

## Diet Doctor Podcast with Nicolette Hahn Niman Episode 72

**Dr. Bret Scher:** Welcome back to the Diet Doctor podcast. I'm your host Dr. Bret Scher. Today I'm joined by Nicolette Hahn Niman. Now if you haven't heard of Nicolette, you probably should, because she's got a pretty fantastic story that she... she started off her life as a vegetarian believing the vegetarian propaganda as she calls it, and as many people call it, that no beef is good beef.

And then over the course of her life, she became an environmental lawyer as a senior Attorney for the Waterkeeper Alliance under Robert Kennedy Jr. where she was exposed to all of sort of the evils of the industrial meat production chain, and the pollution, it was her job to sort of litigate this. But then, as part of that process, she was also introduced to the concept of outdoor grass fed, environmentally friendly ranching.

And so through that transition, now she has become a defender of that type of ranching that there's a better way to produce beef. And she's an author now of Righteous Pork Chop and Defending Beef, which now has an updated edition coming out in July.

So she's a rancher, a lawyer, an author, an advocate, and someone who does a great job of taking the facts, taking the science and cutting through the sound bites, and a lot of times the incorrect assumptions.

And so we talk about some of those, but boy, we kind of ran out of time, and we didn't even have time to discuss some of the other issues I wanted to bring up like about water usage and about land usage for cattle and how most of the land is marginalized land that can't be used for other crops, and how the water usage is mostly green water, you know, rainfall water and not the blue irrigated water.

And when you compare water usage for the protein in beef compared to rice, or compared to almonds, that there really isn't the evil beef that people say but also having to differentiate grass fed, grass finished beef raising versus the industrial raising, which we talk a lot about.

So the other thing to mention is we have two other podcasts that we've done, that are sort of environmentally minded with Professor Frank Mitloehner and with Diana Rodgers, so if this is if this is a topic you're interested in, I recommend you listen to this episode as well as those other two episodes.

But now without further ado, let's get into the interview with Nicolette Hahn Niman. Nicolette Hahn Niman, thanks so much for joining me today on the Diet Doctor podcast.

Nicolette Hahn Niman: Thank you for inviting me.

**Bret:** Of course, I want to get into your book, Defending Beef, and talk all about sustainable agriculture and where the information has gone wrong. And maybe weren't right. But first, I want to start with your personal story, because I find it so interesting that going all the way back to the 1980s as a biology major in school with the belief that as you said in your book that no beef is good beef was your belief back then.

And as you described it, reacting to sort of the propaganda, and then the sound bites that you got from vegetarian and vegan sources. So I want to hear a little bit more about your thought process back then and then how it's evolved over time and how you think that applies to the modern day message for many vegan authorities.

**Nicolette:** Yeah, well, I remember being a biology major in college and I was involved in environmental organizations and environmental causes, as well. And just kind of... it was kind of in the air everywhere at that time that if you were concerned about the environment, this was something that you should do for, you know, especially there were a couple of different key ideas.

One was that to feed the world, we really couldn't have beef cattle as part of the food system, because they were too resource intensive. And the other was that there was a lot of deforestation happening, and especially in the Amazon and other parts of the world that was due to beef. So beef consumption was kind of being connected with this environmental catastrophe that was happening in Latin America primarily.

And I was, you know, raised in an omnivorous household. But I was kind of susceptible to these ideas, because I was really concerned about the environment. And I was really concerned about health as well. And there was also this idea that was sort of gaining a lot of currency that beef was... especially beef was bad for your health.

So beef was really the first meat that I gave up on my journey towards vegetarianism. And it seemed like the ethical thing to do and it seemed like the healthful things to do. And something that, you know, I thought at the time was the right thing from an environmental standpoint,

**Bret:** And not a lot has changed in that message. It seems like the common narrative is still pretty consistent that beef is bad for the environment, but maybe not so you say, but it's taken you sort of an interesting journey to get here.

So you became a vegetarian, and then you started working as a senior Attorney for the Water-keeper Alliance under Robert Kennedy Jr., where you were exposed to sort of all the evils of industrial meat production and chicken production and pork production and egg production.

And it was your job to show how these organizations were breaking the law and polluting the environment and sort of help tone that down. But somehow through that experience, you became a bigger supporter of beef than you were before, which I find so fascinating. So talk us through that journey you had.

**Nicolette:** Well, it didn't happen immediately. But initially when I was asked by Bobby Kennedy, Jr. to focus my time, full time as an environmental lawyer on the pollution from the livestock and poultry industry, I had a little hesitation, because it really meant that I would be working full time on manure related issues, which just didn't sound all that appealing.

But when I started looking into it, and visiting communities where there were these large indus-

trial animal operations, I realized, well, this is a really serious environmental problem. It's really damaging rural communities, it's not producing healthy food, you know, and it was really being kind of unaddressed. And so it kind of initially sort of reinforced my feeling that it was the good thing to be a vegetarian.

But that being said, within just a few months into the work, I started really feeling like we were limiting ourselves and we were not doing the right thing if we were simply attacking large scale industrial operations, because I knew there was something very different out there as well. I had grown up in southwestern Michigan, and I had been on a lot of smaller scale farms and seen a lot of them.

