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SPEAKERS

Flemming Vejsnaes, Honey Bee, Jamie, Stump The Chump, Amy

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. Hello, and welcome to another episode of Two Bees in a Podcast. We're going to be joined today by Flemming Vejsnaes, who's a Biologist and Extension Specialist for the Danish Beekeepers Association. He'll be talking about how he identifies the needs of his commercial beekeepers, and what he does to address those needs. In our Five Minute Management, we're going to talk about the qualities of a good apiary, what makes a location a good apiary location, and we'll finish today's episode with our question and answer segment. Hello, everyone, and welcome to this segment of Two Bees in a Podcast. I'm excited, Amy, because, today, we're interviewing a colleague and friend of mine. He's joining us all the way from Europe where he is a specialist where he works with and for the Danish Beekeepers Association. I'm talking about Flemming Vejsnaes, who's a Biologist and Extension Specialist. Flemming, it is our pleasure to host you on Two Bees in a Podcast. So thank you for joining us.

Flemming Vejsnaes 01:57
Thank you very much for inviting me. I'm very excited, in this Corona time, to really talk and meet some colleagues again. So, I'm very happy to be part of this program.

Jamie 02:05
Yeah, I was thinking about some of the meetings that I've been missing over time, like COLOSS and others. I was thinking, a lot of times when I go to Europe, Flemming's always there, and it's just good to see him and hang around. Our listeners may not know, but every time we get on the podcast, we actually spent a little bit of time together off the air before we got on. So it was good to catch up with you and hear all about what you've been up to now. I'm excited to be able to share your work with beekeepers. In Denmark, I think one of the coolest things about what you do is that you are completely

funded through the Danish Beekeepers Association, you get funding for your research, which funds your position, but you work directly for the beekeepers, here in the States. Extension specialists, biologists, etc, often work for the universities or the federal government. But you work directly with and for the beekeepers. I think that that is an amazing, amazing position that you have. So what I want to start with our listeners is I want you to just tell us a little bit about yourself. What's your connection to your relationship with beekeepers? How long have you been beekeeping? How did your position come about in the first place?

Flemming Vejsnaes 03:12
Yeah, I'm actually very happy that you invited me because I was thinking about my situation, too. I have my 30-year anniversary at the beekeeping association in this position, and it was really when I finished my biology study at that time, that there was a position, and there was really not a lot of positions for biologists at that time. So I made an agreement with my wife. It was really like this: The first of us who is getting a job, we will move to that place, and then I got the job in the Beekeeper Association. And it was really kind of, okay, I take the job in the Beekeeper Association, and then I will move forward. I have been there now for 30 years. It's kind of showing me that I have had a great time and great excitement and lots of very, very nice experiences, meeting people all over the world and great projects and so on. So I really love to be there and they'll have to kick me out. I'm not leaving by myself.

Jamie 04:10
Well, Flemming, did you have a background in beekeeping before you got there? Or did you just get certified by the association?

Flemming Vejsnaes 04:16
Oh, yeah, yeah. First of all, I was actually doing a pollination thesis, my master's was about pollination. It was about wild bees and some special flowers in some meadows. This was a great time. In the old days where we got educated as biologists, we used two years on our field testing. I mean, today, it's kind of six months or five months or something like that. So we really went out in the field and we had our plots and then we did all our observation on the wild insects that were visiting those flowers, and we used to witness this to write our thesis at that time. So it was really fun, and we really had the time, so it was kind of not, what I would say, rushed through. So I actually originally focused on wild bees and pollination originally. And then, we had this during our study, one day, we saw an advertisement in the local newspaper saying, hey, would you like to do something very exciting with your life? Become a beekeeper. Then, we went to the beginners course for beekeeping at that time, and we got kind of dragged into hospitality, friendship, and we were young at the time, so they just loved us. So they were very polite to us, and we got very good friends. We went to the school apiary once a week, we had all the talks during the winter. I remember once, there was one of the commercial beekeepers and he said to me, gee, I have to frame with wire 2000 frames during the weekend. And you know how beginners are the time. "May we come and help you?" So we went to the beekeeper, and we wired two thousand frames. I still remember this. What an experience. I mean, because he was talking, he was serving cakes and everything. So we got all this excitement and all these great stories and all that experience from him, we got dragged into it. What I usually say if you survive your beginning life, the first two years, you should expect to be beekeepers the rest of your life.

Jamie 06:17
That's a really good -- I agree with that.

Amy 06:20
Yeah, for sure. Well, it sounds like you're doing a great job there, if you've been there for 30 years, and they still kept you around.

