

# Paleo Solution - 305

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Robb Wolf: Hi folks. Robb Wolf here, another edition of the PaleoSolution podcast. A very sustainability centric podcast we will have today. Today's guest is Nicolette Niman. She's the author of the Righteous Pork Chop, Defending Beef. She is a sustainability expert, a rancher, a mom and just generally a gal about town who knows everything that we're going to want to know about sustainability and everything animal husbandry related. Nicolette how are you doing?

Nicolette Niman: Oh, I'm great. Thank you. I'm delighted to be with you today.

Robb Wolf: Fantastic. Well you have a really fascinating background, not the least of which are a little bit your own dietary practices and what you do for a living and what you write about. Could you tell folks more about your background, education and how you have found yourself writing the Righteous Pork Chop and Defending Beef?

Nicolette Niman: Yes, I do agree I have an unusual combination of things on my resume and life history. So I'm from Michigan originally and I was one of those kids that grew up spending a huge amount of time outdoors and just loved being outside as much as possible every day and my father was that way too. So I really spent a lot of time with him out on long walks out in sort of natural areas.

I majored in biology in college largely because of that love that I had for just the natural world and was already very involved in environmental causes at that point in my life. Largely because I was really passionate about environmental issues, I decided at the end of freshman year in college to become a vegetarian. I thought it was the right thing to do as an environmentally concerned citizen of the world. Years later I went to law school and I began practicing law and I was also – actually you probably don't know this about my background but I was an average triathlete for many years and a runner, so very fitness and health oriented also.

I was working as a lawyer and also as a city council member actually in Kelsey, Michigan and happened to catch a speech by Robert F. Kennedy Jr. who's an environmental attorney and the son of the late senator Robert Kennedy. It was at that moment that the light really went off for

me as sort of how I could tie my passion for the environment with legal work. What he has done for many years is to be a lawyer working on behalf of environmental causes. So you know, doing a lot of citizen lawsuits under the Cleveland Water Act and that sort of thing.

I actually went to work for the National Wildlife Federation initially and then I went to work for Bobby Kennedy Jr. himself because I was offered a position by him about a year after I started in National Wildlife Federation. He asked me to work fulltime on the issue of livestock related pollution. So it's something I didn't know much at all about at that point in time. Initially actually I thought I really don't think I want to do this because it meant working full time on manure.

[laughter]

I knew enough to know that.

Robb Wolf:

Right, right.

Nicolette Niman:

So I was a little hesitant, not glamorous you know. But he's a very clever guy. So he said well I want you to learn more about this before you refuse this assignment. So he said go and meet with people in these rural communities that are affected by these big corporate industrial factory farms and see what you think.

I did that. I went to Missouri first and then North Carolina and actually that was all it took because when I saw for myself firsthand what the environmental problems were and the problems for communities and the problems for animals and so forth on these big industrialized agricultural operations, I realized actually this is something I really did want to work on. That became the beginning of my journey sort of really focusing on this. So that was in the year 2000 so it was like 16 years ago now.

I went from working fulltime as the senior attorney for water keeper for two years. I left that job and was still living in New York and began working on a book because I felt that really there needed to be a lot more public conversation about the way animals were raised for food in this country.

In the meantime, I was getting to know and falling in love with Bill Niman, the founder of the Niman Ranch network of farms and ranches. I ended up marrying him, moving to California, and this very unlikely union was created of this long time vegetarian environmental lawyer and a meat company CEO and rancher. [laughs]

Robb Wolf:

That is hilarious.

Nicolette Niman: So that was it and then that became a kind of an unusual twist in my background because then I never had a moral objection to raising animals for food so that wasn't a problem for me. I knew that Bill Niman was actually setting a very high standard for the way he was raising animals. Actually I felt that was incredibly important both from an animal welfare standpoint and from an ecological standpoint.

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I had a very positive view of what he was doing in spite of the fact that you know, I was a long time vegetarian. I moved to our ranch in California where I am today and have been for the last 15 years, or 12 years excuse me. I began working on the ranch myself and so as I was writing my first book Righteous Pork Chop I actually was learning firsthand about animal husbandry. So it was our whole new level of understanding from what I've had as a researcher and a lawyer.

Now for the last 12 years, I spent a lot of time working on a ranch. I've visited dozens and dozens of farms and ranches all over the country and some in other countries. I've had a much deeper dive into it than I had ever expected because I had this firsthand experience as well.