And I knew that there were some other farms that were doing things that were very, very different from what we were arguing against. And I actively sought out partners within the livestock raising community. And we began working specifically with a lot of the farmers and ranchers from the Niman Ranch Network. And then I started spending a lot of time on those places, and the experience could not have been more different.

It was, you know, you were seeing in the industrial operations, which I was inside of quite a few of them, it was a very depressing place, both just by looking at the way the animals were existing every day and also the odor and just the appearance of them, they're, you know, very industrial looking.

And there's just no joy there. And then I was on these farms that are part of the Niman Ranch Network, and the experience was almost the opposite. You know, you felt like you were in a place where you felt good, and everything that was there was living, you know, a good life, the plants, the animals, the humans... It was a place of kind of peace and harmony and beauty.

And I just had a completely different experience on those places. And so that was what led me to feel that we needed to actively promote the good kind of farming. And it was through that, that I met Bill Niman the founder of the Niman Ranch Network, and then ended up marrying him and moving from New York City to California where the ranch was.

And so then, you know, there was this kind of unexpected turn being... I had been a vegetarian for over 10 years already by that point. And I certainly never imagined to getting involved in a ranch or marrying someone who's involved in the meat production. But I realized I really admired what Bill was doing.

And I admired the farms and ranches that I had been on. And so it was increasingly feeling to me more like it was not at all in conflict with my own values. But I didn't expect to get directly involved in the ranch. And then that kind of happened gradually as well. And then for about seven years, I worked pretty much full time on the ranch as I was writing my first book.

And so that was kind of the transition was complete as far as going from urban environmental lawyer litigating these issues to rural rancher and meat advocate. Although, you know, you'll probably get to ask you about this later, but I didn't ... later.

**Bret:** Yeah, I think that's such a great point, how you saw the industrial side of things. And so many people see that and that's all they see, and they stop there. But it's because you had this exposure to the people from the Niman Ranch Network who were taking care of the land and look at it most people have seen a confined feeding operation. If you drive up in California, if you drive on the I-5, you pass it and it's smelling it looks depressing. And then we see your ranch out

the window there.

**Nicolette:** Yes, exactly.

**Bret:** As part of this podcast, we can see it and that's just beautiful and relaxing. And I've been fortunate enough to spend time with one of my friends who runs the Avenales ranch up by San Luis Obispo and to be out on a horse actually taking care of the animals concerned about the welfare of the animals and the welfare of the land, it couldn't be more different than an industrial feeding operation.

So it begs the question, whenever someone's talking about the dangers of meat, the environmental harms of meat, it seems that it's really unfair that the grass fed outdoor, you know, take care of the animal, take care of the environment ranches are lumped in with the industrial ranches, too. So is that a message that you're trying to undo as well?

**Nicolette:** Yeah, that I mean, that is exactly a lot of what my work is about is making that important distinction. And it's not that, you know, when you have the animals on grass, everything's perfect. You're always striving to improve what you do, both in terms of land management and animal husbandry.

But it's just a very different starting place. And having, you know, spent a lot of time on both types of operations, as you said, I just could not be more different in terms of any of the aspects of it. And, you know, it really clicked in my mind, when I'd been at a number of confinement pig operations that I never saw, even the young pigs sort of playing with each other.

And you go to a farm where they're raised on pasture, or even in deep bedded straw systems, where they have a lot of freedom, and they're getting to root around and run around. That's all they do, you know, sort of like kittens or puppies would be doing little piglets are playing and rolling around. And you go to a confinement hog operation, and there's just none of that activity at all.

And that, to me, that's really, you know, there's been a lot of scientific studies about welfare, animal welfare in different systems. And you can look at those studies and those are important, but I think it's just common sense as well, you look at the way the animals are living. And my work was as an environmental lawyer.

And the environmental implications are totally different. If you're talking about anything, where you have a lot of concentration, and especially if they're on, you know, cement, or metal graded floors, or you know, something where they're not on pasture. And so it really changes the ecological equation of what you're talking about, as well as obviously, the quality of life for the animals and the humans. I don't think humans have very good experiences working in large confinement.

And I have to say, with beef, you mentioned the facility on highway 5, which is not one that I would personally, you know, be very... I wouldn't want to buy meat from there. But that being said, it's not nearly as troubling to me when I see a cattle feedlot, which is the animals are on dirt, and they're outside, and they're not nearly as crowded, as it is when I see a hog confinement, or even a lot of dairy confinement operations, or a poultry confinement operation.

So right from the start, and this is an argument I make in defending beef, whatever beef you're buying, it's probably from an animal that had a healthier life, and a better quality of life than other parts of the meat systems. You know, just want to make that point as well, because I'm an advo-

cate for totally grass based, and, you know, well managed grazing. But even the feedlot raised beef, in my mind is preferable to a lot of other choices.

**Bret:** Yeah. And that's a good point. I mean, we think that those are the grain fed cows on the feedlot, but they lived most of their life on grass in a calf cow operation where they're being raised on grass, with their mothers, with, you know, big herd, but then they get sold to the confinement operations for the last few months of their lives where they get fattened on grains.

