

Transcript of Episode 14

Jeremy Melder 00:00

Firstly, I just want to thank everyone that has been participating and listening to Beaming Green. Your support has been invaluable, and your feedback has been great as well. Now, I just wanted to let you know that I'll be having a two-week break and back with our final episode before Christmas to talk about what would be a sustainable Christmas for you and your family and what gift ideas have you thought about, so I'm looking forward to some of your suggestions so that we can share them on the final episode of the year on Beaming Green, and thanks once again for all your support. Hello, my name is Jeremy Melder, and on the presenter from Beaming Green. Before we start, I would like to acknowledge that this podcast is being held on the traditional lands of the Bundjalung people and paying our respects to elders both past present and emerging. The Beaming Green podcast is a weekly pod, which will help you to take out some of the stress and confusion about how to live your life more sustainably. And we do this by introducing you to people that have first-hand experience and expertise in all aspects of sustainability. So, you can get some amazing insight on how you can implement simple and practical solutions to enhance your life and the lives of your family. Ever wondered what it would be like to be a beekeeper or have some bees? look after them, nurture them? collect some honey? Well, today we're lucky enough to have a representative from the Gold Coast amateur beekeeping society, Leonie Schwarzel, who has been a member for a number of years and she's going to share some of her wealth of knowledge with us on beaming grain, so that we can be more informed about decisions about becoming a beekeeper Leonie Welcome to Beaming Green,

Leonie Schwarzel 02:10

it's lovely to be here.

Jeremy Melder 02:12

So, Leonie We met at the Gold Coast Amateur Bee Club Society about two and a half years ago. I was really keen. You've been a beekeeper for a while you do our newsletter and things like that.

Leonie Schwarzel 02:29

do indeed.

Jeremy Melder 02:30

Yeah. What inspired you.

Leonie Schwarzel 02:33

I grew up I was lucky enough to grow up in a rural environment. My parents had orchards, mostly stone fruit. And we used to have beekeepers who would bring their hives each year to pollinate our crops. And I would sit and watch from a distance I was a little girl and all beekeepers in those days were men with long beards and usually a cigarette hanging out of their mouths. And so, a little girl wasn't encouraged. But I was just fascinated with what I could see. So, I have always had this fascination with bees and honey. And we had roadside stalls that would sell all our fruit and other fruit grows in the district. Similarly, fruit and one of the products that we would sell will would be all these different varieties of honey and I'd line them up from the very lightest in color through to the very darkest and

have padal pop sticks that people could use to sample the different flavors. And yeah, I just I was always fascinated. So, when I found out that there was such a thing as urban beekeeping these days, I yeah, you know, had to skip forward 30-40 years, and then I did a beekeeping course and started urban beekeeping. And then was very fortunate to come and live in the country. So now an acreage and I've got lots of bees and I work as a beekeeper for somebody else as well.

Jeremy Melder 03:58

Yeah. I was very fascinated when I just joined, I was a newbie to The Club. Yep. And you were talking about responsible bee keeping? Yes. And I thought all I hear all this stuff on the news about, you know, there's a lack of, you know, bees in the environment and things like that. And then you see these things on the ABC that they talk about people that doing urban beekeeping and was saying that you know that we need to do this responsibly.

04:30

Absolutely. One of the questions that was asked in the course when I did my training a number of years ago was are you a honey collector? Or are you a beekeeper and if you're a honey collector, if you're in it for the crop of honey, then you're in it for the wrong reasons, because these are animals and fundamentally, you're keeping in each hive, you're keeping up to 60,000 livestock. So, you need to be responsible maintaining the health and welfare of that livestock. Yeah, whether it be cattle or goats or sheep, or whatever you are farming livestock when you have a have a colony of bees. So, you have to take that on with a lot of training and education to make sure that you understand how that animal needs to be managed responsibly.

