

# Episode 16 PROOFED

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## SUMMARY KEYWORDS

bees, beekeepers, honey, hive, judge, beekeeping, honey bees, colony, cane toads, split, toads, apiary, put, amy, birds, mice, michael, pests, jar, problem

## SPEAKERS

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

### Jamie 00:05

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. Welcome to another episode of Two Bees in a Podcast. Today, we will be joined by Michael Young all the way from Northern Ireland. He is a member of the Institute of Northern Ireland Beekeepers and he is a world expert on honey judge programs. Then we will be joined by Dr. Bill Kern from the University of Florida Fort Lauderdale Research and Education Center. He will be finishing his series on pests of the apiary by discussing miscellaneous pests. I just want to spend a moment talking to you about the situation that Amy and I find ourselves in. The next few podcasts that we will be releasing will be released while Amy and I are working from our respective homes because of the COVID-19 outbreak. So as a result, I wanted to tell you, our listeners, that the sound quality may be iffy in some places. We wanted to make sure the show continued. But Amy and I had to search in our respective homes for the best place to record. And believe it or not, those places were our respective closets. So Amy's in her closet recording various aspects of podcasts moving forward and I am as well. So I wanted to apologize about the quality of some of the sound. But I wanted to make sure that you know that we are committed to bringing you up-to-date cutting-edge information on honey bees and beekeeping. We're doing that by making sure that we're able to record and offer podcasts while we are at our home during this time of global pandemic. Welcome to Two Bees in a Podcast. I'm host Jamie Ellis accompanied by Amy Vu. What's up, Amy?

### Amy 02:26

Oh, hey, hi, everyone.

### Jamie 02:27

That's the best you can do?

### Amy 02:28

That's the best I can do.

**Jamie 02:29**

I said What's up, Amy Vu? And you said, "Oh, hey, hi, everyone." Okay, well, I'll take what I can get. Amy, we've got a real treat for our listeners today. Wouldn't you agree?

**Amy 02:33**

What's up? Better? I agree. It's, well, I'm just gonna say royalty.

**Jamie 02:44**

Royalty? I think that is a fair way to describe our next guest. So who is our next guest? Our next guest is none other than Mr. Michael Young. Michael is a retired executive chef from Northern Ireland. He was in the kitchen for 53 years. I wonder where he is now. I guess in the rest of the house. Not only is he a retired executive chef, but he also taught chefs. He lives in Hillsboro, Northern Ireland. He's the past Chairman and founder of the Institute of Northern Ireland Beekeepers. He has four daughters, nine grandkids, is the owner of a Harley Fatboy motorcycle.

**Amy 03:27**

Fancy.

**Jamie 03:28**

He's a senior Welsh judge, a British Welsh honey judge, Scottish Welsh honey judge, sorry I said Welsh, Irish honey judge, Georgian honey judge, Floridian honey judge, this guy is Mr. Honey Judge. Michael, welcome to Two Bees in a Podcast.

**Amy 03:43**

You know what else he likes?

**Guest 03:44**

That was a great, great start, Jamie. My face is blushing here. And it's great to be with you. I mean, really is, and hello from Ireland.

**Amy 03:55**

Yeah, I was gonna say that Michael loves to follow us on Facebook and he loves to share and comment and voice his opinions on it. So he's a great person to have on the podcast.

**Jamie 04:06**

Well, shoot Michael. Thanks for being such an avid follower.

**Guest 04:10**

Chocolates are on the way, Amy.

**Jamie 04:13**

One of the things I didn't mention, and I'm gonna try not to chase this rabbit too much, but Michael, I consider you a personal friend. I've known you for a long time, been at your house many times and vice

versa. But I'll try not to chase that rabbit because we really want to spend some time talking to you about honey judge programs if that's okay.

**Guest** 04:29

That is excellent. Thank you for that. But I'll just say one thing. I first met you in 1999 when you were dancing.

**Jamie** 04:37

I think you're mistaken, Michael, because I'm Southern Baptists and Southern Baptists are not allowed to dance.

**Guest** 04:45

I have the photographs.

**Jamie** 04:46

Oh, well, maybe I was being Methodists for just a moment.

**Amy** 04:49

We'll share it to the additional resources on the website.

**Jamie** 04:56

You're obviously a sought after speaker, not only in our program here in Florida, but around the world. So I want to talk to you about honey judging. We've mentioned you're a Welsh honey judge, a British honey judge, Scottish county judge and so on. What are honey judges? What are honey judges and what do they do?

**Guest** 05:16

Well, Jamie, honey judges are very eccentric people. They're a wee bit different than the average guy. But they come in all shapes and sizes, fat, thin, big, grey, everything. That is what a honey judge is about. But a honey judge, Jaime, is really a person who values their bee produce and makes it so clean, tidy, and fit for sale. They don't just put it in the jar, they make sure everything is clinical, and just like washing a car, that's what they do with it. They're proud to be a beekeeper. But they want to be proud to be a honey judge so they can basically wash the car, make them look really smart. And that's basically what a honey judge is, in my case.

**Jamie** 06:07

I love the fact that I asked you what is a honey judge and that you said it's not just honey, right? It's hive products. It's a bit of a misnomer. It's almost like a hive product judge. Honey is one part. But the idea is that you're taking the products of the bees, refining them and readying them and showing them for, really, the beautiful things that the bees actually intended them to be.

**Amy** 06:29

Yeah, so, Michael, can you tell us how you got into honey judging and maybe a little bit of history about honey judging?