The reason I wrote Defending Beef, the second book is because I realized that there was a tremendous disconnect from what I was seeing and what I had learned and so much the public discussion about meat. So I felt there needed to be someone who really had this multi-faceted background on it adding what I think is a lot more nuance and what I think is a lot deeper understanding to the conversation..

Robb Wolf: Yeah. I mean I had heard about your book and then Diana Rogers started texting me one day and she's three hours ahead but I was getting stuff that was from her timeline like three in the morning her time.

Nicolette Niman: [Laughs]

Robb Wolf: I would be like oh my god, Defending Beef is amazing. Because she and I had been kicking around the idea of trying to tackle both the sustainability story on meat production but also weave in some of the nutritional element so that there was a little bit of bridge--

Nicolette Niman: Right.

Robb Wolf: --between the production and the nutrition. You did an amazing job on that. Like it is just an amazing book, totally accessible. We're not going to talk a ton about the nutrition that you go into in your work because most

of the folks on the show were pretty well bought in on the animal products that are nutritious and helpful.

Nicolette Niman: Right.

Robb Wolf: You know, a lot of peel have gained some health benefits from reincorporating them. I think about 50%, 60% of the folks that migrate into kind of my sphere are recovering vegetarians, vegans that have reincorporated some animal products and cleaned up some other elements sort of had some benefit but --

Nicolette Niman: Exactly.

Robb Wolf: --the big contentious deal around this and I really feel like it's a big deal. I see kind of more the vegetarian and governmental side that's pushing a non-meat centric or you know, meat inclusive diet versus this other side. Like it really is going to matter enormously with regards to how the world plays out. So it's something that we really do need to get right and the -

Nicolette Niman: Yeah.

Robb Wolf: -- storyline is that similar to cholesterol and this is what kind of reminds me we were told that cholesterol and dietary fats particularly from animal products were bad. We heard this for 40 years. And then recently the government just wrote a retraction on all of that and said that dietary cholesterol really isn't a factor in human disease similar to --you know, same deal with saturated fat. But it seems like the case is already closed on conservation, the environment, climate change and animal husbandry, can you comment on that?

Nicolette Niman: Yeah I agree and that's exactly how my book is structured. I go through the ecological questions and I go through the dietary questions as you said. I kind of showed this parallel group think that sort of just rolls forward. It's almost in the dietary side but I go into some detail of the politics of it. It's really almost as though there's an idea that captures hold in the public imagination. There's no stopping it regardless of what the facts show once certain forces get behind it. That's' really what happened with this sort of heart disease and saturated fat idea. You know, just animal fat being bad for human health overall. I do see a similar thing that's been happening with the livestock and especially cattle on the ecological side.

So more and more we've been hearing complaints about the ecological impact of cattle for a long time obviously but ironically it was really

focused on overgrazing for a long time. I mean that was a complaint that started in the 19<sup>th</sup> century literally. There's been dramatic shift in --you know, that has been pretty much almost addressed. I mean I wouldn't say grazing practices are perfect today they're not. I argue strenuously in book for improved grazing practices.

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But the overgrazing that was happening in the 19<sup>th</sup> century and in the early 20<sup>th</sup> century in the United States for example is pretty much completely nonexistent anymore. The numbers of animals on the land aren't even comparable and the way they're managed is totally different now. So it's almost like it's a you know, an issue that's no longer real and yet there's the same level of sort of public discussion about it. But what's happened is even as that has become a bygone issue, then the shift has been towards water and climate change. So kind of every time the cattle industry examines itself and improves itself there's some new thing that is being , some new complaint. Again not that these things aren't important or legitimate to a degree but they always get dramatically over exaggerated and misunderstood and over simplified in the public conversation. So what's really been happening I think is with the increasing concerns about water, just the earth's water, how much freshwater is available, fresh, clean water people look at figures of various different human activities and beef appears to be a tremendous user of water and therefore it's become a focus this idea that beef is too water consumptive.

Similarly on the climate side, people look at these figures as far as emissions and again this is just a very reductionist way to approach things but this is what's being done over and over again even by legitimate scientists. They're looking at emissions from individual animals and then they're adding it all up and saying this is what the cattle contribute worldwide to the missions of the climate change.