So that is an interesting point, though, that that is still probably a better choice for environment animal welfare than what we think are the... what is sort of gotten a free pass like chicken has sort of gotten a free pass almost, because it's been labeled as a white meat, as a healthier meat. So when the health concern kind of gets taken out of the equation, there's not as big of a push on the animal welfare and the environment concern.

And I think maybe that was part of the problem with beef, that there's not just the environmental concern, which I want to talk about the specifics, but the also misguided, in my opinion, health concerns. And so it's like a twofer, which kind of makes people pile on beef more is that what you think beef is getting much more attention than the other animal?

**Nicolette:** Yeah, and until recently, you know, beef was the most consumed meat as well in the United States. So that was part of it. I've always felt like there was a kind of this, you know, sexiness in attacking beef, because everybody was eating a lot of steak and a lot of hamburgers and so forth. And so if you kind of say, hey, that thing that you're eating a lot of is bad. It captures a lot of attention.

But that being said, I also think, you know, as you just mentioned, Bret, there's this kind of confluence of these arguments against beef. With the health side, and the environmental side, and so it kind of seems like it's kind of made it a really strong push against beef. And I just think it's really wrongheaded, because it's all about how you do it.

And, you know, as you said, we'll get into specifics on the environmental side, but in my view, the ecologically optimal way of reproducing food, a food system, if you were just to model it entirely from an ecological standpoint, and say, okay, we want to produce food in the most ecologically sound way, you would absolutely have grazing animals as part of that.

And cattle are really hearty, they're so successful around the world, because, you know, partly because their size, they're much better able to tolerate a lot of types of predators. And their digestive tract makes them because they're ruminants and they're able to survive on just about any kind of natural occurring vegetation.

So they have a natural capacity to produce food in places around the world where you really can't raise any other kind of food. And so cattle have tremendous value and benefit to the food system from, you know, a sort of resource use standpoint. And if you do good grazing, well managed, then you have all these ecological benefits that flow from that.

So the whole notion that there's inherently a problem with cattle from an environmental standpoint, in my view is just wrong.

**Bret:** Yeah. Well, so let's get into some of this. I want to read you a couple quotes. So from the United Nations Environmental Agency, they send out a tweet that the meat industry is responsible for more greenhouse gas emissions than the world's biggest oil companies.

And Greenpeace says eating meat generates as much greenhouse gas emissions as all cars, trucks, and automobiles combined. Now, these are two fairly reputable sources that if you're involved in the environment concerned about the environment, you would probably follow and trust these organizations. But those quotes, are they based in reality at all?

**Nicolette:** Well, you know, that goes back to a 2006 report, the Livestock's Long Shadow, that was, you know, as I say, in my book, Defending Beef, there are literally dozens of reports that are put out by the Food and Agriculture Organization every year, and by the United Nations every year, there are hundreds of reports.

And most of them don't get very much media attention. And this one did, this Livestock's Long Shadow Report in 2006. And I think it was partly because they came up with this very catchy idea that they put into their press release, that livestock actually produced more greenhouse gas emissions than all of the transportation industry throughout the world. And this actually turns out to be completely untrue.

And Dr. Frank Mitloehner was one of the people who pointed this out and made this argument, who's an animal science expert at UC Davis, and he and his grad students did an evaluation of what that argument wants to report and they made, you know, they contacted the UN, the publishers of this report and said, this is actually not true, because you used different methodologies to compare these two industries.

And the authors quickly acknowledged that that was true. And that, in fact, that original statement that livestock produces more than fossil fuel, the transportation sector, was just absolutely incorrect. But it's one of those things that's just kind of like, it's out there. And so it just gets reiterated over and over again. And it's not correct.

And the other point, that's so important to note is, when you talk about greenhouse gases, you are obviously going to look at a global perspective, because greenhouse gas emissions, obviously, you know, you're talking about a planetary issue and so you sort of have to have a planetary perspective.

But when you actually talk about where emissions are happening, and what's causing those emissions, the figures are incredibly different depending on what part of the world you're looking at, because it's really industrialization that has completed this dramatic shift in the climate. And the vast majority of the greenhouse gas emissions in a place like the United States, which is a very industrialized country, around three quarters of the emissions are just from the fossil fuel industry.

And in the United States, it's around 10% of the emissions that are from all of agriculture. And so it's a totally different picture when you're talking about the US. And that's why the statistic is so misleading.

Because if you're living in the United States, and you're trying to figure out what you should personally be doing to try to contribute to sort of mitigating the climate change crisis, your consumption of beef is almost a non-issue, you know, the total impact of ruminants in the United States is somewhere between 2% and 3%.

And so even if you were eating the sort of the most resource, you know, intensive kind of beef, and you weren't seeking out well raised sources of food in any way, affecting and changing what you did in your beef is the probably the lowest thing you could do as far as what you could do to affect the United States' global warming picture, which is really all about fossil fuel consumption.

And so it would be a much more sensible action for an American or anybody living in the Western world, to try to affect the fossil fuel industry. And also, I just think it's important to know, individual consumption patterns while I think it's valuable to talk about it.

And we should all think about what we're doing, I think, just from a sort of an ethic standpoint, trying to live an ethical life and be part of the solution, and all those things we want to feel like we're doing. What's so much more important, is policy. And when you're talking about something like fossil fuel emissions in the United States, what really matters is what are we doing as a state or as a nation on things like fuel efficiency and cars?

