

The Field Guides : Episode 8 (Meat Schmeat, or Bill and Steve commit marketing suicide)

Transcribed by Joe Stormer

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[Footsteps]

**Bill:** Hello! Welcome to the podcast. I'm Bill and I'm here with Steve and that means this must be The Field Guides. Each episode we get out into the field and we share with you everything that we've learned about a natural history topic. So Steve, how you doing this week?

**Steve:** Oh, good, yeah! But that intro just reminded me of what we're NOT going to be doing this episode.

**Bill:** This episode we're going to be talking about something that's a little bit different for us.

**Steve:** The 2016 Presidential election!

[Laughter]

**Bill:** We figured it was time.

**Steve:** No, no, we're not doing that.

**Bill:** Thank god we're not talking about that. We're a little nervous about this one because this is somewhat of a controversial topic.

**Steve:** You're really afraid to say it, aren't you? You know, we're not – okay, today we're talking about veganism, more or less. And we're not trying to talk about anything controversial. Actually, maybe we can talk about right now what we WON'T be talking about. Or at least, I wasn't planning on talking about it. We're not, I don't think we're really interested in talking about the ethics of animal suffering or anything else like that.

**Bill:** Right, because most people if they're eating a plant based diet, or thinking about it, they're doing it for one of three reasons, or combination of reasons.

**Steve:** Yes.

**Bill:** It could be a combination of reasons. And that would be for animal rights (because they're concerned about treatment of animals), maybe they're concerned about the environmental

impact of their diet, maybe they're concerned about their health. And today because we want to keep this within a reasonable amount of time, we're going to be focusing on the environmental aspects of eating a more or completely plant-based diet. And you, I know, did some research on health and I did too because it came up.

**Steve:** Just a little bit.

**Bill:** In a lot of studies it's linked. But as you said we're not going to be focusing on the animal rights so much. I feel a whole 'nother topic and one that's worth taking about.

**Steve:** Right, and if people want us to, we can try to delve into the philosophy of it all.

**Bill:** Sure!

**Steve:** That's not exactly what we do on the podcast, but you know this is an ecology podcast more or less.

**Bill:** This is something new for us and I know last night I was talking to my wife about it and I said, you know, I need to take a break. Because I was prepping prepping prepping for the last few days so I watched the new X-Men. [Laughter] NOT good.

**Steve:** So what does Professor Xavier have to say about it?

**Bill:** Nothing, nothing. Anyway!

**Steve:** But you know, there is one little thing that I want to add in. I've recently become aware of a problem with the podcast. And this is something that I noticed in some of the early episodes and someone was like, "Oh! I don't see any video to this," and whatnot. Of course, when you're watching a podcast, I'm sorry, when you're LISTENING to the podcast you can hear the nature sounds around, unfortunately you can hear cars in the background of this one because we're actually at U.B.'s Letchworth Woods.

**Bill:** University of Buffalo's Letchworth Woods.

**Steve:** [Laughing] Right, thank you! "U.B." is sort of meaningless to a lot of people. And so you can hear the sounds of nature going on around us and Bill and I generally describe what's going on around us, but you don't know what we look like, right? So I thought that maybe just very briefly, especially for this episode because there's not really any descriptive things we can talk about, I just want to do a quick description. So with Bill, I've already explained this in previous episodes – he always dresses in different costumes. [Laughter] You know, he was a bear for episode three; he was a, I dunno, partridge for episode four whatever we did. He was a hipster for the multiflora rose episode. Little plant joke for you there.

**Bill:** Just got that.

**Steve:** And this episode he's dressed like a vegan, so that's pretty self-explanatory I think. But for me, I think the easiest way to do it is to go to IMDB's top 100 most handsome men in the world.

**Bill:** And you'll see a picture of me.

**Steve:** No, no, no. And I would say that I'm a pretty decent mix between the top two in the list: the Taiwanese-born Canadian model and actor Godfrey Gao and then the Australian actor Chris Hemsworth. I mean, if you just mix those two together, that's about what I look like, so I mean —

**Bill:** No comment here.

**Steve:** Alright, so now on to the episode now that you have a nice picture in your head of who's talking to you. A guy who looks like a vegan and a supermodel.

**Bill:** I was not expecting that. I like that little aside there. So I think since we've already said that this is going to be a little bit of a different episode; I'm hoping that people that in the past may have been turned off by talk of veganism or vegetarianism or whatever, will give us the chance to listen. I'm planning in this episode not to tell anybody what they should eat, I'm don't want to tell anybody what they should be doing (though part of me might want to).

**Steve:** Sure, sure.

**Bill:** I'm going to try to keep this approachable.

**Steve:** I think a quote from a previous episode is you said, "We're not preachy."

**Bill:** I try not to be.

**Steve:** That's when I revealed that you're a vegan in a previous episode.

**Bill:** Put me out of the closet - vegan closet. What I'm hoping to do is show people what they COULD do if they want to reduce their environmental impact.

**Steve:** Right, and I don't want to be suggestive in any way but, thinking back on some of our previous episodes, remember, think back to the leaf change episode, the leaf color change episode. We had to conclude with, "We don't really know." And this isn't one of those episodes. This is an episode where there's actually some pretty clear data on the differences between an omnivore diet and a vegetarian diet and a vegan diet and a pescatarian diet. There are significant differences so it's not really up in the air in that sense. There's other aspects of it that are up in the air —

**Bill:** Sure.

**Steve:** But the actual data that we're going to be talking about for the most part is not in question at all.

**Bill:** And as we were talking before we turned on the mic, I was saying that as I was doing this research a lot of the ideas that, of the foundation of what we're talking about, these are just the basics of ecology. Some of the basic concepts of ecology and we're going to be talking about those basics just to bring everybody to the point of, okay, this is what we're talking about – what we eat and how it impacts the environment. We're gonna be defining terms along the way –

**Steve:** I was going to suggest that maybe we define terms right now, just to list everything in order especially because the studies that it talked about – some of them use some different terms and I think just getting that out of the way right now would be the easiest way to do it.

**Bill:** So let's talk about what is being a vegetarian.

**Steve:** Oh, well how 'bout we do a progressive diet thing.

**Bill:** Oo! Red-tailed hawk!

**Steve:** Red-tailed hawk, yeah! The Jamaican buteo, the beauty of the Jamaican buteo.

**Bill:** That's right! Now, hang out, let's just tell people –

**Steve:** *Buteo jamaicensis*, right?

**Bill:** That sounds right.

**Steve:** But I wonder – I just want to know if that's where it was initially – well, they're all over the place though so why did Jamaica get the shout-out there. Or maybe it's something that I don't understand. Maybe it has a different –

**Bill:** Maybe it's someone's name.

**Steve:** Who knows? Yeah! I don't know much about it. So anyway, before the red-tailed hawk RUDELY interrupted us. So, let's start with *omnivore*. An *omnivore* is somebody who eats animals, animal products (which would be the dairy and the eggs), and they eat plants.

**Bill:** Sure. And I think most people are omnivores.

**Steve:** Yeah, most people are omnivores. The vast majority of people are omnivores. Then you have a *pescatarian*. So that's someone who eats fish, and then animal products like dairy and eggs (like I said), and then plants. So they're restricting their meat, they're restricting their animal intake to just fish.