Flemming Vejsnaes 06:26
Yeah, you could say. I mean, there are pros and cons in this system because I'm evaluated every day from my people that are employing me. I mean, they have a general assembly, they have a board. They could say, "Okay, we're not happy with you." But we are so close to the beekeepers, and they call us and they say you should do this and you should do this, and why don't you do that? And why do we have this problem? So really, the aim of my job is, really, to try to produce projects that are kind of improving the conditions for the beekeepers, but I'm trying to be the in-between the scientists and the beekeepers. I tried to connect the science and the scientist and the beekeepers, because it's not always that the beekeepers really do understand what's going on there, and why they're doing those projects. I'm able to tell them, this makes sense. Maybe you don't know anything about this right now, but in the long-term, it's important to do this and this science. Jamie, when you and I were drinking coffee, properly, I have told you, why don't you do that, and not do that? I mean, you should, at your lab, try to do this and this and this. So I really try to do lobby work to the universities and to the scientists and try to get them to be as applied as possible.

Amy 07:48
Sure, yeah, I definitely understand.

Jamie 07:51
Yeah, Flemming, that's so great. I'm sorry for speaking over you, Amy. It's just it's such an inspirational story because, Flemming, you're spot on. If you think about my position here at the University of Florida, we're supposed to help beekeepers. That's great, that's good. We also have to publish papers and get grants and teach students and do this and that the other and so it's like, the University of Florida is who employs me. In your case, you work directly for the beekeepers and what a model, where the beekeepers come to you with issues and then you directly go address it. And I think that that's just a wonderful testimony to the work that you've done for the beekeepers in Denmark all of this time.

Flemming Vejsnaes 08:27
You could also say that I do not have this publication on my shoulder, I mean that I have to make publications. I have to make publications for the beekeepers and that also means that sometimes, we are making what I call simple field testing out there. We do, sometimes, and I have to admit, sometimes, we make too fast conclusions on what we're doing that we really want to get our knowledge to the beekeepers as fast as possible. But never be too proud to not admit the year after that maybe we were too fast. But that's what the beekeepers want and that's what we want to do as well. So, that's the way we work. We make what I call very practical field testing out there. I used to say we work a lot with the Varroa and I was employed mainly to work with Varroa and Varroa diseases. But since I'm in an

association, today, we will pack 2000 envelopes. Who can help? I haven't done that ever, but it's more of an example. But what we kind of used to do when a new Varroa product came up, we got that product and then we try to test it in a very simple way. Point one, does that product kill a beekeeper? Point two, does it kill the bees? Point three, does it kill the mites? And point four, will the beekeeper actually accept this from an economical point of view? I mean, will they adapt to it? And therefore, we also use the beekeepers a lot. We listen to them. They tell me, Flemming, we are not making heat treatment in our beekeeping because this will not function and where should we get electricity in our apiary that's five kilometers away from a block or something like that. So we really appreciate and really listen to the beekeepers on their opinions as well. You could really say that when we work with Varroa and Varroa strategies, it's also very empirical strategies that we have because we try to involve the beekeepers, where they say pros and cons out there when they're working. The thing is actually, can I get the beekeepers to do this? And if they say no...

Amy 10:36
Then we move on, and we try to find a different way. So, Flemming, I did my master's degree in extension education, and I love programming and collaboration and networking, and just doing very practical studies, something that's applicable to the beekeepers. You had kind of mentioned needs assessment, right? So that's kind of the first part of understanding the needs of the beekeeper, and then being able to balance that with what the scientists are actually researching. Our job is to tie that together to make it practical for beekeepers. Now, another part of program planning and program development is identifying challenges, so identifying challenges that the beekeepers have as a whole. Sometimes we do listen to individual beekeepers, but we like to look at the bigger picture. How many beekeepers is this affecting? How many colonies is this affecting? And so forth. So what do you see as a big issue or different challenges for the beekeepers with your Danish beekeepers, of course, but also on a worldwide level.

Flemming Vejsnaes 11:38
It's really fun, sometimes. I'm traveling all over the world, and I, as Jamie said, or maybe we talked about it before, I always try to travel a few days more. So if you have a weekend conference, I always try to stay two or three days longer and make an appointment with beekeepers just to kind of be in contact with them, talking with them, listen to their problems, and being together with them. It really turns out that the problems are, more or less, I mean, universal, all over the world. I very often see it. Right now, I'm a co-author in an article where they write, "Varroa is probably the biggest problem within beekeeping". I always wonder why they write "probably." I mean, Varroa is the biggest problem that we have in modern beekeeping. I mean, I was employed 30 years ago to solve that problem, and I'm still in business, and I still did not solve it. We make lots of good solutions and good ideas and strategies, and so on and so on. When we get new beekeepers and beginning beekeepers, they forget what to do and how to do it. I really talk about Varroa, it's kind of going in a wave, so we have low winter losses, then the beekeepers say, okay, then maybe we should skip a treatment or something like that. Then, the next year they say, yeah, it was great and low loss still and we escape it. And then, suddenly the losses start increasing and suddenly, we have what I would say are major losses. When we talk about major losses in Denmark, it's 20% of the colonies that we lost. Then, suddenly they get focused again. Then suddenly, next year, they follow the strategies, they really try to kind of do the very best that they can, and then they get down and then they kind of fall back and relax and do less and less. So Varroa