In fact that's almost an absurd way to look at these issues because as the great physicist and great thinker Fritjof Capra has explained, the founder of the Center for Ecoliteracy has said there is nothing in nature that is linear, only human machines are linear. Nature always works as a system. I think that is the crux of what is so wrong with this whole conversation about beef and livestock because every aspect. You know, when you're raising cattle, and when you're producing beef as food, it has multiple impacts positive and negative and they all interplay with one another. So when you just look at the emissions, methane emissions for example from an individual animal, you're creating a number that actually has no meaning. Because does it in fact end up in the atmosphere? Well that's very dependent on lots of other factors.

Robb Wolf: Talk about a few of those factors.

Nicolette Niman: So when it comes to the climate change issue, the real question is how are the animals that are being grazed functioning in the ecosystem. There are two main ways that has been shown. There are probably multiple additional ways that we don't even fully understand yet because our science is so crude in measuring these things, these systems and how they actually work and all this interrelationships.

But two things we know for sure. One is that carbon, that massive amounts of carbon have been released from the soil into the atmosphere over the last century and a half. And that the majority of that is actually due to poor agricultural practices especially plowing. So I spend a lot of time in defending beef talking about how basically the plow you know, as the great agricultural thinker Wes Jackson has said, the greatest damage to the earth has been done by the plow. [Laughs]

It's funny because that's something that people who are advocating for veganism for example never ever thought about this before.

Robb Wolf: Yeah. I mean it's so row crop centric that it's crazy by – when you really start, if what we are kind of talking about is true, then it really paints this planet of vegan story in a remarkable light.

Nicolette Niman: Yeah, exactly company what's so – like you know, this article that just came out in Outside Magazine where they talked about sort of tried to give a global answer to this question, yet it entirely fails to really address this issue which is that an enormous portion of the earth's surface is land that is actually meant to be grassland.

That if you don't raise grazing animals on that, you don't – there's no net gain for the food system. It's a huge loss. I mean that's not even talking about the ecological questions and I argue very, very I believe very strongly that they're an essential component to the proper functioning of those grasslands that grazing animals must be there to have proper ecological functions grasslands.

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But even with that issue aside, they're producing, there's an enormous amount of food being produced from the world's grasslands. If you take those animals off of those grasslands, you can't use those grasslands to create row crops and if you did it, it would be an ecological disaster. Okay. But so the just bizarre disconnect and just understanding the way the earth's agriculture and food systems work and so much of this public

conversation even when it's attempting to be more in depth as that Outside Magazine piece.

So the thing I was getting at is that you have to have on these land surfaces, the health of the soil is absolutely critical to the whole ecosystem functioning. It's been shown in a lot of recent research that it really all goes down. The health of the ecosystem all really goes back to the soil's functioning and specifically the soil biology which nobody was talking about even a couple of decades ago.

Robb Wolf: Right.

Nicolette Niman: It's a really recently emerging part of both human health and ecological health discussions. What's now being shown in a lot of recent research is that the soil health, the biology of it specifically is the more microbes you have the better and the more diversity of microbes that you have the better. It's also being shown that if you plowed that ground, you are far more likely to lose the soil biology or going to lose the microorganisms. You're going to lose the diversity of microorganisms and the you lose the whole diversity of the whole ecosystem because everything is really starting from the ground up in terms of what insects you have there, what plants you have there and then the diversity of the plant, the larger animals that are existing in that ecosystem. So everything really starts at this soil level and the biology of the soil.

The grazing animals are so essential because first of all you can keep the land unplowed. You can basically have continuously covered ground with the vegetation covering it and keeping which is really essential to keeping the moisture and the biological activity in the soil. And then just animal impact has been shown in lots of different studies and different examples all around the world to have dramatically beneficial impacts in terms of the soil biology. So having those animals there is really important in terms of having that really healthy soil which creates that healthy ecosystem from the ground up.

So that is just an essential component of it and then from a climate standpoint, it's about the carbon on one part because you get much greater sequestration of carbon back into the soils. I was talking about that loss of soil into the atmosphere. Well it's also being shown that you can regain the carbon into the soil through good agricultural practices and good grazing practices specifically when you're talking about grazing animals.

