EPISODE 189 TRANSCRIPT

Jamie

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 everyone, and welcome to another segment of Two Bees in a Podcast. We have a really interesting topic today. Actually, this is not even something I've ever even thought about, which makes this really new and unique to me, and I think you listeners out there are going to enjoy this segment. Amy and I are joined today by Patrick Hardy, who's the executive director of Bee Platoon, which is based in California. And what he and his group do is they run a honey bee disaster response team. So, we're going to talk all about that with Patrick. Patrick, thank you so much for joining us on today's episode.

Patrick Hardy

Jamie and Amy, thank you so much for having me today. I'm really excited to have this conversation with you.

Jamie

So, Patrick, the way that we normally kick these things off before we get down to the nitty gritty of what you're here to talk about is we just ask you to introduce yourself to our listenership. They're going to want to know who you are, how you got into honey bees and beekeeping, and then after that, Amy and I will kind of mine down into this whole honey bee disaster response team thing that we brought you all into to discuss in the first place. So, Patrick, who are you and how did you get involved with bees?

Patrick

Well, I have been a disaster professional for over 20 years. So, I'm CEO of a national disaster management company. Just recently actually left my role as CEO and I now do a lot of content work. So, I'm doing a lot of things on YouTube, I'm keynoting, I travel, I wrote a book, I go on news stations, talk about disasters, and that's really been the essence of my profession. So, one of the things that I did was I decided one day that I wanted to get involved in beekeeping because I lived in a place called Lompoc, CA. I don't know if you've ever heard of that before. It's on the Central Coast of California. And for those of you who've never been to Lompoc, Lompoc is

called the Valley of Flowers. And it's called the Valley of Flowers because they produce so many flowers that are purchased by florists throughout the state. And when you have that many flowers, you naturally bring a lot of honey bees into the area. So how did I get into beekeeping? Actually, beekeeping kind of came to me. One day, I just happened to be talking to some folks about some bees we were having in the area, and I was trying to find a swarm responder, and I couldn't find anybody to come out to do a swarm. I finally called the local beekeeping association, and they sent some people out. And when they were doing the swarm response, I was talking to them about it. And I was saying, how do you guys handle swarms and things? And they said, well, we're professionals, but we're just doing this on the side as a hobby, and we'll take the bees, and we'll relocate them. And I thought, that's really interesting. And so, I got into doing swarm response. I became a volunteer swarm responder, and I live near Vandenberg Air Force Base, which is now the headquarters for Space Force. And I ended up doing swarm response on the base because there are bees everywhere. So, I would respond to swarms and things, and then it kind of naturally evolved from there. So, I've travelled all over the world and I've gotten to see a lot of different apiaries and things as part of my profession. And it's sort of really interesting also to be involved in swarm response because it's like you're having a disaster. It's sort of like you have an emergency and then you have to call out a team, and I really like that concept. I actually started my career as an EMS professional. I worked on an ambulance for a long time. And so, I just thought, wow, this is going to be a really neat opportunity. That's really how things got started.

Amy

That's awesome. I'm excited to talk to you about the disaster team and the effort that gets put into it. I know you had mentioned swarms and bee removals, but can you just kind of tell our audience what a honey bee disaster team is and what is the purpose of having one?

Patrick

Yeah. I was going through the master beekeeper program at the University of California, Davis, which is obviously a very well-known apiary program there and beekeeping program there. You have to do a capstone project at the end of your journey. So, I thought what a great capstone project to do something and create a honey bee disaster response team. So, I ended up calling a number of colleagues of mine who worked in the Department of Agriculture both in California and nationally. And I discovered there really wasn't a honey bee disaster response team. And I thought that was really interesting. I thought, we need to create something. We need to create some kind of a team where people can assist beekeepers in being able to help prepare them for disasters, help to respond to disasters, and in addition to that, providing the experience to help first responders.

I remember when I was an EMS professional and I grew up in Orange County, and I know you folks are in Florida. Amy and Jamie, I know you're both in Florida. I mean Orange County, California. So, when I grew up in Orange County, California, I was working one time, and we were responding to an EMS call. So, someone was having a cardiac event and when we arrived, we realized the person had been stung by honey bees and that had created an anaphylaxis response, meaning that they had a severe allergic reaction. But we couldn't get to him, and we couldn't get to him because there were still bees in the area, and I didn't want to get stung. My partner didn't want to get stung. We had to wait to try to figure out what we were going to do about it. And we had to waste precious time. It ended up that one of the sheriff's deputies ran up, grabbed the victim and dragged the victim. And as a matter of fact, he actually took a towel from the residents and he covered his face with the towel, and he ran over, he pulled the victim away. I think he was on a lawn, and he sort of pulled him away and then we were able to take care of him.