**Guest** 06:34

My wife came home one day and said, in the 90s, early 90s, my hairdresser's brother is selling a box of bees. I knew nothing about bees so I purchased it.

**Jamie** 06:47

Of course.

**Guest** 06:48

So she really started off. But I get so addicted with honey. And I'm a chef, right? Chefs like to present food, like a masterpiece, like Rembrandt. They do a painting Chefs create, they have an artistic license that they can create a beautiful piece of food on a plate. And that goes for me on the honey and candles and mead and whatever we do. I love to take the basic products and turn it into something special. And that's what honey judges do.

**Jamie** 07:22

Okay, well, how long has this been a thing? I'm sorry to ask that question in such a weird way. I became aware of it really kind of when I started as an undergrad at the University of Georgia. But, presumably, before that, I mean, people have been judging hive products for a while, right? There's an art, there's a science to this. So what is the history of all of that?

**Guest** 07:42

Well, the history really starts back in Britain, of course. I think the Welsh, the Welsh were pretty good at that in those days. They're looking at about 1829, 1830s was when they had their first. I mean, the British were absolutely nuts. They're not showing anything. There's a competition in Yorkshire for the biggest leek.

**Jamie** 08:08

Of course, there are. Of course.

**Guest** 08:10

There are competitions for everything. And that's one good thing. When you have competitions, competition raises the standards of the product. And that's what it really does. Now, the first really big, big honey show was in 1885, which was a monster of a show. It was called the Indian and colonial honey show. So what the British beekeepers did, they bought a lot of honey from -- now, let me get this right. I'm getting confused here. They invited all the Commonwealth countries to participate in a honey show in London. That first one actually was in 1885. So the honey judges have been going since 1885 and way before that, and we're still getting better. That's the way it is. I mean, something starts off with an idea, and of course, then, it blossoms into a big flower. It's beautiful. When you go and see some of the hottest -- take Virginia Webb. You know of Virginia, don't you?

**Jamie** 09:16

Virginia is a beekeeper in Georgia who just understands making hive products right. Yep, she's really great at this.

**Guest** 09:25

She is the perfect example. Virginia is one of the best honey judges in the world.

**Jamie 09:30**

Absolutely.

**Guest 09:30**

Her products are superb.

**Jamie 09:32**

Indeed.

**Guest 09:33**

And if you remember, when I first went to Georgia, there were no honey shows such being professionally judged. So you need, if you're Jamie, if you are, or Amy, if you're making a candle and you put in the show, you want a professional person to judge that because you took hours and hours and hours. You don't want the milkman coming in and saying judge that.

**Amy 09:55**

They can judge milk.

**Jamie 09:57**

Nothing against milkmen, of course. Used to. I think the listeners are still trying to figure out what's a leek. No, it's okay. I love this. But one of the things that you said that is so true, I've been to the UK many times, and it just seems like the British really, they do show everything. Just what you mentioned. And they take a lot of pride in their product, your quote here is perfect. When you have a competition, it raises the quality of a product. So honey shows have done that. And they have taught beekeepers how to invest in the value of their product, how to show their product the best way it can be shown, how to present it to the public the best way it can be presented, and I think we have honey judge programs and honey judges like yourself to thank for that. What do you say about that?

**Guest 10:53**

100%. In fact, you're never not 100%. Nevermind just now. You're always 100% absolutely right. I must thank you actually, and Georgia and the rest of the American beekeepers because you have started a training program in Florida and so did Georgia, and it's moving on there. That is awesome because that shows people A, to actually take the product to a standard, train honey judges, train them out to do the thing right. And again, I'm going back to Virginia here. This is the genius jar of honey she left me with her first win in 2005. Now, when you can take an ordinary beekeeper who knows nothing about putting honey in a jar, nothing at all, and ends up one of the best exhibits in the world, that is fantastic. And Jamie, you do a fantastic training program, as does Georgia. But you do a brilliant program, and I'm not patronizing you here, your programs are nothing compared to what the British have. Your training programs, actually, have got over 100 judges. The British beekeepers have only 20. Now, why is that? They've been over 100 years in the business. Because they don't do training programs like you.

**Jamie 12:17**

Thanks. Well, let me ask you, Michael, so as an interested beekeeper, I can put honey into a honey show, but what else can I put into a honey show?

**Guest** 12:26

Well, I'll give you an idea. We have 52 classes in our honey show.

**Jamie** 12:30

Wow.

**Amy** 12:31

That's a lot.

**Guest** 12:32

52 classes. Now, anything with a bee on it. You can make something, you can make a class for that particular thing. If you're gonna make, say, pottery, you can have a class on honey pots, which is the best honey pot? That's a good idea. I never thought of that, actually. Yeah, so you have candles, you have embroidery, photography, you have models, beeswax models, you have honey, of course, chunked honey, cut comb, bass honey, frames for display. It's endless. Honey bread, honey cakes, sweets, you call them candy, don't you? We call them sweets. You always change names.

**Jamie** 13:19

That's what the Americans do best. We take something nice and just kind of turn it around a little bit.

**Guest** 13:24

Yeah, it's endless. It's absolutely endless what you can do in a honey show.

**Amy** 13:30

Yeah, and I know, Michael, we have honey shows throughout the state, we have one at Bee College. We have one during our Bee College. We do the honey judge training during that time. Besides the shows, looking at it from a long-term impact perspective, what else are people doing? After they go, they submit their jars of honey or their candles, or their artwork, then what happens then? It doesn't just stop there, does it?