Because so much of the land surface is grazing land, it's a huge opportunity to get massive amounts of carbon back into the soil which will benefit the ecosystems and all of the life that's there and will also benefit the atmosphere. So it's really kind of a win-win solution. And then on the other side, so you have a potential for dramatic reduction of carbon in the atmosphere. On the other side as well, the soil biology is increasingly being shown to be connected to the presence of something called methane oxidizing bacteria also called methanotrophs. So there's a couple of different names floating out there but there's more and more research being done on this especially in India and Australia. What's being shown is that where you have a really good what they call intact ecosystems, healthy ecosystems of various types including good grazing systems you have a high population of this methane oxidizing bacteria. This is why I say it's kind of absurd to just look at the emissions from an individual bovine and say well that's the contribution to global warming. Because the methane oxidizing bacteria are being shown to offset huge amounts of methane and even as much as all of that's being admitted from individual cattle. So some research in Australia has shown that the methane from the cattle on a well-managed grazing operation is fully offset by these bacteria.

A lot of the discussion is really reductionist and even the research unfortunately a lot of it is really reductionist. I think we're just beginning to understand the complexity of it. But it's absolutely certain that the grazing animals have been on the earth for tens of millions of years and are essential to correctly functioning optimally functioning ecosystems.

Robb Wolf:

Nicolette that's a perfect segue for a question that I had. Within this paleo diet ancestral health sphere, one of the criticisms sometimes is that it's described as a just so story. We talk about comparative good health that preagricultural peoples appear to have had and then contemporarily studied hunter gatherers seemed to be free of most western degenerative diseases until their foods changed and that's compelling. It's observational but it's just kind of the beginning of the story.

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But I've often thought about in terms of you know, the animal grazing story because you could maybe argue that there are fewer grazing animals on the planet than at any point in history. You know, I mean we used to have massive savannahs on all the continents except Antarctica that had massive biodiversity.

Nicolette Niman:

right.

Robb Wolf: It wasn't just bison but it was deer and elk all these different critters and that degree of biodiversity is really important. How did that diversity in the past not destroy planet immediately? Because that's the implication. Like it's reached a point where there have actually been some folks in academia recommending that we go out and call these grazing animals even in natural environments to forestall this ecological disaster that will come at us from grazing. How is there this disconnect?

Nicolette Niman: Yeah. Well it is odd because one thing I have realized is that our narratives, you know, the sort of human narratives that we tell each other just in ordinary conversation every day about how things happened in the world so many of them are actually quite wrong. [Laughs] so one of the narratives that people are constantly telling each other is that we have this rising tide of human raised animals and that it's basically over populating the planet to a level that we've never had before in the past and it will have all these impacts.

But as you said in your question Robb there's actually a huge amount of evidence suggesting that there were much larger populations of the ruminant animals, the grazing animals and of course all of the predators that were pursuing. I mean there was just a much larger biomass of animals on the planet for tens of millions of years. The ruminants specifically who are you know, who are emitting the methane. So there have been attempts and actually there was something done by I believe it was Pennsylvania State University a few years ago that actually attempted to document how much methane would have been emitted by the grazing animals of North America prior to Europeans coming.

So that's actually fairly recent in time period because actually you can go much further back and --

Robb Wolf: Right.

Nicolette Niman: --they were higher numbers. But it was by that point in time, a lot of those animals were already gone but even at that point in time it's believed that the animals were higher than the total number of domesticated grazing animals in north America today. I think there's just a lot of lack of understanding about all this and I think it goes back again to this whole question I was mentioning about the methanotrophs. I mean ecosystems have a way of balancing themselves out.

I was telling someone just the other day there's a line of research about termite mounds, you know, that might seem irrelevant into this conversation but it's not because what happened was for years there

were measurements being made of the methane emitted from termite mounds and so people were talking about them as a major methane source. But in recent years it's been discovered that they have very high levels of these methane oxidizing bacteria that cohabitate with them. It is now believed that the termite mounds actually are a net zero methane emitter okay.

Because these things balance themselves out. That is how nature works. There's kind of a sort of economic system in nature where nothing is wasted and everything is used. So if you have somebody emitting methane well then somebody else evolves to consume that methane. That's exactly what the methane oxidizing bacteria do. So they cannot exist without methane.

So basically what I believe was probably happening during these periods in the past when you had massive numbers of ruminant animals on the planet, you probably had much higher levels of these methane oxidizing bacteria widely disseminated throughout the earth.