treatment is really going into waves with the success. I can see it on the winter losses that we have from year to year. It's really a wave, and that one, I would really like to solve. I regard Varroa as the biggest problem. Then, I see another thing that's really at the moment, the competition between honey bees and wild bees, this discussion that we have kind of worldwide out there. It's especially very intense in Denmark at the moment. And then I see the honey fraud. I mean, you have laboratories in China and Asia that you can call them and you can tell them, "You should produce a honey for me that can pass this and this test." They set the price for it and then the honey is coming, cheap honey, the price is unbelievably low, you're not able to kind of produce a decent product to that price. Then, they come to the local market and that will outcompete, I could say, the expensive things. I'm sure it's the same in the US as well. So, I see the last problem is actually the beekeepers are not good at using modern technology. I claim that we are on a stone age level. Do you know what the stone age level is? I put a stone on the lid. I put a stone on the lid and if I put it upside down or something like that or on one side or the other side, then the queen is missing, or maybe I should check something. That's really what beekeepers are doing.

Jamie 14:59
Flemming, that's how we keep records at the lab at UF.

Amy 15:02
We have that right here.

Jamie 15:05
But we're just now moving to a monitoring software. But you just made fun of us plenty. Yeah, that's a perfect example.

Flemming Vejsnaes 15:12
It works. It works. I have to say, it works. But you guys do not kind of collect experiences over time. I mean, you're not able to. I mean, I have this great story in 1994. I did produce 120 kilo per colony in my hives at that year. I just had 10 hives, and I produced 1.2 tons of honey, and then the way that you react as beekeepers, you say, now I'm totally educated, I have the right queens, I have the right way to do it. And the next year, I produced 25 kilo per colony and then by the way, I got American foulbrood in my colonies as well that year. If you ask me today, why did you have so much of it at the time, I would be able to give you the answer because I did not make any notes, and if I made notes at that time on paper, they disappeared. So I had a big success once and I'm not really kind of capable of putting together the information on how should I kind of act in the future with my beekeeping. So it's really trial and error, very often, by beekeepers, and especially the ones that have very few colonies. I mean, they don't remember how they did last year. We very often see beekeepers kind of looking down into the boxes and thinking, what did I do last year, and they don't remember. I mean, commercial beekeepers do remember because they did it 10,000 times every weekend or something like that. But having two colonies or three colonies, it's really not taking those things together.

Jamie 16:37
Flemming, it's very refreshing to talk to you. I think one of the biggest struggles that we have in academia is trying to address beekeepers needs directly. And there always seems to be a disconnect

between what scientists think is the best, the best thing to do and what beekeepers think are the best things to do. It's created division and lots of problems over the years, but I really like your approach. I remember, I first met you when I was either a student or a postdoc at University of Georgia, I forget, but you came over from Denmark because small hive beetles are in the US and you and a contingency of beekeepers wanted to see it firsthand. You just related a story that I remember about you every time there's an international conference, that idea that you go two days earlier or stay two days later so that you can actually work with beekeepers in that region to hear their testimonies and what they struggle with. I think you've demonstrated, over and over again, an awareness of how to connect with commercial beekeepers and find out ways to address their needs. I really, really want to expand on this idea of visiting with beekeepers and talking to beekeepers. When they communicate to you what they need, how do you determine it? One of the struggles we have, for example, here in our lab is we might have one really noisy beekeeper contacting us all the time demanding that we do this, but if you survey beekeepers, you can see that 80% don't care about that and all they care about is this. So how do you prioritize beekeepers' needs? How do you address them?

Flemming Vejsnaes 18:07
You could really say that I have a mentor group around me, which are a group of maybe five very skilled beekeepers in Denmark. It's queen breeders, commercial beekeepers, I also have a special mentor and we talk in the telephone twice a day, and discuss things. What do you think about this, and did you hear that? And did you meet him? If there is a big problem somewhere, and we have what you could call a loud one, I wouldn't call it the screaming one, but a loud beekeeper, go to his place, visit him see that the problem is something else. Everything is one big mess, colonies are small, equipment doesn't fit together, and then have a talk with him. This is really what we will work with within the next years because we have one project right now that we call 10% winter losses. So we make a questionnaire. And then we ask everybody, how many colonies did you have before winter and after winter? Then we do approach all beekeepers that have higher losses than 10%. We give them the questionnaire more, we ask closer, especially with the Varroa treatment, and so on and so on. We talk with them on a telephone and all the time, it turns out, lack of treatment. So this is really the way. Visit them, have a big group of beekeepers that you approach, that you visit, that you meet, talk to them and listen to them, and yeah, it's not always possible to kind of fulfill all their wishes because, very often, it's very individual demands that they have put. I mean, you have a good feeling on, at least, in my position, what's going on out there and what the main problem is, and we also have those big conferences. I mean, in Denmark it's not a big one, but it's 500 participants are coming and they're there and I'll be the last one going to bed.

