

Episode 100 Mixdown PROOFED

Wed, Apr 20, 2022 12:46PM • 32:14

SUMMARY KEYWORDS

beekeepers, bees, colonies, jamie, swarm, nectar, podcast, amy, queen, nectar flow, production, honey bee, beekeeping, talking, hive, pests, super, good, hear, honey

SPEAKERS

Unknown, Guest, Jamie, Amy, Serra Sowers

Jamie 00:10

Welcome to Two Bees in a Podcast brought to you by the Honey Bee Research 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.

Amy 00:50

Alright, everyone, we are at the end of April, and we're getting into May. Today, Jamie and I wanted to do a monthly management segment just to discuss what we're doing in May because, really, in May in Florida and across the country, across the world, maybe, we may be in prime honey bee production time. So, Jamie, let's talk a little bit about May and what we need to take into consideration as we're going into this month.

Jamie 01:16

Yeah, so May is such an important month for bees and beekeepers. I know, at least, in many places around the northern hemisphere, it's where your pollen and nectar flows tend to peak. Yes, you can get pollen and nectar flows in April, yes, you have them continuing into June. But if it's roughly a bell-shaped curve, we are at the top of that bell in the month of May. In fact, there are many resources available, generally speaking, this time of year that colonies are as strong as they absolutely will be all year. So, as beekeepers, it is very important to us, especially if we're managing production colonies, to have those colonies ready in February, March, and April to take advantage of what Mother Nature gives us in May. And if you're a new beekeeper, you've got a different set of things that you're going to have to address. I really look forward to talking about what we should do as beekeepers this very important month in the beekeeping season.

Amy 02:12

Okay, so what would you say is the most important thing that we need to consider? Or that we need to look at as far as what beekeepers need to have in check in May, or by this time, I guess?

Jamie 02:23

Yeah. So that's a great question. So I'll make a couple of comments here. By the time you reach May, you want all of your diseases and pests very under control. In fact, so much under control that you don't want to have to worry about them at this point. A lot of the things that you might have to do to control a specific disease or pest may include, for example, a chemotherapeutic intervention. In other words, you need to use some sort of chemical to control whatever the issue is, an antibiotic or pesticide, whatever. And a lot of those things can't be on during honey production season. And since May corresponds to honey production season for a lot of folks, you just have to have already got that under control. So I like colonies to completely be absolutely healthy from a disease and pest perspective by the time you roll into May. But if I had to broaden and say, assuming that is the case, and assuming you're going into May and your colonies are strong, and the production season is around the corner, what's the most important thing that you have to do during production season to ensure that your colonies remain strong and productive? It would deal exclusively with queen management and all of the things related to that.

Amy 03:39

I feel like even here at the lab, that's what our beekeepers and our technicians are all working on. They are just trying to keep queens strong. We've just got an order of queens in, actually, and so, what are we actually doing with the queens? Can you elaborate a little bit more on queen issues?

Jamie 03:55

Yeah, and for the purposes of all the folks who are listening to us right now, I'm going to be talking for the next few minutes from the perspective that we are trying to keep production colonies ready and strong and doing their thing. Of course, this is also a time of year that folks might purchase and acquire bees and have brand new colonies. Maybe you're going to take advantage of May for other reasons. But for the purpose of this discussion, at least at this moment, I'm talking about production colonies. So, Amy, to address specifically your question, if you want colonies super strong in May because there's so much nectar coming in and maybe you're trying to produce honey or because you want to split colonies and make packaged bees or nucs or queens or because you have pollination contracts, if you want bees strong now, you must manage your queens. So that simply starts with having a queen in every colony. You have to have queens in your production colonies. The moment a colony tries to requeen itself during production season, its attention has shifted from production to requeening and that can cost you significantly. I know I've said this before on this podcast, but when your colony loses a queen, I'm going to round everything, to the nearest week to make this easy to discuss, but when your colony loses a queen, it can take roughly two weeks to make a new one from egg to adult, roughly two weeks for her to mate and lay her first egg, and roughly three weeks for that egg to go through the larval, the pupal, and up to the adult stage. If you've been keeping track with me, I'm holding up seven fingers now in response to those weeks. So if your colony goes queenless in May, you could lose seven weeks of bee and brood production at a time of the year when your colonies most need their queen. So it starts

with having a queen in your hive. And she can't just be there, she can't just be present, she has to be good. And this is something you should have addressed leading up to now, but it's not too late to address if you have queens on hand. Amy, you were asking, specifically, Jamie, we just got some queens at the lab, what might we be doing with them now? A lot of it's to create new colonies, but some of it's to fix queen problems. We are in production season now, and we want our colonies to be led by productive queens and have good brood pattern producing a lot of offspring whose offspring are productive, etc. And if we see heading into May that that's not the case, we absolutely will requeen our colonies to ensure that we have a good queen. So not just the queen, but a good queen. So that's a really good way to think about queen management, at least one aspect of queen management, in May.