Unfortunately humans have dramatically disrupted the ecosystems all over the globe almost. We have to sort of go with what we have now and Allen Savory argues and I think he does very, very credibly. He argues that we really need to have these domesticated animals now as a proxy for these disappeared wild animals. I think it's a very credible argument.

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I mean first of all it's demonstrating that this works, you know, the world over. But if you just think about logically you know, if all of life that's here today plant and fungi and animal all evolved under those conditions, and now those conditions are so radically altered, it makes sense that we need to somehow restore that to the extent we can.

Robb Wolf:

Absolutely. There's a really fascinating book Twilight of the Mastodon and it actually goes even a little bit of a step further making the argument that areas that used to see camel and mastodon and elephant that we should find the closest proxy for those animals. Like Northern California we should be importing camels and elephants to live in that area because pre-clovis you know, expansion into the Americas that there was a massive biodiversity of these other animals and that they played a really key role in that ecosystem like the woodland, oak forests and whatnot that these mastodons played a role that is no longer met and so we have these problems now.

It seems like a really daunting sales pitch.

Nicolette Niman: Yes.

Robb Wolf: We're just trying to say hey, you know, there are some vegetarian backed environmental groups that will and there are tax incentives to take land and basically put it into a fallow state where it's never going to be used for anything again which appears to be potentially worse than overgrazing ala the early 1900s. So we've got that side of the spectrum that's saying we need to remove any organisms, any herbivores that we can find from these areas and then on the – I would even put like the savory answer in the middle saying that we need to use domesticated proxies and then on the far extreme there are some people advocating for this idea that no, we need to go even a step further and like relocate African cape buffalo and elephants to various locations to create even greater diversity and kind of emulate what had historically lived in these areas.

Nicolette Niman: Yeah and I actually talk about that movement a little bit in Defending Beef. It's called the rewilding.

Robb Wolf: Rewilding, yeah, yeah.

Nicolette Niman: The thing is I personally am intrigued by it and I'm following it closely because I really want to see what happens with it. But what I say in Defending Beef and what I really believe is that it is not a pragmatic solution. Because not only will it I think virtually impossible to get these kinds of actual importations of these animals and establish large healthy populations of them but even more so the ecosystems absolutely have to have the predators to work properly. So there's in my mind, there is a zero percent chance that the public will support the massive increase in the numbers of whether it's lions or bears or whatever kinds of predators we would need to make these ecosystem really function the way they once did. That's why the cattle are so sensible because they can be managed by humans and they can be managed in a way that is similar to the way that the herds, the wilds herds functioned with these predator populations. Because the argument that Allan Savory is making and again I think very credibly is that the wild herds had a constant pressure from these predators

Robb Wolf: Right.

Nicolette Niman: So they function very, very different than just a sort of undisturbed cattle herd that is often in many parts of the world today. Because you have – when you have a lot of predators circling you, you're 'much more densely

congregated. You're moving more quickly. You're keeping the young close by.

Robb Wolf: You're not selective on what you eat, eat everything in front of you and then move on.

Nicolette Niman: Exactly. And you're really having what the Savory Institute folks called the animal impact. You're having a lot of that whether it's the hooves or the dung or the eating. You're moving through an area and what you're doing is you're having a huge impact on it and then you're leaving it. So there's that resting phase which is absolutely critical and that's actually something that I think very few people understand that are ecologically minded types is this whole question of you have to have the animal impact and then you have to have the rest.

So that's why the management of the grazing can really determine whether the impact is positive or neutral or negative. So I think what I think the focus is just so wrong in so much of the conversation today because we're talking about getting rid of animals and we really should be talking about how do we manage them to recreate this ecological impact that was there for tens of millions of years.

Robb Wolf: Nicolette a question that gets thrown to me frequently when I get dragged into these online debates which are always an amazing waste of time and --

Nicolette Niman: Right.

Robb Wolf: -- a ton of fun but it's just kind of part and parcel like if we're going to move this needle one direction or another we have to do it. But you know, this thing that gets thrown back through is well how are you going to feed the world with this process. My response is to that is how are you going to feed the world with the row crop centric process that is completely dependent on fossil fuels and I think that we're in this post ***[indiscernible [0:30:31]]*** oil phase where we're going to start seeing a zig-zagging dramatically in oil prices and some really serious economic instability due to that. I think that the good old days of super cheap ubiquitous oil are gone. I think there's lots of oil on the ground but it's costing more and more energy to get it out which makes it more expensive.