**Guest** 13:57

No. You prepare for the next show.

**Jamie** 14:01

There's always the next show.

**Guest** 14:03

Okay, but to be honest with you, Amy, when you look at what you've just said, there, not everybody likes honey shows. Not everybody. Maybe not their cup of tea, basically. When you do get someone who's interested, it's really so contagious. It rubs off here and you want to be a honey judge and you want to do this and you want to improve your standard. Now, if you, Amy, put in a candle or, say, you're

producing honey, and you've got a first prize, do you realize that, if you're selling it, do you realize the market you can attract if you've got a first prize in a big honey show?

**Amy 14:45**

Yeah, I can imagine.

**Guest 14:45**

It is incredible. It is incredible. I think that's one plus side. Money, value on honey shows. But I don't do it for that. I do it because I love to raise the standards and raise the bar for all beekeepers.

**Amy 15:02**

But there's potential for the economic value.

**Jamie 15:05**

Yeah, I think you're right, Michael. You said that not all beekeepers are necessarily interested in shows. But I do feel that all beekeepers can benefit both from Welsh honey judges, because to me, to become a honey judge means that you have risen to a level that you understand what's necessary to produce the premium product. But likewise, I feel it's a good idea for individuals to enter their hive products in honey shows because they will receive feedback from trained judges and that feedback can help them develop better products and command a higher profit when they sell these products. So what do you say as a judge when you are trying to convince people that is valuable to them to put their hive products in honey shows? How are you going to sell me on entering my honey or wax or etc. into a honey show?

**Guest 15:58**

That sometimes depends on the individual because there are a lot of individuals don't want to go near a honey show. But I certainly would certainly say, listen, it's not just about winning, in a sense, because you are going to learn how to prepare your product the best it can be. 'll give you an example. I had a friend Billy, nice old guy, he's dead now. He used to bury his money under tractors. He hated the tax man. He hated the tax man. Every time I went through in his apiary, he'll say, "There's money under that tractor wheel." Honest to God.

**Jamie 16:32**

I mean, when he passed, did you get your shovel? I mean, Michael.

**Guest 16:35**

No, and every time we walked past a hive, he said, "There's money under that hive." And I said, "Billy, don't tell me. I do not want to know." And all he was doing was telling me where his money is because he trusted me. But anyway --

**Jamie 16:50**

You just told everybody through our podcast.

**Amy 16:53**

Where did he live?

**Jamie 16:55**

What was his address? GPS coordinates, please, Michael.

**Guest 16:57**

Billy actually was an old guy. And I said, "Billy, you must show some honey." So he eventually did. Now, I was judging at his show and I found a spider in the bottom of the jar. Spider, right? So I know what happened here. Because the guy obviously didn't clean his jars. He just took the jar out the box and filled it up. Now, a spider fell in there but couldn't get out. But the one thing about a spider poured in a jar of honey, it sort of webs itself to the container. It sticks itself down so it doesn't move. So this spider actually was in the back. After I disqualified it, I said to the honey show manager, I said I need to speak to this guy. I need to speak to him. And who is it? Oh, it's Billy. Oh my god. I asked him to go on the show. Anyway, I called him after the show was over. I said, Billy, I said, "I know what you've done with that jar." I said, "You put that in your shed, and you haven't cleaned it. And also, can I just say something? I smell creosote in the rubber when I turn the lid over." A lot of beekeepers stored there jars and lids in the shed. And that rubber pulls in any bad aroma and stays in there. "Why, what's wrong, Mike?" I said, "Listen, there's a spider in there for goodness sake." He said, "Oh, yeah?" So I showed him he said, "I'm sorry, Mike." I said, "That's okay. But now you know to next time you don't do what you've done. You clean the jars, so you improve your standards."

**Jamie 17:13**

I think that's probably the best story ever, to tell people that entering honey shows is a way to improve your standards and to get feedback.

**Amy 18:54**

To not have spiders in the bottom of your jar.

**Jamie 18:56**

So one of the things, I think, that's important, maybe, that we glossed over with what you just said is you said you had to speak to the show secretary to find out who the person was. A well done honey show, the entries are anonymous. The judges don't know who submit each entry. Right? Isn't that true?

**Guest 19:14**

That's absolutely right. And in the old days, if you enter six entries, they will all have a different number. So, Amy, if you entered six jars, six different classes, and you have the same number, and I knew you as a judge, and I saw you putting one jar in, I could get your number. So your numbers are all over the place. So if I was a corrupt judge or a bad judge, not that I'm saying they are out there, but they are, I could go around and pick all yours as first prizes. So the most important thing about that is the honey show secretary is so valuable and so important that she knows what to do. We don't go near the honey show secretary while she's doing all the paperwork because we don't want to have that risk. I wouldn't say cheated, but causing problems. A honey show secretary, and I know Glinda, she's awesome. But they're worth their weight in gold. The work they do is incredible. It's more than the judge. It just comes and goes.

**Amy 20:31**



Yeah, so we're talking about the honey show. We can circle back around to the actual honey judging and honey judge training. What does it take to be a honey judge? What requirements does it take for someone to become a honey judge? Are there different levels? Or what does that look like?