And how much people are driving? And how much... you know, what are we doing in terms of mitigating that fossil fuel emission. For example, one aspect of that is, it's been talked about a lot in the news lately is methane leaks from uncapped fossil fuel, you know, the fossil fuel industry, sort of older facilities that have a lot of methane leaks, that's now being shown to be probably the single greatest source of methane in the United States.

And it was recently, an action was taken in Congress to reinvigorate the previous effort to get that issue under control. That's the kind of thing that's really going to affect what's happening in the United States, and how much methane is coming out of, you know, our nation as part of this global warming global issue.

And so I just think it's like, you're not even having the right conversation in the United States if you're talking about your beef, if you care about climate change.

**Bret:** Yeah. And you have some great numbers in your book that in the United States, the crop production part of agriculture, accounts for 4.7% of greenhouse gas emissions, livestock at 3.9%, and then transportation 28%, electricity 28%, industry 21%. So you're right, it seems like it's almost a distraction for what we really should be talking about.

And I really liked the part, there was a part in your book, also, you mentioned the clothing industry and that contribution to greenhouse gases, which was far more than cattle. So it made me think like, we're talking about meatless Mondays, but nobody's talking about going naked on Tuesday to prevent the greenhouse gas emissions from the clothing industry. So again, why the focus on beef and not the electricity, the industry, the clothing industry? And why is that?

**Nicolette:** Yeah, and that fast fashion thing, that's one of the issues that I added to this version of, you know, the new edition of Defending Beef, because I hadn't thought that much about it either. But the thing about that issue, I think it's so important to note is that when you talk about beef, you're actually talking about a food that provides a tremendous amount of really valuable nutrition to the human body. And you're telling someone you shouldn't do that.

But when you talk about fashion, you're talking about something that is literally utterly unnecessary. I mean, you know, sure, you have to wear your basic clothes. But there's some tremendously shocking statistics about how much clothing people now have compared to, you know, historically, and how much of it they wear and how quickly they throw it away.

And it's just unbelievable. I mean, we all sort of know that early pioneers, for example, would have a set of clothing that they would wear during the week, and then they would have their Sunday best. So they would literally keep in a closet, or a wardrobe. And it probably would it would be and they would take it out and put it on on Sunday, and you'd wear that one outfit, your one dressy outfit.

And obviously, we've gone a long, long way from that. And I'm not saying people should have their two outfits, and that's it. But most of us have piles and piles of clothing that we don't wear or we wear once. So in other words, it's not only is it not necessary, but it's really wasteful.

And it's something that I think all of us should be and I include myself in this you know, examining what we're doing as far as our own clothing and our own consumption of that. There's no benefit, there's no legitimate reason to be buying all these clothes and which are incredibly resource intensive, and polluting on the other side, because we're tossing, we're filling landfills with discarded clothing now.

But when you talk about beef, you're actually talking about something that nourishes you, that helps your muscles, that helps your bones, that helps your teeth, that helps your brain, you know, so it is very frustrating as someone who's you know, defending beef, as I'm doing, to see these areas that are being so neglected, that we should be focusing on things that are, you know, just wasteful, and polluting versus so much attention.

And to go back to the question of why I think this has to do with the fact that there was, there's been this animal rights argument kind of running through the vegetarian and vegan, you know, push for a long time. And as I talked about in the book, there was actually a deliberate choice, a conscious decision made within the vegan advocacy community 15 years ago or so, to focus on environmental impacts, because "the meat is murder" argument hadn't really worked. It reached a certain percentage of people.

And that's it. And it was't really growing, there was a very static number of vegetarians for a long, long time in the United States and in other parts of the developed world. And so there was, and I actually saw a recording of a lecture where this was being talked about at a conference where they said, the speaker said, you know, we really need to...

And actually was Jeremy Rifkin, who wrote the book Beyond Beef. So he was a very prominent person, he was telling this at a gathering of vegan or vegetarian advocates and animal rights advocates, you need to start talking about climate change, you need to start talking about environmental impacts, because this is how you're going to broaden your appeal.

So it was a conscious decision that was being made to advance the vegetarian and vegan diet, to say, hey, this is an environmental issue. And that's not to say, I don't deny that there's a connection between the environment and a diet, obviously, that's what my whole work is all founded on, actually.

But it really has, you know, it's an over simplistic, and I think, a very false choice to vilify the grazing animals, especially, but really, the meat and the dairy and everything, as part of our environmental advocacy and interest. Because when, as I said earlier, when you're talking about really ecologically sound systems, what you're trying to do is mirror nature. And you have to have those grazing animals as part of a functioning eco system.

And that's what I think the focus should be on how do we get our agricultural systems to look more and function more like natural ecosystems, and the animals are very important in that. They're not jettisoned. If you do that, you know, you create... No, if you drive through any place where you have huge monocrop, whether it's in Idaho, in the potato areas, or in lowa in the corn and soy areas, you see monocrop for mile after mile, and it's basically a biological dead zone, there is no ecosystem diversity, there's no ecosystem health there.

So it's not the answer to go vegetarian or vegan, that isn't gonna get us any closer towards ecologically sound food production.