Amy 19:49
Thank you, you're my new mentor.

Flemming Vejsnaes 19:52
That's the way to get the secrets out of them. Really.

Amy 19:55
Now everyone knows your secrets though.

Flemming Vejsnaes 19:59
But I'm also getting older so it's not getting so late anymore.

Jamie 20:02
So you're usually the first one to bed, Flemming? You don't last.

Flemming Vejsnaes 20:05
I'm definitely not the first one because normally, I'm the one having the key. So somebody has to shut up the door.

Amy 20:13
Flemming, so you said there's 500? Is that how many beekeepers there are or how many commercial beekeepers?

Flemming Vejsnaes 20:19
Yeah. So again, I mean, the composition of Danish beekeeping is exactly the same as all over. So we are abou,t right now, the numbers racing, but we are maybe 6500 beekeepers in a country with five and a half million people population. I think what's important to know is that Denmark is a farming country. So if you look on the map, 66% of Denmark is farming. I mean, it's owned by farmers that are growing something or they have animals on there. So it's quite a big area. We have 10% farmers that say we have 10% cities and roads and so on. So there's really not a lot left for wild nature in our country. But that's really what the beekeeping is about is actually to give a service to those farmers and doing the pollination and so on. The farmers are growing pretty good thing so it's not so bad to be beekeeper in the country. So we have approximately 90 to 92% that are hobby beekeepers, which means less than 10 colonies. Then, we maybe have, let's say 5, 6, 7 percent that are sideliners, and then, we have those 1 to 2% that could be 100, it could be 150 commercial beekeepers that are really, they're making a living out of that, it's their full-time job that they're doing. The situation right now in Denmark is actually that the commercial beekeepers are under big pressure because of this competition of what I call strange honey coming from other countries. Denmark is also a very simple country, because over the years, it has kind of crystallized out that we today only have one filling company. That means that the beekeepers only have one place to sell honey, and that means that in earlier times, they actually went there just on big barrels, they delivered it, they got a pretty good price. And then suddenly, now, this honey market is broken down. We had four years of very, very low honey harvest, which means that that filling company was also selling the cheap honey, and because our customers in the shops were not able to get Danish honey, they started eating this imported honey. I mean, it's not that bad, and the Danish honey became more expensive and more expensive. So the price span between those two products became too big at the end. So really, the customer jumped over to foreign honey, and then we got two years with, I would say, just average honey harvest. Then, I had this beekeeper going to this filling company and said, "I have 25 tons of honey," and the answer was, "But we're not buying your honey." Because we already own storage, have honey for the next two years because the consumption, I mean, out in the big stores were so low that they didn't need anything more. It's still like that in Denmark. The direct sale, small shops, markets and so on, it's actually doing very well. So the commercial beekeepers in Denmark, they have problems and the bank is knocking on the door, asking them when do you pay the money that we lend you? I am very afraid of or concerned about the

structure of Danish beekeeping within the next year will kind of change so that the commercial wants to stop. Now, we have problems to supply the farmers with pollination because that's really the commercial ones that are doing that. Then, we will get more side liners into our structure more and more, which means I have a full-time job, I have 100 colonies, but I've sold my honey from my own label directly from the door on the local market and so on. So I'm very concerned about commercial beekeepers in Denmark right at the moment. I'm very, very concerned about the pollination costs. We're living in Europe, so where should the farmers get the pollination service from? Yeah, we have Germany just around the corner where we have big commercial beekeepers and they have the equipment, they have the big trucks, they have everything. So they're ready to drive up and put colonies to clover pollination in Denmark. And I mean, just to be honest, we do not want to import or have this traffic of foreign colonies into the country. I mean diseases and everything else is of concern. So this is kind of the situation of Danish beekeeping at the moment. It's a little bit sad, I have to say.

Amy 24:24
That is really sad. So you think that, basically, there are going to be less commercial beekeepers in the long-term and more of the sideliners. So everyone takes a small piece of that puzzle and kind of fits into that world.

Flemming Vejsnaes 24:36
Yeah, yeah.

Amy 24:37
Yeah, I could definitely see that happening. With extension and with your position, what we try to do is put a lot of different programs together for beekeepers. So there's always the business side of everything, there's a marketing side of things, there's the pests and disease education, and of course, that looks different with backyard sideliners and commercial beekeepers. So how do you juggle all of that? What kind of programs do you hold for your beekeepers?