Amy 06:32

Yeah, I was about to bring up the other piece of queen management, which is controlling swarms. I mean, swarms have been happening. And I feel like they've been happening even earlier this year. But I don't know, maybe we say that every year, like we just don't expect it when they start to swarm.

Jamie 06:49

Thank you so very much for bringing that up. Because as you know, you've been around me for a long time, swarm management is one of those things I consider under the umbrella of queen management. Swarm management is partly queen management. And so when you brought it up, you're absolutely spot on 110% correct. Why is swarm management queen management? Well, it's real simple. When a colony swarms, it has to requeen itself. So not only did you lose 50% of your bees, whatever average swarm percentage of bees that you lose, you also lost the laying queen. And if you get a secondary swarm or a tertiary swarm, those after swarms, you've also lost the next virgin queen available to go out and mate and take over that hive. So you want to practice swarm control if you are into honey production because you need your colonies to be as strong as possible. You can't afford to lose the bees, but you also can't afford to lose the queen. So swarm control, if you go back to our February, March, and April, monthly management, swarm control continues through the month of May because you're wanting to keep all your bees and that good, healthy laying queen. Now, that's if you're a honey producer, right? But you might say, "Well, Jamie, that's all well and good, but I'm actually into producing packages or bees," or, "I'm into producing nucs or colonies for sale, or for myself to expand my operation." In that case, you can take advantage during May of two things: Mother Nature's bountiful supply of nectar and pollen to feed your bees, and secondly, your colonies' innate desire to split itself. So your colonies are strong in May. You can take advantage of that by making splits and using the incoming pollen and nectar to provide the food to grow those splits. So if you're into honey production, you're going to want to control swarming as part of your queen management regimen. But if you're into bee production, you may take advantage of that swarm impulse to make more bees or more colonies.

Amy 09:02

Right. So, during this time a year, I guess, because they're bringing in resources is it necessary for beekeepers to feed or add supplements of any sort for the bees?

Jamie 09:15

It's not so common this time of year to have to feed but I'll obviously preface that with a lot of caveats. If you're keeping production colonies and May is your peak honey flow month, then Mother Nature is really feeding your bees for you. There's a lot of incoming nectar sources and that's what you want. You want the bees to be able to collect that nectar and convert it to honey. That's exactly what you're going for as a production beekeeper. But there are times when you're making splits or maybe you've purchased new colonies, and this is brand new to you, or you've got small nucleus colonies that you just moved up into full-size production-sized hive bodies. In this particular case, you could feed if there's no incoming nectar, but the benefit of acquiring colonies or making splits this time of year is that there's usually incoming nectar that will feed and grow your colonies for you. So generally speaking, you don't have to feed in the month of May because there are bountiful supplies and resources available in the environment. But if you're a new beekeeper with new colonies, or if you're, for that matter, someone who split colonies and you've got these young, growing colonies, you can take advantage of the incoming pollen and nectar to grow those colonies so that you don't have to feed but you do need to know, if you are making splits or purchasing new colonies or having packages of bees this time of year, that's really what the nectar source is going to do for you. It's going to grow and establish that colony. Your colony is unlikely to make surplus honey unless that May nectar flow extends into June or July. Usually, you're just taking advantage of that available nectar to grow the colonies without you having to feed them, but you don't really count on producing surplus honey that first year if you're starting with packages or nucs or if you've made splits this time of year.

Amy 11:01

Alright, so we were talking about the resources coming in, we're talking about nectar coming in, one of the questions that I receive pretty often during this time is, when do I add a super? When do I add a super to my hive? And how do I know when to add a super? I mean, I don't know. What's the answer to that? What do I do?

