

# We all Rise Together – We talk to Les Crowder

This is the transcript of our interview with Les Crowder. You will find the Show Notes and be able to listen to the show here:- <http://kiwi.bz/les>

Les Crowder is a Beekeeper originally from New Mexico, he has devoted his adult life to the study and care of honeybees. He is dedicated to finding organic and natural solutions for problems commonly treated with chemicals. He enjoys keeping bees in Top Bar Beehives is also the co-author of the book “Top-Bar Beekeeping: Organic Practices for Honeybee Health”

## Transcript

**INTRO:** Welcome to the Kiwimana Buzz. This is Episode 122 of our beekeeping podcast.

**Margaret:** Hi, guys. We are Gary and Margaret.

**Gary:** We love honey bees and we are Kiwimana. We are beekeepers who live in the Waitakere Ranges on the Wild West coast of Auckland in New Zealand.

**Margaret:** Yeah. Kiwimana is place where the beekeeping community can share a conversation and connect.

In this episode, we talked to Les Crowder from Austin, Texas from the big old U.S. of A.

**Gary:** We also, if that wasn't enough, build and sell beekeeping supplies. We teach beginner beekeepers and provide beekeeping services and advice. And we are the Bees Knees Club on Facebook.

**Margaret:** Great to have you joining us today. We know life is busy for you so we appreciate you taking time to be here and have a listen to what Les has to say.

**Gary:** And this podcast is made possible by all our amazing patrons, especially this month we'd like to thank MeadDrinkr Tysen. MeadDrinkr Tysen has been supporting the Kiwimana Buzz since October 2016.

**Margaret:** Wow!

**Gary:** That's right. Check out his podcast about mead making at <https://www.meadmakr.com> for all your meadmaking stuff.

**Margaret:** Awesome.

**Gary:** Thanks for your support.

**Margaret:** Yeah, guys. Thanks for being part of the Kiwimana Buzz.

And this interview is recorded in October 2017.

**Gary:** The show notes to this podcast are <http://kiwi.bz/les>

**Margaret:** Wonderful. And Les was recommended to us by one of our listeners, Lankford Partin. So thanks Lankford for sharing that with us and it was well worth it. It's amazing what shoes have got to do with this lot.

**Gary:** Exactly.

**Margaret:** It's a real doozy, this one, guys. So enjoy with us.

**Gary:** Yes, absolutely. We cover a lot of stuff in the show. It's awesome. It was great to talk to Les back in October.

If you would like to recommend someone like Lankford did, you can go to <https://kiwi.bz/guest>. You can recommend someone that you admire or recommend yourself.

**Margaret:** Absolutely. We'd love to chat with you.

**Gary:** Absolutely.

**Margaret:** Okay. Well, Les Crowder is a beekeeper originally from New Mexico. He has devoted his adult life to the study and care of honeybees. He is dedicated to finding organic and natural solutions for problems commonly treated with chemicals.

**Gary:** He enjoys keeping bees in Top-Bar Beehives and he is also the co-author of the book *Top-Bar Beekeeping: Organic Practices for Honeybee Health*.

He started beekeeping when he was fifteen by picking up a swarm with his Granddad in New Mexico.

**Margaret:** Wow, New Mexico!

**Gary:** So Les, what have you been working on lately?

**Les Crowder:** I'm starting a selling project to take the books that I had written about Top-Bar Beekeeping and make some of a series of videos. I'm looking at making some videos around the United States and Jamaica and possibly England also.

**Gary:** Because you grew up in New Mexico, didn't you?

**Les Crowder:** I did. I spent most of my life, especially my beekeeping most of it was done in New Mexico and then I moved to California for about 3 to 4 years, and now I'm in Austin, Texas.

**Gary:** I hear Austin is quite a nice place to live. How do you find it?

**Les Crowder:** I like it. My wife is from Jamaica and it's more Jamaica-like here. We can grow banana trees.

The bees are doing well here. They're a little bit tropical in nature, sort of people call them Africanized. I suppose they could be. Most of them are pretty easy going but it's gone and they're fairly nervous on the colony. So they're just more like tropical bees.

**Gary:** Do you have any Africanized bees in the area?

**Les Crowder:** Oh, yeah. They're definitely... probably most of the feral bees have some level of Africanization. What seems to have happened is when the Africanized bees move in, it seems to be that the first pioneers are very fierce and they tend to calm down.

And then you've got a lot of beekeepers here breeding with them. What we do is if we get a hive that's exceptionally cross we re-queen it because it's going to cause problems for the neighbours or whatever.

But for the most part, they're very workable. You know how to work them without gloves but just a veil and regular, just a shirt without a suit or anything.

**Gary:** You talked on the email about this We All Rise Together Project. Can you tell us more about that?

**Les Crowder:** Well, that's my idea that... I used to do pollination a little bit. I would take bees from near Albuquerque, New Mexico in top-bar hives up into California's valley with almonds. Initially it was good money. It was kind of exciting, an adventure. The bees were fine. Actually, the bees benefited from it, if anything and I made a fair amount of money.

But as they began spraying more and more fungicides in the almonds during the bloom then I started getting my bees not doing well and just outright dying in the orchard. So then I quit doing it.

At one point, one of the almond growers said, "Well, we pay so much for pollination. It shouldn't matter if we kill the bees."

So what he had in mind was that I could just buy new bees. He had no idea how hard it was to get bees that were light and disease resistant, that were well bred and everything and to keep them alive all year and to move them and everything. He thought that it was just something like you could just go to the store and get some more.