**Bill:** Can we back up just a little bit?

**Steve:** Yeah, sure.

**Bill:** So I think it would be instructive to say that a *vegetarian* is someone who eats no meat, including fish, eggs [sic], chicken, all that stuff, but they will eat eggs and milk.

**Steve:** Right. They'll eat animal products – things that you don't have to kill the animals for but that the animal still produces.

**Bill:** Right, so a *pescatarian*, though, is like a *vegetarian* who says, "Oh, but I will eat fish."

**Steve:** Yes. So a *pescatarian* is the exact same as a *vegetarian*, but they eat fish. And then there's something that one of the papers that I talk about is a *semi-vegetarian*, and they very specifically define this as exactly the same as an *omnivore*, so animals, animal products, and plants, but their animal intake is no greater than one time a week. So instead of Meatless Mondays, they're just doing Meat Mondays. [Laughter] So we already covered vegetarians, so just animal products and plants. Vegans, ONLY plants.

**Bill:** Right so, vegans eat no animal products.

**Steve:** No animal products. No eggs, no honey, no dairy.

**Bill:** Well I would say honey's debatable. There are some vegans who will eat honey. Some vegans say no, they don't agree with how the bees are treated, so they do not eat that.

**Steve:** And then the last one, and this is one that none of my studies actually get into: frugivores. But I did want to bring it up because frugivores are somewhat interesting because they don't (correct me if I'm wrong), they don't believe in killing plants, either. So they're similar to vegetarians where they don't want to kill anything. They're just going to consume what's produced by that thing. So they're like vegans who aren't going to kill plants. They're only going to eat the fruits of the plants.

**Bill:** Their ethics – some people may think this is extreme, compared to most people.

**Steve:** I would say so.

**Bill:** Even extreme compared to vegans in a sense.

**Steve:** Oh, yeah!

**Bill:** Cuz their sphere of ethics doesn't just extend to sentient beings. So it also extends to plants. So anything that's alive, they say, "Well, I shouldn't kill that. I'll just eat fruit or vegetables from the plant, rather than kill the plant to get it.

**Steve:** And a part of me is completely accepting of that. I can understand where they're coming from. I just can't ever see myself subscribing to that morality.

**Bill:** Right, and this is where ethics comes into play because for me, I'm a vegan mostly out of environmental standpoint. So, to me, coming at it from an ecological point of view, in order for me to survive I have to ingest something else, another thing. For me to eat a carrot or a whatever, a plant that I have to kill, I feel that I'm meeting my vital needs and I feel that is acceptable.

**Steve:** Well, are you similar to me where your morality is more based on suffering than anything else?

**Bill:** I would say so. Uhhhhhh, it's tough. I mean mine is –

**Steve:** Well there's some things that aren't straightforward that lead to *indirect* suffering.

**Bill:** I'm trying to reduce the suffering that my lifestyle causes. I think it's almost impossible to reduce it completely.

**Steve:** Right. Whereas a frugivore would go beyond suffering cuz there's no – at least I've never seen any convincing evidence – that plants feel pain.

**Bill:** Although if you hang out a lot in comment sections –

**Steve:** "There's actually some studies." [Laughter] And I'm not making fun of those people. Maybe someday, we're often wrong in science and the future will sort of parse those things out. What are true and what are not.

**Bill:** As far as we can tell right now –

**Steve:** As far as we can tell right now, there's no good reason to think that, you know, plants can have chemical responses to injuries and stress but -

**Bill:** As far as we can tell, they have no central nervous system that can feel pain as far as we know. So are we done defining?

**Steve:** Wow, we are tip-toeing! So maybe we should get right into it then.

**Bill:** Alright, we defined vegan. We defined vegetarian. We defined omnivore. And we should say those are BY NOT MEANS all of the labels that have been stuck on different diet choices.

**Steve:** And for the most part, I'm going to limit what I'm going to talk about to the United States. I do have one study from overseas but I just want to go to a quick 2012 Gallup Poll. Not this is not the biggest Gallup Poll in the world, but they determined that 5% of American adults (and this is back in 2012) said that they were vegetarian. And I did a back of the envelope calculation for that. That's 314.1 million people. That's the total population 2012 in the United States. So that make 15.7 million vegetarians in 2012. And they said that's down from 6 percent in 2001 and 1999. And back then, 285 million was the total population of the U.S., which would leave us with 17.1 million vegetarians. And if we go back to 1999, that's 279

million, and that's only 16.74 million vegetarians. And so, like I said, this is a back of the envelope calculations, and it does not match up with what the *Vegetarian Times* reported and that was a more recent study. But I do want to say with that Gallup Poll that they said 2% of adults said that they're vegan. And they don't like to put themselves under the umbrella of vegetarianism all the time so some of the people who said "no" to being a vegetarian were actually vegans. So, and I again, another back of an envelope calculation, that would make (in 2012) 6.28 million vegans. So it's still a lot, but that does not line up with the study that the *Vegetarian Times* did and they said that only 3.2 percent of U.S. adults, or 7.3 million people, follow a vegetarian-based diet. And then they said approximated 0.5 percent, or just 1 million of those, are vegan. So that's way lower than what the Gallup Poll showed. But, I mean, you would think that – and I hate to say it – but you would think that the *Vegetarian Times* -

**Bill:** Would be higher.

**Steve:** Right. Or maybe not. Maybe it's the exact opposite of what I'm thinking. I'm just saying that you would want to think that they would want people to think that they're more popular than they actually are. [Laughter] Or they're like, "look at us, we really truly are the minority."

**Bill:** Ohhhh, I didn't think of it that way.

**Steve:** No matter what, it's low.

**Bill:** Compared to the population as a whole.

**Steve:** Right. It's incredibly low. And I just want to get that out of the way. So let's – I would say – let's go with the *Vegetarian Times* numbers and just assume that it's 3.2 percent of the U.S. population and just 7.3 million people. And that's less than what my back of the envelope calculation for the Gallup Poll was. So I think we would be safer to go with that number.

**Bill:** Alright.

**Steve:** 7.3.

**Bill:** Well I want to talk about right now the basic concepts of ecology that form the foundation of why a plant based diet – or eating fewer animal products – is better for the environment. So first we're going to talk about trophic level. So for listeners out there that may not understand trophic levels or know about them, let's talk about a food chain. Cuz I think that's the simplest way to describe it. Everyone's seen an image or heard a description of a food chain where you have something small being eaten by something larger and something larger, on and on, right?

**Steve:** Yeah.

**Bill:** So, the different levels of the food chain, those are trophic levels. So when animals feed on each other, matter and energy move from one level to the other and the basis of all of our food chains and food webs is . . .

**Steve:** Plants.

**Bill:** Plants!

**Steve:** Sunlight!

**Bill:** Sun . . . well, we're talking about organisms. The organisms that form the basis of all of our food webs, really all of our ecosystems, is plants. If you wanna read a great description of how important plants are, did you ever read the description in John Eastman's *Book of Forest and Thicket*?

**Steve:** It's been so long!

**Bill:** You probably read it a long time ago, but he says that plants are the "power base" for all of our ecosystems. So, whatever you're doing, stop and thank a plant.