So, one of the things that I thought about was providing that assistance in disasters because when you have an acute emergency or when you have a regional disaster, which is what we're dealing with now, we just had the hurricane in Florida, which also had massive effects on North Carolina and Tennessee, you have first responders who were not trained to dealing with honey bees. I wanted to be able to provide them with a resource, something where they didn't have to worry about trying to hire people or trying to go out and do government contracts. A lot of the companies that do the bee removals just destroy them. They don't try to relocate them. And this is really true in disasters. They don't relocate them, not because they don't care about our pollinators, but it's simply because the vendors aren't open, right? The disaster's occurred. So, the normal places where they would relocate the bees simply are closed. People have evacuated.

And so, I thought this bee team is going to do 2 things. 1st, it's going to provide a resource for first responders during the disaster. So, when they need someone, they can call in a disaster. For those who are not familiar with it, we use what's called the Emergency Operation Center. Emergency Operation Center, it's sort of like a headquarters during a disaster where all the first responders and government agencies meet together to collaborate. I wanted there to be a place in the EOC where they could call and say, hey, we could really use the team. Can you come and help some of our paramedics or some of our law enforcement partners or just volunteer organizations, the Humane Society, whatever, have run across a swarm and they don't want to move forward, can you help with the removal? And we would do that.

Secondly, we want to help the beekeepers themselves. So, not only just the professionals, but, the hobbyists and the sideline beekeepers, people who maintain honey bees. How do you evacuate them? How do you move them? How do you shelter them in place? How do you lock down an apiary? I actually designed the very first lockdown procedures for an apiary. And I'm going to publish it in a bee journal, shortly, because I really feel very strongly about giving beekeepers as

many resources as possible in a disaster so that they get an optimal response. Because I think the honey bees are one of these things that sometimes fall through the cracks because in disasters we worry about people. And that's obviously it's a big deal, but we are at a place -- we live in such a pluralistic society. We live in a place that is incredibly diverse. And I wanted to create a team that was dynamic enough and that could go to any kind of scene, whether it's a hurricane, whether it's a tornado, whether it's an earthquake or you're even having a technological issue where you have massive power outages, whatever, and provide a resource for beekeepers in a disaster so that they have what they need to be able to respond and recover effectively.

Amy

This is such an important thing, and I do not want to downplay what you're doing because what I think you're doing is awesome. And I'm not endorsing this TV show, but have you seen the show the 9-1-1 Hulu show ‘Bee-nado’?

Patrick

You know, I actually haven't, but that's something I've got to see. It sounds like I'm going to have to see that at some point.

Amy

Well, it sounds like they could definitely use your help on that show, is all I'm saying. But anyway, I think that I thought this episode and the podcast were going to be in a different light, but you're saying all these things that I hadn't really considered before. So yeah, thanks for all you do.

Jamie

So, Patrick, you've kind of touched on this in the previous answer, but I'm wondering if you could kind of give us a bulleted list kind of what types of disasters would honey bees and beekeepers experience? And I know you mentioned it, and it's funny -- or not funny. I guess it's sad if you think about it. But we just went through a significant hurricane here in Florida last week. So, the timing of speaking to you is important where there's a lot of disaster related issues to deal with honey bees. I'm assuming hurricane type events are an example of a disaster response team. So, could you give us maybe a bulleted list of other things that a group like yours would respond to?

Patrick

Sure. One of the things that we do is I take a position that we are what we call an “all hazards” disaster response team. So, “all hazards” means exactly what it seems like colloquially, right? It just means we can handle any kind of emergency. And in disaster management, we categorize

disasters really in three categories. We talk about natural disasters, and that's the stuff we talk about: “bee-nados,” hurricanes, tornadoes, tsunamis, lions and tigers and bears, oh my, all that, right? So that's obviously a big deal.

But then we look at it from a technological perspective, and we also deal with instances where technological disasters are things like power outages, transportation accidents, plane crashes, for example, ones that are not as a result of belligerent means, meaning they're not a part of a hijacking or an act of belligerent terrorism. Also within technological disasters are chemical spills. I used to be a hazmat guy.

So, I did hazardous materials. I used to suit up, and yes, I used to dress up in those big alien suits. For those of you who've ever watched that TV show *The X-Files* in the ‘90s, that's the kind of stuff we wore. We put on big suits, and we would go out there. And actually, when it comes to beekeeping, that actually can be really important because there are instances where, I can't tell you, where you will have a chemical incident where people have to actually lock themselves down. And I mean that term lockdown, they have to lock themselves indoors as a result of an incidental release, either on the highway or through a fixed facility like a building or a factory, something like that, or even a cleanup. I've actually heard of this before where they were actually doing a cleanup at a particular hazmat site. They actually incidentally released some undisclosed chemicals that hadn't been discovered before in various sorts of EPA surveys that they had done, and so there was an incidental release. They actually locked everyone indoors. So, then the question becomes, you come back out, what impact is that on your bees? What impact is that on your apiary? What about your tools? Do you have to disinfect? Whatever. Do you have to clean them? Whatever you have to do. That's what we're trying to do. It's not only just being boots on the ground and being like those TV shows where you see people, like those 9-1-1 shows or those FBI programs where people are running on the scenes. And that's fine. But we also are trying to do things to provide a resource for knowledge for people so that they understand if something happens, here's what you're expected to do and here's how you're going to be supported.