**Gary:** Kind of expendable.

**Les Crowder:** Yeah, disposable. So what I realised was that he's thinking he can step up this ladder and one of the rungs on the ladder is pollination, me and the bees. And he can just step on the bees to get himself up. But if he breaks the rung, he's going to fall. So the only way we're going to rise is if we all rise together, the way I like to put it. We need to start developing farming systems in which we take care of all of the biological aspects of the farming system, including pollination, but also including earthworms, soil biology.

Now, recently, a big company called Paramount Almonds with 80,000 acres hired a pollination biologist and he's been saying the same thing. He said we've got to learn to raise almonds and raise our own bees in the orchard and never kill a bee. Then we'll be really farming almonds properly.

Another way that I look at we're not rising together very well, there's more and more evidence coming out that pesticides in agriculture are causing autism in our children. Autism has risen dramatically over the last three years and different pediatricians have put it together and realised that farm workers have higher rates of autism. It's because of their exposure to pesticides. As parents that causes their children to become autistic.

That's another place where we stop. While we can step on the cheap labour and use pesticides that are damaging but that is going to come back to haunt them. Someday we need to attach the cost of raising most children and some of the other potential diseases, like cancer, to the cause. And in our society, I drive and I kill somebody, I have to have liability insurance to pay for the damage I might cause and yet pesticide companies are causing damage and they're not paying anything for the repair of the damage or the... you can't really repair an autistic child. You have to take care of them.

**Gary:** Yeah, take care of them for life.

**Les Crowder:** Yeah. So we need to attach the cost of their care to pesticides. At that point, organic will become cheap very quickly. That's kind of my idea.

**Gary:** Great. There's a cost to take something out of the environment, isn't it? And I think they are causes that have been affected by all the pesticide companies, all the farmers.

**Les Crowder:** Exactly.

**Gary:** Absolutely. I mean, have you heard of all the troubles in Argentina with all the pesticides and the children growing up with all disabilities and stuff around the farms? Have you heard about that?

**Les Crowder:** I haven't seen about that. I'd like to learn. I will look it up.

**Gary:** Yeah, if you search 'pesticides in Argentina', it's shocking what's going on down there.

**Les Crowder:** Yeah. Because that's the kind of thing I'm interested in. That we need to learn cooperation. We kind of tout competition as the driving force in capitalism and so forth and really we do an awful lot of cooperation. That's where, in many ways, the best money is made.

Nature has been cooperating. Plants and animals have agreed that the plants can make oxygen and the animals can make carbon dioxide, and we kind of cooperate in a grand scale there. Really, ecology is all about the interrelated and cooperative strategies of many species of plants, animals and fungus and bacteria in any given biome. We all cooperate together and that's what we forgot to learn.

We've kind of thought we could step out of nature, step above nature, or below it or whatever you want to call it, away from it, and enrich ourselves in ways that, first of all, we don't need. And second of all, that actually wind up deadening our lives and diminishing our future. So we need to learn how to cooperate again with each other and with, in particular, our lower-paid workers and then with the environment.

**Gary:** Exactly. Do you think men will ever realise that we're all connected?

**Les Crowder:** I think we're going to either learn that or we're going to be told to get off the bus. At some point you can only act really selfish for so long and pretty soon you will have no friends, nobody that wants to keep you on the bus.

I remember when I was a kid, I would watch the astronauts land on the moon on the TV. It was amazing and wonderful and all that. And at one point they showed the astronaut squeezing a toothpaste tube into his mouth and they said it was pureed Georgia peaches. And I remember thinking then as I was sitting there and I was... I don't even remember how old I was. I was very young.

So there he is on the moon but he's eating peaches, just like I'm eating peaches. And there are still earthworms and honeybees feeding him on the moon. There's a long

umbilical cord of bringing that to him there, but without the earthworms and the honeybees he couldn't eat on the moon.

And I don't really want to be on the moon. I would rather be right down where the earthworms and the bees are and be right into the thick of that.

**Gary:** Exactly. It's very dusty up there, isn't it?

**Les Crowder:** Yeah, I think so.

**Gary:** Not a lot going on up there.

**Les Crowder:** There's nothing to eat.

**Gary:** No. No bees or animals up there. I agree with you. I think the earth is going to just suddenly, it will just become uninhabitable and humans won't be able to stay here anymore. The stupid thing is there's no other planet, is there?

**Les Crowder:** I saw a poster somewhere, "There is no Planet B". I thought that was pretty good. We talk about Plan B but there is no Planet B.

You know, what gives me hope, though, is there's so many changes happening so fast. And the young people today, a lot of them here in the United States, we kind of had... like the EPA had a big setback. They were obfuscating some things then and now the new EPA is saying, "Oh, we're all about business. We're not about..." They're just kind of shutting the whole idea of protecting the environment.

What is happening is that people are just saying, you know what? It's not going to happen with the government. We better do it ourselves. And there's a lot of projects, a lot of young kids getting into organic farming, a lot of young kids getting into like seeding coral reefs and all these projects.

I don't know but sometimes I mean it's a big ship and it needs to be turned very quickly, but there's a lot of people turning it.

**Gary:** That's positive-A. That's really positive. It's kind of shocking the things that your current president is saying about that money is more important than looking after the environment. Some of the statements have been quite, well, controversial is mild, isn't it?

**Les Crowder:** Yeah. I sign him mostly a pretty big embarrassment. He doesn't seem to think before he speaks a lot of times, and he gets himself in so much trouble.