Jeremy Melder 05:29

Now, I agree with that. And I think you know, what, what we want to inspire people in Beaming Green is to I want to be a beekeeper, but to do it responsibly. So, what are what are the steps in terms of I want to be a beekeeper? Yeah, yeah, obviously, we're talking here in Australia, it might be different in other countries. But, you know, I think we've got a pretty good training program here

Leonie Schwarzel 05:49

we do, we're very fortunate, we haven't, in most areas of Australia now have the clubs, the local bee clubs. So, the first thing that I would say to people is go and get some training. Don't buy your hive, and your bees, and then start reading or watching YouTube videos, you need to do it the other way around. So, join a club, gone to a beginner's course, start reading some really good books, find a mentor, find somebody who is already beekeeping and doing it well. And ask if you can come along and give them a hand. Most courses that you can do through your local Bee club are very affordable. usually done over a couple of days, you get a good theory, a good basis of theory, and you get a little bit of practical. And that just gives you an idea of what you're in for. And that's the beginning of the learning from then on. It just goes on with you're a beekeeper for five years, 50 years, 80 years, and I've met some that have been going that long. Yeah, you are constantly learning. So, education has to come first.

Jeremy Melder 06:54

Yeah, I agree with that. And I'm really, I must say I like learning along, and you've been a wealth of information and, and Jim O'Reagan is 84 years old. Yeah.

Leonie Schwarzel 07:07

And Jim's been bee keeping for at least 60 of those 84 you know, closer to 70

Jeremy Melder 07:12

he's got some, you know, great stories, and it's so much fun, you know, to go with that. So, in terms of people learning environmentally, what are what are the other like this this honeybee? Yep. And there's also

Leonie Schwarzel 07:30

Yeah, Australia is, is in a unique position in the world. We have the European honeybee which has become naturalized in our local environment. And it's responsible for most of the pollination of our agricultural and horticultural crops. But alongside the honeybee we have 2000 species of native bees in Australia. Yep.

Jeremy Melder 07:54

TWO thousand.

Leonie Schwarzel 07:55

And they still discovering more. Wow. Yeah, so we are. Most countries of the world do have native bees, but not in the vast numbers and variety that Australia does. Now a lot of our native bees are not colony bees like honeybees. They don't live together in a large colony, a big family, a lot of them are solitary. So, it's just a single female who lays a couple of eggs she collects enough pollen and enough nectar to just put away some stores and then she leaves she just covers up that heart that little hole in the bank of a river or a hole in a brick or a couple of leaves that have been wrapped together and that she's sealed up with propolis and she goes off and they have to raise themselves. And then we have some native bees that are also colony bees they can be kept in a box, but they are tiny, tiny little bees just like a little and they live in a much smaller box. They don't produce a big crop of honey. The European honeybee has its name because it produces such an excess of honey. Most of our native bees don't produce much if any honey so you won't get a crop of honey off a native beehive. but you can watch them another advantage of those is that they're not they're stingless they don't have a sting; they won't hurt you. You won't swell up when you keep native bees but yeah, they're in the middle. They're in the minority.

Jeremy Melder 09:27

I've got a friend that just down the road has native bees. And you know how they don't they don't sting balloon do bite. Yeah, they

Leonie Schwarzel 09:36

do. Mind you, their jaws are so tiny. They really aren't going to do any damage. Yeah, yeah. And they are very cute, very, very sweet.

Jeremy Melder 09:44

So, if people are wanting to look at these things, is it worth joining a club?

Leonie Schwarzel 09:49

Totally. A club is a great source of, of training. Right from the beginner level through to intermediate and advanced beekeeping. Most people club also provide some sort of mentoring program. So, if you do a course through there, there's a very good chance that you'll be assigned a mentor or two. Or you can assign yourself to a couple of beekeepers within the club, they usually have facilities too that offer some sort of hiring system. So instead of you having to buy an extractor to extract your honey, you can rent through your club, they often have a library so that you can take out books and extend your knowledge that way. They have monthly meetings where they do all sorts of activities from different ways to harvest your honey, all the different equipment we just had a visit to a queen bee breeder, which was really interesting. Yeah, how to render all the wax because you know, with it, when you're taking off Honey, you also get some of the wax and what you do with that wax because that's a valuable product as well. So, clubs provide us just a wealth of information and access to like-minded people who are really interested in the same hobby that you're doing. So yeah, it's just a wealth of knowledge and great people to be involved in.