And the last one, of course, is security emergencies. If you actually have an incident where you actually have an act of agroterrorism, this does happen, then you have a team there who can assist you in giving you the information that you need, and in addition, will act as a liaison between you and the authorities, not only in the EOC, but with security organizations. Because if there's an act of terrorism, there will automatically be a federal response. So, you are going to have the Bureau, the FBI involved, and others will be involved. So, that's what we're trying to do and provide that to people.

Amy

Yeah, absolutely. I think having a protocol is definitely a much-needed thing. So, Patrick, I saw that you launched the nonprofit organization in April. So, we're recording this in October of

2024. You launched in April of 2024 in California. And I'm just wondering what did that mean that you launched and what did you have to get together in order to launch? Was it launching your nonprofit? Was it starting to bring awareness to the nonprofit, or what did this all entail?

Patrick

Well, April is when I filed the paperwork, got all the lawyers involved, did all the things that no one likes to do with the state, making sure that we were going to be paying our taxes on time, things like that. But one of the other things that we were doing in April was developing the protocols. And one of the first things I did was I wanted to develop actual plans because you've got to have policies and procedures. If I'm going to have a disaster team where I have volunteers who are going into a disaster, into a zone that is still active, still has safety hazards, what can I do to ensure that they are protected? I go into the same kind of protocols that I used to utilize when I was an EMS responder, and I would respond to massive disasters. I was there during Hurricane Katrina. Afterwards, I worked for the Emergency Management Agency there. And one of the things that we did was we always had policies and procedures. During the British Petroleum oil spill, I was one of the senior emergency managers. This was in 2010. I used to write policies and procedures that were for responders who were literally going on boats and going out and cleaning oil in the middle of the Gulf of Mexico. I had to write protocols for, hey, what happens if we get a hurricane in the middle of the response? What happens if we get into a situation where there is a massive tropical storm? What if we get a tsunami? What if we get this? What if we get a massive heat wave? These are all things that can impact you, because I don't know how many of you have ever been in the middle of the Gulf of Mexico before, but in August in the middle of the Gulf of Mexico, it is extremely hot and there's a lot of humidity. And so how can I make sure that people remain safe?

That is so important to me because I would never, ever, ever want to send anyone out anywhere without them knowing the policies and procedures. So, one of the things I did, for example, just to give an example, Amy and Jamie, is that I developed protocols and procedures of how to do CPR in an apiary. As a matter of fact, I'm actually creating a YouTube video on this for how to actually conduct CPR in the middle of an apiary when you have bees swarming around you. I actually got a professional apiary to let us film there. And I was sort of showing people, here's how you make the scene safe. Because when we do CPR, the first thing we say, and I do this with audiences all the time, I always ask them on a rhetorical level, I always say, what's the first thing we do in CPR? And people always say, oh, you got to open the, the airway. We do compression only CPR now, and I'd say no, no, no, no, no, no. The first thing we do is to make the scene safe. How do we make the scene safe? So, what I did in developing these CPR protocols is actually developing, how do we make the scene safe? How do we ensure that people stay away? Can we deploy an AED right, an external defibrillator? How do we do compressions

when you have bees flying around you? What, at a minimum, do we need to be wearing? Do we have to be wearing a bee suit? Do we have to be fully encapsulated? What do we have to have?

So, I tried to develop that as best I could, because I wanted people to be able to see what they could do. And the other thing I did was I began outreaching to what we call VOADS, and in disasters, VOAD stands for volunteer organizations active in disasters. And this is where you get your American Red Cross, your humane societies. You get all these organizations that are nonprofits that are volunteers, that are operating in disaster areas. I joined them.

And every single time, I would file my application and then I would end up talking to somebody on the phone and they would say, OK, Patrick, what's your nonprofit about? What do you guys do? And I say, we rescue honey bees. I got more than a few laughs and a more than a few, "Whoa. I didn't expect that. I had no idea that existed." And I said, you're right, it didn't exist seven days ago, but now it does. And so that's what I tried to develop and create so that we would be able to have an active deployment. Actually, weirdly enough, we sort of made history a couple of months ago. The Bee Platoon actually responded to a disaster. So, we actually had the very first honey bee disaster response team on its very first disaster deployment. It was in Riverside, CA on a fire. We didn't actually end up helping anybody, but we did take one call, which is really cool. But we were out there, and we were actually deployed to assist. I actually had a volunteer who stayed in a location. So that's one of the things that we did, and that makes it so exciting because I want to go into bigger disasters. I want to go into places where we can help more people and not just after the disaster. I want to help them before. I want to be able to help educate people. We want to be able to go into schools. We want to be able to tell beekeepers that responding in a disaster can be possible, and there's an organized way of doing it. And we want to be the spearhead and lead the way in how that's going to be done.