I think in a sense America was looking for a bull in a china shop. And even with Barack Obama, he was a bit of the hope for change. Because we've got really tired of the same old... we have this kind of Republican-Democrat game that we watch but it doesn't produce any real change. Both sides are bought out by corporate interests and we basically have a corporatocracy that lets us think, well, you get to vote and, "Yay, team. Go, team, go."

And we needed a bull in the china shop. Bernie Sanders was going to be kind of the bull in the china shop for the Democrats and he had a surprisingly good run but that stood out. Donald Trump was the bull in the Republican Party and he's proven to be literally a bull. He's breaking things without fully understanding what he's breaking. In a way that's what America wanted was we've got to have some change.

**Gary:** That's a good analogy the bull in the china shop. I think you need to build a wall around them.

**Les Crowder:** Exactly.

**Gary:** So it doesn't upset you.

**Les Crowder:** Yeah, that would be a bit cheaper than what he's proposing.

**Gary:** Build around the White House and cut their phones off.

**Les Crowder:** Yeah, exactly. You cut his Twitter account.

**Gary:** Yeah, disable his Twitter account.

Have you heard this shocking news? This week they've released it. It said 75% of the honey in the world has got neonicotinoids in it.

**Les Crowder:** I saw that and I guess I'm not terribly surprised. We find that much of the food in the world today has Glyphosate in it too. So what we were doing is we're baring ourselves in low-level toxicity and then we're wondering why we're all getting sick. It's absurd.

In America we have simultaneous malnutrition and obesity. We're eating tons of food that has all the nutrition stripped of it and then little bits of poison that is all supposed to be below any level that would hurt us but is constant. Everything we eat has been tainted with pesticides.

**Gary:** The thing about neonicotinoids is it has a canvas of effect, doesn't it? So what does that do to people's brains over time?

**Les Crowder:** Right. It's a very long-term and very durable neurotoxin. The difference between honeybees and humans is we use acetylcholine. So the nicotine is an acetylcholine. Analysed it's similar to acetylcholine.

The problem with it is that we have receptors for acetylcholine that we can clean with an enzyme. It removes the acetylcholine but it can't remove the nicotine or the neonicotinoids. So the nerves they fire when they nicotine hits them and they keep firing and they can't be removed so it eventually kills the nerve and deadens that part of the brain.

In humans, we have other neurotransmitters besides acetylcholine so it doesn't kill us outright the way it kills an insect, but it does damage certainly.

**Gary:** There's been so many studies about the effect on bees and nothing seems to change. It's a frustrating thing.

**Les Crowder:** No. It may take some studies about humans. There was Dr. Joel Forman at Mount Sinai Hospital in, I forget. Either New York or Washington DC. I forget which, but I spoke with him briefly.

And what he's showing is that if we take an infant either in-utero or even post-utero, our brains are actually developing until we're 25 years old. So at some point, that infant's brain has a little tiny clump of cells that has been kind of dormant throughout its innocent life. Then all of a sudden, at a certain stage in its development, those cells rapidly multiply and form a new brain organ inside the skull.

And what they found is that we've tested a lot of our pesticides on mostly, first of all not humans, of course, and we found that it didn't seem to do much damage below a certain level. But we never tested it on humans when they were undergoing brain development. What he's saying is that much lower doses seem to derail some of those brain development phases in human development.

So what we're playing with we didn't realise we're playing with fire that could then lead to an autistic child or somehow a mentally-damaged child.

And we've done the same to the bees, of course. We've damaged them. In some ways it's better off if it just killed them. If they just fly out they couldn't breathe and they died then we'd say, "Oh, it's toxic." But when it does a little bit of brain damage, we don't notice that until two weeks later when they couldn't find the flowers, they couldn't find their way home and the hives are petered out. And we couldn't really figure out why it petered out because it wasn't immediately connected to the administration of the neonicotinoid.

**Gary:** That's the problem. They do short-term studies and not long-term studies, do they?

**Les Crowder:** Exactly. That's exactly the problem. We move much more longer-term studies and we move whole hive studies and field studies because the industry is going to howl at that.

**Gary:** Exactly.

**Les Crowder:** But in the meantime we pay the price.

**Gary:** The other problem is that the industries are the people that test these things, aren't they?

**Les Crowder:** Exactly. We let them test them. And there was a study I saw by Dr. Jeff Pettis, a bee researcher out of Beltsville, Maryland with USDA. He was attempting to take queen bees, give them the dose of miticide that they would get under a normal mite treatment. And he was using fluvalinate, coumaphos and amitraz and what he was finding was that a lot of the queens were dying well before the LD50. That's a clear indication that the LD50, which is the lethal dose for 50% of the bees is way too high.

And we let the company test the LD50. We don't check on it. And that is a very important number to them because that establishes eventually things like pounds per acre how much they're going to sell of their product.

And to let them pressure those workers, you can imagine being the worker that's doing the LD50. They're going to breathe down your back and they're going to say, "We need that number to... if you need to redo that, redo it but that's way too low."

I can't prove any of that but he's indicated that there was a clear... that the LD50 that they report is way too high because he was losing bees way below the LD50. They were just outright dying. How come we let the company test their own product?

**Gary:** That's just amazing, isn't it? A lot of those tests aren't scientifically proven either. We interviewed Tom Theobald, if you're familiar with him he's from Colorado. And some of the studies on the neonicotinoids they were ridiculous. They were in little small fields and stuff and they weren't really what a bee does anyway.

**Les Crowder:** Yeah. They get to pick the place. Like with Monsanto, you can't even test their product without their permission. So if you do your own test and you come up with a conclusion, they're going to say, "Well, you tested our product and this is a proprietary product. You broke our copyright. And we're suing you because you don't have the right to test it without our permission."