**Steve:** Oh, unless you're a chemoautotroph deep down in the ocean or something.

**Bill:** Alright, Steve's showing off.

**Steve:** [Laughing] Well, I mean, I'm just saying. We can't rely on sunlight for everything.

**Bill:** Let's define that term. Let's define *autotroph*. What is an *autotroph*?

**Steve:** Something that produces its own energy. Or something that doesn't have to consume other living things to get their energy.

**Bill:** So *troph* and *trophic level* and *autotroph*, that comes from the Greek *trophos* which means "to be nourished" or "something that nourishes". So we're talking about food. So an *autotroph* is a self-feeder.

**Steve:** Yep. Auto.

**Bill:** So you've got a plant, *chemotrophs* down in the ocean.

**Steve:** *Chemical* reaction, from deep ocean vents.

**Bill:** So here terrestrially, we have the producers, which are the autotrophs, the self-feeders, those are the plants. In the ocean, we have the phytoplankton or in aquatic environments we have the phytoplankton which can include algae or cyanobacteria. They're creating that power base. So they're producers. They are the bottom layer, the bottom trophic level. And then up above them –

**Steve:** They're getting their power from space!

[Laughter]



**Bill:** From the Sun, as Steve pointed out. And then, up above the producers, you have the consumers. So think about some kind of grass or green plant in your yard or in this woods. It's being fed upon by, let's say, a grasshopper. So you have a consumer feeding on a producer. And that consumer's at the second trophic level. They're a primary consumer. If you have a rodent feeding on that grasshopper, they're a secondary consumer. And then if you have a hawk feeding on that rodent, they're a tertiary consumer. They're typically at the highest trophic level.

**Steve:** We usually think of the trophic levels, or trophic interactions, being between three-four levels, more or less.

**Bill:** For us, you can think of grass being eaten by a cow. The cow's a primary consumer. And then people are eating the cow. We're the secondary consumer. Right?

**Steve:** Right.

**Bill:** Now. There's also another level of the detritivores and the decomposers, which are breaking stuff down but typically they're dealing with stuff that we're not dealing with like food waste. So that leads us to – we understand trophic levels.

**Steve:** So it goes from plants to primary consumers, secondary consumers, tertiary consumer, quaternary consumers.

[laughter]

**Bill:** Whatever the fourth is.

**Steve:** Whatever the fifth one is, I have no idea if there is.

**Bill:** Uhhhhh, we'll have to look that one up. At each of these trophic levels, organisms are using energy and most of the energy is given off as heat. So only a small portion of the energy moves up from one trophic level to the next, right? Have you ever heard what percentage of energy?

**Steve:** You know, I even took a class on this and I can't remember if the teacher said that it was true or it was untrue that it was like ten percent or five percent.

**Bill:** The general rule is that only ten percent of the energy at one trophic level is moving up to the next. So all the plants in this forest around us, only ten percent of their energy is being transferred up to the consumer level. Now that's – I should say that that is a very general figure, and depending on your ecosystem that you're in, it may be different but the big picture is that only a small fraction of the energy moves up.

**Steve:** Yeah, right, so it might be safe to say then that, let's say that we're talking about primary producers and then the primary consumer only gets ten percent of the producer's energy, and then the secondary consumer only gets ten percent of that ten percent. So it's one hundredth.

**Bill:** Much, much small.

**Steve:** Right? But wouldn't that be, I mean if we're using this number, one one-hundredth of the energy that the primary producer made.

**Bill:** So that bottom level. And this rule holds for hundreds of organisms as well. The higher up you go in trophic levels, the fewer organisms that you'll have. So, again, if you're looking at that hawk at the top, he's going to need so many rodents to keep him alive. And those rodents are going to need even more grasshoppers to keep them alive. And those grasshoppers are going to need WAY more plants to keep them alive.

**Steve:** So usually you think of a triangle –

**Bill:** A pyramid.

**Steve:** A pyramid, where the most is on the bottom. That's not totally true all the time.

**Bill:** True.

**Steve:** There's inverted triangles, like in very healthy coral reef systems where there's more in the way of shark biomass or, you know, organisms that grow slowly, it's that the primary producers are growing and being consumed so fast that they're kept at a low level. And usually in one of those environments, let's say that you have a ton of the primary producers and very few fish and sharks and whatnot, that means that it's probably a very unhealthy ecosystem and you've done a bit of a change in terms of the organisms that find themselves there. It's very complicated so don't call me out in the comments for that one.

**Bill:** GENERALLY speaking.

**Steve:** But you can have inverted triangles.

**Bill:** Sure, sure. And generally speaking, especially dealing with the foods that humans ingest, you have that triangle shape where there's way more producers. So biomass, which is the collective mass of living matter, decreases as you go up the trophic levels. So when we eat animal products, we use up far more energy per calorie than we gain when we eat plant products cuz a lot more has gone into it. So if you're eating, let's say a pound of cow, the energy and the biomass that went into producing that pound of cow includes everything that the cow ingested. BUT if you eat just the pound of plant, that's going to have taken much fewer resources, much less energy to produce than that pound of cow.

**Steve:** Right.

**Bill:** Alright, so I want to share a study that illustrates what I was talking but why don't we walk a little first.

**Steve:** Yeah, sure.

[Footsteps in brush]

**Bill:** This year, 2016, there was a study in *Environmental Science and Technology*, that looked at land use in comparing lots of different diets. And they said vegan diets average 10% of the land requirements of beef diets. So they really just looked at the standard American diet that includes lots of beef. And a vegan diet only had 4% of the greenhouse gas emissions compared to a diet that includes beef. So that's for a vegan diet. A vegetarian diet is usually going to require less land than one that includes beef or chicken or something like that, but it does vary.

**Steve:** I actually found a study from *The Environmental and Energy Systems Studies* from 2014 and I'll just lay a couple things out that I don't think we said yet. They were talking about global food production (so this is one a global scale) and that actually uses just about thirty percent of the total anthropogenic greenhouse gas emissions.

**Bill:** So those are human-caused - anthropogenic.

**Steve:** And it actually utilizes about a third of the world's land surface. Did you find any thing like that? Cuz that's a gigantic amount.

**Bill:** Oh, yeah, that's a crazy amount.

**Steve:** And they concluded vegan and vegetarian diets provided the largest possibility for reducing greenhouse gas emissions from the diet. And these two diets, in terms of how much they reduce the greenhouse gas emissions, they were followed by scenarios of replacing ruminant meat by pork and poultry.

**Bill:** So ruminant would be typically beef.

**Steve:** Ruminant would be cattle, sheep, goats, buffalo, deer, elk, giraffes and camels.

**Bill:** [Laughs]

**Steve:** So if you're eating camels –

**Bill:** What are you doing?

**Steve:** How 'bout this – don't eat camels. Let's just take camels off the table.

**Bill:** Literally.

**Steve:** Yeah. But what ruminant actually means is that instead of one compartment in their stomach, there's four. Humans only have one, pigs only have one, poultry –

**Bill:** Squirrels.

**Steve:** [Laughing] Poultry, a.k.a. squirrels. No, poultry.

**Bill:** Squirrels in addition to poultry.

**Steve:** Sure, sure. And actually that largest section of the stomach, the largest of the four sections, is called the rumen and that's where they get their name from ruminant.