**Bret:** Yeah, I think that's a great answer. And it brings us to the topic of, how do we make this transition? And it's a more complicated topic, because even you, someone who is committed to this and your network of ranchers, your own personal ranch, are committed to this.

But in your words, you said that you are moving closer to where you want to be every day, which means you're not there yet, you haven't made a full transition to a fully regenerative ag type of setup or, you know, to completely mirror Alan Savory's practices or...

So it brings up the point that if you're not able to do it, 100% right away, and there are obstacles for you, how is your average rancher going to be able to do it or how is someone who's now running a confinement operation going to be able to change over? And as a part of this, I also want to bring up as a statistic that as you said, less than 5% of beef in the United States is grass finished.

And when I go to my local grocery store, my local Whole Foods or you know, a similar store, and I look for grass finished beef, a lot of it is from New Zealand, a lot of it is from Australia. So what's holding us back from making this transition, and increasing our production in the United States? And is it even viable? Because the critics will say, it's too big of a scale, you can't do it. So how do you address that?

**Nicolette:** Yes, it is challenging and I think part of the reason I talk about the fact that we're on a journey as well is I think it's really important for everyone sort of in the consumer side, but also in the agricultural side, to recognize it as something that we have to continually work on, so improve every day, every year.

And when I read Gabe Brown's book, Dirt To Soil, and I've met Gabe a number of times, and I consider him a friend, it was... I loved the way he described, just experimentation, sort of creativity and just trying new things, and moving forward. And being creative and try this, try that, do a little more of this, a little bit of that. And I think all farmers and ranchers do that, under operations, they try different things. And what I think we need to do is just keep pushing things in that direction.

So I would say even somebody like Gabe Brown, who's doing just this amazing thing in North Dakota with this very diverse operation, which, by the way he feels animals are absolutely essential for. But I think that he would say he continues to experiment, he continues to improve. So I think it's not a destination, it's really... it's a process, it's a journey that all of us are on.

And I kind of liken it to a consumer who's trying to improve their diet, just try to, you know, I often find people are kind of like... kind of throw up their hands like, well, you know, it's too time consuming to, you know, go to farmers markets, or to garden myself or to, you know, go to the local farmer directly. And so I just go to the grocery store and just buy everything in one place. And I always say, we'll try you know, one step at a time.

Start with eggs, for example, finding some really well-raised eggs. Like in California, for example, it's pretty easy to find a local person that's just raising them in their backyard or a small farm. And I have several choices in my community of people that I can buy from, and that's where I get all my eggs is from neighbors.

And that's one of the things you can do to just try it take that little step. So to answer your question

about the viability of a kind of a large scale transition, I don't think it's going to happen overnight. I think it's a gradual process. But I think it's absolutely true, and that it's viable. And the Savory Institute did an analysis several years ago, where they looked at available land that could be used for grazing, especially if you didn't need to raise the crops to feed grazing animals.

And they found that not only was there adequate land, but there would be a surplus of land, actually, if you did this. And part of the reason for that is, when you improve grazing practices, you actually are much more efficient in terms of how much land you use and how much food you produce from Outland.

So what we what you really need in this country, I think, is kind of a push, we kind of have on the defending beef on Facebook page, we have Make America Graze Again, that's the... it's sort of funny, we did that jokingly, and people take that in political ways, sometimes one way or another. But it's really just meant to be humorous.

But we really wanted to emphasize the idea that there are all these grazing animals that are currently being raised in confinement situations that, if they were put back on grass, and the grazing was done in a really thoughtful, good way, we would not only be improving the quality of the health, you know, the helpfulness of the food, we would be in proving the environmental quality of our country.

So you'd get more, you know, with good grazing, you get more water retained in the soil, you get more vegetative growth, you get more diverse vegetation, and it all starts at the soil level. And when you have good grazing, this has been shown in studies around the world, that if you simply remove grazing animals, and this has been tried many times in different places where there were environmental problems, so grazing animals were removed.

And it was found, to the surprise of the people that were doing it, the scientists that actually evaluated it found in multiple different places around the world that you had a much less healthful soil from that. And you had less soil, biological life down there, less micro organisms, fewer organisms, less diversity of organisms. And you had fewer other types of animals like earthworms and arthropods, things that are in the soil that keep the soil functioning well.

And that has all kinds of, you know, sort of ups and ripple effects to making. It's a drier, it becomes a drier environment, it becomes an environment that has fewer types of plants growing, less vegetative growth overall. And then you have less insect life, less larger, fewer types of different animals of all sizes.

And so it has this kind of up stream ripple effect on the ecosystem, the whole health of the ecosystem is diminished when you take grazing animals away. So we have to tackle this challenge of improving grazing practices and moving towards more grazing, I think it's absolutely the direction the food system needs to go in. And so the viability of it, you know, you can debate that. But in my view, it's kind of a, you know, it's mandatory, we have to do this.

So, so whether we can ever have, for example, the exact same number of animals that we have right now, in feedlots, if we returned to grazing people argue that you can, and I think it's probably true, but it's not relevant to me that we have to make these kinds of changes in order for the Earth to remain habitable. And for humans to be having healthy good diets. So it's, you know, it's just a move that we have to make.