Jamie 11:21

Supering is part science and it's kind of part art. And it's just one of those things that you just have to experience and learn about over time. Let me just kind of back down to when I did it when I was a kid. So where I'm from in Georgia, my nectar flow would start trickling in reasonably enough to where I saw increased bee activity somewhere around mid-April. And I would know just by years of experience at the time, that my major nectar flow is going to be throughout the month of May. So I could just super upon anticipation. Right? I know it's coming, it's historically come these weeks, I want to make sure I have an empty super on by the second week of April to catch what may trickle in throughout April. I might want to add a second or third super at the beginning of May just because I know, historically, that's going to be when the nectar flow really picks up and the bees are needing the extra space. But if you're wanting to do it from a more practical standpoint, in other words, you want to see that they are using the space before you add new space, the general recommendation is, -- let's go back to my example. So I will super based on a calendar. By April 15, I'll have a super on. But from that point forward, it becomes more observational science. And this is what I'm looking for. When do I add my second super? Well, I add it when I see increased flight activity at the nest entrance and all evidence suggests that they're going after nectar rather than pollen. And how do I know that? Well, I'll look at the bees going into the hive, and are the majority of them carrying pollen loads on their hind legs or not? If

they're not, then I just kind of assume that their activity is because of increased nectar availability. Number two, when I'm working those colonies, and I'll pull a frame and turn it on its side, does nectar rain down on my boots or on my pants? If I lightly shake the frame does nectar rain down out of the frame onto the box? If it does, then that suggests to me that there is an ongoing nectar flow. Remember, nectar has a lot of water in it. So it's warm in a colony. When you turn a frame, it's likely to fall out of the frame with a little bit of agitation. And if I'm getting nectar dropping onto me while I'm working, that's a good indication that there's a lot of nectar coming in. Third, that first box that I put on by the middle of April, as I'm working that hive, am I seeing bees deposit nectar into those combs? Is it 50% full or is it 75% full? When I look down on those frames from above, are bees blanketing the tops of 7, 8, 9, or 10 of those frames? If I see increased activity, if nectar is raining down on me from the combs when I'm working those hives, and/or if I see a lot of bees in the uppermost super, and the super is more than 50 to 75% occupied with nectar, then I would add a second super. The next time I work the colony I'd use the same judgment to add a third super. May is the time of year that you're no doubt supering, and increasingly so, to take advantage of all that incoming nectar.

Amy 14:34

I've got a funny side note, and I think our listeners will really enjoy this. But our podcast coordinator realized that you have the one, twos, and threes. I don't know if you've ever noticed that but you always answer questions and you say, "Well, first, and second, and third." And you just did that.

Jamie 14:54

Well, good. First, my first reply to that is thank you for pointing that out. Secondly, I'd like to tell you that -- no, I'm just kidding.

Amy 15:04

Okay. Alright. So again, we're going into May, there are a couple of things that we just went over. First, we are already assuming that you have your pests and diseases under control. The second thing is making sure that you're fixing queen issues, or you're noticing any queen-related problems, and then controlling your swarms. And then, of course, lastly is supering as necessary. So, Jamie, did I get that right? Is that what you would recommend for beekeepers?

Jamie 15:30

Yeah, you're absolutely right, Amy. And one of the things that I will say on top of that, and you'll hear a lot of beekeepers say this too when there's lots of incoming nectar, it's hard for things to go wrong in colonies. Yeah, you can have them swarm, etc. But that's not usually when diseases and pests are taking out your hives or when starvation is taking out your hives. And it's easy to sit back in May and just enjoy the ride. If you got your diseases and pests in check, you've got adequate swarm control measures, your colonies are led by good queens, just sit back and enjoy what May does for your bees.

Amy 16:30

You know what, Jamie? We are on our 100th episode. Can you believe that?

Jamie 16:35

That's really mind-boggling. I cannot believe it's 100. It seems crazy.

Amy 16:40

How long have we been doing this? Two and a half years now?

Jamie 16:42

Yeah, seems like it's kind of blow by but I'm like, gosh, 100 episodes? That's huge.

Amy 16:48

I know. I know. So it's really funny because I think it was one of the people, one of the lab members, I had asked them to listen to an episode and was like, can you just listen to this for any mistakes, or just things that are a little off that we have to fix because we have an awesome podcast coordinator who helps edit everything. And so he listened to it. And he's like, "I've never heard you guys make mistakes." And I'm like, that's because we just leave the mistakes as jokes on the episode, right? And so our podcast coordinator thought it would be quite funny to put together a blooper reel. And she basically took all of our mistakes and pulled them together. I can't say all because that would probably take hours of content, but she decided to put a blooper episode together so people can hear that we do make mistakes every once in a while.