My daughter is now twenty. When she was five, I would be out in the garden with her. And she approached me with a muddy garden dress and her hand was behind her back and she said, “Daddy, close your eyes and open your mouth.” And more than likely it was a slightly muddy strawberry, but that’s really hard to do, to close your eyes and open your mouth.

But that’s exactly what they’re asking us to do. They’re saying, “Oh, don’t worry. We’ve tested it. It’s fine. Just eat it. Feed it to your kids.”

**Gary:** “We don’t it eat ourselves but it’s all okay.”

**Les Crowder:** Exactly. And, “We make money through you so just eat it.”

**Gary:** Yeah, shocking.

**Les Crowder:** It is. It is shocking.

**Gary:** The seed collectors are getting prosecuted by Monsanto because they’re using their seeds or something, or they not allowed to collect seeds anymore.

**Les Crowder:** Right. In New Mexico, the problem is that they introduced GMO alfalfa. Alfalfa is wind pollinated so those pollen can move quite away. And you can wind up with alfalfa seed in your field if you don’t notice it. It was pollinated by some bees that got some GMO pollen on them. And then you get sued by Monsanto even though you didn’t want it in the first place. That’s absurd.

And then when you get sued you have to defend yourself in Missouri, because that’s where they file their suits because that’s their headquarters. So the little farmer, the alfalfa farmer in New Mexico is going to figure out how to get a lawyer to Missouri to try to defend himself. It’s just completely ridiculous.

**Gary:** I’m sure the farmer has got a lot less money than Monsanto.

**Les Crowder:** Exactly. They’ve got their bank of lawyers all lined up and the farmer... most farmers don’t know what to do. They can’t afford a lawyer.

**Gary:** I think the justice system in a lot of countries it’s still based on who could afford the best lawyers, isn’t it?

**Les Crowder:** Right. We have the best democracy that money can buy. In other words big money pays to get the rules made their way.

**Gary:** Exactly. They need to have some rules about campaign spending and just say, okay, everyone can spend this amount of money and that's it.

**Les Crowder:** Yeah, they get public money or something.

**Gary:** Yeah. I think it might have been even Bernie Sanders that said that. He said they should actually have public money for the campaigning and that's all, that's all they have.

**Les Crowder:** Exactly. I think it was him. I happen to think he has a lot of good things to say.

**Gary:** Yeah. I'm trying to get him to immigrate to New Zealand.

**Les Crowder:** Yeah. And the thing is he's using that to campaign finance reform forever and he's still after it. He never gives up. That I admire in him. He's got some ideas that might be harder to swing, but the idea is obviously need to campaign finance reform.

One time, I got involved in making a little bit of legislation in the state of New Mexico because state said that we had to pasteurize our honey. And we said no, we shouldn't have to pasteurize honey. They said, well, you're putting food in a bottle. You're not pasteurizing it. That's against the law.

So we found research that indicated that honey is more conducive to bacterial and fungal growth after pasteurization than it is before pasteurization because there are enzymes in honey that kill germs. If you heat those enzymes, you lose those enzymes that could help you fight off any germs.

**Gary:** Absolutely.

**Les Crowder:** So we said to the... it was called the Environment Department, the Health Department. "Look, here's this research so we should be exempt."

And they said, "Well, maybe you should be exempt, but you're not. And you have to get exempt by amending the law." Then they kind of left us on our own and we had to figure out what law and we had to ask for an amendment of the Food Service Sanitation Act.

We found a congressman who would sponsor our amendment and then we got it worded by lawyers in proper legal language and everything. Then the congressman that promised to sponsor our law told us, "Gentlemen, let me take you to lunch. I'll just take you to the cafeteria right here in the Capitol." So we said okay.

So we got down to the cafeteria and he kind of put his hand, crossed his arms on his chest and he said, "You know, gentlemen, sometimes this place makes me sick."

I thought he was referring about the food, so I said, "Well, we could go somewhere else."

And he said, "No, I don't mean the food." He said, "Look over there."

And there was a young man sitting on a table and he was a legislator. He was in his mid-forties or something. There was a young woman leaning over the table with a fairly large bust and a very low-cut blouse and the young man was literally sweating. He was red in the face. He was staring at her chest.

And the congressman, the elderly congressman that took us down there said, "He's a legislator and she is a lobbyist for the electric company. How do you think he's going to vote on her bill?" "They know exactly which lobbyist to send who. There are four lobbyists for every legislator in this place right now while we're making rules, and sometimes this place just makes me sick."

**Gary:** She's influencing the votes, eh?

**Les Crowder:** Exactly. They get the rules they want.

**Gary:** It's a broken system, isn't it?

**Les Crowder:** It is. But again, I see people saying, "Okay, the government is not going to do it. The government is not going to clean up the air. The government is not going to make coal clean and so we're going to buy solar electricity."

You can do that here in Texas now. You can say, "Look, I want to buy all solar and wind electricity." It costs a little bit more, not much, but a lot of them are saying, "Yeah, it's fine. I'll pay a little more."

**Gary:** Yeah, you just got to get people to get behind things and just change from... if the majority do it, it will happen, won't it?

**Les Crowder:** Right. That's what you're about with education, you know, with the podcast and things. It's basically putting up the news. And I'm thinking I want to put out news and I want to get beyond the, "Oh, to woe is me. This is terrible." I want to show the things that are hopeful, because people need to rally behind a sense of hope instead of just, ""Oh, we're all doomed."