Flemming Vejsnaes 25:00
Yeah, right now. I mean, now we talked about selling the honey. So we really started to put up some marketing workshops, we got really some external amount of money for that. We tried to kind of teach people how to make marketing, how to use social media, how to make labels, how to make your own brand, and this is really from the beginning. I mean, they are not used to making this direct sale. We teach them, and they also kind of get what I call personal consulting, where we talk with them, we try to make some papers and writing. That's your customers, it's there. Like, we have a guy, he's living in a summer house or tourist area, and you just have to put up the honey at the road and then he will sell, I mean, 20,000 jars of honey, and then you could take autobahns, they living out in nowhere, and there's a car coming every second day today. So, they need to kind of approach other ways of selling honey. The other thing is also that we try to kind of really focus on the good size of honey, tried to get younger generations to start eating honey. The competition on sweets is enormous. So we really have this very, very big marketing project that's really actually running over the next two years. Then, we have this winter loss, we call the 10% winter loss project where, as I already told, try to analyze what is happening, actually try to really much more personally advise the beekeepers. We have another project -- I mean, we don't have a lab like you guys have. But what we have put up now is actually, I call it the

mini lab. This is a mini lab where we can analyze honey for enzymes, water content, and other things as well. We also kind of make what I call a very simple panel analysis. It's not on the certified institutes where they count 500 pollen grains and put the name on here. We just take the sample, and then we look into it. And then we can tell them this is a summer honey. I mean, it's put together from lots of different sources. But we can also tell them, this is mainly a clover honey. What we do is also analyze for the different types of sugars. So will this become a liquid honey? Or will this be a crystallized honey? I have to say that the crystallized honey is the big thing in our country. But liquid honey is getting more and more popular because people are kind of traveling in southern Europe and so on. But because we have so many fields, and so on, our honey bee will always tend to crystallize. By the way, at the Entomology Conference in Turkey, we actually did win the World Beekeeping Award for the best crystallized honey in the world. So we do know how to do those things. Did you notice I said we? It was not me.

Jamie 27:48
I've known you and I've never heard of you doing that.

Flemming Vejsnaes 27:52
So this is one of those projects that we're doing right at the moment, then we're very focused on the competition between wild insects and honey bees, which is a big concern by the beekeepers. So we try to really be active on being proactive. Right now, what we are doing is we're giving certificates for companies that kind of plan for the bees. You could get a certificate for just having a garden and planning for the bees as well. We really give it to cemeteries, we give it to golf courses, we give it to forests, we give it to everything kind of, to kind of raise the awareness out there that we really have to change the landscape because it is a farming country and monoculture is really good when you want to have a big harvest. But, I mean, we do have one month in the summer where there's really nothing out there. When the rate doesn't flower anymore, then we have to wait kind of, I would say three weeks, for something useful. So our bees are sometimes starving during the summer. That's really strange. So we've really tried to encourage and promote the government and so on to focus much more on making Denmark flowering much more. It seems, though, that we are on the right way there but we're really kind of competing with, I call it the biodiversity people, because they're not so happy with beekeepers, because the things that we do out-compete the wild bees, which there's really no really proof, but that's that's how they feel. They kind of regard us as on the same level as highly polluting pig farmers.

Jamie 29:20
It's funny to me that that's a problem for you guys in Denmark because honey bees are native. Here in the US, we have the same problem here in the US. But the arguments always starts with well, honey bees aren't native, therefore, they're doing all these terrible things. But in Europe, they're native so it seems like you'd have a much easier argument.

Flemming Vejsnaes 29:40
But yeah, but you're totally right. They say, we know that they're native but they are not naturalized anymore because they would die if there wasn't a farmer, a beekeeper taking care of them, treating them and so on. This is really the discussion. But I really do not understand. I mean, you guys have had

the honey bees in the US for a relatively long time now, and when it's a naturalized species, or original species...

Jamie 30:09
I use that same argument. They have been here 450 years, and at what point are they just part of what we have here?

Flemming Vejsnaes 30:19
For me, also, this is the biodiversity, and I totally agree on that we should work on the biodiversity. But I mean, in Denmark, it would be like that if we would not have humans, farmers that were farming the countryside. It was really in the old days, they put sheeps on the heather, and those sheep -- who wants to eat heather flowers? Those sheep, they were really on the edge of starving themselves. So they started to eat that, and then they kind of opened up the ground and the trees disappeared. Then we got this space for wild bees and so on. So, biodiversity, it's also a picture from a certain time of history where humans really did interfere. Otherwise, if we wouldn't do that, then that would just be a boring forest all over. I mean, everybody talks about biodiversity, and we need to have as many species as possible. Yeah, I really love that. And that's the other thing that we see in our projects, suddenly, now we start finding species that have not been seen for 400 years or something like that because it's gonna become fashionable to become a wild honey bee person. We are getting more and more aware of it as well. So now people start looking for those types of bees species out there. If you take Norway, in Oslo, you they have the highest density of species there. And why do they have that? Because that's where the universities and the students, they don't want to go too far away from the universities. It's so well surveyed all over in the city of Oslo.