Jamie

So, Patrick, I think that's a great segue into the next question. So, if you've never had to respond to a disaster, putting a team together during your first disaster is a really difficult thing to do. So, disaster response is no doubt better done preemptively where you're prepared to handle it so that when a disaster comes, you're able to move forward. So, who, then, would need to be involved in a typical disaster response team associated with a honey bee type disaster? Who do you see being involved on such a team, ready to move forward, should a disaster happen?

Patrick

Anyone at all who has a familiarity with beekeeping, many of you are going to actually have a lot more experience in working with your hives. That experience, I want to crystallize and distill that down and utilize it because you will be incredibly valuable team members. So, what we're

doing right now is in California is I'm developing the first teams. What I'm planning to do is I'm going to have essentially 3 captains. So, I'm going to have a Northern California captain, I'm going to have a Southern California captain, and I'm going to have a Central California captain. Those folks will then be responsible for recruiting and bringing volunteers into various counties. And then, what we're going to do is I'm actually going to travel up and down the state and I personally will train everyone. So, here's something I want to mention. One of the questions that came up in the development of the team was people were saying, well, how would you train people? How are you going to do that and deploy that? A lot of people said, well, beekeepers don't have time. You should just do something online and provide just some basic didactic training. And I said no, I'm not going to do that. I'm not going to do that. I remember when I was a paramedic instructor, I used to teach the sections. Once a year, I go back to Louisiana to train some people in the EMS Academy I worked at. I go once a year. My chapters of responsibility for EMS are the very last chapters in the books. So, I'm always at the end of the semester and the chapters at the end are hazardous materials, acts of terrorism and mass casualty incidents. And mass casualty incidents are essentially the EMS term for disasters. What I used to do the first year or so that I used to do this, I used to walk in -- for those of you who've never been involved in first response or, or anything, these EMS textbooks are really thick. I mean, there are hundreds and hundreds and hundreds of pages long and they talk about various things. Here's how to deal with a stroke or a cardiac event or anaphylaxis or whatever you're dealing with. And then at the end they talk about how to deal with a disaster and how do you handle when you run across a chemical, how do you do these things? So, the first year or so, I used to lecture, and everybody was bored. Everybody was bored. I thought that was interesting because, and I really should have known better because, when EMTs get out of high school, you don't become an EMT because you want to read books and you want to try to read these thick medical tomes. That's not why you got into this. You got into this because you want to go on the street, you want to be out there, you want to be on the rigs, you want to be touching patients. It's that kinesthetic, it's that touch that people need to have. So, what I did after the first year of people getting really bored, I walked into the class, and they would always have their books open on the appropriate pages. And I would say, hey everybody, I'm Patrick, yadda yadda, close your books. Close your books. And people were shocked when I would do that. They would say, why would you do that? And I'd say, because we're not going to talk about that. I'm going to show you how to respond to a disaster. I'm going to show you how to respond to a chemical. I'm going to show you how to respond to a mass casualty incident, whatever it happens to be. So, actually, one of the things I used to do for fun is I used to take teddy bears. I used to usually go to Walmart or something and I'd buy like 80 teddy bears. And I put the teddy bears in the room, and then I would put a note card around the necks of each of the teddy bears. These cards would have 4 considerations that we have to do when you're an EMS professional and you're dealing with what we call a triaging situation. In other words, there's only a few responders and there's a lot of victims. There's a way

that we've developed in first response to quickly go from patient to patient to patient to patient to patient. So, I used to do that. I used to put those on the note cards, and I would randomize it and put them all over the teddy bears. Then I would turn the lights off and then close the door. All the students would be outside. I'd say, OK, in here, everybody, and there'll be about 8-10 people, and I'd say, hey, everybody, OK, in here are all the teddy bears. I need you to take care of all of them and do it as quickly as you can. If you don't do it in this amount of time, I'm going to ring the buzzer, I'm going to move the note cards around and we're going to start again. I would flip the lights on, they'd run in there, and I would show them how to triage very rapidly and they would learn. And inevitably they'd make a mistake the first couple of times. And I would say, everybody back out. I would get an assistant, and she would switch all the note cards out and I'd say, let's do it again. Flip the lights on, put them back in, ring the alarm. And we do this over and over and over and over and over. And one of the things that I discovered was every single one of those students remembered everything I told them because they got used to doing it kinesthetically. So, the training we're going to do is kinesthetics. So, I plan on visiting up and down California. That's kind of being our laboratory. I'm hoping to maybe even go down to Florida to be able to train people personally, because I want people to see how we're going to do it and actually show them things. And more importantly, this is something I've been doing as a trainer my whole disaster career. I say this to my audience all the time. I would say, look, I'm training you as much as you're training me because I want to understand how the disaster program is going to work in your location. I used to do that with clients. I say to them, how can I learn from you? So, I would ask critical questions. How does this work? How does that work? And they give me information that makes me better as a disaster professional, as their disaster planner. Or in this case, when I go out, I'm going to learn a lot. And one of the things that I decided very early is that I'm going to make sure that the curriculum is extremely elastic, incredibly elastic, because I want it to be something where it becomes very symbiotic, meaning it's something where we're both benefiting from the training. because I'm going to hear things from very experienced beekeepers, people who have been doing it longer than I have been taking breaths of oxygen upon this blue marble. And they will be telling me things that I never knew before, and that's going to improve the team. For those of you listening, we want people in there. I'm not just going to be a sage on the stage saying, hey, this is how we do things. I'm going to say this is how we're working things now, but there's always ways to improve because I want to hear what people have to say. That's what'll make this a really effective team and a dynamic one that will likely last the test of time.