**Guest** 20:46

Yeah, there are different levels, there are three levels. First, you need to start going through the introduction training class, how to become a honey judge, that's your first one. You can't go to a show and say, how do I become a honey judge? You have to go to the first training class, which is the introduction of how to become a honey judge. That sets your path, and then you go away, you've been told to go away, and you exhibit as many products you want, but you must have 75 points. Now, a first prize is six points, a second prize is five, and so forth. Third is four. You collect 75 points. And that will take you up to the next level until you get to 75. So what I'm saying here, and it's across the show events, it's just not honey, you've got to be good at panels, you got to be good at honey cakes, you've got to be good at honey. So it's not just you got to be good at honey. You have to know your salt across the show bench. And that's important as well. So you go out there and also you stood under as many honey judges as you can, professional honey judges. You don't want somebody, the milkman who has never shown or judged anything. You have to have --

**Jamie** 22:08

There's that milkman, again.

**Guest** 22:10

Yeah, the milkman. We have a great milkman.

**Jamie** 22:12

Michael, I think you've already burned that bridge, buddy.

**Guest** 22:19

But that's how you do it. You have to get the points, and then you have to train or steward under at least 3 honey judges, professional honey judges, then you come back to the second level.

**Amy** 22:31

Which is?

**Guest** 22:31

Does that answer your question?

**Amy** 22:32

And the second level is an advanced training.

**Guest** 22:35

An advanced training. You come to the class, the training, you are shown how to produce things, produce, prepare, and show. How to show, which is a fantastic class, and really, if you want to be a honey judge, there is no way in this world you're going to be a good honey judge unless you go to those training classes.

**Jamie** 22:56

Yeah, I think that's a really good way to put it. Not only do you have to go to training, but you have to compete and win in a honey show so that you know what it's like to prepare the entries, which will make you a better judge of the entries. I think that's really neat that you guys have set up your program that way. That's really neat. So you still enjoy it after all these years? You still enjoy going to show and picking up that jar of honey and helping the individual who put that there know what they did and didn't do well?

**Guest** 23:28

Yeah, I do, Jamie and there are different types of exhibitors out there and different types of people. They're not all the same. So you have to treat them differently. I'm in Washington, DC with Jennifer and Kaya next month, and they're doing a training program, which is brilliant. So what you've started now, someone else has started, which is fantastic. Then we go into Knoxville and they're doing a training program there as well. So it is contagious, but the right people will then develop from your training and further on. And it's great. I'm so pleased about it.

**Jamie** 24:08

So Michael, I've really enjoyed this interview. I appreciate you joining us today to talk about honey judge programs as well as entering honey judge programs as well as becoming a honey judge. My favorite quote that you said, I've already stated it, but this idea when you have a competition, it raises the quality of a product. I really think that is the value of honey shows. It helps all of us make our hive products better. So thank you so much for joining us.

**Guest** 24:34

You're welcome and thanks for having me.

**Jamie** 24:36

Absolutely.

**Guest** 24:36

I really enjoyed seeing you two.

**Amy** 24:39

Thanks, Michael.

**Jamie** 24:39

Well, listeners that was Michael Young, who's been an executive chef 53 years in the kitchen. He's now retired and hanging out in Hillsboro, Northern Ireland with his wife.

**Amy** 24:49

He's rolling his eyes at you.

**Jamie** 24:50

His daughters, his grandkids, he's riding his Harley Davidson Fatboy and when he's not doing those things, he is traveling the world judging honey shows as well as teaching future honey judges. Michael, thank you.

**Guest** 25:05

That's my mead.

**Jamie** 25:07

Thanks for listening to Two Bees in a Podcast.

**Guest** 25:10

You take care.

**Jamie** 25:10

Bye now.

**Honey Bee** 25:17

For more information about this podcast, check out our website at [UFhoneybee.com](http://UFhoneybee.com).

**Jamie** 25:25

Beekeepers, there are lots of different things that love to attack bee hives. The bees inside can be a food resource for them, the honey can be a food resource, the physical nest structure might be a place that these things want to live, and there's another category of organisms, I call this kind of the miscellaneous category of organisms, that can be apiary pests. Here to talk with us today about the threat that birds, small mammals, and amphibians and reptiles pose to honey bee colonies is Dr. Bill Kern. Dr. Kern is an Associate Professor in Entomology in the Entomology & Nematology Department at the University of Florida Fort Lauderdale Research and Education Center. Hey, Bill. Thanks for joining us, again, for what is another segment in this series of segments on apiary pests.

**Guest 2** 26:10

Glad to be here.

**Jamie** 26:11

Amy, did you know that birds can be a problem for bees?

**Amy** 26:14

I did not actually.

**Jamie** 26:15

Have you ever heard of the birds and the bees? This is not what we're talking about right now. We're talking literally about birds. All right.

**Amy** 26:21

Tell me about birds.

**Guest 2** 26:23

And one of the things that you have to be aware of is when you have a bee colony, you have lots of bees flying around.

**Jamie** 26:30

That's right.

**Amy** 26:31

Do you?

**Guest 2** 26:31

Yeah, yes, hopefully. Hopefully. Yeah.

**Jamie** 26:34

Some beekeepers don't and we get complaints from them, usually.

**Guest 2** 26:37

So there are lots of birds that are primarily insect eaters.

**Jamie** 26:42

That's right.

**Guest 2** 26:42

Matter of fact, there's a whole group called the fly catchers that specialize on catching insects on the wing. And they will feed on honey bees, they will grab honey bees out of the air.

**Jamie** 26:55

They'd be bee catchers, though.

**Guest 2** 26:57

Well, no, bee catchers are in Africa.

**Jamie** 26:59

I'm being facetious. You called them fly catchers, and surely, the bird must have gotten confused and caught a bee by accident.