Jamie 31:59
Flemming, there's so many different things we could talk to you about. I really like this idea that your position came up from beekeepers. And ever since then, for 30 years, you've been listening to beekeepers, and trying to address their needs. I mean, I listened to you talk about when Amy just asked you, what kind of programs do you have for beekeepers, you mentioned, marketing, winter losses, honey analyses, this idea of wild bees versus managed honey bees. I mean, these are all things that our beekeepers here in the US are facing even today. So, our struggles tend to be universal. What beekeepers are facing in Denmark tend to be. I think the beauty of what you've outlined for us is you've outlined a very successful relationship that you as a biologist and extension specialist have directly with beekeepers. In many ways, a lot of us who are more on the science side are very envious of what you have and all the work that you've done on behalf of your beekeepers. I'm sure your beekeepers know how lucky they are to have you.

Amy 32:59
Don't forget the beer, Jamie.

Jamie 33:01
That's right. That seems to play an important role. I love that quote, grab a beer and be the last one to bed, and that's how you get to know what people really need help with.

Flemming Vejsnaes 33:11
I mean, don't leave the meeting, otherwise they'll start talking about you. Don't leave anything.

Jamie 33:19
That's funny. Well, Flemming. It's been great having you on this episode of Two Bees in a Podcast. I really appreciate you taking some time out of your day to join us.

Flemming Vejsnaes 33:27
Thanks a lot. I enjoyed it. It was so nice talking about beekeeping. Again, I'm sitting here at my private home just waiting for this Corona to kind of disappear and open up the world again so that we can start visiting again.

Jamie 33:41
I agree, Flemming. Everybody that was Flemming Vejsnaes, who's a Biologist and Extension Specialist for the Danish Beekeepers Association in Denmark. Thank you for joining us for this segment of Two Bees in a Podcast.

Honey Bee 33:57
Questions or comments? Don't forget to like and follow us on Facebook, Instagram, and Twitter @UFhoneybeelab.

Amy 34:11
All right, it's Five Minute Management. Jamie, I'm going to try to be a little bit more fair because I know that in the previous episode you went over but it was because I started the timer too early.

Jamie 34:23
Yeah, you're not fair to me. You always include your question and our general banter in that time limit. That's just not fair.

Amy 34:30
Okay, so I'm going to ask the question, or I'm just going to name the topic and then I'll push start.

Jamie 34:35
Or you can say, on your mark, get set, go like everybody else in the world does. No, I'm just kidding.

Amy 34:39
That's fine. So today we're gonna be talking about the qualities of good apiary locations. On your mark, get set, go.

Jamie 34:47
You totally did that. Well, I wrote a document on this one as well. Maybe the listeners are tired of hearing me say this. So we're gonna make sure to link this document in the show notes, and in this document, I outline 20 different things that you should look for in a good apiary location. I'm going to just mention them. You could look at the document in the show notes for more advice. Number one,

there should be copious amounts of quality pollen and quality nectar sources nearby. If you don't know if that's the case, keeping bees there a year or two will tell you that's the case. You can always ask other beekeepers in the area. There should be a clean source of water nearby. They need water and you don't want them to show up where you don't want them to show up, so give them the water they need. They should be established away from areas where people and animals frequent, so they should be places that people won't go a lot. Number four, they should not be visible to vandals. When people see bees, they like to do things to them, shoot at them, throw rocks at them. Some people cow tip, other people hive tip, and you don't want them to hive tip. Number five, apiaries must be easily accessible. You shouldn't have to climb a mountain or drive 50 miles through the woods to get there. So accessibility is good. Number six, it's always good to have a written agreement when locating apiaries on other people's property. You don't want apiaries, number seven, that reside in low areas. They'd be prone to flooding or keep cool, moist air around them. That's not good. So keep them out of low areas. It's nice to have them in areas that have a lot of sun. Good sunshine will wake them up in the morning, but you don't want to be in full sun because you don't want them to have to work all the time to keep themselves cool. Number nine, you want a spot that doesn't promote high disease and pest pressures. Again, out of low-lying areas that can promote fungal growth or things like that. You really want to be away from other people's colonies. Number 10, you want areas where the flying bees will be encouraged to fly at head level. I know this sounds stupid, but you don't want bees to come out in an apiary location and fly low for a long period of time because that might take them through your neighbor's backyard. Some people --

Amy 36:54
I have done that before.