**Gary:** Absolutely. You do. You've got to be positive because you can't be defeatist. You got to show people the way to do it and lead by example.

**Les Crowder:** Exactly. And I see a lot of people saying that they're going to lead by example.

But you know when I was a kid, this would have been in the '50s and '60s, my grandfather was an organic gardener and people thought he was communist or kind of weird. Then the hippies came along and they kind of did their thing with organic movement, but they mixed it in with free love and LSD and then they kind of disappeared.

But now there are right-wing Christian fundamentalists, environmentalists with organic food-buying clubs in churches. It's everywhere. And almost anybody if you ask them, "Well, if it costs the same, would you rather buy organic?"

"Oh, yeah. I'd much rather buy organic." Some people can't afford organic. They're barely making ends meet as it is, but everybody would like it.

**Gary:** Was it Joel Salatin that said that I'm getting fed more expensive, but so is cancer.

**Les Crowder:** Cancer is very expensive. I happen to know more than I wish I knew about it.

**Gary:** Yeah, that's not good. I think if people can grow their own stuff that's really the best way to go.

**Les Crowder:** Right, it is.

**Gary:** But I guess you can't do that in cities, can you? You don't even got much of a lawn or anything.

**Les Crowder:** You can do a lot more than you think. I've never lived in a city my whole life until we moved to this house that I'm in right here in Pflugerville, Texas near Austin. And we had two lawns, we still have some lawn but we immediately chewed it up and we planted some tomatoes. My wife has got banana trees planted now.

One thing she noticed coming from Jamaica where all the trees tend to be productive is we lived out in California first and she said, "Wow, there's all these trees and there's nothing to eat." It's oak and cedar. You can grow a lot of food if you just watch what you put in your backyard.

**Gary:** Yeah, plant the right things. So you find the bananas are they maturing okay there? Is it hot enough for them?

**Les Crowder:** Yeah. We gotta get them through first winter, but I see people around here with banana trees that are quite large and so it appears that it is going to be possible. We'll protect them a little bit.

And we've got the somewhat cold-hardy version of the banana tree. But figs do very well here. I planted fig trees. And then we can just grow an awful lot of garden. We can grow cold season stuff through the winter and then hot season stuff in the summer.

**Gary:** Do you get a lot of rain there?

**Les Crowder:** We do get well a lot more rain than I'm used to in New Mexico. New Mexico we hardly ever got rain. Here we do get a fair amount of rain. There is a point in the summer where it gets really hot and dry, and if you don't water your garden you'll lose it.

**Gary:** You lose it. How do your bees get on there? Do they got enough feed all through the year?

**Les Crowder:** Yeah. The feral bees here have learned to adapt to a double-dearth. So there's a dearth in the winter, and that's very short and mild. And then there's kind of in the middle honey flows. And then there's the summer dearth, in July and August in particular when it gets really hot and dry and most of the flowers dry up. The pen is shut down for that as well.

I'm a firm believer in the feral bees finding their own adaptation to the climate and then gathering feral bees to keep in your beehives and minimising your need to feed bees or anything like that.

**Gary:** Absolutely. So you kind of get local bees.

**Les Crowder:** Yeah. What kind of bees do you have in New Zealand?

**Gary:** They're mainly Italians and lately there's been a lot of Carniolans coming in as well. They've started breeding them. But mostly Italian kind of mix bees. They're pretty good. I like Italian bees.

**Les Crowder:** You're just coming into your spring. We're just going into our fall now.

**Gary:** Yeah, we're spring now and the swarms are starting to happen so we're getting a lot of calls today about bee swarms, so it's definitely starting.

**Les Crowder:** That's good. I would love catching swarms. It's always fun.

**Gary:** Well, people see it as a failure but I think, well, it means your hive was pretty strong.

**Les Crowder:** Exactly. I don't know if you've seen any of Tom Seeley's *Small Hive*.

**Gary:** No, no. I'm reading his book. It's an awesome book, isn't it?

**Les Crowder:** Yes, it is. If you Google 'Tom Seeley bee audacious small hive', and what it's showing is that bees in nature will pick smaller cavities than what we can give them and then they do they fill up and then they swarm. That brood break is actually very good because it breaks the mites' breeding cycle and that we should probably look at a brood break as some form or another for our bees in order to help them with the mites.

**Gary:** He touches on it in the *Honeybee Democracy*, doesn't he, because a lot of the hives are all quite similar size and they are very small compared to a commercial Langstroth box, aren't they?

**Les Crowder:** Yeah, they're about 40 litres or 10 gallons. That's about like one Langstroth box.

**Gary:** Yeah, I know. Small. That's about the perfect size of a swarm lure or a swarm trap.

**Les Crowder:** It is. And that's a size that they can generally overwinter in. Now, he did his studies in New York and that the bees they would vary in other parts of the world.

**Gary:** That was amazing research. It was just sad that he had to kill all those bees, but it was amazing research. I sort of know him through a friend. I'd love to try and get him on the show at some point. He'd be good to talk to.

**Les Crowder:** I met him a few times. I really enjoyed talking to him.

**Gary:** Yeah, he seems really good. So you mainly keep top bars, don't you, Les?

**Les Crowder:** That's all I'm keeping any more. I help people with Langstroth. I used to have Langstroth many years ago but I really got tired of the strain. Once I got away from it then to go back and build things and buy foundation and debate over fairly contaminated beeswax or plastic, and it's all expensive.