Jeremy Melder 11:09

I'd like to know a bit more about what the Aboriginal view is of Yeah, well, the

Leonie Schwarzel 11:17

before the European honeybee arrived in Australia, which was around about 1822 and arrived on a convict ship called I've forgotten the name, but I'll think about it as we go along. Yeah, it arrived in Australia the European honeybee on a convict ship and soon established its itself in the Australian environment. But the Aboriginals have been in Australia for 40, 60, 80,000 years and they used to work closely with the colony native bee species called (phonetic) tetra granular carbon area and tetra granular Hawking eye. two species that have native Bee that live in a colony and do produce a small amount of honey and the Aboriginals call them sugar bag show bag bees. So, they would get here they loved to get these. Yeah, that that little bit of sticky sweet honey out of the hives. They didn't keep them in boxes like we do they so the hive was generally destroyed in harvesting the honey. But the species has thrived in Australia. So, there was always, and you know, the next colony in another tree that was available. Yeah, another thing that we started to discuss was the impact of European honeybees on some of our native areas, and there have been studies and a lot of anecdotal information from Aboriginal elders, saying that the, the honeybee it's, it's present in areas of native bush land, now that that it wasn't some years ago, perhaps 10-15 years ago. And what they're saying is that the, the there's a competition now for resources, so the little native bees, which are very, very tiny, they will forage very happily alongside honeybees on flowers. But when you've got colonies of 50, or 60,000, honeybees and a very small colony of native bees, then the lion's share, obviously, of that pollen and nectar will go to the honeybees. So, they've noticed I've started to notice that there's been a decrease in some of the native honey, sorry, native bee species and an increase in the European colonies. European colonies do. One of the ways that they reproduce is to swarm each year where they split off the Queen from the hive and half the bees, and they'll go and find a hole in a tree that would generally be occupied by a possum or a sugar little sugar glider. Yeah, one of our little marsupial mammals. By a lot of our Australian birds, some of our beautiful cockatoos and rosellas and so forth. And then at native Flora is being expelled by the intruding honeybees. So yeah, there's a bit of a there's a bit of a concern about

this change in habitat. And along with that, there are certain species of trees that can only be pollinated by natives, not honeybees. So, they're seeing a shift in some of the types of trees that are appearing in these, you know, very, very old ancient areas. Yeah, with a fairly delicate ecosystem, where the honeybees are pollinating trees that are now producing more seed and those trees becoming more established and some of the, the shrubs that are pollinated by the little native bees are tending to their seeing, less of them. Yes, that's a bit controversial.

Jeremy Melder 15:01

It is a bit controversial, but it's kind of like I would say, we need some sort of evaluation system.

Leonie Schwarzel 15:08

we do? Yeah. And it's and the jury's still out on this. You know, as I said to a lot of this is anecdotal at this stage, there's not a lot of scientific research to support it. There is a movement in Australia to exclude honeybee managed colonies. So, this is our bees in boxes in hives, that are managed by professional beekeepers. When they're not out on pollinating some of our main crops like almonds, or canola or avocados or passion fruit or stone fruit, those bees have to still be collecting pollen and nectar to feed the hive. So traditionally, we've a lot of our professional beekeepers have had their pay fees to access national parks and state forests and they move the hives into those areas. And there is a move at the moment to perhaps exclude the, the honeybee inboxes from those areas of native forests. There are still there are feral colonies, ones that have actually swarmed and set up on their own. Yeah, but they are talking about limiting the number of commercial licenses to those. Those ecosystems. Yeah, but it's very difficult because if you've got, you know, 1000, hives, 2000 hives, they need to be fed. So yeah, so in our native forests in Australia, we have vast areas of national parks and state forests, and they are very, very wonderful source of pollen and nectar. So, it is it's a quite a controversial, very controversial.