**Guest 2** 27:04

Yeah, well, anything that's flying.

**Jamie** 27:06

I gotcha.

**Guest 2** 27:07

Maybe it should be flying insect catcher.

**Jamie 27:09**

I agree. That seems like a better common name.

**Guest 2 27:13**

And so they're eating bees. But, they're not really hurting the colony. I don't usually see bird problems in North America. Now, in Africa, you could very well, especially if you got, what's that little bird? The little quella?

**Jamie 27:19**

It's funny, Bill, I had an email some years ago, from a beekeeper in the Middle East, I forget which country he was in. But he said that the bird problems there were so significant that they were losing huge populations of their field force. And so they were asking me for ideas. Of course, we don't really have major bird problems here in North America. There are some. We'll talk about that. But I looked up for him and found that a lot of people in these areas where birds are a significant problem actually put bird nets over their apiaries, which are basically like fishing nets that they would suspend in the air so the bees have no real big problem getting through the nets to go out forward but birds have a problem hunkering down close to those hives. You think those are effective at all? Limiting bird problems? Sure.

**Guest 2 28:13**

That forms these huge, huge flocks, and they're sparrows, so they eat insects, and I could see them going through and just decimating the bee populations. The field force, I don't see them going after the colony. But they will eat the bees that are out foraging. The one problem that you may occasionally encounter is woodpeckers. But I usually see woodpecker damage associated with carpenter bees. They're opening up the wood to get to the carpenter bees, the larvae and the pupi inside the wood. So for honey bees, I haven't seen very much sign of bird damage.

**Jamie 28:59**

Yeah. So I agree with that. I would say around the world, birds probably pose a fairly minimal risk to bees, but there are some places that they're a big risk. And I think in those cases, using bird nets might be a good way to strategize against them.

**Amy 29:12**

Yeah. So okay, let's move away from birds and talk about other miscellaneous pests that are in the apiary. What about amphibians and reptiles? Do they pose a problem to honey bees at all?

**Guest 2 29:23**

Again, usually, they're going to be associated with a reduction in either the guard bees at the entrance of the hive or the foraging bees. In some cases, toads are notorious, especially in South Florida and Central America, the Caribbean --

**Jamie 29:40**

Australia.

**Guest 2 29:41**

Australia. The giant toad will just come out and they'll sit at the entrance and just snap up the bees that are coming to the entrance of the hive. And eventually, they could do some significant damage.

**Jamie 29:58**

A lot of these things, especially like cane toads, which are the toad everyone's heard. This toad that was brought in to deal with pests around cane populations, cane plantations, etc. These toads have gotten out and I remember when I was in Australia, they're such a big pest. They come in at nighttime, kind of do a little bit of scratching at the colony entrance, these bees will come out, and the toads will just sit there and pick them off. So a lot of Australian beekeepers, this'll be a little graphic, but it's still an interesting way to deal with it, what they did is they would put down sheets of plywood in the apiary because during the day, the cane toads would go hide up under those and when they would go work their bees, they would pull up that plywood and stomp on all the cane toads. Remember, for those of you who are panicking here, these cane toads are an invasive species. They're causing significant damage. So that was their way of kind of dealing with cane toads in the apiary. They'd provide a place for them to hide. When they go work the bees during daylight hours, they'd pull up that piece of plywood and stomp them. So, I've seen a lot of different things with regard to cane toads and addressing toad problems in the apiary.

**Guest 2 30:55**

Australians have actually developed a whole series of cane toad traps. Remember, we're talking about the same animal, the cane toad, the giant toad, the marine toad. It's all the same thing. It's originally a tropical American toad that was moved around the world by people to cause all kinds of problems for sure, but they thought they were doing good. They were trying to control sugarcane pests.

**Jamie 31:23**

There you go.

**Amy 31:25**

So are honey bees able to defend themselves from all these birds and amphibians and reptiles? Why are honey bees not defending themselves or able to sting these animals to death?

**Guest 2 31:38**

Oh, they probably could.

**Jamie 31:40**

That's the weird thing. They do. Right?

**Amy 31:41**

They do, okay.

**Jamie 31:42**

They'll dissect these toads and they'll have stingers down their throat, so these bees are stinging on the way down. It's crazy.

**Guest 2 31:50**

And they may be somewhat resistant to the venom. But it's surprising. I mean, if you think about what toads eat, they eat some tough stuff. It's gonna be like beetles and stinging ants. So bees probably aren't that much worse than anything else.

**Jamie 32:11**

So let's stay in the amphibian and reptile category. In my own colonies, I have occasionally seen lizards be the consumers of my bees, especially like the green anoles that we have here. There'd be lizards around the world that would do similar things elsewhere. But they would sit on the outer edges of the hive and they wait until a bee gets by and they'll grab that honey bee and eat it as well. But, even still, kind of in this miscellaneous category, if you think about birds, think about toads, think about lizards and some other things, these are usually minor pests. I know cane toads have been big pests and problem for bee colonies in the past, but usually more minor pests, wouldn't you say?

**Guest 2 32:50**

For most of our -- like tree frogs and lizards generally are just going to eat, three or four bees and then they'll be full.

**Jamie 33:00**

Exactly.

**Guest 2 33:01**

So they're not going to be major consumers. Something like a big cane toad, it will eat a handful of bees at a time. And then, I don't know about up here, but in South Florida and throughout the Caribbean, very often, we find geckos underneath our covers. I've never been overly concerned about it.

