bees, but I've never heard of this being a problem.

Amy 40:41

All right. The other two questions we have were from Instagram. I will say I apologize to everyone who was asking questions because Jamie, there's a little inbox that's hidden, and I didn't realize that we had questions coming in until yesterday.

Jamie 41:02

All this time people been asking us questions on Instagram and you've been missing those?

Amy 41:12

I have the list together. It's fine. We will be receiving a lot of questions from Instagram for the next couple of segments for the Q&A. Oops, sorry.

Jamie 41:22

Sorry, Instagram, folks, you should clearly be using Facebook. Not an endorsement, by the way.

Amy 41:31

Justin from Instagram asked why certain queens have different colored abdomens. Why do we have different colors on queens?

Jamie 41:37

Well, that is the easiest question I'm going to ask today. And it all boils down to -

Amy 41:42

You didn't ask that though. I asked it.

Jamie 41:43

Answer a question. I get so confused. You got me nervous. It's the easiest question I'm going to answer today. And it all boils down to genes. Not that she has on different colored jeans, but she has in her different genes I'm talking about G-E-N-E-S and not J-E-A-N-S. And there you go. Amy, you probably didn't even know the genetic gene is spelled different than the blue jeans.

Amy 42:13

Oh, you're right. I had no idea until now. Thank you.

Jamie 42:16

You're welcome anyway. There are different stocks of bees. There are different lines of bees, breeds of bees. There are different subspecies of honey bees. And all of them have color patterns that are characteristic of their subspecies. For example, Italian honey bees are often known for being very golden in color. Some of the other bees like Carniolans or Caucasians, despite the fact that bee's called a Caucasian, they're both darker colors, the *Apis mellifera mellifera*, the Northern European Bee is very dark color. It's just what's in their genes. Usually the stock from which they're derived will indicate the color that they are. And I will tell you too, you've got to remember the queen is a mixture of her mother, and the drone father. Her color traits could come from one or the other, or a mixture of the two. But that's it.

Amy 43:15

Yeah, I mean, even within subspecies they could be different colors, right?

Jamie 43:19

That's right. And Amy, that's a really good point, because a lot of people use color as indicators or suggesters, of subspecies. But that is not good anymore. In areas of the United States, we have very homogenized or mixed populations of honey bees. And so it's not safe to say, Oh, this queen is golden. So she must be Italian, this queen is dark, she must be whatever, because with the mixing of the species, or sorry, the mixing of the subspecies that we've had, the stocks that we've had, the breeds that we've had, you can get this palette of colors produced in queens.

Amy 43:54

Cool. It's a melting pot of honey bee colonies.

Jamie 43:56

Indeed.

Amy 43:58

Alright, the last question for this question and answer segment is from Elena from Instagram, but also, I know that you received an email the same question. I guess she's not the only person that had this question. Yep. Why do honey bees washboard on the front of the hive? What is washboarding?

Jamie 44:15

It's funny, I can tell you how I got that question. Recently, I was speaking using zoom to a group in the UK and I was talking about all the tasks and behaviors of worker honey bees. Before I gave that talk, I said, Jamie, you need to put in a slide on wash boarding. That's like, why did you think that? Because that's the one behavior that I've never tried to describe in a talk when I talk about honey bee tasks or worker bee tasks. And sure enough, I talked about all these tasks that worker honey bees do and didn't talk about wash boarding, but a beekeeper from the UK emailed me and asked me specifically about washboarding so that was like, perfect timing. And of course, it's crazy that we get one on Instagram. Of course, maybe that one was a long time ago and since you haven't been checking Instagram maybe maybe it's just the first time you found it, but regardless of what brought these two questions together, I will do my best to answer. So what is washboarding? I'll start there. If you've ever seen this behavior, it's odd. You'll look at the face of the hive, and you'll have these bees usually pointing down. So they're standing on the face of the hive, kind of pointing towards the entrance, and they're kind of going back and forwards and backwards and forwards and backwards and forwards and backwards and forwards and backwards just over and over and over and rubbing the surface of the hive, the face of their hive, with their front legs, or their antennae. Just going back and forth, back and forth and back. It's also called rocking. I was thinking it reminds me a lot of like rocking in a rocking chair. We just sit there rocking.

Amy 45:45

Maybe it just brings them calmness.