**Bill:** That's how they can eat stuff like grass that we can not.

**Steve:** Yes! Right, right. And this study also went into land use demand, which exactly what Bill was talking about, but they actually – they broke it down to changing from one diet to the other diet. But they did a lot of different types of examples. So if you switched to a vegan diet from a meat-eating diet, the reduction in land use would be fifty to sixty percent, which is nuts. And then the vegetarian diet, it's only thirty to fifty percent.

**Bill:** Still a lot!

**Steve:** But in terms of greenhouse gas, it's really not very much different. If you switch to a vegan diet, the reduction of the greenhouse gas is twenty-five to fifty-five percent, cuz there's different types of meat diet out there. But if you're switching to a vegetarian diet from a meat diet, that's twenty for fifty-five percent. So that's not much, it's either twenty-five to fifty-five, or twenty to fifty-five, depending on if it's vegan or vegetarian. But that's still a gigantic reduction.

**Bill:** And I think it's important to say that in all the studies that I came across and I'm sure that you came across, the numbers are going to vary in the percentage of land use that's saved or the water that's saved, but generally speaking, if you're reducing the amount of animal products in your diet, you are reducing your impact.

**Steve:** Oh, absolutely.

**Bill:** And the more animal products you take out of your diet, the greater their reduction will be.

**Steve:** So there is one thing that I do want to say, since we're trying to be completely fair in the studies that we're looking at. You know, we're not just trying to talk people into being vegetarians or vegans, though in my own personal case I think that it's a good idea, but in this study they also looked at ruminant meat (so cow or camel meat, specifically), cattle, let's just say cattle. If ruminant meat is replaced by monogastric meat – so poultry, pork – guess how much it's reduced by. Remember, so –

**Bill:** You're taking out beef.

**Steve:** Right, so, you're taking out beef and we're replacing it with pork and chicken, let's say.

**Bill:** Uhhhh, forty percent.

**Steve:** Wow, I didn't think you'd go that high. But it's twenty to thirty-five percent. So that's thirty percent? That's a lot! That's huge, I mean, just switching the type of meat that you're mostly consuming is incredible.

**Bill:** Well, I was waiting for you to finish talking, this is what I was thinking.

**Steve:** Sure.

[Laughter]

**Steve:** That of all the studies that I've read in the past and just prepping for this episode, beef has a huge impact and if you don't want to go vegetarian, you don't want to go vegan, and you want to reduce your impact, consider replacing beef. There was a study that I read, and it's one that I've brought up many times talking to people about diet, this was the only study that I could find that looked at the impact of your food and relating it to food miles in greenhouse gas. How far does your food travel? And they said, what's better? Eating local or cutting meat out? They said that if you cut out beef - just beef - one day a week, it would have a greater impact than if you ate all your food local.

**Steve:** Holy cow.

**Bill:** That's how much environmental impact beef production has.

**Steve:** Or is that just the sorry state of what is normalize now [laughing]. Oh no, I started sounding like somebody that thinks he's better than everybody else.

**Bill:** Oh, no no no! That's why I keep saying that if we have anybody who's vegan that's out there, they may be upset by this but I don't think that everybody needs to go vegan. I don't think that everybody needs to go vegetarian if we wanna fight climate change and save habitat. It would be great if people did that but I'm kind of a realist and I can't see that happening anytime soon. If people just reduce the amount especially of beef that they eat, the impact can be huge. And as you said, right now we're only looking at a small percentage of the population that's vegan or vegetarian. If we double that and then a large portion of the rest of the people reduce their beef consumer, that could have a huge impact.

**Steve:** So there is one really important thing that I wanna bring up. So while we're looking at greenhouse gasses just a minute ago, and while it is true that replacing a diet that's mostly eating cattle, you replace that with poultry or pork, sure that could potentially reduce your greenhouse gas emissions MORE than a vegan diet (cuz remember that the vegan or vegetarian diet is only twenty-five to fifty-five percent and twenty to fifty-five percent). So technically you COULD reduce it more, we had just said that. So it could reduce it, lets say, the vegan diet, everyone does it in such a way where it only gets to the twenty-five percent reduction. And lets say -

**Bill:** By removing beef could have a bigger reduction?

**Steve:** Yes. By only removing beef, it's possible if you do it in the right way, that you could reduce your greenhouse gas emissions by thirty-five percent.

**Bill:** That's curious.

**Steve:** It's POSSIBLE to do it, but I'm just say those two percentages of greenhouse gas emissions, they do overlap in the amount that they can be reduced.

**Bill:** Okay, cuz I would say – the different studies that I looked at, just cutting out beef wouldn't have as big of an impact as going vegan. Maybe there was some overlap with the vegetarian?

**Steve:** So this study is something that I was looking at one of the meta-studies so it looked at a number of different scenarios and different research that had been done. And so as I said before, they had to give ranges because there's different types of meat diets and different types of vegetarian diets, depending on what you're eating. So that's why they gave the ranges.

**Bill:** And that was just looking at the greenhouse gas emissions.

**Steve:** Right. Well, and this is what I was trying to point out. Even though replacing eating cattle with pork and poultry, even though it has the potential to reduce your greenhouse gas emissions more than some vegans – not all vegans, but some vegans – it's not settled as to how much land use would be reduce from switching from one meat diet to the next. So that's not something that is looked at as much, but very much unlikely to be as much as a vegan or vegetarian diet.

**Bill:** So I think this is a good point where I can talk about eco footprints or ecological footprints. So besides stimulating our population, industrialization really increased the amount of resources each of us consumes. So by, you know, mining all of our energy resources, manufacturing more goods, we've enhanced the quality of life for lots of people on this planet. But we've also consumed way more of our planet's limited resources. So back in the 1990s, some environmental scientists were trying to figure out a way to quantify this and they came up with the concept of the ecological footprint or the eco footprint. And that measures how much land and water a person or a population uses once all the direct and indirect impacts are totaled up. So right now we are using fifty percent more of our planet's renewable resources than are available on a sustainable basis (and notice I said *renewable* resources).

**Steve:** Sure.

**Bill:** So things like timber. We're using those resources up fast than the planet can reproduce them. So, think of it another way, it would take one and a half years for the planet to regenerate all of the renewable resources that we use in a year.

**Steve:** Oh, yeah.

**Bill:** It's like we have this bank account of resources and instead of living off the interest we're dipping into the principal.

**Steve:** Sure.

**Bill:** It's said that any calculation like this that involves a very complicated issue, it's very hard to boil it down to a single number. There are a lot of researchers that have criticized the way that ecological footprints are calculated. But again if you take a step back and look at the big picture, it's trying to give you a general idea of the amount of impact. So the group is the Global Footprint Network that looks at these numbers. They have a great website if you go to [footprintnetwork.org](http://footprintnetwork.org), you can look at ecological footprints of different countries, you can calculate your own. And one thing that has come out of their research, even if you argue about the finite numbers, well, maybe it's a little higher, maybe it's a little lower, one thing that they've seen that is obvious is that developed countries, the wealthier countries, their footprints are a lot larger than the developing countries. We consume a lot more. So do you know what the Earth's – I'm sorry – the United States' eco footprint is?