Nicolette Niman: Right.

Robb Wolf:

And you know, all kinds of economic you know, tie ins with that. We have a food system that in that row crop model is destroying the soil carbon, destroying the soil. Alan Savory makes the argument that if you value the United States soil at a given amount due to what we can do with it that the greatest export out of the United States is actually our soil that we're losing. But how do we feed the world? It seems like such a nebulous topic. My answer has been I'm not entirely sure but it's definitely not row crop centric but what's your thought on that?

Nicolette Niman:

Yeah. Well I think that going back to the point where you're talking about a few minutes ago, when you consider the ecological havoc caused by the plow, you know, and it's very interesting because I was just recently talking with someone about and even no till production. It has a similar ecological impact okay. So when I say the plow I'm saying that because it's a little bit more visual I think but you're saying row crops and that's probably more accurate because it really doesn't even matter if you're actually plowing it every season or not.

From an ecological standpoint, row cropping creates ecological deserts basically. It destroys the soil. It destroys the biology of the soil which is the foundation of the health of the soil and that's the foundation of the health of the planet really and especially when it comes to food production. So I think you're just throwing back the perfect question to the person who's saying this because especially again when you look at this issue we were talking about it earlier about the percentage of the earth that is covered by grasslands that can be grazed and left essentially undisturbed as far as the soil.

In fact it improved because where you have good grazing, you actually have more vegetation. You have healthier soils. So you're actually using that land and essentially undisturbed state. The more row crops you're doing, the less of that you have. I mean if you're moving away from a system of grazing and then you're having to substitute that food obviously with row crop produced food. So you're diminishing your ability to protect that soil and those ecosystems. So I mean actually there's a huge movement on people that are trying desperately to get the federal government to think more in terms of trying to protect the grasslands of the United States for example and really return a lot of the row crops to grasslands.

I think that's the way that we need to go. In fact I saw a great presentation by that Audubon Society when I was the keynote speaker at the grassfed exchange which is a grazing organization. You know, just trying to advocate for good grazing practices in a really forward thinking

group. They had a wonderful presentation by the Audubon Society talking about how the grassland birds are probably the most threatened birds of all in north America. They're threatened largely by the loss of grasslands that are being replaced by row crops.

And what was really interesting was the presenters were saying we understand our fate, the fate of what we're trying to save which is these grassland birds is absolutely intimately connected to the fate of ranching. Because the moment that ranchers disappeared the grassland birds disappear. I was just like I was just so delighted to hear such a clear statement because you know, so many environmental advocates do not get this at all. It was a moment when it suddenly clicked in my mind that the Audubon Society is working out in the field and so they understand this. Whereas so many of today's environmental groups are very urban based and they're really not doing that kind of field work on a daily basis.

So that was – I'm sorry. That was just a great moment for me when I realized that some of the environmental groups are really getting this. There are a few others but the Audubon Society is understanding this connection between what the ranchers and farmers are doing and grasslands and the health of the ecosystems and the wildlife.

**[0:35:06]**

Robb Wolf:

The Audubon Society has some serious muscle. Like they get a lot of money and they're very well established so that I had not heard anything like that, so that's actually very promising.

Nicolette Niman:

Yeah. they're one of a few. The nature conservancy also been very, you know, and they have been criticized by this from certain quarters but they have been increasingly working with ranching people, people within the ranch community because of the recognition that not only – you know, what's interesting to me is you can buy the argument and I don't totally do that well managed grazing animals has a tremendous ecological benefit. But even if you don't buy that argument okay there's so much land in the United States and in the world that's in the hands of or impacted by people that are grazing right, grazing animals that at the minimum wouldn't we at least want to try to engage that community as an environmental community? Wouldn't we want to try engage that community to try to positively affect their practices. Do you know what I mean?

Robb Wolf:

Right.

Nicolette Niman:

So when you're just constantly saying what they're doing is bad, and wrong that does not engage them. Unfortunately I have been, I have

talked to people you know, ranchers all over the country and they're very alienated from an environmental movement and that is incredibly unfortunate. Because there is so much good that is being done and there's a huge potential for a great deal more positive stuff to be done from an environmental standpoint on the ranches of the United States.