Jamie 17:39

Well, we really appreciate you guys listening to us. I mean, I know that this is a blooper episode. And hopefully, you'll enjoy it for what it's meant to be, which is just simply a good time. But, Amy and I have had such a great time over the last couple of years doing this for you guys. It's funny, Amy, we talk all the time. When I first came to UF, I did a lot of videos, and everybody for the next 10 years recognized me from the videos. "Oh, Jamie, I've seen your videos, blah, blah, blah." They always say, "Jamie, you're a lot older now and your hair's not as long and you're getting big." Like, that's how they usually start those conversations. But now, when I go places, they don't recognize me, but they'll hear me talk. "Oh, you must be Jamie. I recognize your voice," and I know you've said the exact same thing. I'll tell a quick story. I think it's funny. A lot of people kind of praise us for our chemistry that we seem to get along on the air. We actually hate each other behind the scenes.

Amy 18:33

Yeah, right. We just don't get along at all. I hate my job.

Jamie 18:36

This is our game face. Anyway, but it was funny, a person came up to me pretty recently like, "Yeah, Jamie, your podcast is really good. You're pretty good. But that Amy, she's great. Now, you guys have some good chemistry, but it's really Amy who's doing it all. You add the academic side but Amy's amazing." I'm sitting here going, "Okay, I get it. You don't need me. I get it. I get it."

Amy 18:58

That's not true. No, we're super excited, Two Bees in a Podcast has been fantastic. We have listeners who, again, like you said, like I was at a farmers' market, and I was talking to someone and someone

who was selling honey turned around and he goes, "Are you Amy?" And I said, "Who's asking?" He's like, "I recognize your voice," and I was just at a random farmers' market. So I thought that was pretty cool.

Jamie 19:20

I'll tell you, I used to listen to the radio a lot more than I do now. When you would hear these DJs talking you create these images in your mind of what they must look like, the guys are big and strong and strapping and good-looking guys and the girls are all great and blah blah blah blah. Then, when you see them like in real life or on the Internet, you're like, "Oh my goodness, these people." I wonder if that's what people do, like they hear our voices they create these images and then they see me and go, "Oh, jeez, Jamie, you're nothing like I thought you were." Anyway, I'm sure they don't do that with you, Amy, but for me, they're like, "Oh jeez." But it's funny because we started this podcast, Amy, but we don't get paid extra for this podcast, we don't get extra kudos for this podcast. We created it because we wanted to have, yet again, another way of getting information to beekeepers. That was our only motivation. We know a lot of you spend some time in cars or exercising and want to have something to listen to and that's what this is about.

Amy 20:21

Or listening to us while you're keeping bees.

Jamie 20:23

Exactly, while you're keeping bees, or even in the bathroom. I've heard people tell me, "Jamie, I hear your voice coming out of our bathroom all the time."

Amy 20:30

I forgot about that one.

Jamie 20:31

It was cute. But my point is we just do this for the beekeepers. The moment you guys stop liking this is the moment we'll stop producing it. If you like this and need this, just let us know on our social media accounts, send us more questions, tell us some ideas about how we can make this better and we will do our best to make that happen because this podcast is about you, the beekeeper, and it's about the health and protection and productivity of bee colonies, not just beekeepers and bee colonies here in the US, but all around the world. So thank you so much for making this so fun for us and so good for bees and beekeepers.

Amy 21:11

Yep. And enjoy this blooper episode.

Unknown 21:16

I need to leave. Should I just go ahead and leave so I don't make noise? Oh, we're going to be sad. Yeah. Okay.

Jamie 21:22

Yes, now is that time. Oh, you're giving a tour at the moment? Ah, so people are going to come by and see us doing this?

Unknown 21:33

I will make sure they don't. They are expecting a tour. Also, they have absolutely no knowledge. They know nothing.

Amy 21:40

They know nothing.

Unknown 21:40

They have not learned anything about honey bees.

Jamie 21:42

That's a really pretty bird that landed out there on that citrus tree. You see it? Black head, yellow body.

Amy 21:42

What kind of bird is it?