**Steve:** I don't, no.

**Bill:** It depends on what website you're looking at. The Global Footprint Network changes it year to year. The last time I looked, if everyone lived the way the typical American does, we would need five Earths to sustain us. If you took into account everybody on the planet, right now (as I said) is one and a half cuz we're using those resources one and a half times faster. So that's including all of the developing countries with a lot of the people living in such poverty that their footprints are really, really small. We're not saying that everyone should live in poverty, but we're saying that we need to live in a sustainable way.

**Steve:** I have some numbers on comparing meat-eaters to vegetarians in terms of their carbon footprint.

**Bill:** Now hang on, cuz you said "carbon footprint". Before you do that, I'd say that in the past ten and fifteen years, you've heard people talking less about ecological footprints and more about carbon footprints.

**Steve:** Oh, okay.

**Bill:** So *eco footprints*, those look at how much land and water to support a lifestyle, and a *carbon footprint* is –

**Steve:** How much CO<sub>2</sub> is produced.

**Bill:** And why do we care about that?

**Steve:** Uh - [laughs]

**Bill:** Hopefully everybody knows

**Steve:** [Mocking tone of voice] It's just a theory alright!

[Laughter]

**Steve:** Sorry.

**Bill:** Oh my god, I have to punch Steve.

**Steve:** [Mock pain] Ohhhhhhh! So, human-aided climate change or global, um, global warming. I don't know what – what's the PC term for climate change right now?

**Bill:** It's CO<sub>2</sub>, we figure, as far as scientists can tell, that is the greenhouse gas that is contributing the most. And before you write your letters, "Dear idiots," yes methane does have more warming capacity, there's not as much methane in the atmosphere as CO<sub>2</sub>. So, as far as we can tell RIGHT NOW, CO<sub>2</sub> is the one we wanna be looking at the most.

**Steve:** Okay, alright. I'm just gonna give one quick factoid before I go on with what I'm going to say. So one of the things that this paper that I was looking at – it was actually the *Journal of Industrial Ecology*. In 2014 they published this study and one of the things that they found was that the U.S. food losses contribute to about 28% of the overall carbon footprint in the United States.

**Bill:** Wow!

**Steve:** So it's a very large amount.

**Bill:** It's almost a third!

**Steve:** Right. So they gave sort of a comparison. They said this amount of CO<sub>2</sub> is equivalent to 33 million average passenger vehicles annually.

**Bill:** Wow.

**Steve:** A couple of the things that they give is that beef accounts for only about four percent of the retail food supply by weight, but it represents about thirty-six percent of the diet's emission.

**Bill:** So again, it's hugely impactful.

**Steve:** Huge, huge. The average vegetarian diet, it shows a considerably lower carbon footprint and so the difference between a carbon footprint of a vegetarian compared to sort of the typical USDA dietary recommendations (which aren't necessarily being followed, but it's what they recommend) – the difference between that and a vegetarian diet, about 30% decrease in the vegetarian diet. And that's that RECOMMENDED USDA dietary recommendations.

**Bill:** But that does not have environmental impacts factored in.



**Steve:** Sure, sure. But what I thought was interesting (and the paper goes on to note this), is that just remember what I said about food losses, about 28% of greenhouse gas emissions are due to food lost.

**Bill:** Wasted food.

**Steve:** Just wasted food, yeah.

**Bill:** That's a huge problem as well!

**Steve:** Yeah! But just switching, say, if everyone switched to just a vegetarian diet, we would completely eliminate, in a sense, it would sort of cancel out with food loss. Of course food loss is its own big problem and that's of course a different topic but just having all vegetarians (which of course will never happen) that'll eliminate that loss in a sense. So I just wanted to say that, thought it was pretty interesting.

**Bill:** It is! Food loss is a big issue. There was a study that I came across from 2016, again, from this year. Removing meat and fish reduces environmental impact by twenty-one percent, so your eco footprint, and then going vegan reduces it by thirty percent.

**Steve:** Okay, I'm gonna have to stop you. So I want to know if that difference is based on a typical U.S. diet or some other specific diet to going vegan?

**Bill:** So this study, since I said it was from *The International Journal*, this was a Dutch study. This looked at the typical Dutch diet, then a healthy Dutch diet, then removing meat and fish, and then vegan. So they looked at the four. Typical quote-unquote "healthy" vegetarian and vegan.

**Steve:** So was healthy, did they define that as maybe like reduced calorie intake or like –

**Bill:** They did, like reduced calorie, less sugar. And they found that eating healthy does reduce is slightly but not much. Because they were trying to answer the question, "Can you just eat healthy? And will that reduce your environmental impact?" And the results of the study basically said that if you do eat healthy, the results are not that significant but if you go vegetarian or vegan, the results are significant. Alright, what I was going to say before you cut me off –

**Steve:** Sorry.

**Bill:** It's alright!

**Steve:** Had to clarify. I very rarely get to have you clarify something. It's usually the other way around. [Laughs]

**Bill:** A lot of people are going to be sitting in their cars listening to this right now and they're going to say, "Yeah, but being vegan is unhealthy, right?"

**Steve:** Ohhhhh, right.

**Bill:** So I feel we do have to address the –

**Steve:** [Mocking tone of voice] Where do you get your protein?

**Bill:** And the study that I was just referring - [pause] now I have to punch you again for the protein question.

**Steve:** Noooooo!

**Bill:** That Dutch study I was just talking about, one thing they did say is that people on the study when they did transition to a vegan diet, some of them were not meeting the standard health requirements of the Dutch government.

**Steve:** Okay.

**Bill:** I think that we should say that the only thing that you're not getting in a vegan diet (that you WON'T get from a vegan diet) is what?

**Steve:** B12.

**Bill:** B12. It's the only thing that you cannot get from eating just a plant-based diet. But you can supplement that. But besides B12, as long as you're eating a varied diet and you're not eating junk food, you CAN get all the nutrients you need from a vegan diet. Now if you're making a huge transition from eating, you know, a standard American diet (meat and potatoes, very little fruits, vegetables) and you don't know a lot about cooking vegetarian or cooking vegan, it can be challenging, I will say. A lot of people will say, "Oh, going vegan is *easy*, it's no problem!" I would have to say realistically, you have to teach yourself to cook a variety of foods and, yes, it is entirely possible and relatively easy to get all your protein requirements when you're eating vegan. It's a myth that you're not going to get protein. You know, a lot of people have this image in their head of vegan being sickly and pale, but really in Western cultures, the problems with our diets are problems of excess. When you hear people getting sick, it's because they're getting too much fat or too much sugar or too much whatever. And I would say that as far as tackling a vegan or vegetarian diet, you gotta go some homework. The great thing now is that there are sooooo many websites out there and we'll talk about some resources that you can share with people at the end.