So I find it you know, that's actually what I consider to be kind of my calling is to try to bridge this gap because I see an enormous amount of benefit to the ranches already. I see a great amount of potential with improved practices for more benefits to happen. I just think there's a huge amount of misinformation and disconnect happening especially in urban communities about what beef cattle and what ranching really needs.

Robb Wolf: Right, right. The full impact there yeah. Somewhat related or at least it's related in my head but I'm a lumpner not a splitter so it's all connected in my head and that's part of the problem.

So recently epic bar was purchased by General Mills and I would say that the response to that has been about 50% positive, maybe about 30% guardedly optimistic which I think is a reasonable place to be and then 20% hysteria.

Nicolette Niman: Right.

Robb Wolf: On this process, but you know, people bring up some credible questions which I have some thoughts around this and I don't want to – I'm really interested what your thoughts are. I think that this is the beginning of a title shift and then again it kind of relates back to energy, food security, like I think that the next 20 years that we experience are going to be completely different than the previous 20 years of our existence. What are your thoughts on this and like how –you know, clearly big business is in the business to do business, to make money out of all of that.

Nicolette Niman: Yeah.

Robb Wolf: So is there an argument for sustainability becoming a profitable enterprise and will big business play into this at some point? Like my argument is yes and that their hand is going to be forced on that but is that pie in the sky stuff like some people have said to me?

Nicolette Niman: Well I think you and I probably I hadn't really seen anything you've been you've been saying about this topic but I suspect we're kind of in agreement in a lot of this. Interestingly the company that my husband

founded Niman Ranch which he left eight years ago so we're not affiliated with it anymore but they were recently acquired by Perdue. So we had a lot of the same issues people a lot of media was contacting us even though we're not affiliated with the company anymore because my founded it and was a CEO of it for many, many years and it's really his baby. So what we said again and again and I think this actually applies to this epic thing too is that the world's food system is so dominated by these large players that it is absolutely essential that they change, okay, they have to change because these are pretty urgent issues. We can't wait for 50 years for dramatic changes. We really need to have large scale change soon.

So what I felt was the good news in both of these stories was that first of all the largest companies are recognizing the need to get into other spaces that they weren't in before. Okay. They're recognizing the growing interest and the fact that this is something that more and more people are looking for.

Secondly, there's a potential to expand that type of food or that type of production and on the Niman ranch side of the question. Because obviously these players have much more sophisticated storage and distribution and warehousing and all that other kind of stuff.

**[0:40:04]**

So really I think this bodes well for the kind of massive shifting in the food system and in farming that we really need to see. So obviously there's a tremendous amount of concern and I understand it. I mean we have a new little company called BN Ranch. So we're back in that space of the little independent new ones so we fully understand how different we are from the big companies and how much of an uphill battle we were facing in every single aspect of what we do.

But that being said, I really believe these large scale players in the food and agricultural industry must make big changes for us to see the kind of massive change that we need to see in the food system for the world to get its benefit both ecologically and health wise.

**Robb Wolf:**

Nicolette I guess part of my question and part of what some of the repo stay that people have on that topic is that these big players are just going to acquire these small entities plow them under into their processes. You know, change the formulations, alter the sourcing of the food and whatnot and just kind of make it you know, business as usual. I have some thoughts that the business as usual is going to stop and that this is kind of the beginning of that.

But you know, what is the economic driver that would cause these businesses to change? Part of what's befuddling people right now with the General Mills story like General Mills is advocating for you know, a nontransparency in GMO labeling and things like that.

Nicolette Niman: Right. Right.

Robb Wolf: My argument has been that it's a massive organization and that some arms of it work at odds against other arms. That this thing cannot necessarily pivot on the dime. There's still massive farm subsidies that are keeping some of these archaic systems in place and they're not just going to let go of those. But if we had a decent economic reset where the government said you know what we can't do farmer welfare anymore. You're going to have to figure this out. We're they're going to figure that out in a crisis mode or we're going to do some movements ahead of time to figure that out. I'm thinking that these folks are probably pretty smart and they're looking at the same numbers that I look at with oil and the economy and they're like well the party has been good but the party is going to change and we've got to figure out what the new dance steps are going to be. That's my thought on this. But am I nuts, is this stupid, is this naïve?