With the top bar, they just build their own and I don't have to enter into the debate about cell size. Sometime they raise a lot of drones and I figure... I remember one day he told me, "Well, if you just let them build their own they'll build a drone comb and they'll raise a bunch of drones." And I thought, you know, they do.

They don't raise near as many. People think once they build drone comb they're going to raise drones and drones and drones. They're usually raise a quick burst of them and then they sell the drone comb with honey.

**Gary:** Yeah, I've seen that quite often because we've used foundationless frames sometimes and they build drone-sized cells for honey. They know what they're doing, don't they?

**Les Crowder:** Exactly. They're not telling me what type of suit to wear so why should I tell them what size of home to live in? Let them run their own business and let's respect them. Treat them with respect. That's part of us rising together is saying I want the bees to rise and I want to treat them with respect and I want to not second-guess everything. If they want drones, let them have drones. Are they stupid and they don't know? Or are we stupid and we don't know?

**Gary:** They've been around a lot longer than humans.

**Les Crowder:** Exactly.

**Gary:** And do the bees tell you what size shoes to wear then or they not?

**Les Crowder:** They haven't. They don't seem to care. They let me wear whatever I want. So that's why I let them build whatever size cells they want.

**Gary:** Exactly, because they know. The thing about a bee colony it's a collective democracy, isn't it? It is a democracy and they decide what to do as a group. They're not waiting for a politician to make a decision or someone to be voted in. They just do it.

**Les Crowder:** Right. That's the exact motto I want to see. I've seen with people is we have this polar system of Republican and Democrat or Conservative and Liberal and people are just starting to say, you know what? We're just going to do the right thing. We're not going to wait until the government quits their show or figures out how to do the right thing because they're never going to do it. Trump certainly is never going to do it.

**Gary:** You're going to start your own revolution, don't you, Les?

**Les Crowder:** A very peaceful revolution where we're just pretty soon maybe wind up with our own currency. Just say you know what? You guys govern whatever you want but I'm busy right now. I'm growing food, I'm raising bees, I don't really have time to deal with you people. And we'll just make our own new society without a single bullet or a single bomb or any of that.

**Gary:** Well, you don't need that, do you?

**Les Crowder:** No. As a matter of fact, I'm sure that violence always clouds our judgment and gets mud and blood and beer in our eyes, is the way I put it. They always said it's all

about what they did to us and what we got to do to them and it becomes us and them. And there is no them, really. In the end, it's all us.

**Gary:** No, exactly. If you're living in a cutthroat society, everyone lives with cutthroats, don't they?

**Les Crowder:** Yeah. We will all have cutthroats. That won't be much fun. But you get to be king of the hill, and the hill is a pile of bloody corpses. I don't want to be the king of a hill of bloody corpses.

**Gary:** No. You want to be the king of the hill with lots of vegetables and bees go there and everyone happy.

**Les Crowder:** Yeah and tigers in the forest. Let's keep this earth together. It's beautiful. It's fun. It's amazing. It's dangerous but it's amazing. It's the only place we have to live. It's the only thing that has ever fed us, ever. Let's, we got to keep it together.

**Gary:** Absolutely. But we may need a fence for the tigers. I don't want them coming in the property.

**Les Crowder:** You're right about that, yeah. We got to keep them in their place.

**Gary:** Because they're still meat eaters, Les.

**Les Crowder:** Yes, they're definitely meat eaters. I saw a YouTube of a tiger attack on a young man who was riding an elephant in India. The tiger just yanked him right off the elephant. Like, wow! That is one beast.

**Gary:** Pretty strong, aren't they? They're pretty strong animals. But I think we got to learn how to live with everything and just control them by having fences or something, kind of.

**Les Crowder:** Yeah. We can take our choice. We may have to lose a few of us to tigers or to cancer. I'd rather a tiger eat me.

**Gary:** It would be quicker, wouldn't it?

**Les Crowder:** Much quicker. I actually had a bout with cancer myself and I believe it's due to the fact that as a farmer, even as a beekeeper, I was heavily involved in administering ethylene dibromide to kill wax moths and the supers, the 35,000 supers in a big 4,000-hive operation. And I would come out of there with my boots smelling of the ethylene dibromide for hours. It's highly carcinogenic. It's been banned now but I didn't really know any better.

**Gary:** Crazy. Because that was the case with... didn't the bottle have a skull and crossbones on it?

**Les Crowder:** Yeah, it was a barrel. A 55-gallon drum. I was dipping out of it. I finally cleaned up around it and I saw this skull and crossbones and I asked my boss, "Why is there a skull and crossbones on this barrel?"

They said, "Oh, they think it will cause cancer but it will hurt you nothing."

I smelled it all day for weeks.

**Gary:** It's there for a reason, that skull and crossbones. That's shocking.

**Les Crowder:** Yeah. It got banned in most of the continents. It's still allowed to be used by beekeepers for a while and now it's been banned from everybody.

**Gary:** That's good.

**Les Crowder:** It's going to be the same with neonicotinoids. It would kill enough of us and then we'll be like, "Oh, this has to be banned now." We should have figured that out before we killed a bunch of people.

**Gary:** You know, it's all that profit before people.

**Les Crowder:** Exactly. And it goes back to the corporate charters. We need to figure out how to modify. We have to think globally, I would think. But to modify corporate charters just that the charters have to consider the health and the wealth of their employees and their effect on the natural environment.

If our corporations, I think it's going to be the time where the corporations that are doing good are going to do well and the corporations that are doing bad we're going to have to just boycott them, ban them, just quit using them. We'll make the ones that are helping out their employees and the environment thrive. We've just got to change the nature of corporate.