Bret: Yeah, such a good point to get away from the industrial side of things to the grass fed, take

care of the animals, take care of the land. And also it decentralizes things. So rather than having to get meat shipped across the country or across the globe, you can have a greater availability at your local farmers market, or at least somewhere in your state, where you can get the meat so it decentralizes it, it puts the power into the local ranchers, it's going to employ more people locally.

But that's part of the problem, isn't it? Because when you decentralize and go to individuals, as opposed to big corporations, you know, where's the power? And there was another line in your book that big food holds all the power. So you said you have little hope for policy reform, which I was sort of, like shocked to read, because you're a proponent. You're a bulldog, like, if you have little hope, then that's so depressing. So I'm hoping you can clarify that statement, because I found that very depressing.

**Nicolette:** Well, I should have chosen my words more carefully, because I don't want to depress anyone. That idea isn't that we can't have policy reform, it's just that I don't think the major push, the major change is going to come from Washington, or the state capitals.

I think we, you know, I sort of push on all fronts, and I've been very actively involved in working on regulations and working on, you know... sort of I've done lobbying at state capitals and in in Washington, DC, on issues like antibiotics overuse and things like that. I think we can see legislative reform on some of these issues.

But what I meant to say there, I think, is that, first of all, I've seen this extraordinary, so to counteract the depressing part, here's the exciting part of that statement, where I do see the energy is actually on the farms and ranches, when I attend agricultural gatherings or when I'm traveling around and in agricultural communities, there is so much interest, and just kind of awakening kind of a recognition of the importance of these ideas within the agricultural community that just wasn't there, even when I started working on this 20 years ago.

And in fact, when I began working on this, I felt like our main adversary was kind of agribusiness and mainstream, you know, a meat production. And that has really shifted the mainstream trade publications like the magazine Beef, or Meat & Poultry, these kind of things, they are talking about this stuff a lot.

And, you know, Alan Williams, who's a grass based consultant, who works mostly in the southeast, but he works nationally, he told me once that a few years ago, he would give a presentation in an agricultural gathering and have 10 people in the room. And now, he's got hundreds or thousands, when he speaks often, because there's just so much more interest within the agricultural community.

So it's kind of coming, you know, from the ground up. And on the consumer side, I think there's a tremendous interest in, you know, sort of food that's grown more locally, food that's grown without chemicals and therapeutical, you know, any kind of antibiotics or other drugs in it. And also just that idea of connecting with where your food is coming from and knowing the source. And so, I hold out hope for policy, I do think we need to push for it.

But I think the real drivers are the consumers on the one side of them seeking a different kind of food and a different transparency and knowing where their food is coming from. And also, the farming community itself, which actually has gotten way more interested and way more motivated on this stuff, partly because of the consumer interest, but also just because there's more information everywhere about this.

And I actually had a farmer in Missouri, a few years ago approached me, it was probably 10 years ago now, after I gave a talk and he said, I loved everything you said, but why do you act like climate change is real? And I said well, because I believe that it is and we had a very good conversation back and forth about it.

And I have found just from one on one conversations and things I've read and surveys and polls, that there's a great deal more acceptance of the need for farming and ranching to get more in tune with ecological concerns, whether it's climate change, or just anything to do with soil health, or water pollution, there's just more awareness of the feeling that, hey, we have an important role here. And we have a responsibility.

And let's do this. And, you know, the idea that chemicals and, you know, whether it's fertilizers or pesticides, or whatever, are something that we should probably try to minimize. That was not the ethos of 20 years ago, in my view, the prevailing ethos, now I really think that increasingly the prevailing... So those, those are very important shifts. And so I'm actually quite optimistic about where things are going, even though I am a little pessimistic about policy reform, there's still some hope, but not, you know, it's not going to be the main driver.

**Bret:** Well, it's interesting, especially in light of the current administration, in the United States, when you have vice president Kamala Harris, come out and say she is in favor of the Dietary Guidelines, saying we should not eat beef and ... she's been quoted as saying, she's in favor of banning certain behaviors that will improve the environment and health, with the undertone being possibly eating meat.

And then President Biden made a comment about limiting beef consumption, which I think probably got blown out of proportion by some of the conservative media. But the point is, the message was there, there was part of that message, but at the same time, they're talking about possibly increasing subsidies or, you know, carbon credits, more money for carbon sequestration.

So it seems like there's a little bit of a mix. I'm curious what you think of the current US administration? And if there's some hope there for some progress?

**Nicolette:** Yes, I'm definitely troubled. I remember the comment, I think that you're quoting from Kamala Harris was actually when she was still running for president. And I posted some things on my Facebook page at the time and criticizing her for that. I feel like there needs to be this sort of continuing process of education about this idea that animals, especially the grazing animals are a really important part of regenerative agriculture.

And I think there's more sort of recognition of this as a legitimate idea in the agricultural policy that I'm seeing coming from the new administration. And just the idea that we got to focus on the soil, we have to focus on getting carbon into the soil and that ranching and farming can be an ally in improving the climate situation.

So I think they're not perfect. I certainly do not appreciate when I see kind of glib comments about beef. You know, the comment that I remember Kamala Harris making specifically was related to taxation of carbon emissions from beef operations because of the methane.