Jamie 36:55
Exactly. Some people will put their colonies up against bushes or shrubbery that forces them to get up and above head level quickly. Number 11, you want an apiary site that's away from areas that are treated regularly with pesticides. You don't want your bees exposed to that a lot. Number 12, avoid locating apiaries and areas prone to frequent high gusts of wind. So if you're in an area like that, you might put some windbreaks in the area. Number 13, you don't want them established in a flood zone. Number 14, they should be protected from bears or other vertebrate pests if they are nearby. You want to be able to do that. We have bears in our area. So if you're going to locate an apiary site, you either don't want bears in the area, or you're going to have to put up a bear fence. Number 15, they should be easy to maintain. An area you can clean easily or if a tree falls on your colonies like that has happened to mine before, you want to be able to deal with that easily. You want the site to be free of other colony debris. That's number 16. You want to be able to take out the dead and keep out comb and things like that. 17, whenever possible, don't site them in areas that are prone to high-risk natural phenomenon. For example, high snow drifts or places of tremendous drought. Or you get lots of fires in the area, as an example. You want to keep them out of those types of areas. 18, if you have multiple apiary sites, you want to make sure you maintain a distance between them so the resources won't be depleted for anyone. Number 19, you want to make sure your apiary sites meet all requirements set forth by local, regional, and state laws. Number 20 is just for fun. You want your apiary site to be pretty. You just want it to be a place you want to go and work your bees. For more information, check out the document link. Amy, how was my time?

Amy 38:46
You have 51 seconds.

Jamie 38:49
No way.

Amy 38:50
Congratulations. Yeah, I know. I was getting a little anxious too. But I guess you did it.

Jamie 38:55
Well, I will say again and again and again and again, I just told you what these qualities of a good apiary site are. Go to that document and look at it for more information about each one of those qualities. There's a lot there in that document.

Stump The Chump 39:14
It's everybody's favorite game show, Stump the Chump.

Amy 39:27
All right, Jamie, we've got three questions here, and I'm not even quite sure how to ask these questions.

Jamie 39:32
We talked a little bit behind the scenes and I told you to stop asking me everything that you want to know about this on air. So here we are on air. I can't wait to see how you deal with this.

Amy 39:40
So, the first question is, is tanging bee swarms a real thing? As I was reading the question, I'm like, "What is tanging?" And he started responding, but I still didn't understand what you were telling me. What is tanging?

Jamie 39:52
Yeah. Okay, so I've actually never heard it called that but what it is, is there's an old belief that when a colony swarms, and you see it happening, you can go grab a pot, and beat on the bottom of a pot and the swarm will start following you to where you want it to land. So you'll tang and you'll go to the tree limb, and you'll put it there and the swarm will lay in there. It's funny. No one's ever asked me that question before. I feel like I've been saying that a lot or recent podcasts. I know that these podcasts are timeless so it's hard to put a date on it, but I happened to be speaking to a bee club last night using Zoom and someone was talking about this very thing. Now, two days in a row, I get this question. So strange. And it's funny, Amy, if you look at some of the old swarm control methods, or swarm capturing methods, some of the schematics, it's very common to see old cartoons of people beating pots with bees following them. That's kind of what's happening. So back in the day, people did do that, and some people today even still do it. And the idea is that you're leading a swarm to a place where you want to be able to capture it. So is there any science behind it? I have never, in my life, read a manuscript

where there's been a research project that shows that this actually works. The comment that I happened to make last night to the bee club is anytime I've considered this, I wonder who is leading who in this scenario, right? Imagine you're standing under a swarm and you're beating a pot. Is the swarm following you? Or are you following it? Both of you just end up at the same spot, and you congratulate yourself on how good of a job you did getting the bees to that spot. So my guess is that there's nothing to it. The beauty of science is that I can be proven wrong the moment someone studies this topic, but until then, I think it's a fun thing to think about. But now, I know that a lot of people are going to tell me they do it and it works. And that's great. I'm happy for you. I look forward to seeing the research on it. That's what it is.

Amy 41:56
We are recording this in early March and this is swarming season. I'm really hoping that I look outside and our beekeepers are starting to do that.

Jamie 42:05
That's what I'm going to say. We could always get some undergraduates in the backyard there and see if they'll stand out there and beat pots continuously. I can't imagine what the rest of our colleagues would think about it.

Amy 42:16
That's what I've been thinking about. The department's gonna think that there's some weird drum circle happening.

Jamie 42:20
Well, Amy, the department probably already thinks the bee team is weird anyway. So it's just what it is.

Amy 42:25
We probably are, but that's okay. All right. Well, that's so funny that I just learned something new. Thank you for that. So the second question that we have, does Varroa affect value-added products. So, does Varroa or having them in your colony affects the quality of your honey or wax or anything else that we use?