Amy

So, Patrick, you were talking about putting together the team, what this looks like, your training and education, and I definitely agree. Hands on, there's nothing like hands on experience. You had mentioned earlier, honey bees are a very unique piece of disaster response, right? So, what

are some other considerations that you feel need to be taken into consideration? I guess, when you're looking for team members, when you're looking for someone to train, and then some considerations in your training materials as well.

Patrick

One of the biggest challenges, and this happens in every industry in which I work, is that there are people who say things to me like, “This is the way we've always done it.” This is the way we've always done it. Sometimes, I have to work with people and say I appreciate that. And I bet there are things about what you have done over the last 10, 20, 30, 40, 50 years that we can learn from. But in the end, there are additional considerations. For example, one of the things this team has now is insurance, which I'm incredibly excited about. So, when people go out, they will have umbrella coverage of insurance. So, slips, trips and falls, or if something were to happen, one of the things that's going to be important during the training, and I'm really looking forward to hearing what people have to say as I do the trainings, is that people are going to come back and say, hey, listen, how are we supposed to do this or how are we supposed to do that that? And I say, in reality, because our master is kind of insurance in some ways, and there's policies and procedures from the government that we have to follow when you're a disaster team. Some people think, oh, we can just work, and just do whatever we want to do. You can't do those things. You have to follow the procedures. I think that's going to be one of the challenges going forward. And that's a challenge that I've faced all the time, every area, every industry I've ever worked in. I've worked in disaster management, now, as I said, for 20 plus years. My father was one, my grandfather was also one as well. My dad, actually, he was what we call a business continuity planner. So, he did disaster recovery, but he did it for information technology, for computers. My dad worked for the Cal State University system, which is the largest university system in the world. It is massive. And my dad used to regale me with stories when I was a young planner talking about how he was trying to convince people who had advanced degrees from the Ivy Leagues. These are people who've been Rhodes scholars. I mean, these were very, very intelligent, successful people. And trying to tell them, I know you're smart, I know you're the smartest guy in the room, but in the end, you have to go to the disaster drill. You can't just read the plan and then say, well, I know it. No, you don't know it. We have to actually see you in action. Trying to get people who have doctorates, who have full tenure, and you both can appreciate that, you're both from academe, that sometimes you have to turn to people and say very politely and you're trying to be as diplomatic as you can. And my father is this very quiet, stoic man. He's one of those people who was very contemplative. On the Myers Briggs scale, he is as white as it comes. In other words, he's the peacemaker. He's the guy that's always trying to collaborate with people and make it work. He’d turn to people and say, listen, the drill is really important, and we value your leadership. That wasn't just lip service. He really meant that. He really wanted people involved. And so that's one of the things that I have to consider as a team.

Also, there's regional differences as well. And I've learned this as a disaster professional. Everywhere you go, there are things that people do that you have to appreciate, but there are going to be some equipment requirements. There's going to be a uniform requirement. So, in a uniform, I don't mean everybody has to wear like a Ghostbusters costume or something, but it just means you're going to have to wear a shirt of some kind that identifies you as part of being with Bee Platoon, and then we will have some minor equipment things that people will have to follow as well. Again, these are insurance dictates, and they are dictates from the Emergency Management agencies, but that's very little. The rest of it is really just about trying to stay elastic and stay open so that we can continue to grow as a team and get stronger in every disaster that we operate in.

The last thing I'll say, and then I'll hand it back here, is that I'm really looking for leaders. I'm looking for leaders who are willing to try new things. You have to be really open to it. I mean, that's what I did when I was talking to Ventura County, for example, when I was working with their Emergency Management Agency, and I was working with their VOAD and I was talking to some of the beekeepers. I was saying, yeah, we're going to do things differently than you normally have. You can't just show up in board shorts. I mean, you have to show up, you have to wear pants. I mean, there's things you have to do. So, every region, every area that we work in, we want to develop leaders who, when I'm not there, are working to say we're maintaining a consistency so that every single person is getting the training that they need because we want it to be successful. We don't want to constrain people. We want to have a team where people say that is the most respected honey bee disaster response team in the world. That's what we want to become and that's what I intend to develop it to. I mean, this is going to be a world class team. And for those of you who are really go getters, those of you who really want to be part of something special, I welcome you to join our team because it's going to be an incredible ride. We're going to do some amazing things together.