And that, to me, that's a completely wrong approach. And I actually appreciate Elizabeth Warren, this is still you know, this is going back into the primary season, but she was asked about it, and she said, you know, what she said, I love this... She said, you know, fossil fuel companies want you to be talking about that right now. Because it distracts from the real issue, which is them.

Bret: Right.

**Nicolette:** And I really appreciated that.

Bret: Right?

**Nicolette:** So, you know, I think that there's always, an education process that needs to happen. I'm up, I appreciate the fact that I think that they're paying attention to the role of agriculture in a positive way, and what can be done to make agriculture more ecological. And I think that is absolutely where resources and energy should be going. And I think they're doing that. So I think things are moving in a better direction now. Definitely.

**Bret:** Yeah. And then the other thing is, though, the promotion of alternatives or substitutes, whether it's cell culture, meat, or plant based meat, and I think part of the thought processes, those are clean, so we're getting rid of the dirty meat and the emissions meat for these clean alternatives. I think most people in favor of those alternatives would agree with that statement. But how do you approach that topic?

**Nicolette:** Yeah, I just I think actually, the term clean meat is, you know, in and of itself. It's absurd, because first of all, any process by which you produce food, if you go back and look at the production chain, and you know how the thing is produced from start to finish, there's a complexity and a messiness and if it involves agriculture, there's nothing clean about it. I just think the word clean is a bizarre word to use anytime that you're talking about food production.

And if you're talking about cell meat, cell based meat, then it's even more bizarre, because to me producing something that you think that our bodies have been evolving for millions of years, you know, food that we need, nourishment.

And you're going to produce it in a laboratory, because you're concerned about, you know, the messiness of the production side of real food that our bodies have actually evolved for, I mean, to me, it's not even appealing. I, because so much of my time and energy and interest has been on, farming and agriculture on healthy, delicious food, you know, we haven't talked about deliciousness here today at all.

But I just think it's such an important point, is the enjoyment and the pleasure that we get from eating is almost completely ignored in these conversations about like fo meat, for example. And I've had, I haven't had any of the cell culture stuff, and I haven't had impossible meat, because quite honestly, I've seen their production process.

And to me, it is not palatable food, I can just tell by looking at it, it's not something I want to put in my body. And I judge of the healthfulness of food, a lot of it is, you know, by how much deliciousness it has and if it's a really good healthy food, it's going to have a natural appeal to my senses. Not an appeal from, you know, chemical additives and artificial ingredients that were formulated to trick my senses. It's going to have a natural appeal.

So I don't, you know, I don't think there's anything clean about so called clean meat. And I think real food, healthy food actually comes from soil. And so there's nothing clean about soil, if you've worked in it, you know, your hands are going to be dirty, your fingernails are going to be dirty, as you're working in your garden, or as you're working out on your ranch, or on your farm. And to me, that's the foundation of our connection to nature and all of the living aspects of our planet that we get to have when we eat real food.

So, you know, I find it to be a kind of a bizarre, you know, misnomer that I don't even aspire, I don't think we should be aspiring to eat clean food. I want my bathroom to be clean, I want my dentist's office to be clean, right? I don't want my food to be clean... Obviously, I'm gonna wash it before I eat it. But there's nothing to me clean about real food.

**Bret:** Yeah, I think it's interesting, though, if we think about what do we need to help us transition to a more grass based outdoor grazing process? Because we can't do it overnight. And we can't shut down all the industrial food production overnight, because there would be a shortage of food. So you know, could so-called culture meat or alternative meat serve as that transition? I'm like you I don't want it to. I certainly don't want it to. But I wonder if that could be its role.

But yeah, I think you've stated in your book is, do you think our goal should be to get rid of all industrial food production and put it all on grass and get it all outside? Like 100%? Is that a reasonable and a goal that we should be shooting for?

**Nicolette:** Well, one thing I've talked with a number of scientists about this whole thing of cell to go back to specifically cell culture part of your question for a moment. And what it's what's been said to me multiple times by people that are very knowledgeable about laboratories, and all of the protocols and processes that you have to follow sanitation and hygiene in a lab is that there's a huge amount of resource that has to go into that. And so, there was a big push for ethanol based fuel a few years ago.

And you know, a lot of other so called biofuels more and more it was revealed that they really don't ever make sense ecologically, because there's much more resource that has to go into it than energy that you get out of it on the other end, and I think this is exactly the same thing with the cell cultured meat is that there's a tremendous input that has to happen of all different kinds of resources, human resources and energy, electricity, water, all kinds of stuff to go into it to produce it, especially because it is coming from these, you know, basically these... these vats of liquefied, you know... the serum that they have to create in order to culture these things.

And by the way, I talked about this in the book too. I didn't know this until I did the research for the book, but I was really shocked to find out that there actually is using bovine fetal serum in order to make that cell culture. And so they're actually getting that from slaughterhouses. And they're incentivizing cattle producers to send pregnant cattle to slaughter in order to get that serum.

Now, if that isn't like the most Frankenstein nightmarish kind of... this is what industrial food production looks like, okay? To me, real food doesn't involve all that silliness, especially because you're doing all of this to produce supposedly a cruelty free food, and killing free food, really? You know, that, to me, that's an incredible scandal. And I can't believe it hasn't gotten more press attention.