Jamie 42:44
So Amy, not in any way that I can think of. So that's the short, quick answer. There are some things such as small hive beetles that do impact the quality of our hive products. Small hive beetles can cause the honey to ferment, they can get into pollen for those people who do pollen trap collections, they can get into that and lay eggs and you can get just problems there, they can impact your wax, potentially. But Varroa are not known to do anything at all to any of the hive products that we produce. The only way that they can affect value-added hive products is that they can reduce the likelihood that your colony is going to be able to produce those products. But it doesn't impact the quality of those products once they are produced.

Amy 43:26

That's good to know. Cool. All right. So the third question we have, we've talked a lot about honey moisture in the past, but we always kind of talk about honey fermenting. And so this question is the opposite. So how do you manage honey moisture in dry climates?

Jamie 43:41
Yeah. So, you're right. We have been getting a lot of honey moisture questions recently. I've gotten them here on the podcast, also in my Q&A for the American Bee Journal, just in a lot of different places. It's always from the perspective that my honey is too moist. Well, this one comes in from, well, my honey is too dry. What in the world am I supposed to do about that? Well, when honey is too moist, you can dry it off. But when honey is too dry, you don't really add water to solve that problem. So it's a very interesting conundrum. What a lot of commercial beekeepers will do if they have dry honey, and just let me set the stage for what dry honey is and why it's a problem, honey is best extracted, modelled and sold between about 15 and a half percent water and 18 and a half percent water. That's the sweet spot, so to speak. If it's over 18 and a half percent water, it's wet and it's prone to fermentation. If it's below 15 and a half percent water, it's dry and it's prone to granulation. So if it's too dry, a lot of commercial beekeepers and honey packers will simply mix that dry honey with honey that's too wet and bring them both down into that sweet spot. If you're producing dry honey but you also produce wet honey in different times of year, you could just mix the two. You blend them to try to get them into that right moisture content. Okay, outside of that, I don't know anyone who adds water or any type of moisture to dry honey. So my recommendation is rather than trying to fix it and bring up the moisture content, use a slightly different strategy. Let me give you some pointers. Number one, I like to keep dry honey in the settling tank as long as possible. In other words, I don't bottle honey that is prone to granulation well in advance of the consumer wanting it because if I bottle it well in advance, now I have a lot of little bottles of honey that are all granulated and I now have to re-liquefy that. People take the lid off and put it in the microwave or they sit it in a pot of warm water and bring that water almost to a boil, and in all of these cases, you have to take off the lid of the jar, otherwise it might explode. But people will basically melt the sugar crystals in these circumstances. If you have to do that with a lot of honey jars, then it's going to drive you bezerko. So what I like to do is leave it in the settling tank as long as possible because it's easier to liquefy in that settling tank than it is in a bunch of jars. They make these band heaters, these little strips of things. It's almost like a belt that goes around the settling tank, almost like the settling tank is wearing a belt. That belt will heat up and that will re-liquefy your honey and then you can bottle it on demand. That's how I handle dry honey. Again, the commercial beekeepers and the packers, they'll just simply mix it with honey that's a little bit on the wet side. But if you're going to do it as a hobbyist beekeeper, I recommend just keeping it in whatever you use as a settling tank and only bottling on demand. Incidentally, when I grew up keeping bees, my honey tended to be quite dry. Some of the equipment manufacturers will produce a little sticker that you can put on the back of your jar of honey and it's basically granulation advice. Honey that is too dry is prone to granulation. If this jar of honey granulates, take off the lid and do X, Y and Z. That gives you a little bit of freedom to know, hey, this honey is probably going to granulate while this person is sitting it in their kitchen, but now they've got an instruction on how to reverse that.

Amy 44:34
Haha. We're talking about that heating belt and I feel like I just purchased one.

Jamie 47:24
You, in fact, did because we just bought one for the lab so...

Amy 47:27
We bought it for the reason of it was cold outside and we didn't want the feed to freeze. So I guess there are multiple uses for that, right?

Jamie 47:35
They're actually sold, Amy, for the purpose of re-liquefying honey. But what we did is just what you said. We needed to feed some bees when it was cold and we keep our bee feed in barrels on the back of a truck, and the pump was having to work extra hard to pump the sugar water into the feeder jars. So we bought these band heaters, these belt heaters to warm up slightly those barrels of sugar water so that we could pump it easier, but you're right. Spot on.

Amy 47:58
Very cool. All right. Well, now, I'm really excited for our listeners to show me their best tanging videos on our social media page. So I look forward to that. Hey, everyone, thanks for listening. Today, we'd like to give an extra special thank you to our podcast coordinator Lauren Goldstein and to our audio engineer James Weaver. Without their hard work, Two Bees in a Podcast would not be possible.

Jamie 48:32
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 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!