Jamie

So, Patrick, we do have an international audience listening to you right now, so I know a lot of folks are listening to you, “Oh, this is a good idea. Maybe we could implement something similar in our area.” Your last comment was an invitation to join your team. I'm wondering what folks out there, what our listeners could do if they wanted to start a honey bee disaster response team. What are some things that they would need to know?

Patrick

Yeah. You would join ours. If you join ours, what will happen is that I will provide you with everything that you need to get started at to be under the Bee Platoon umbrella. I'll give you

everything you need for the insurance. I'll give you everything. I'll even make the initial contacts with the Emergency Management Agency. I will get you into VOAD. I will make sure that all the policies and procedures are followed. And in fact, I'll even set up the deployments. And if I'm in the area at the time, I will help you on your first deployments because that's really what I want to do. I want to be able to make it so that I'm positioning you to be successful. This is not my full-time job. I was joking around with Amy and Jamie before this started. In California, if you run a nonprofit, you are required by law, you must take a salary of some kind. And I take $1.00 salary. That's all I take because this is not something that I'm trying to monetize. Instead, this is a team where I want this to be something that we, in the industry, can be proud of, something where we actually can go out there and do something that's really amazing and different. And this makes it a difference. I mean, it really helps people because, it seems funny to say it, but the reality is, is that first responders run across bee swarms all the time during disasters and it can hold things back. I've actually heard of this. Our first responders were stung by bees and that's a big issue.

For those of you who work internationally, absolutely, I am happy to work with you. I've actually worked internationally myself. I've done disaster work in the Middle East, done it in Europe, actually went to Graduate School in the UK, and I actually studied Emergency Management in the European Union in the UK and the US, as well as Japan. I lived in China for a while too. I have quite a bit of experience working internationally. So whatever frameworks you are working under, while I can't necessarily try to implement them in person everywhere abroad, if you do, if there is some interest in there, we can work together and I am more than excited, more than happy to help you to develop something credible so you don't have to start from scratch. Don't worry about starting from scratch. We'll partner together, and I'll help you. As you can kind of tell, I'm the kind of guy, I just love collaborating with people and creating something that's really unique.

So, if you think this is something that could work, whether you're in South Africa, whether you're in Europe or whether you're in Asia or wherever you are, we can put together something that will be useful for the Emergency Management agencies and something that you can immediately deploy.

Amy

Absolutely, Patrick. So, what we'll do is take your information, and we'll add it to our additional notes and resources in this episode once it comes out. We'll have the beekeepers or whoever is interested to reach out to you directly if you're okay with that.

Patrick

Absolutely. Give away everything. This is one of those instances where I don't mind if my information is online. If you want to reach out to me, I welcome it. I would look forward to speaking to anybody on that.

Amy

Sounds good. As we wind down with this episode, I was just wondering if there is anything else that you wanted to add.

Patrick

Yeah, I want to tell everyone, I want to emphasize to everyone out there, we're really looking for you. If you are looking for something that is going to be different and unique, I'm trying to develop a team that is going to last the test of time. I want something that we can deploy around the country. I want to be able to deploy to the hurricane in Florida. We want to be able to do that and I can't do that without your help. That is impossible. And that's one of the reasons why I'm glad to be able to be talking to people about this because I think that if you've ever wanted to be a part of organization, to be able to shape it, if there's things that you have where you just want to have a limited experience, fantastic. If you just want to volunteer, fantastic. If you want to assist me as I'm developing policies and procedures, awesome. But the one other thing, I have one other ask. I have one other ask. At some point, and it is a very short period of time, we are going to be developing some amazing YouTube videos, and I want to create YouTube videos on how to respond to a disaster.

If you run an apiary somewhere in the country or you have some kind of bee operation and you're open to that, please contact me because myself and my team will come to you. We want to record some amazing procedures because we want to generate excitement and, excuse the pun, some buzz. I want to create some real interest in it. I want to create some amazing YouTube videos, things that people have never seen before. I'm hoping that a few of you may reach out and say, hey, listen, I've got this really great bee operation. Here's what I'm doing. And then I could turn you and say, hey, listen, can we simulate an evacuation there? Could we simulate a shelter in place? If you have a truck where you say, hey, listen, we, I've got a truck here. I don't know how you would use that. We could say, listen, could we practice showing people how to transport bees off of the site? Even if that's the only involvement you have, great.