**Steve:** Sure.

**Bill:** There's a lot of information out there to help you.

**Steve:** So I do want to say one thing about the health aspect.

**Bill:** Sure.

**Steve:** This is actually the last major study that I have. In the journal *Nutrients*, there was a study from some researchers in Belgium. They looked at many different diets and they were trying to compare them using various indices for health. They actually found that (and I'm really just going to focus on the vegan diet here) the vegan diet, which is the most restrictive, obviously, it had the lowest energy intake. It have better fat intake profiles, it had the lowest protein, so on average you are getting less protein but then again that's just something that you need to be careful about. Not everyone's the greatest dietician for themselves in the world. But it also had the highest dietary fiber intake, in contrast to the omnivorous diet, which had the lowest. The calcium intake was the lowest, that was actually below the national dietary recommendations.

**Bill:** The calcium was below?

**Steve:** The calcium was below, yeah. So despite the calcium and despite the protein, it still had the highest healthy eating index for 2010 (had the highest values), and that's in contrast with the omnivorous diet which was the lowest. So even though there are some deficiencies, overall as a diet it's still the healthiest. You're less likely to have heart disease.

**Bill:** And my point was that in order to eat a healthy vegan diet, you just kind of need to pay attention to what you're eating. But you could say that about ANY diet!

**Steve:** Right, exactly.

**Bill:** If you wanna eat healthy, you need to pay attention to what you're eating.

**Steve:** Right, so for example, I'm a vegetarian. I'm not a very healthy person. Like, I have to be like in a good career, I guess.

**Bill:** Have you BEEN to the mall?

[Laughter]

**Steve:** Regardless, you can gain weight and be a fatty on a vegetarian diet.

**Bill:** Not nice.

**Steve:** Well, I'm saying that I have a little fat, I'm a little fatty, but there's nothing offensive about that, c'mon!

**Bill:** You're pleasantly plump.

**Steve:** [Laughs] Chris Hemsworth plus twenty pounds.

**Bill:** There you go!

**Steve:** That's what it is.

**Bill:** But there's way you can eat vegan really unhealthy. There's lots of vegan junkfood, there's lots of vegetarian junkfood.

**Steve:** Are Oreos vegan?

**Bill:** Oreos are vegan!

**Steve:** All day, every day.

**Bill:** That's right!

**Steve:** Double-stuffed, baby!

**Bill:** Oreos and almond milk.

**Steve:** Yeah

**Bill:** I think the bottom line is no matter what diet you're eating, if you're concerned about health you gotta pay attention to what you're eating.

**Steve:** Mmhmm

**Bill:** Alright, another question that I had. When you look at studies, I tried for this episode. I tried really hard using Google Scholar, and I have access to university libraries. I tried to find studies that said vegan or vegetarian diets don't have a lower environmental impact. I couldn't find any. Now, if people out there, if they can find some, please send those because I would like to look those over. But beyond individual studies –

**Steve:** It's non-intuitive, though. You know what I'm saying?

**Bill:** Right. That's why we presented the basic ecology concepts.

**Steve:** Yeah, when you you think about trophic levels, when you think about – let's just even ignore the fancy language of trophic levels. If you're thinking about growing plants to feed to animals to eat the animals, versus just growing the plants to eat the plants, of course you're going to be growing more! Of course you're using more land! So the vegetarian and vegan diet just based on common sense if you think about it like that, of course maybe you could say, "Oh, the type of food that we feed the animals takes up less room than the food that humans would eat or something," but you know there are specifics that go into that, but generally you have to imagine that just eating the plants instead of eating the animals that eat the plants is going to be more efficient.

**Bill:** And there are studies out there that have come out and have been reported in a way that muddies the waters.

**Steve:** But that's important! It's important to get results that, well, these also could be anti, they could be a little biased in some way or another where they're trying to get a certain result, but you don't have to be to get a result that you don't like. Like, you could be the biggest vegan in the world and do research and find that being a vegan isn't as perfect as you thought it was. And that's awesome. That's what science tries to take out the bias, tries to make it as objective as possible.

**Bill:** What does the data say?

**Steve:** Yeah, exactly.

**Bill:** The way that studies are often reported, like this one that came out a few months ago, a researcher looked at the water required to generate a calorie of energy in different foods. His study, or his team's study, found that it takes more water to produce a calorie of lettuce than it does to produce a calorie of bacon. So when the media reported this (I hate just to say that, "the media") [laughter] when I saw reported on the internet or video clips -

**Steve:** So anti-media.

**Bill:** They said, "Ah! Bacon is better for the environment than a salad. Take that, vegetarians!" And I'm thinking, "Hold on." NO ONE is replacing bacon with salad! If you're trying to get calories, you're not going to replace one for the other. Plus, they were just looking at water impact. They were not looking at how much food or what was the environmental impact of the food that went into that pig to make that bacon. So the way that that story was reported was misleading.

**Steve:** I do want to say though that some people may actually be thinking that as they listen to this episode. Okay, sure, yeah, less resource use to grow vegetables and whatnot, but don't you just have to eat a lot more vegetables? And there was a paper that I was reading that did go into that. They broke up greenhouse gas emissions based on waste, based on calorie, and based on overall biomass, I think. I think that those were the three that they separated it by. And even still the vegetarian and vegan diets made more sense. Or they broke it up by food item. So like the vegetable and what not were still better at the end of the day.

**Bill:** And a lot of the studies that I'm referencing in this podcast, I did look at that. Are they just looking at calories, or what are they looking at? And they did include total lifecycle.

**Steve:** And we always include the studies that we looked in in our bibliography at the end, in the description of every podcast.

**Bill:** Yep. So that'll be on -

**Steve:** Ugh, what did you lead us into? I don't think you were leading, necessarily.

**Bill:** We came out to the road here.

**Steve:** Yeah. We don't want to go out that way.

**Bill:** So I've been talking to about us recording this episode and I got into a discussion with one friend who said, "You know, this is all well and good to get individual people to change their diets, but isn't it more important to get elected leaders that are going to make changes in how food is produced, environmental policies."

**Steve:** I mean, at the end of the day the best thing that we could have is a dictator that forces everyone to be vegans. I mean, Bill 2016, am I right?

**Bill:** That's right! That's right, baby.

**Steve:** "On my first day of office, I will eliminate all other parts of the government except for myself, and hopefully people still listen to me."

**Bill:** They'll have to. But my response was, "Can't we do both?"

**Steve:** Yeah! Top-up and bottom-down.

**Bill:** Exactly. And that's, for me, that's why I made the change. I was looking for a way to have an impact, a meaningful impact. And eating is something you do everyday. Some of us do it all day. And every meal is this chance to say, "Hey, I'm trying to do something here." So there's a great book out there and I don't remember the author but it's called *Green, Greener, Greenest*. Have you seen this?

**Steve:** No

**Bill:** So it's basically looking at giving people options like if you're trying to cut down on electric use in your house, here's some kind of a small step that you can take to take the green route. And then you give them a more intense way to save more energy - greener, greenest, so on. Anyone that's stuck with us this long through the podcast, if you're looking to reduce your environmental impact, I'd say the first simple step is to reduce beef consumption. That is just a simple step, even one day a week as we said, is like eating all of your food locally-produced. Just cutting beef out would be a simple step, as little or as much as you can would be great. The next step, kind of the greener step, would be try vegetarian one day a week or two days a week or however many days you're comfortable with. And then if you wanna really exclude yourself from society the way that I have, you can go vegan.