I'll pass that on to a man who wrote about how we have this system that is all about shareholders. So we've got to get the earnings up for this quarter so that we can get good dividends to our shareholders. And that means that we have to hire a bunch of employees to cut our costs but we don't care about our employees. We care about the shareholders.

Well, that's an upside down company because the shareholders are there making the day-to-day products that make the company any money. So someone that I met said,

“No, you have to take care of your business and then the shareholders get a little bit of that of that...Great.”

**Gary:** No, I tell you, great. They've got to look at their employees as first, I think. But that's not how it works, is it?

**Les Crowder:** No. You talk about trickle down but it isn't trickling down enough.

**Gary:** It doesn't work, does it? Check with them. That's a complete myth, probably invented by someone at the top, Les, to be honest.

**Les Crowder:** Exactly. And they always say they're the job makers, they're going to trickle it down. But I firmly believe that if some of the stagnant money that some people that own lots of yachts and stuff and they can barely ride them, they don't even get in them and go for a sail. So if some of that stagnant money...

And some of these people are doing it. Like Bill Gates is doing a pretty good job of it, bring their money down to the working class people. Those people they wouldn't hoard it. They would quickly buy tires to their car, shoes for their kids. They'd use it. The money would circulate through the economy 10 and 15 and 20 times. They would eventually circulate back up to the top anyway.

But I think if we took the top down and then spread a little bit of wealth to the working class, the whole economy would rise and the people at the top would rise higher than they are now.

**Gary:** Absolutely.

**Les Crowder:** But they'd rise with all of us. And it's part of that whole All Rise Together again.

**Gary:** You know that principle of a universal income for everybody?

**Les Crowder:** I have heard of it.

**Gary:** Yeah, everyone is given a certain amount of money every week not for work just as like a benefit kind of thing. That's an interesting idea, isn't it.

**Les Crowder:** Right. And to support it, I like it because the other way I kind of look at it is you look at our bodies. We're made up of all different cells. We have skin cells and nerve cells and blood vessel cells and blood cells and muscle and all that, right? If you took a nerve cell out of somebody's body and put it in a microscope and you put a skin cell in a different microscope and you looked in both of them, you'd say, wow, they're not even

remotely. They don't look at all alike, and yet they completely cooperate with each other in the body to make us us.

And even in our bodies there are other kinds of cells. There's bacterial and fungal cells and even those tiny arthropods that live in our eyebrows. They're little creatures that we need. They can't live without us and we can't live without them and they are part of what we call us. And they all cooperate.

The blood is like the money in this multi-cellular creature. Blood absorbs oxygen and food and then freely circulates. And anybody, any cell that needs it gets what it needs through the blood. There's no, "I'm going to get more than I need and we'll take it from you," there's nowhere to take it to. It's just there to serve the purpose.

And that's the way we need money to do. They're not to be hoarded and I'm going to take it from everybody, get twice as much or ten times as much. What good would that do you? We need money that's more just take what you need and live.

**Gary:** Exactly.

**Les Crowder:** Bees and honey is the same way. Bees in the beehive they're all cooperating to make the hive good. No bee going to steal honey from another bee. What good would it do? It's not that if the cells in the body, if the cells start stealing more oxygen and nutrition than it needs and reproducing more than it should, that's a cancer cell.

**Gary:** That's an interesting idea if the world was run like a bee colony.

**Les Crowder:** Exactly. That would be cool. And Tom Seeley's book could help us figure out how to do that.

**Gary:** Absolutely. What would be the closest society to a bee society that we've got now?

**Les Crowder:** Well, that's a good question. I sometimes think some of the leanest cultures that have plans, like the chief wasn't really the one in charge. He was the negotiator. What do we do about this and how do we get them to cooperate. It wasn't so hierarchical.

The hierarchy seems to be part of the problem. It really, I look at it from the point of view of Christianity with the child under the mother who's under the father who's under the pastor, who's under the local archbishop or whatever, all the way up to the pope. The hierarchical system seems to be what then becomes this funnelling of wealth as well as political power.

**Gary:** You get a disconnect, don't you, of the top to the bottom.

**Les Crowder:** And this is abused. The top abuses the bottom.

**Gary:** Yeah, and they get away with it, don't they? It's true. Exactly.

**Les Crowder:** Yeah, because they get to make the rules.

**Gary:** Well it's lovely talking to you. It's been good.

**Les Crowder:** Likewise. I've enjoyed it.

**Gary:** Yeah, cool.

**Les Crowder:** I'm going to look up your podcast and start paying more attention.

**Gary:** Well, listen to the one with Tom Theobald. That's a really good one if you're going to look up more about pesticides and stuff.

**Les Crowder:** Yeah, I really want to look at it.

**Gary:** I know. And there's one by Hank Tennekes. Have you heard of him? He's a toxicologist.

**Les Crowder:** No, I haven't heard of him.

**Gary:** He's talking about neonicotinoids as well. I'll drop you an email letter and I'll send you the links to those shows. You can have a look at them.

**Les Crowder:** Cool.

**Gary:** So good. I think you've got to stay positive and think of solutions rather than just moaning about problems, I guess.

Some of the stuff you're bringing out is quite good. I've seen a few of your Facebook posts and stuff.

**Les Crowder:** This book is interesting. It gives me guidance in heated arguments but it all came out good. What I like is there's people who are not treatment free and think its going to make a mite bomb or disease bomb and spread mites and disease everywhere. If we can talk civilly, we can agree to have a nice debate.