If not, you can go to BeePlatoon.com. It's BeePlatoon.com. You can go on there and you can sign up for the newsletter, and then we'll be emailing people on a routine basis about all kinds of wonderful things. But we look forward to your cooperation. We look forward to having your participation. That's what's going to make this a really amazing time. So that's all that we really have. This is going to be an incredible team, and I think that this is going to be something really exciting.

Jamie

Well, Patrick, I really appreciate you coming on and joining us on today's podcast and introducing us to this idea of honey bee disaster response teams. So, thank you. Good luck with your work. Look forward to hearing more about it in the future.

Patrick

Thank you very much, Jamie and Amy for having me on today. I had a lot of fun and I look forward to connecting with all of you guys in the future.

Amy 36:14

Jamie, do you ever say something and then you think back, like, why did I bring that up in the middle of the episode?

Jamie

All the time.

Amy

Well, that happened in this episode today when I was asking him about the bee-nado thing, like --

Jamie

All I could think is great, we're going to have Hulu get a hold of us. No, I'm just kidding.

Amy

Oh, my goodness. Anyway, I thought it was really cool talking to Patrick about disaster relief efforts. I think when I first saw disaster relief, the first thing that came to my mind, we are recording this in October 2024, and we're going through hurricane season, right? And so, like, in my mind, that's the only disaster I'm thinking of at this moment. But he mentioned a lot of different types of hurricane disasters. So, what were your thoughts?

Jamie

This was an interesting concept to me. When I introduced Patrick, I made the comment, I've never really thought about this before and I need to put in the caveat. I have thought about responding to stinging events. I've trained a lot of first responders and things like that. The part I haven't thought about is formalizing honey bee disaster response teams so that they were trained kind of third-party organizations ready to respond to a stinging event, to a hurricane like what we just had here in Florida, to any other bee related issues, maybe a semi-truck carrying bees across the country overturning. So, anything related to bees. And that was a very interesting concept to see how thoroughly Patrick had thought this through. I guess, you heard it in his brief bio and

introduction about himself. He's got a lot of experience and disaster response in general. And of course, he just married two things that are of significant interest to him, disaster response and honey bees and beekeeping. So, when I see this, I'm like, oh, yeah, of course this makes sense. So, it's neat to see him kind of spearheading this effort.

Amy

Absolutely, yeah. I'd love to hear our listeners' thoughts on this. It's kind of exciting because it is such a new thing. I think it'll just evolve through time. But I definitely think that some of the protocols and resources can be useful not just here in the United States, but internationally as well.

Jamie

Yeah, absolutely. We have such an international audience. I am curious, just like you, Amy, to see if others want to pick this up. Or maybe, Patrick even gave the invitation to reach out to him directly if you want to be a kind of spin off or an associated group of his. So, anyway, it seems like a really neat topic, a needed thing. It was just one of those things that's eye opening for me as well as for our listeners. I'll look forward to seeing where this all heads.

Stump the Chump 38:44

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

Amy

Welcome back to the question-and-answer segment. Jamie, the first question that we have today is from a listener from Southeast Louisiana. This individual said that in Louisiana there was a huge, long drought, so they started keeping more water available for their hives. I guess, their honey after that had a little bit more moisture content. So, it was about 18-18.5%. They're kind of comparing it to what they had had in the past. They're wondering, is it possible to give your bees too much water? Would that change the moisture content of honey?

Jamie

Yeah, I don't think that's what's happening here. I mean, I guess it's theoretically possible, but it sounds like they had a slightly drier honey last year when there was a drought, and they weren't providing as much water. And now that they're providing water that's just freely available, apparently their moisture content goes up. But really, I don't think that's it. It likely has more to do with the source of nectar that they are collecting or just the level of humidity in the air. Bees are going to self-regulate with water. They only collect it when they need it. So, if you've made it available to them, they're not going to over collect it or under collect it. They're going to collect what they need. And I just think it's a coincidence that you're seeing the two of those coincide.

The fact that you're giving them more water this year, as well as seeing the moisture content in your honey go up, I just don't know that it would have that level of impact.

Amy

Yeah, I also wonder just as far as the beekeeper's perspective goes, when we see the number of capped frames, right, like what percentage of that is capped versus uncapped? So, I think maybe that would be another consideration to look at as well.

Jamie

Yeah, definitely a possibility.

Amy

All right for the second question that we have, this individual has heard the advice, take your losses in the fall. The recommendation generally is to combine weak hives in the fall instead of just losing them in the winter time, and I think this is pretty common for those who have a true winter. So, the questioner is asking, is there ever a time when you would not want to combine these hives?

Jamie

That's a good question. But there's actually a lot of information in the lead up to the question that I think is worth discussing. So, I'm going to comment on all that. Then, I'll answer the actual question that they ask. So, I also like the advice, take your losses in the fall. I actually like the advice even more generally, take your losses when they're going to be obvious. So, what do I mean by that?