Jeremy Melder 16:47

So, if, I guess what we're trying to say here, or you're trying to say is, just to be mindful of, you know, if you want to do this as a hobby, yes. Just to be aware of how it could impact in terms of Yeah, your environment around you and just evaluate your environment. Yeah,

Leonie Schwarzel 17:03

what we're also finding is, you know, if you're living in an urban area, rather than on an acreage out in the bush somewhere, urban bees do extremely well. And the reason is, is because most people have a garden. Yeah, and most people have a few trees in the garden. So yeah, urban bees don't have to travel great distances to find good. A good Tucker. Yeah, good food. Yeah, they, they, if you want to help bees and you don't want to keep these plant lots of flowers and plants and flowering trees, put in some fruit trees, your bees will absolutely love it. And everybody else's will, they can travel up to five kilometers to find food. And in urban areas, they don't need to travel that far, and they don't want to travel that far. So, you know, if we can just plant really good gardens and lots of trees, and we have beautiful parks. Yeah, that's the way to, to help the honeybee in urban areas. And you're not impacting on these areas that are delicate, and environmentally sensitive. And yeah, that the honeybees don't necessarily belong there. They belong in a box in a backyard with a beekeeper who loves and adores

them and is doing a great job of managing. Yeah, managing those and taking of a bit of honey as a reward. Yeah, take care of your bees and honey will flow. I

Jeremy Melder 18:18

think that's really wise words, you know, because you do need to look after them because there's Yeah, there are pests and diseases. Yes. Yeah. Let's talk about some of those pests.

Leonie Schwarzel 18:28

Yeah ,yeah. There are a number of pests and diseases that will affect the European them that that don't affect our native bees. A couple of them in Australia. Probably the worst world-wide at the moment is something called Varroa destructor very scary. Sounds like a cartoon character it does it would make a great cartoon character. Actually, it would be such a baddie. It's a little tiny mite. And it lives on. On honeybees. It lives on their backs, and it lives in the cells of the baby bees when they're still at that little grub stage. And basically, it sucks the goodness out of them and in return, it injects a whole series of viruses into that larvae, so it does kill a lot of the larvae and the ones that do survive quite often then end up with things like deformed wing virus and other a whole series of bad viruses. Now we're extremely lucky Australia is pretty much the last refuge on the planet that doesn't have varroa mites. So, we're in this incredibly fortunate position that the worst the worst thing for honeybees in the entire world. We're currently free of it. So probably the worst one that we have is something called American foul brood. Now we can't blame the Americans. It was just it was named American foul. Oh,

Jeremy Melder 19:55

really. I was blaming the American America.

Leonie Schwarzel 19:59

No, no, no, it was just diagnosed there originally. Yes. So, we have this American foulbrood, we have another condition called European foulbrood. And American foulbrood. In particular, it's it's a bacteria, that that breeds in a spore, that can live in a hive for up to 50 years that we know of. So, the 50 years, and there is no cure for AFB American foul brood, AFB as we call it. So, if you find it in your hive, it's absolutely devastating. The bees can't recover from it, it kills the young brood, and the colony slowly gets weaker and weaker. And what you need to do when you find it, we need to, to report it to the Department of primary industries, who are our biosecurity experts here in New South Wales. And, yeah, yeah, it has to be reported has to be reported within 24 hours of discovery. And then your responsibilities actually, to kill that colony, you have to euthanize all of the bees, and you either burn everything you can, you can harvest the honey because it doesn't affect humans at all. So, the best thing to do is if you've got a good crop of honey is to harvest the honey before you kill off the bees. And then you have to either burn everything, pretty much or including the dead bees. So, you dig a pit, we dig a pit, you burn the whole lot in the pitch, and then you put soil over the top of the pit so that none of those spores which can survive that heat of the fire can be accessed by other bees looking because they can smell the honey that's been left over after the burn or you know, from the bone. The other way is to have the box irradiated by cobalt 60. It's a medical irradiation level. And that process that will actually kill off the spore. And the equipment again is safe to use. So that's our worst had to really own worst enemy. And we live in an area that's quite wet and humid. And it seems to proliferate in our

climate. So, it's something that that you're that beekeepers in our area really need to learn to recognize to be testing for on a regular basis and be prepared to act.

Jeremy Melder 22:27

And this is something that I think by joining a club, you know, like I remember we went to an on-site demonstration at a Queen Bey place and they were showing us what it looked like American foul brood. Yes, that was really interesting to see him because it you know, it is important to know, yeah, if you've got it.