Jamie 45:49

It's funny, Amy, I'm actually a chronic rocker. Even when I was a child and my family didn't have a rocking chair. I would sit on my hands on a couch and just go back and forth. Well, they invented a term it was called bunking. So I bunked and then I've got rocking chairs and I can't sit still. Even now, I'm sitting in a swivel chair rocking back and forth because I rock, I just rock anyway, back to washboarding. But anyway, washboarding, then you'll see on the face of the hive, there'll be hundreds, maybe thousands of bees doing this. So people have tried to figure out what in the world are the bees doing this for now? I've looked in the literature multiple times? And believe it or not, there's no consensus, we don't know for sure. There was a really neat abstract published that I read recently when I was answering the question from the from the UK viewer of my presentation. I pointed out two papers, and in the first one they were just trying to figure out what are the ages of the bees that do this

behavior. And they kind of lead this abstract with this literal quote, it's from Katie Borer, and Jeff Pettis from the USDA and it says the worker bees exhibited group activity known as rocking or wash boarding on the internal and external surfaces of the hive. They put at the time, the behaviors believed to be associated with general cleaning activity, but virtually nothing is known about it, what they did is they did a really cool research project and showed that bees typically begin this behavior around 13 days of age, and you'll see a peak in this behavior when they're somewhere between 15 and 25 days old, it tends to increase from 8am to 2pm and it stays pretty elevated until about 8pm, and even going into at night. It's funny that that study was just finding out the cohort of bees. Subsequent to that there was another study, and I'll forward these links to you, Amy so that you can make sure and post them in the q&a so people can check out these articles themselves. And this author had actually done some work on the behavior and they believe, they suggest, or this author suggests, that the bees are actually depositing pheromones on the hive entrance to help their nest mates find the hive better or easier. These were the two best papers that I could find on this behavior where one paper points out the ages of the bees doing this and the other paper suggests a newer reason beyond simply cleaning and smoothing the surface to where they're saying no, no, they are more likely spreading pheromones to make this hive unique and easily findable by nestmates. So there you have it.

Amy 48:30

You want to know how I know I'd be a really bad researcher?

Jamie 48:33

I want to know how you know?

Amy 48:37

Because I feel like if I saw them washing, if I saw them doing this, I'd be like, wow, bees are just very strange, and that would be the end of it. I probably wouldn't even question why. Like, it probably just makes them happy.

Jamie 48:51

It's an odd behavior, and it's funny because it doesn't happen all the time. You'll get these clusters of bees hanging on the nest entrance, bearding, it doesn't usually happen in that instance. But if you look close, it's always seems to always be above the nest entrance, and they'll just be going back and forth and back and forth. And they're all doing it's like it's crazy. It's like they're so crazy.

Amy 49:09

Maybe they're just maybe they're having a dance off or a drum circle or something.

Jamie 49:15

Who knows what goes through the minds of a bee. I tell you, they're incredible creatures. So yeah, anything's possible.

Amy 49:21



Okay, so we really don't want to 100% know why they do that.

Jamie 49:24

it's just waiting for some brilliant student to figure it out someday.

Amy 49:29

Sometimes I do where things and just doesn't make sense, but I do it anyway.

Jamie 49:34

We have to figure that out too.

Amy 49:36

Yeah, okay. We'll do research on us.

Jamie 49:39

Amy the investigator. Someone could probably do a dissertation on you.

Amy 49:42

Probably. I would be so interested to see what they come up with. All right. I would try not to be too offended by the results of this study. Okay, so everyone, thank you. Again, I apologize one more time for the Instagram. I've learned I'm still learning how to use technology apparently, but I will get to all the questions that we have an Instagram, Facebook, email and any other way you want to contact us. Leave me a voicemail if you'd like. But go ahead and follow us. Go to a podcast app and rate us if you can, that would be really great. I'm actually not 100% sure what the rating does for us, but it makes Jamie and I feel really awesome. We feel very accomplished and successful. So keep it up. Thanks a lot. Hi, everyone. Thank you so much for listening to this week's episode of Two Bees in a Podcast. We would like to give an extra special thank you to our audio engineer James Weaver, and to our podcast coordinator, Jacqueline Allenje. Without their hard work, Two Bees in a Podcast would not be possible.

Jamie 50:46

For more information and additional resources for today's episode, don't forget to visit the US IFAS Honey Bee Research and Extension Laboratory's website, UFhoneybee.com Do you have questions you want answered on air? If so, email them to honeybee@ifas.ufl.edu or message us on twitter, instagram, or facebook @UFhoneybeelab. While there, don't forget to follow us. Thank you for listening to Two Bees in a Podcast.