**Jamie 33:25**

That's often the way I feel. I kind of take the nature approach with that. A geckos got to eat too, right? So usually, if it's just a few bees here and there, I'm not freaking out. But I know that, in some instances, cane toads, maybe some other amphibians, reptiles can be a big issue. Let's segue now to another category that I think maybe is a little bit more significant than the former two we've mentioned. And this is the category that I loosely call the small mammals. And so for us, that can include skunks, or possums, raccoons, it can be mice for other people around the world. For example, when I did my PhD in South Africa, they really worried about the honey badgers, which it's not a small mammal.

**Amy 34:05**

Honey badgers don't care. Jaime didn't get that one.

**Jamie 34:07**

I'll pretend it was a good joke and keep going. So let's talk about within the small mammals, there are kind of three categories I'm gonna say. These are the categories where they attack colonies at nighttime, we'll talk about those, and then outright attack colonies like the honey badger that handles it much like a bear would, and then the third category where small mammals are maybe using the honey bee colony as a nest itself. So let's talk about that first group, the group that maybe comes in the evening and eats bees. Can you give us examples of these?

**Guest 2** 34:35

Alright, probably for those of us in North America, the most common examples are going to be the skunk. In North America, we have the striped skunk, the spotted skunk, the hooded skunk, and they occur throughout most of North America. You'll find similar types of organisms in other parts of the world. Sure. And basically, what they do is, well, striped skunks are notorious for going up to the entrance, they'll lay down in front of the hive, and they will scratch at the front of the hive, causing a few guard bees to come to the outside where they get gobbled up.

**Jamie** 35:26

That's right.

**Guest 2** 35:27

And they keep doing that. And they might eat a handful of bees in a night. But the problem is they come back night after night. This constant irritation to the colony tends to make the colony a little more defensive, and they're losing their guard bees. So it can be a problem. One of the tricks is to use what's called a skunk board, which is basically just a piece of plywood or lumber that you drive nails through it, and you put it in front of the entrance of the hive.

**Jamie** 36:04

Pointy side up. A little strip of wood with nails pointing up through that piece of wood right at the entrance.

**Amy** 36:11

So when they're trying to get there, they step on the nails.

**Jamie** 36:14

As they kind of scratch that entrance, they're getting their paws poked.

**Guest 2** 36:16

I hope all the honey bees out there are listening to this podcast. The other important thing is that, yes, they can reach over that, and they can scratch at the entrance. But the reason that skunks lay down is because their belly is pretty bare and that's where the bees can get them. So if they can't lay their belly down on the ground, because that spiky board is there, now the bees can defend the colony and drive them away.

**Jamie** 36:41

It'd be helpful if they were. So another thing that they can do -- sometimes I wonder if I should comment or not. So another thing that people do to kind of address that category of small mammals, they'll just put their colonies up higher off the ground, just slightly higher so that these things can't deal with it. So I'm going to take the second category of mammal, and that's kind of the bigger mammals that will do some damage to bee colonies or bee hives. We talked about bears in another episode. But I want to specifically mentioned honey badgers here. I lived in South Africa, honey badgers were a problem. They handle colonies a lot like bears do. They can paw through the wood, they can break the wood, they can push over these hives, and they go in and do what bears do. They eat the brood, they eat the



honey, and they eat the bees and South African beekeepers, beekeepers in Africa, in general, might put fences around their hives to stop that. Or they'll try to trap these honey badgers and move them elsewhere. But these particular mammals can be a big issue. Now, let's kind of move then, segue into that third category. These are the smallest of the small mammals that might be using honey bee hives as a nest site. And I'm talking about things like mice. So talk a little bit about that, Bill.

**Guest 2** 37:58

So usually, in temperate regions, you'll have your native mice. And it can be anything. It could be like door mice in Europe. Or it could be deer mice or white-footed mice or cotton mice here in North America. What happens is, in the wintertime, the bees ball up, and so they're generating heat, they keep the inside of the hive at a reasonably comfortable temperature. So these mice are going in, building their nest in the corner, it's almost like moving into a heated house. We see the same thing with our houses. The mice come in in the fall to get away from the cold.

**Jamie** 38:42

Bill, you've got mice in your houses?

**Amy** 38:43

Gross.

**Jamie** 38:44

Oh, man. Come on.

**Guest 2** 38:46

Not right now.

**Jamie** 38:47

Aren't you at urban entomologist?

**Guest 2** 38:49

Right now, I'm dealing with rats.

**Jamie** 38:50

Okay. Just air your laundry there, Bill, just air your laundry.

**Guest 2** 38:56

We all have to do it. We're in Florida.

**Jamie** 38:59

So I have seen mice in lots of colonies. They do just what you say. They go to kind of a corner of a few frames, excavate out a little cavity, and build their nest. When I was in South Africa back in 2013, I saw some sort of small rodents. I don't know what it was. It was mouse-like but not quite a mice. I think I remember the name, but I'm scared to be wrong.

**Amy** 39:17

Did you say not quite a mice?

**Jamie** 39:19

Not quite a mouse. Not quite a mice. Not quite mice. Not quite a mouse. But I don't remember with certainty. So I won't even say the name. But it did essentially what our mice do. How do you keep those things out?

**Guest 2** 39:29

The simplest way is to use an entrance excluder.

**Jamie** 39:33

A mouseguard.

**Guest 2** 39:34

Yeah. And it can be just a piece of sheet metal with holes that are just the right size for the bees to come and go but the mice can't get in. That's the simplest way.