**Steve:** Yeah.

**Bill:** No, I was just kidding.

**Steve:** Maybe now is a good time, or how much more do you have?

**Bill:** Not much. I'm almost done.

**Steve:** Okay, let me just add in an anecdote. I've been a vegetarian for about eight years. Maybe a little bit less, but about eight years. And some friends may comment on the podcast, "Oh, but I've seen him cheat once or twice!" I haven't cheated in like five years.

**Bill:** But it doesn't matter!

**Steve:** Well, yeah, exactly. No matter how much I cheat, if I have one sub drunkenly on my birthday one year, six seven years ago, you know, what's – and it's a chicken, right?

**Bill:** It's not about being perfect.

**Steve:** Yeah, right, it's not about being perfect, just overall generally –

**Bill:** Being aware of what you're eating and its impact.

**Steve:** Right. Absolutely.

**Bill:** That's why on a certain level I almost don't like those labels of vegan, vegetarian. Then it's like, "Oh, I HAVE to do this." You don't have to do anything. Just do what's right for you and hopefully you'll keep trying to reduce your impact the farther along you go.

**Steve:** Now let's do a ten minute conversation about why categorizing the rules is important. Or not important. Ready?

**Bill:** Go!

**Steve:** See, I'm obsessed with taxonomy so I like saying I like having rules. You know cuz sometimes it's easier if you have a well-defined term like, "Oh, I'm a vegan." "Oh, what does that mean?" "Oh, I just don't eat animal products or animals." It's useful.

**Bill:** And that why when people ask, I say, "Yeah, I'm vegan." But I'm going to create a new one right here – I'm an *ecotarian*.

**Steve:** Whoooooa, you only eat ecosystems! One ecosystem at a time.

[Laughter]

**Bill:** You try to eat in a way that reduces your impact. For example, I'm a teacher. Every day, at the end of the day, in the faculty room there is always a ton of junk food and most of it is going to be thrown out. So at the end of the day, if I see a cupcake sitting on that table and I know it's going to get thrown out and I eat it –

**Steve:** Like "Oh, I'm going hiking after work anyways."

**Bill:** Well, no, I'm not supporting the dairy industry.

**Steve:** You're just reducing waste.

**Bill:** I'm reducing waste. So technically if the vegan police were there, they would say, "You don't get to be vegan."

**Steve:** Well, they would take away your psychic powers.

**Bill:** This is true. [Laughter] I'd only be a level five vegan.

**Steve:** Sure, sure.

**Bill:** It would take a little while -

**Steve:** *Scott Pilgrim vs. the World*

**Bill:** That's right.

**Steve:** By the way, nothing to do with nature. Incredible movie, first of all, with Michael Cera, very good movie. But I would say, and some people are like, "Oh, which one's better? The movie or the original?"

**Bill:** Comic book?

**Steve:** Well, okay, it was more of a graphic novel, okay?

**Bill:** Oh, I'm sorry.

**Steve:** [Mocking tone] Actually, it was a - [Laughter] Both incredible, both incredible. You know what? Let's change the podcast. Only talking about *Scott Pilgrim*.

**Bill:** That's the first movie that I watched where I realized, "This movie is not for me."

**Steve:** Oh, really?

**Bill:** Because I'm over forty and a lot of the references and the way it was filmed.

**Steve:** Ah, I loved it.

**Bill:** Cuz you're under thirty.

**Steve:** Sure I guess so.

**Bill:** That movie, that was the first one where I realized, "Oh, I'm getting older."

**Steve:** I loved how artistic it was and all the video game references.

**Bill:** I enjoyed it!

**Steve:** So good!



**Bill:** But it was disconcerting to watch it for me.

**Steve:** Ah, I don't want that to happen to me. I know it's going to.

**Bill:** That's where the vegan power reference came from.

**Steve:** Yes, yes.

**Bill:** Which I thought was hilarious. Alright, that's why from now on if someone asks, I'm going to say, "I'm an ecotarian." And then I can sound REALLY pretentious.

**Steve:** No one's going to know what you mean. So I have a similar story and that is even though I call myself a vegetarian and it's been years now that I haven't been doing this, but my girlfriend and I like to – oh, no, I've never said that before! This person that I hang out with . . . so my girlfriend and I always go for sushi and I always get vegetarian sushi and she's a pescatarian. She just tells people she's a vegetarian but she also eats fish. But it's very rare that she actually finishes all her sushi. So in the past I used to actually eat her sushi, but after a while (and I don't want this to come off as I'm some jerk boyfriend or something) but after a certain point I was like, "Maybe from now on, you should order one fish sushi and I'll order one vegetarian sushi, and then we'll order one more sushi roll for us to split and just have it vegetarian." So she eats one fish one and half a vegetarian one. And she agreed to it and we were doing it for a long time and then we kind of stopped going out for sushi all the time.

**Bill:** But that's what I mean.

**Steve:** I was sick of eating the sushi that she had left over because I was like I just don't like doing that. I don't like eating fish. I've sort of acclimated to eating vegetables and fruit and everything else and I don't really have the taste for fish or any of that stuff anymore. And it was kind of grossing me out to eat it and there's nothing wrong with eating fish. Seafood used to be my favorite food in the world before I switched over to being vegetarian. I'm just saying that I loved making it so there was less waste in the world but after a while I just had to try to work out a system with her.

**Bill:** But see, you were also look for how can there be less fish on our plate.

**Steve:** Cuz at a certain point, I was like, "I'd really rather let this go to waste." I just can't do that, you know. I don't want fish to be used for no reason, just to have it thrown out.

**Bill:** Alright, so don't let people tell you that you are a vegan or not a vegan or a vegetarian or not a vegetarian. The Field Guides say as long as you're reducing your impact (or if you're interested in reducing your impact), take those steps. Now, let's talk about resources that people can check out. Did you look this up?

**Steve:** No

**Bill:** This sort of dawned on me -

**Steve:** So thefieldguidespodcast.com, first of all.

**Bill:** So go to tryveg.com or chooseveg.com. At both of those websites you can order or even just get a PDF of the Vegetarian Starter Guide. And two cookbooks that people might want to look into – one is called *Vegan With a Vengeance* and –

**Steve:** What an aggressive title!

[Laughter]

**Bill:** Well, it's a blog and a website run by a girl, it's called the *Post-Punk Kitchen*. She had like a TV show for a while –

**Steve:** Bill, it's run by a person, it's 2016.

**Bill:** What did I say?

**Steve:** You said, "Run by a girl."

**Bill:** Oh, geez. You're right. A woman.

**Steve:** We're so PC.

**Bill:** And then another one is *The Joy of Vegan Baking*. Cuz I know a lot of people when they imagine baking and not using eggs, dairy or butter, they're just at a loss.

**Steve:** Oh, I only make my own veggie burgers. Best veggie burgers I've ever made. The recipe's always different every time I make them.

**Bill:** You've told me that. Many times.

**Steve:** No eggs, no anything. My newest one, maybe the best I've ever done. Cuz I've been mixing, blending, just for time saving, with just chopping things by hand. And it's like the base of it is like nice and smooth and then I still have big piece of onion and pepper. [Moans] So good.