And we may not totally ever agree but we'll really come to more of a common ground of recognising that treatments aren't the best solution. In the long run, nobody says toxicity

is a good thing but in the beehive and be viewed as a necessary evil. If we could breed bees that didn't need it, that would be a better thing.

So there were years that, oh, you're going to tell people that are beginner beekeepers and don't know any better and they're going to get really bad mites. So you tell people if you're not sure then maybe you could come up with the least toxic mite treatment you can come up with. But you need to learn how to look for mites and you need to learn to get confident and then join us in breeding, because the best solution is breeding the mite-resistant bee.

**Gary:** Absolutely. Have you done any research into areas like... I know of African nations that don't treat for mites and they seem to survive okay. I mean, have you done much studies on that?

**Les Crowder:** Well, yes. In Jamaica the beekeepers there were all using Apistan and then the rastafarian beekeepers, rastafarian philosophy is very organic. They don't believe in using pesticide so they couldn't use the Apistan.

Then I asked them in some of the bee meetings in Jamaica, "So how are your bees?" They said, "Well, they're fine."

And then all the other beekeepers said, "Wait a minute. We're spending 600 Jamaican dollars per hive and your bees are fine without it?"

Now, these guys tell us that Apistan isn't good for the bees so they dropped it like a hot potato. And they don't really see much mite damage.

**Gary:** That's amazing. Did they have big losses at the start?

**Les Crowder:** Yes, they did at the start. And I had that same thing in New Mexico. The first few years I lost a lot of bees and that was obviously due to Varroa mite. They were covered in Varroa mites. You'd see fighting six mites on almost every bee.

But then eventually the losses got less and eventually the feral bees, the feral bees in New Mexico disappeared and then they're not easy to be removed. I did 50 a year and then all of a sudden there was none. And there were no buildings infested with bees.

Then in about five years there was a few. In about eight years there was quite a few. In about ten years there was tons of them.

**Gary:** Did you think that's because all the feral colonies like died because of mite loads?

**Les Crowder:** Right. But a few survived but they were very few and then they began to reproduce and pretty soon they came back. I think most of the feral bees around the world are mite resistant.

**Gary:** That's probably the answer, because I know a thing and I've heard stories from South Africa. I haven't talked to anyone there yet but they didn't treat for Varroa much that came and arrived, and now all the bees have become resistant to it now, resistant to them.

It's just this loss, isn't it, if you're a commercial guy it's hard to take a loss like that, isn't it?

**Les Crowder:** Right. That's where I say that in the meetings here in the United States, the national meetings, there's kind of a divide between commercial and hobby beekeepers. In a way, the commercial beekeepers sort of didn't have any attitude like we're the real beekeepers and you guys are just kind of playing around with it.

**Gary:** Yeah, we're going to make it collective, aren't we, at least to make a change.

**Les Crowder:** Yeah. And it is changing. Even just the entrance of women in the beekeeping, a huge change.

**Gary:** Yeah, much better beekeepers.

**Les Crowder:** Yeah. I remember when the Mexico beekeepers were all white men, old white men, and now it's actually more women than men.

**Gary:** That's awesome. I know what you mean. Most beekeeping means old white men with gray hair.

**Les Crowder:** Exactly.

**Gary:** It is changing. I think it's really positive. It's awesome to see young people getting involved as well. I try to encourage all of them when they try and get involved.

**Les Crowder:** Yes. And a lot of young people are getting involved and that really gives me a lot of hope. I see these young people are recognising what kind of world they will have in the future, and they're saying we've got to change it. And they're really putting the edge into it.

**Gary:** That's the thing, it's going to be their generation, their kids generation that's going to suffer for a lot of the problems.

**Les Crowder:** Exactly.

**Gary:** That's when the chickens come home to roost, isn't it? It's what's going to happen in 30 or 40 years.

**Les Crowder:** Exactly. And they're putting a lot of energy into it and they're very energetic young people.

**Gary:** That's good. We need to encourage them, don't we?

**Les Crowder:** Absolutely, every chance I get.

**Gary:** Absolutely. And we try and do that with the podcast too just to get information out there for people and they can make their decisions.

**Les Crowder:** Exactly. Education and getting that news out is what it's all about now.

**Gary:** It is, absolutely. I think alternative messages as well, not the stuff that's on FOX News.

**Les Crowder:** Definitely.

**Gary:** Which I think that's one good thing about internet because people can get other news. They don't have to listen to the ABCs and the NBCs of the world, do they?

**Les Crowder:** No. And the young people are listening. They're getting there with Jon Stewart. So the young people are getting their news by very alternative means. The networks are losing them.

**Gary:** Well, that said a lot of them don't even have phones and stuff. Well, they have mobiles but they're not watching TV. They're watching the internet, aren't they?

**Les Crowder:** Yeah. They don't have landline phones. They're mostly watching the internet on their computers and their cell phones.

**Gary:** Absolutely. It's awesome. Well, it's been lovely talking to you, Les.

**Les Crowder:** I've enjoyed it too. Thank you.

**Gary:** And we must do it again, but it's been lovely talking to you.

**Les Crowder:** You too.

**Gary:** I'll drop you an email we'll have to do it again.



**Gary:** It's on the app and it's on your browser.

**Margaret:** Awesome.

**Gary:** If you enjoyed the show then please subscribe to the show and your podcast app or even download our free app. It is available for phones and tablets.

**Margaret:** Awesomeness. Don't be left out in the cold.

**Gary:** Okay. We'll catch you in a couple of weeks.

**Margaret:** Thanks, guys.