22:46

And again, that's why you need to be a beekeeper and not a honey collector. Because if you can't recognize those pests and diseases, you know, there's a little pest called the small hive beetle. And again, you know, it looks like it looks like an innocent little beetle that size of a lady beetle. But it's black, and it just looks innocent enough. But if it gets sufficient numbers in your hive, it will slime out your entire hive. It's called a slime out which is a horror word. And you find that you've got all these maggots crawling all over your honey. No. And it's just the most disgusting thing. absolutely disgusting. And you lose your colony. Yeah. So yeah, if you don't, as a beekeeper, you need to know about these things you need to have experience in seeing them, recognizing them, testing for them, putting things in place, your barrier systems and things in place that can assure the safety of your colony.

Jeremy Melder 23:47

And look, we're not trying to say don't do this. Oh, no, we're saying a hobby. It's a great it's a great hobby. Yes. But we just want people to be really aware. Yeah, of some of the situations that can arise, and it does affect, you know, the bee populations around. Yeah, yeah, just your population that they might be other bees around.

Leonie Schwarzel 24:09

Yeah. And I think we need to remember that these are not like dogs and cats. They're not a domesticated animal. Yes, you can keep them in a box in the backyard. And you can call them the girls. And you can love them to death but well not to death. You can love them dearly. And I do. I'm passionate about them, but they will sting you. They will sting you relentlessly. If you do something wrong. If you become if you develop an allergy, you can die from that allergy and so it is not it's not a hobby to be taken lightly. It's fabulous. It's a fabulous hobby. It's a fascinating hobby. It's a hobby that you can learn so much you can see into a world that you never thought was possible to be a part of, you know, the insect world. But you need to you need to be learning growing and understanding what's going on, not just simply putting a hive in the backyard and hoping to take off some honey every couple month, it doesn't work.

Jeremy Melder 25:08

No. Definitely not. Yeah. So, I think some of those steps that people would need to take A) join a club. Yep. join up then left to register their hive. Yeah, do that.

Leonie Schwarzel 25:20

Yeah. So, I'm not sure about the conditions or the, the compliance, you know, in other parts of the world. But here in Australia, we, we have to, in some states, it's actually a requirement in some councils, it's a requirement to actually belong to a training organization. And if you join your local club, your local bee club, then that covers that one, you have to register with the Department of primary industries, or it might be called the Department of Fisheries and agriculture, you need to look up the name of your government department in your part of the country. Yeah, you need to register with them. And they will issue with a hive identification number. And that number has to go on to each of your colonies of, of hive so that we know the source of your bees. And if you sold your bees, then your hive would actually stay on that box generally. And the new beekeeper that bought those would then add the number to it, you might put a line through yours. But the idea is to know the heritage of those bees. So yeah, that if we do come up with some strange and exotic pets, we know where it may have originated. And we can follow that through. So, you'll get a high identification number. And then you're expected to expect sorry to inspect your colony on a regular basis, but you also have to keep notes of what you find. So, it's kind of like it's not as scary as the tax department. But the Department of Primary Industries do expect you to keep records of what you see if you have disease, you need to record that if you require pain, or if you're whatever happens in your hive, you need to keep records of all of that, because they don't come knocking at the door. But if you had a complaint from a neighbor, or there was some sort of an issue in your area, and the Department of primary indices did start to check who has hives and who doesn't. Then they could ask to see your notes. Yeah,

Jeremy Melder 27:25

yeah. So, it's open to someone that's probably a bit more fastidious. Yes. Yes. Exactly. Wanting to be more fastidious. Yeah,

Leonie Schwarzel 27:34

exactly. Yeah, exactly. And you don't need to keep you know, it's not copious, you're not writing 1000 word essay every time you open your hive. Yeah, but yeah, you just need to say, you know, how are the bees today? Did I see any pests and diseases? What did I do about it? Am I suspicious of something? Do I you know, what's going to be my action? Do I need to speak to somebody who's got more experience? Do I need to make up a slide and send it off to the, to the to the lab and have it tested to see if it is one of these diseases that that is reportable? Yeah. Yeah.

Jeremy Melder 28:05

So, Leona, we've now understood from what you've just said, what's involved in beekeeping? Okay, so they've decided that they want to go ahead. Yep. What do they do?

Leonie Schwarzel 28:15

Okay, so when you need to acquire some bees,

Jeremy Melder 28:19

How do they do that?