But one thing I've noticed about the media is it gets very excited about an idea for a while. And there'll be all kinds of coverage of it. And then it'll either kind of lose interest, or it'll begin then showing a darker side. And I think we're in the phase with, you know, all the replacement meat, alternative meats and the, you know, especially cell culture, meat.

We're in the excited phase right now, where there's all kinds of stories that just show the kind of glamorous aspect. And the sort of the underbelly of these issues has not yet been revealed, we're beginning to see some kind of deeper dives by some of the media into the full cost, the full chain of production and what goes into it. And I think as more of that becomes clear, I think this idea that this is clean meat will increasingly be shown to be absurd.

**Bret:** Yeah. So we've heard a lot about people saying, talking about moonshots, right? I think it all started back in the moonshot to cure cancer, you know, decades ago. But now we're hearing moonshots for alternative meat products. So what is your moonshot to preserve meat production the way you think it should be done?

**Nicolette:** Well, the meet, you know, the moonshot article that Ezra Klein wrote for the New York Times saying that basically the Biden administration should be putting a lot of resources into creating fo meat, you know, if I were to say, okay, here's something that we should really put a lot of resources into, in order to deal with a lot of these big challenges that we've been talking about here today, to me, it would really be about this question of how we return food production to being grass based.

We know that the globe has an enormous amount of vegetative growth covering it, mostly grasses, there are many different species of grass around the world. And essentially, it grows just about everywhere, it's a really hearty, really adaptable plant that occurs in all different kinds of climates. And it does an incredibly important function, it gathers the energy of the sun, and it does this all on its own, we don't have to do anything to this, this plant just does this naturally.

And then it actually puts carbon into the ground through photosynthesis. And it helps the biology of the soil as we've been talking about, because it has a very dense network of, you know, filaments, its roots down underground, which also helps the ground to keep water in it. And so it becomes a better sort of environment for all living things. And then that plant, which just grows totally from rainwater and sun, on much of the globe, becomes the food source for these grazing animals.

So they are really an important part of the global approach to feeding humans and to keeping the sort of ecosystems functioning the way we want to have it happening. And yet, there's never been, to my knowledge, an effort to really try to harness that energy and that whole process, as part of sort of the main driver in our food system.

And if we focused on this, I think we could do a tremendous amount to address the climate change issues and other, you know, everything that we're facing, droughts, around much of the United States and much of the world now, you know, we know that as the temperature of the Earth goes up, there's gonna be more drier areas and more challenges for water, you know, both for drinking and for agriculture and everything else.

And if we were to focus instead of talking about, you know, breeding all these fake foods, and using laboratories to create food, if we just focus on understanding and harnessing that natural system of the energy of the sun, and the hydration coming from the sky, and making sure that our food systems are actually enhancing those natural hydrological and solar systems. We could go a huge way towards sustainability for the planet.

We could also produce much healthier food than we're producing right now. So that would be my moonshot, let's focus on good grazing and understanding, you know how to best do it, where to do it, when to do it, and really apply our minds to getting animals out of the buildings and getting them back out in the land.

**Bret:** I think that's a great summary and such a wonderful goal. And I'm behind that goal 100%. And we can do it individually, by kind of voting with our pocketbooks, we can do it locally by getting involved in local government, or if you are a rancher by trying to make this transition.

And then hopefully, even nationally, by trying to get some sort of national policy, even though there looks like there's going to be some resistance to it, but keeping the push to go towards this direction, which I think is great. So your updated version of Defending Beef is coming out when? When can we expect--

**Nicolette:** It's coming out in July, July 20th. And it can, of course, be pre ordered now. So I hope people will do that. And I go, you know, we talked mostly about the environmental side. But I do both pieces of the puzzle on this, I talk about why beef is, you know, not an unhealthy food, but it's actually really valuable to human health.

And then I also go into a lot of discussion about the ecological side on the other side of it, and, you know, make the case a lot of what we've been talking about here today. But there's also a lot more, you know, that's discussed in the book about why ecologically well raised cattle are actually a really valuable part... an ecologically vibrant food.

**Bret:** Yeah, and I should have mentioned that, I mean, you do spend a good amount of time in the book talking about the health aspects. We've covered that so many other times in the podcast that I didn't want to take time with you, but you do a very good job covering that. And you also talk about the person aspect of it.

And that's sort of what I was getting out with that question about, you know, getting out of the big industrial complexes into the individual ranchers and farmers. What that means for people for their enjoyment, for their livelihoods, for employment. I mean, there are all sorts of other benefits that don't really get discussed or thought about what you also cover in the book.

So I highly recommend that and I hope people will run out and get it. And where else can they find you if they want to learn more about you and hear more about what you have to say?

**Nicolette:** Well, we have a very active Twitter and Facebook account on Defending Beef. So for social media users, that's the place to go and I will have a website up and running. I had one before I just recently took it down. But either NicoletteHahnNiman.com or defendingbeef.com will be a website soon.

**Bret:** Great, I look forward to that and I look forward to hearing more from you and all your efforts. So thank you for taking the time to join us today on the Diet Doctor podcast.

Nicolette: Thank you for having me.