Well, this particular recommendation is, take your losses in the fall. So, the idea is you're working an apiary, let's just say you have 30 colonies in this apiary. These three colonies over here are really weak. They're not dead. There's a queen, they've got food resources. Maybe you could nurse them through winter, but if you go through winter with the three, the likelihood that they're going to die is really high. And then if they die, then they might get robbed out. The combs might get destroyed by wax moths. You may not be able to use the resources again. So, if you see that those three have a high probability of dying, why not just combine them with stronger colonies so that you can save the equipment, and it'll be available for you next year? But I would say that's not just a fall thing. Sometimes, I feel like we go to great lengths to save colonies that are doomed anyway. And that doesn't just cost us bees downstream, it also cost us equipment, comb, honey, pollen, beetles, small hive beetles might move in and just do all kinds of damage. I would argue it's always best to take your losses when they're obvious, right? You just need to say, OK, this one's not fixable. I'm going to take out its queen, euthanize her, and then combine the two colonies.

So, the questioner there is saying, well, are there times when you wouldn't want to combine 2 colonies? I would say there are only a couple things that come to mind. I wouldn't want to combine 2 colonies if the first one that is weak is weak because of something like American foulbrood or high Varroa populations, right? I wouldn't want to move that to a healthier colony because they're going to have problems. A second time I might not combine is if I only had, let's say, two or three colonies, and the one that I wanted to rescue, as it were, to move into a second colony, let's say it was weak, but let's say that second colony that you're moving them into is also equally weak, in which case, combining 2 super weak colonies is not going to make a colony that's strong enough to make it through winter. So, I look for disease and pest pressures that I wouldn't want to share with a second colony, or I just look at the strength of the colony that I am combining and the one that is receiving that second colony to make sure they're both strong enough to at least contribute positively if united.

But other than that, it is very common in commercial beekeeper world to go into their colonies in September, October, November and just essentially cut their losses. Anything that is below a, quote, weakness threshold automatically just gets added to other colonies because the beekeepers think the bees aren't going to make it anyway. I might as I'll protect my equipment and have it available for use next year.

Amy

Yep, that makes total sense. So, for the last question that we have, I'm going to preface by saying this is one of the questions where I feel like it's always better to just have something like drawn out on a white board or on a piece of paper, right? So, we're going to do our best to describe this question in the podcast, so our listeners have an idea of what we're talking about. The listener is asking, so they have two deeps with really great brood in it, and then they have two supers on top of that. So, we've got a total of four boxes, right? The top box is mostly empty. The box right underneath that has a pretty good amount of capped honey and there's some uncapped. And so that's kind of the description of what we're working with right now.

So, the questioner is asking, can they leave the lower super on for the bees overwinter? If they cannot do that or if they shouldn't do that, how do they get the bees to bring the honey down to the deep so that this an individual can take both of the supers off before we go into winter?

Jamie

Yeah. So, I think I've got an easy answer to these questions. So just to reframe it for everybody, this is a colony with two deeps and two mediums. The two deeps are full of brood. That first medium, the one nearest the two deeps is full of honey. The second medium has very little in it. And Amy, you're right. I kind of get the implication from this question that they're going to remove that second medium, the one that's mostly empty. I probably would do the same thing

myself because I wouldn't want even a moderately strong colony that can't fully occupy that uppermost deep. I wouldn't want that uppermost medium. I wouldn't want it to stay on over winter because if it's got no honey, it's vulnerable to wax moths and all that stuff, and really all you can do is lose. So, I'd probably remove that uppermost medium just by default.

But the questioner is really saying that next medium, the one that's closest to the brood boxes, is potentially full of honey. Should I take it off or should I leave it over winter? I 100% would just leave it over winter. You're not losing anything by leaving it for the bees. The bees may end up needing it anyway and over winter in general, colonies migrate up in the nest. So, if you've got two brood boxes that are both deep boxes, that may be where they're starting right now. But as winter continues, they're just going to go up, up, up, up, up and maybe need that upper super honey in order to be able to survive winter. So, I would leave it. I wouldn't even worry about taking it off.

Amy

Sounds good. And it's interesting. This episode's going to be going out at the end of 2024. It's getting a little chilly here in Florida, Jamie, but we are seeing a lot more questions coming in about overwintering bees. So, if you all have questions about overwintering or things to do. And right after winter, we get right back into spring. So, for you listeners out there, don't forget to start thinking ahead of what you're going to be doing after the bees come out of winter. Be sure to send us questions on our social media page or on our e-mail website.

Thanks for listening to today's episode. This episode was edited and produced by our podcast coordinator, Mitra Hamzavi. Thanks, Mitra.

Jamie

Visit the UF/IFAS Honey Bee Research and Extension Laboratory's website, UFhoneybee.com, for additional information and resources for today's episode. Email any questions that you want answered on air to honeybee@ifas.ufl.edu. You can also submit questions to us on X, Instagram, or Facebook @UFhoneybeelab. Don't forget to follow us while you're visiting our social media sites. Thank you for listening to Two Bees in a Podcast.

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