Leonie Schwarzel 28:21

Well, the first thing you usually do is you've got two ways, but the first thing to do is to buy what we would call a nucleus colony nucleus just means a small colony. So, it's generally somewhere between about six and 10,000 bees, and that will be made up of usually a New Seasons queen. So, she's a very young, very productive, very fertile queen. And a several thousand worker bees, all of whom are female, all the workers are female, and then they're in the hive. There are also drones, the drones are the male bees, and you'll get a small number in a nucleus colony, you might get 1% of drones. And basically, their job is to sit around look handsome, eat honey, and go out for a few hours each day and chase virgin queens. So, the colony that colonies through the spring, summer and autumn will contain some drones. And when you buy your little nucleus colony, they'll have some in it. You can also buy a package of bees, which is not so great as a nucleus that they haven't grown together as a year as a unit. a package of bees is a whole bunch of unrelated bees and a queen that are put together into a package and sent to you often through the mail to very strange wage and very strange parcel to receive. And, and then you just have to hope that these often-unrelated bees and a queen that they've had nothing to do with will get on enough to form their own little colony. So, I generally suggest by a nucleus, start small And, and buy yourself a hive. And in Australia, we usually choose a timber hive, which will comprise a base, two boxes and a lid. And when you get your little nucleus colony, it will slowly expand. In fact, it'll rapidly expand with your young, very fertile queen. And you'll find that you need to move those boxes those bees from a small nucleus box into your, your full size, single box of bees at that stage, and then they'll continue to expand and then eventually you'll win. In the spring in the summer when we've got a flow of nectar in the trees, when all the trees and flowers and gardens and parklands are all starting to flower, then there'll be such as a surplus of nectar out there, that you put a second box on top, and that is called your honey super. So, the queen and all of the basic colony are in that bottom box, and they are breeding up, she's breeding up big numbers, and then they move up into that second box that's sitting above them. And they all have the forage of bees go out and they'll collect lots and lots of pollen and lots and lots of nectar. The nectar is the lick a very sweet liquid that the plants to produce purely to attract pollinators, whether that be bees or birds or beetles, or bats, B things that start with B. Yeah, they just produce this beautiful sweet syrup that attracts the pollinators in and what they're really asking them to do is to pick up some pollen, which is the basically it's sperm, it's the male part of the flower they collected on their legs accidentally while they're collecting nectar. And then they go on to the next flower. And that and then some of that pollen from the first flower is deposited accidentally again onto the second flower, and then that flower, the flowers are happy because they've now been pollinated. So, they'll produce fruit and seed. And in the meantime, the bee has done beautifully. She's got she's got all this, this nectar that she's collected, and she's got all this pollen that she's collected on her body. And she got she flies back to her nest, and she stores those in her nest. Yeah. So that's what I'd say to people start off with start off small start off with a nucleus colony and grow with your colony. As your knowledge grows, and your colony grows. You've got a colony that you can watch and enjoy and see them coming and going. And yeah, as your knowledge increases, and they're increasing. Yeah, everybody is benefiting. Yeah, I

Jeremy Melder 32:45

think those are valid points which you're making there. And also, we've reiterated this a number of times, yeah, but find a mentor. Yeah, join and be club. Yep. And know what you're getting into. Yeah, and see if it's comfortable for you

Leonie Schwarzel 33:00

totally, totally. And you know, if you find that you get stung and it hurts and you swell up, then reconsider. This is maybe not the continent, maybe not the hobby for you. That's one of the great things about being part of the club, you can go along, you can work with people you can find out if this is something that you're really, really passionate about. try before you buy. Yeah, and that's another thing too, you know honeybees, they're not like you can't drop them off at the pound at the at the you can't take you know, your, your animals, if you don't want them to somebody will buy them from you. But it's they're not easy to get rid of stinging insects. So yeah, you need to be really clear that it's something that you want to do. Yeah, absolutely.

Jeremy Melder 33:44

Leonie, I really appreciate you coming out to Beaming Green, and you've shared a lot of information. And, yeah, I look forward to chatting more about a bit more advanced levels of beekeeping.

Leonie Schwarzel 33:59

And yeah, we've barely scratched the surface.

Jeremy Melder 34:02

And so, there's a lot to learn there is indeed leave me Yeah.

Leonie Schwarzel 34:06

Thank you, Jeremy. It's been great. Thank you.

Jeremy Melder 34:12

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