Jamie 21:42

Survey says it's the kind that flies.

Unknown 21:53

The kind that fly.

Amy 21:56

Was that you?

Jamie 22:02

Of course not. It was that bird.

Amy 22:02

That is really weird.

Unknown 22:03

Okay, cool. I might come out there and take a picture for social media. Are you okay with me posting about like, we're starting the podcast today? Like something like that?

Jamie 22:12

Yes. Oh, there's a bluebird, or more appropriately a blue jay. Oh, I'm going to ruin this podcast. We might be blacking out the windows.

Amy 22:26

Oh, there was a monarch on our plant yesterday.

Jamie 22:28

So I'm going to just do a trial run. We don't have to record this. Hello, and welcome to today's episode.

Amy 22:32

You know what, we're just going to have three questions every single time. How about that? You couldn't have said it better. So I almost feel like we should just stop it there.

Jamie 22:44

Here's a second trick.

Amy 22:47

What do you think?

Jamie 22:47

Gosh, 2012, 2015. Been a lot of commercial beekeepers. I gotta pause for a second.

Amy 22:57

That's pretty cool.

Jamie 22:58

It is cool. Bugs are cool.

Amy 23:00

Bugs are pretty cool. Maybe chickens?

Jamie 23:05

Maybe chickens.

Amy 23:07

Hi everybody. Sorry, hold on. Okay, I feel like Hermione Granger in Harry Potter. You know?

Unknown 23:14

Hermione?

Amy 23:14

Like Leviosa. Hermione, yeah.

Unknown 23:22

Oh, that's also a tomato, tomato situation.

Amy 23:22

Okay, all right. All right. Our podcast editor is going to love us after this one.

Unknown 23:31

Preemptive apologies. Yeah, so did I answer? I think I answered your question. Was there another question?

Amy 23:37

That was my question. Okay, so all right, let's see.

Jamie 23:46

So just say, "Jamie, any diseases and pests? Do we need to worry about that?"

Amy 23:49

All right.

Jamie 23:53

Or the... I'm going to pause here for a second. Another last thing that you might say is, "Well, Jamie, is there any other thing that you might think," because I just thought about it's also a good time of year to scout out potential apiary sites for honey.

Amy 24:10

Okay, all right. Okay, Jamie, so is there anything -- uh, sorry.

Jamie 24:16

Hold on just a second. Sorry, I'll just redo that. This always happens right after I eat. Number one, sorry.

Amy 24:33

Right --

Jamie 24:35

Sorry, go ahead.

Amy 24:35

Well, I was gonna say, um, hold on.

Jamie 24:40

So many ways to skin that cat. Did you know, Amy, I probably said this on the podcast, I'm sorry. But that's actually about catfish, and not cat the mammals. Nobody skins cats, the mammal, you skin catfish. And so it took me forever to realize that that saying is about catfish and not cats, the mammal.

Amy 24:56

I assumed you're talking about cats the mammal and I'm like, I don't do that but I have heard it. Ok, catfish.

Jamie 25:00

Well, there is more than one way to skin a cat... fish. All right.

Amy 25:07

That's fair. Okay, so I'm going to have Serra maybe take this part out. I thought the question was asking about eggs, honey bee eggs.

Jamie 25:16

No, the way I read it, it's wax moths.

Amy 25:19

Okay, wax moth eggs. Now, I feel dumb.

Jamie 25:24

I'm not sure how to comment on that. You're not dumb, Amy.

Amy 25:28

Thank you. Okay. Let's get to the second question. Serra, you can delete that part. Wow. Rubber bands. That's the word I'm looking for.

Jamie 25:41

Yeah, that's the next question.

Unknown 25:41

Do you want to switch to that one?

Jamie 25:43

I can get to that. So did you have anything else that you wanted to add to the beekeeper thing? Informally? It's okay. I think what you've said is great, because that's the thing that I would have said too. Okay, so I'll pause and then ask a question. Amy, did you think there was a clean enough cut, though, at the end of that, because I felt like when I jumped in, it was kind of ragged.

Amy 26:04

I think we should be able, yeah, we should be okay.

Jamie 26:06

Okay. So I'll pause and ask this question.

Amy 26:10

So I have a question. All right. Last question. Last question.

Jamie 26:16

This brings up a bigger problem with what to do about, sorry, I'm getting a call at the moment. I might have to let the phone call end. Sorry, can you hear it in the background?