**Bill:** You'll have to have me over.

**Steve:** [Moans again] I recommend all meat eaters make your own veggie burgers. So good!

**Bill:** It's a lot cheaper.

**Steve:** Right, and that actually something that I wanted to get into before I let you keep going and it's something that I forgot to say last time. It's that part of the reason that I stayed a vegetarian (sure there's the ethics and the everything else) but the reason that I stayed one is actually because of the diversity of what I was eating.

**Bill:** Oh, yeah!

**Steve:** You know, I was sort of like a one trick pony when it came to eating. It was like pizza, hamburgers, subs and stuff. So I switched to this lifestyle, not allowed to have those things anymore. Let's try new things out. And – ahhh – the best culinary experience for these last eight years or so.

**Bill:** And a lot of people have asked me when they find out that I'm vegan or when I used to be vegetarian, they'll say, "What do you eat?" And I find –

**Steve:** The most annoying question.

**Bill:** Well I find a lot of people have a certain number of foods that they're used to, and that's what they eat. I talked about how making the transition to vegetarian or vegan is going to require some work to learn to cook different food, but it's a totally positive experience.

**Steve:** Oh, yeah!

**Bill:** I say my wife and I are vegan but we don't like to put food into our mouth unless it tastes really good.

**Steve:** Oh, yeah!

**Bill:** Cuz people just imagine, "Oh, you're eating beans all the time and rice all the time." We make good food that we really enjoy and doesn't taste weird. It's not strange stuff. A lot of it's just everyday foods your putting together in new and different ways.

**Steve:** You know, I do have to say and this is a complete anecdote and I'm not sure if there's a study on this or anything, but back when I did eat meat, back when I went to the University of Buffalo (at least early on), some of my favorite parties, my friend Emily would throw these parties and they'd be there vegan potlucks and she'd be like, "Don't bring food, we have enough food, and you guys all say you're not vegan so you don't know how to make this stuff." But I would go and just unbelievably tasty food, all vegan, all incredible and if Emily ever listens to this episode (I don't know if she ever will), if I'm wrong about that, if they weren't vegan. I'm pretty sure that a lot of those people were vegan and she did say, "Vegan potluck," so I'm pretty positive that it was the same every time.

**Bill:** And we should say that there's plenty of crappy vegan and vegetarian food out there.

**Steve:** Oh, there's low quality meat food and low quality vegetarian food.

**Bill:** The author of the book that I just mention, *The Joy of Vegan Baking*, the author's name is Colleen Patrick-Goudreau. And she has a podcast called *Food for Thought*.

**Steve:** Oh, I think I've heard of that one.

**Bill:** And her take is pretty much all the animal rights angle. That's why she's vegan, that's what she's all about. But she has a great saying that she would say a lot while talking to people about changing their diet. "Don't do nothing because you can't do everything."

**Steve:** Oh, yeah!

**Bill:** And I think that's a great viewpoint to take. Again, we're not telling you what you should do. We're saying, if you wanna reduce your impact, this is what you could do.

**Steve:** Yeah, think about it as working out. You can't go to the gym the first day and run twenty miles.

**Bill:** Exactly.

**Steve:** You've gotta sort of slowly work your way there and just, you know, if you try to do too much at once you're gonna hurt yourself.

**Bill:** Exactly.

**Steve:** And by "hurting yourself", I mean going back to that devilish meat-eating way of life.

[Laughter]

**Bill:** Terrorizing the planet!

**Steve:** Those are the REAL terrorists! [Laughter] Oh no, I don't know if I can say that. Oh no!

**Bill:** We're gonna have to edit that out.

**Steve:** Jeez!

**Bill:** But really I would rather that people make a partial transition of a gradual transition rather than go hardcore vegan for a month or two months and decide, "It's too hard. I can't do it."

**Steve:** And sort of to reiterate and what we've already said, we've seen that changing from one diet to the next, even if you're staying within the realm of meat eating, it can have a huge impact.

**Bill:** Oh yeah, right!

**Steve:** So if that's something that you're interested in, there's a lot of ways to do it and there's a lot of paths to get there.

**Bill:** Right, and just the last thing that I'll share is the documentary *Cowspiracy*. Have you seen that yet?

**Steve:** I have not seen it, no.

**Bill:** So it's a little extreme in its viewpoint. I feel that he stresses a little kind of the conceit of the movie is that he feels there's a conspiracy against environmental organizations not to talk about the huge impact that food choices have, and I feel he overplays that a little.

**Steve:** The conspiracy angle in my opinion is never the best angle cuz it definitely scares away a certain type of audience member.

**Bill:** But the data he uses, he uses a lot of good data sources. Some of the numbers people have argued with here and there but, again, if you step back and take a look at the big picture, he's just presenting that fact that, look, meat production is one of the major causes of deforestation in the Amazon. He says it's THE most. You know, that's what his data says. There's other data that says it's ONE of the most. Either way, it's a huge cause of deforestation on our planet's rainforests.

**Steve:** Right. And of course with any documentary, don't just take them at their word.

**Bill:** Oh, definitely!

**Steve:** And definitely don't just take us at our word. That's sort of why we give some papers and our works cited. Definitely read those papers and even read other things that we didn't say and we didn't reference.

**Bill:** Share it with us! We'd love to know!

**Steve:** Oh, definitely!

**Bill:** Alright, we made it.

**Steve:** Whew! Oh my gosh.

[Laughter]

**Bill:** It wasn't as bad as I thought it might be.

**Steve:** Alright, so that was the episode and we'll be back next time. So next month we're trying to keep putting these out month to month. I'll admit that I'm a little busier than Bill this summer. I'm just on a tight schedule to get certain things done. But we'll, you know, we'll try to keep putting these out constantly - consistently, I mean.

**Bill:** And we're trying to post a little more.

**Steve:** We're trying to post more and I think anyone who's following us on Facebook has maybe seen some more posts from us than usual but we wanna get this information out there. We wanna be better recognized by people. And something that Bill and I really want to ask of you guys is that if you're listening to the podcast and you like what we're doing, please give us a five-star review on iTunes.

**Bill:** Or any review on iTunes.

**Steve:** If you don't like us, find another podcast. [Laughter] No, no! We want constructive criticism. But for more people to find the podcast and for us to go up in the charts, it would be nice that if you like us, if you really do like us, tell the world that you like us and hopefully move us a little bit higher in the charts. So it would be nice to hit like twenty-five reviews.

**Bill:** That would be great!

**Steve:** Wouldn't that be incredible? It would be many more reviews than we currently have but it would definitely get our name out there a little bit more for people to listen and of course criticize the show. Which would be great; we love feedback. We really want it.

**Bill:** And please tell, share the podcast with your friends. Have them like us on Facebook or write a review. Spread the word. We want to get this out to as many people as we can. And we want to thank the people who have given us likes on our posts and on our Facebook page because we just passed three hundred likes!

[Woo-hoos]

**Steve:** Three hundred!

**Bill:** I know for some that's relatively small but for us –

**Steve:** For us it's HUGE!

**Bill:** Yeah, it's exciting.

**Steve:** I've never had three hundred of anything. Not in my bank account anyway [laughing].

**Bill:** So thanks, folks, thanks for listening. Help spread the word and we will see you next time.

**Steve:** See you next time guys.