**Jamie** 39:44

We tend to only have to do that more in the more temperate climates where we have genuinely cool winters that the mice would actually want to go and make a place to.

**Amy** 39:50

So, typically, that's what they'll do and that's what they're going in for. They're not using any resources. They're basically --

**Jamie** 39:56

The hive is a home.

**Amy** 39:57

Yep, got it.

**Jamie** 39:59

Well, good. Bill, thank you so much for joining us as we talked about kind of the threat that birds and small mammals and amphibians and reptiles posed to bees. I really appreciate you joining us on Two Bees in a Podcast.

**Guest 2** 40:08

Okay, glad to be here.

**Jamie** 40:09

Guys, you were listening to Dr. Bill Kern. He's the Associate Professor in Entomology from the Entomology and Nematology Department at the University of Florida Fort Lauderdale Research and Education Center. And as always, if you want more information on these topics, you can check our show notes. Thank you for listening to this particular segment on Two Bees in a Podcast.

**Stump The Chump 40:33**

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

**Amy 40:42**

Hi, everyone. Welcome back. It is the question and answer time of our podcast. I just wanted to say that we have some emails that have been coming in from our audience. So what we're gonna do today is we're going to ask a question, and then we're gonna go through the email that someone, one of our listeners named Emily, has provided for us. But before we get to that, Jamie, I had a question about books and maybe some recommendations. Can you share some basic beginner books or recommendations that you have for beginner beekeepers and what people should be looking for when they start to actually delve into the knowledge of beekeeping?

**Jamie 41:20**

Amy, these are great questions. In fact, I get asked those questions all the time. What resources would I recommend? Obviously, one of the resources that I would recommend is our own website. If you go to [www.UFHoneybee.com](http://www.UFHoneybee.com) You can click on beekeeping resources and have a lot of information that we've created. But beyond that, you might guess that there are zillions of books written about bees.

**Amy 41:41**

How much is a zillion?

**Jamie 41:43**

Yeah, it's a bunch, just a bunch of zeros. Probably a zillion zeros, I'm guessing. If you go to any of the beekeeping equipment catalogs, if you Google "beekeeping books," you're going to find a bunch. So there's a lot of them that are geared towards beginner beekeepers. One of those, for example, is *Honey Bees and Beekeeping: A Year in the Life of an Apiary* by my colleague and mentor Keith Delaplane at the University of Georgia. The reason I like that book is because it really starts you from "I've got nothing" to "I need to put together this hive and put a package in it." And it follows the management of those hives throughout the first year. So how do you keep bees as a beginner throughout the first year? There's also *Storey's Guide to Keeping Honey Bees* by Malcolm Sanford and Richard Bonney. Malcolm is my predecessor here at the University of Florida. So he wrote one of the *Storey's Guide Books* and if you're familiar with *Storey's Guides*, they have *Storey's Guide to Raising Chickens*, *Storey's Guide to this and that and the other*. They're co-authors to *Keeping Honey Bees* book. There's *The Beekeeper's Handbook*, which is a good introductory book by Diana Sammataro and Alphonse Avitabile. There's *Honey Bee Biology and Beekeeping*, by Dewey Caron. There's just a lot of very basic books like this, *The Backyard Beekeeper*, just things like that. I think there's even a *"Beekeeping for Dummies"* handbook.

**Amy 41:43**

That's what I need.

**Jamie 42:00**

Yeah, looking in the beekeeping catalogs and finding, specifically, those beginner titles, it's hard to go wrong with any of them. I also think beginner beekeepers should consider having the standard reference guides, which are the *"Hive and the Honey Bee"*, which is Dadant's book, and then, *"ABC*

and XYZ of Bee Culture," which is Bee Culture's. But both of those are really good reference manuals for beekeeping. I had those from a young early age and they allowed me to look up beekeeping topics that were very useful to me at the time when I didn't necessarily have a mentor helping me along. So all of those books are good resources.

**Amy** 43:34

Awesome. Okay, so moving forward to Emily's question. So she has been a beekeeper for about six years now. She's in growing zone four so a little bit colder than where we are. She did a walkaway split last spring, I guess. And so she wanted to have two hives. They both overwintered so now she has two hives. She really doesn't want four hives and so she's kind of wondering what she can do? And if she can take away frames from the two hives, can she combine them to make one walkaway split?

**Jamie** 44:03

So there's a couple of things at play here. Number one, if you're wanting your colonies to be as strong as possible to produce honey, you can keep colonies without having to split them at all. It's okay that they are strong. That just maximizes honey production or pollination, what have you, whatever your goals are downstream. If, however, you feel like you need to remove bees, you can do splits. Now, she's using, specifically, the term walkaway split. I didn't even know what that term meant. I had to go look it up, but basically, for our listeners, usually when we talk about splitting a hive, you are taking one hive and the colony that's in it, and you're splitting it into two. Generally, you will do that by finding the queen and keeping her in the parent hive or moving her to the split and then purposefully putting in a queen cell or a new queen in a queen cage or allowing that other colony to make a queen for itself. Alright, walkaway splits, you're essentially doing the same thing, but you're not finding the queen. So essentially, you're going into that full-size hive, you're splitting it without looking, and you're not sure which of the two has the queen, the original hive or the new hive. And you find out a week later because one of those hives or one of those colonies is trying to make queen cells, while the other is not. The benefit of that is you can just walk away without caring which one has the queen, knowing that the one that doesn't will make a queen. Now, the key to walkaway splits is you've got to make sure that both the parent hive and the new hive have to contain frames of eggs, because one of them is queenless and that one has to make a queen. All right. So the question, though, that Emily asked was, can you take frames from two hives and combine them into a split? And the answer to that question is yes, that is very common. Beekeepers will do that all the time. In fact, commercial beekeepers will start at the beginning of their apiary, let's say you've got 30 colonies, and they'll just go down those 30 making splits. And they're not necessarily trying to target a specific number of splits from a colony. They might take three frames to make a split from that first colony, but still have two extra frames from that first colony, not quite enough to make a split, but that they combined with one or two frames from the next colony to make a split. So you can do that.