Amy 26:33

Okay, what are the advantages and disadvantages of incurring? Oh my gosh, I can't read. Okay. And send us an email or give us a call. Except you might get voicemail because we might be recording this podcast. Profitability analysts. Oh my gosh, why am I doing that? Yeah, and I know.

Jamie 27:00

I'm gonna pause and let you ask me about that because then I can talk about making nucs or splits.

Amy 27:05

Alright.

Jamie 27:08

So a lot of commercial beekeepers and other beekeepers, for that matter, take advantage of this strong colony season because there's, hold on just a second, I've got to keep clearing my throat. Sorry, my phone's ringing. So let me pause for a second.

Amy 27:27

So that said, okay, wait, let me stop. I need to start over.

Jamie 27:33

And maybe, Amy, you'll need to end somehow. Sorry.

Amy 27:36

I was just going to end it there.

Jamie 27:37

No, I just think what you're saying was so good. And I always want to give that piece of advice because I've got a gallberry of Palmetto and a red maple, all that stuff in my yard. And it tells me when stuff's close to happening.

Amy 27:48

That's fair. I'm just gonna stop there.

Jamie 27:53

Are yes, yes, yes, yes, yes. Okay, now you go but you stay.

Amy 27:57

We need 50,000!

Jamie 28:01

We don't need 50,001, you stay behind! Because it contains two parts, they do not determine the size of their swarm. Let me restate that quickly.

Amy 28:15

When the work, so when the workers lay in a colony, so sorry, let me ask this again. Okay, so for our next question.

Jamie 28:27

I'm sorry.

Amy 28:29

Great.

Jamie 28:31

Yeah, yeah, yeah. All right. So I'm ready now so. I shouldn't sing then. That was Cameron, terrible. Terrible.

Amy 28:45

What do you hear now? Do you hear anything?

Jamie 28:46

Bloopers.

Amy 28:47

I feel like I'm really far away now.

Unknown 28:52

Jamie was like, "It sounds like a blooper reel," and that was just talking.

Jamie 28:59

Yeah, that's super duper loud for me. Don't do that. Thank you. Back to NPR. I'd like to say it's a fantastic day here. Peaches, peaches.

Unknown 29:14

While you're thinking, listen to this jazz recording over this jazz recording.

Jamie 29:21

While thinking about peaches. How do they grow peaches? What does it mean to be inside a peach? Florida State Beekeepers Association, Vice President of Bees Beyond Borders, Chair for the American



Beekeeping Federation Research Committee, second-generation Florida beekeeper, former Assistant Chief of Plant and Apiary Inspector for the Florida Department of Agriculture and Consumer Services.

Guest 29:59

Thank you for having me, Jamie.

Unknown 30:01

A long title.

Guest 30:04

Just call me Dave.

Jamie 30:09

Check your rings, cell phones off. So uhhh...

Unknown 30:21

Still pretty. Never heard my voice this clearly before.

Amy 30:24

I know it's kind of scary.

Unknown 30:28

I feel bad that other people have to hear me talk all the time because like it annoys me so much. It's cool we're doing the podcast.

Jamie 30:34

Every time I hear my voice, I think, "Forrest. Mama told me that podcasts are evil." So I said, "Mama, how else am I supposed to communicate?"

Unknown 30:47

I may not be a smart man but I know what a podcast is.

Jamie 30:48

Life is like a box of beehives.

Unknown 31:04

That's gonna be our intro.

Amy 31:10

Welcome back to this -- sorry, it's not welcome back. And I don't know what else to say after this. Okay, hold on.

Jamie 31:23



So I'm testing the mic, testing the mic, testing the mic.

Unknown 31:27

I'm gonna pause because I just completely lost my brain. Give me 3 seconds.

Jamie 31:31

That's okay, that's the beauty of it.

Serra Sowers 31:38

Thank you for listening to Two Bees in a Podcast. For more information and resources on today's episode, check out the Honey Bee Research Lab website at UFhoneybee.com. If you have questions you want answered on air, email them to us at honeybee@ifas.ufl.edu or message us on social media at UF honey bee lab on Instagram, Facebook and Twitter. This episode was hosted by Jamie Ellis and Amy Vu. This podcast is produced and edited by Amy Vu and Serra Sowers. Thanks for listening and see you next week.