**Amy** 44:04

So the bees don't fight with each other?

**Jamie** 46:25

I was about to say that very thing. A lot of people are concerned about bees fighting with one another in these scenarios. But in commercial settings, the beekeepers don't worry about that too much. If you do this work in the middle of the day, a lot of the old grumpy bees are out foraging and those tend to be the

ones that cause the problem. So if you're mixing younger bees in the middle of the day, it tends to be less of a problem. You also want to make sure that you'll have a lot of capped brood because capped brood will emerge very quickly and you'll repopulate those splits very quickly. There is potential for a little bit of fighting. But honestly, if you combine them into the split, if you combine frames from multiple colonies into a single split, you can actually carry that split to a new apiary and that will minimize any of the issues. So I don't worry about the fighting so much.

**Amy 47:10**

Okay. And if they have eggs, I mean, would they be able to start a new queen, just, in a timely fashion?

**Jamie 47:16**

Yeah, absolutely. But well, there's two questions you essentially asked. Two parts of that one question. Yes, they can make a new queen, but number two, it will not be timely, right? They're going to take those eggs and as soon as the female larvae emerges from them, they're going to start trying to make queens and that's a two-week process, post the egg hatch, right? So it's two weeks to the new queen. It's two weeks till she mates fully and starts laying her first eggs and then it's three weeks until those first eggs emerge as adult worker bees. So we're talking to six to seven to eight week period before you get lots of brood being produced in the formerly queenless split that now has a queen. So it's an okay process, it certainly works. But you just need to know that you're going to have some downtime, which is why a lot of beekeepers will purchase queen cells or mated queens in cages that they instantly put into that split so that they don't have to have all that downtime.

**Amy 48:11**

Got it. Now, the last question for this portion is related to the actual procedure. So if someone were to be doing that, or I guess, any sort of split, is it a good idea to do it later in the day, closer to the entrance or is it good to do it overnight? What would reduce drift back to the original hive?

**Jamie 48:32**

So there's a couple of factors at play here. A lot of people who are making splits are just go through their apiary, making splits, throw them on the back of the truck, and when they're done in that apiary, drive those splits away multiple miles, so that the chances of drift -- and drift being the term that the bees from the splits go back to their parent hives -- so that the chances of drift are minimized. Many people, though, don't have the luxury of having multiple apiary sites. So they really want to know how they can make splits but leave the splits in the apiary where they are making the split. Now, anytime you do that, you run the risk of a lot of bees from your split drifting back to the parent drive. So how do you overcome that? Number one, try to make those splits in the middle of the day. Remember, it's the forager bees that are the ones that know where home is and are most likely to drift back to where that home is. So in the middle of the day, you're trying to produce a split with a disproportionate number of young bees who've never left the hive in the first place and don't know any better. The second thing I would recommend doing is putting a lot of capped brood into that split. It's even better when you look at that frame of capped brood, you see bees actively emerging from it. So you know when you move that capped brood into that split very quickly, a lot of bees will be emerging, and so even if you do lose adult bees to drift, they're being replaced nearly instantaneously by the bees that are emerging from that comb. And number three, my third recommendation, if you're going to make a split and keep it in the apiary, is overpopulate the split. If your split, for example, is a five-frame nuc, and you collect five

frames to put into it, you might collect five frames with bees to put into it, but you might also shake two or three frames of bees into it as well. So it's five frames, but seven to eight frames worth of bees. You're accounting for and allowing that drift to happen. So those things are all beneficial. The last pointer that I would make, if you're really worried about it, is you could actually make a weaker split and move the parent colony and place the split where the parent colony was sitting. So all of that drift will be going to the split, and then you can move that parent colony elsewhere in the apiary, so it's the one losing bees to the split. But since it's a big strong colony, it otherwise is able to lose some of its bees. So there are those four strategies that you can employ to maximize the chances that your split will come out strong if you want to leave it in the same apiary.

**Amy 51:21**

Yeah, that's great. So thank you so much, Emily, for asking the questions. Thanks, Jamie, for answering those questions.

**Jamie 51:27**

My pleasure.

**Amy 51:28**

Hopefully, it's not freezing up in New Hampshire because that's actually where she is.

**Jamie 51:32**

Yeah, and guys keep those questions coming. We do our best to get as many of the questions as we can on air or answered via email, however we can. So thank you for listening and submitting questions to Two Bees in a Podcast.

**Amy 51:50**

We'd like to give an extra special thank you to the following: to our editors Shelby Hal and Bailey Carol, and to our audio engineer James Weaver. Without their hard work, Two Bees in a Podcast would not be possible. So thank you.

**Jamie 52:05**

For more information and additional resources for today's episode, don't forget to visit the UF/IFAS Honey Bee Research Extension Laboratory's website [ufhoneybee.com](http://ufhoneybee.com) Do you have questions you want answered on air? If so, email them to [honeybee@ifas.ufl.edu](mailto: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!