Nicolette Niman: No. I think that's basically the same read that I have on it but I'll add one more sort of level of you know not wrinkle exactly to it. But I just was at a meeting in Chicago a few weeks ago where I saw a whole bunch of data presented about the food industry. The thing that was really interesting was when you looked at the profitability in all of the sectors whether it was sort of like the mainstream food producers like General Mills or the mainstream agro business companies like Perdue or whether it was the retailers like Krueger's or Albert Zen's or whatever. What was really, really interesting is they were contrasting the data from these different types of entities and they were showing that in every part of the food chain, it's basically these large players that are stagnant in terms of their growth and in terms for their profitability and apparently there's a huge amount of pressure on these entities to get into these other spheres which are showing a lot more growth and profitability and that's really this kind of what's been alternative sphere okay.

So what's happening is they're deliberately acquiring them because they need to be in these more profitable sectors. So what that tells me is of course there's the danger of the watering down and I completely share that concern. I assure you I have a lot of skepticism. But the problem is if they're scrutinized and they begin doing that, they lose the value of their investment. Okay. Because nobody is going to want to buy the cheap

version, the remade cheaper version that doesn't really meet the standards or the protocols or whatever of the original smaller company.

Then they lose the credibility, they lose the value of what they've just acquired. So I think there certainly is a tendency to do that. I think there is the danger of that happening. But I have reason to believe that it's not that simple and I think that the more consumer interest that there is, the more you know, that we keep seeing people migrating away from the big box stores and away from the big agri business companies as food suppliers. They're going to need to keep intact the values of those little companies that they have acquired that they are doing something different.

Robb Wolf: Okay. I like that and maybe this is just confirmation bias but -

Nicolette Niman: Yeah.

**[0:44:58]**

Robb Wolf: You know, it's kind of funny when I talk to people that actually do something and that's with the "doing something" in the space. Russ Conser, who spent 30 years at Shell Oil and now has founded the company Standard Soil which is basically trying to do a collective approach to really scaling this holistically managed grazing animals. I talk to you, talk to some other folks that are really intimately involved with this. They're seeing both societal pressures and also the economic pressures coming to bare on this.

Nicolette Niman: Yeah.

Robb Wolf: And then most of the people who really seem to have a nit to pick on this, the main claim to fame is that they spent a lot of time on the internet and --

Nicolette Niman: Right.

Robb Wolf: -- but their voice is just as loud as somebody who's actually well informed on this topic. So I guess it's just kind of chop wood, carry water and keep motoring forward. Nicolette one of the criticisms that another additional criticism within this whole space and I'm sorry that I've kind of veered into this Epic Bar, General Mills thing but it's just something that's kind of timely and newsworthy right now. But I had some folks in Australia and New Zealand's, Jamie, Scott, Niccole, these guys are really concerned skeptical about this. Part of their frustration is that something like a General Mills acquires an Epic Bar and the money that's being

generated from epic now goes into basically befouling the rest of the world.

We saw something like this play out with regards to tobacco. Big tobacco got really, really had its ears pinned back in the United States and so what they did is shifted massively towards developing countries. So now we see all kinds of tobacco related problems in developing countries. Are we just trying to save our own boat here in the United States and then we're going to offshore all these bad practices to everyone else? Or again my gut sense again is that the story has just changed. Like, the whole process of like cheap energy and all that that has allowed this system to develop is changing. So I don't see that offshoring occurring. But this was a smart reasonable question that was raised. What do you think about that?

Nicolette Niman: Yeah. I mean all this is I always think about baby formula too you know, and when we started, people started honing in on the United States on how it's probably not, certainly not better than breast milk and actually probably nearly as good. you know, they just started really pushing it in the developing world.

So I always think of tobacco as and baby formula. So there are lots of historical examples but I think one thing that's happened is we have the internet globally now and so there's information much more accessible all over the world. I think things are going to play out a little differently largely because of that.

I mean I don't want to be in the position where I'm defending all these big food companies.

Robb Wolf: Right, funny place, right, right.

Nicolette Niman: But I do think – I think the value of the product is going to be lost if they change it too dramatically. I think that goes you know, that goes to all of these acquisitions of these smaller sort of alternative type food producers. So I think it's kind of incumbent on the consumers to be vigilant but I really think consumers are where it's at on this whole issue because you know, the state legislatures and especially Washington are so completely absolutely paralyzed in terms of getting anything done on any topic but especially related to food and agriculture. So really consumers are the agent of change in this whole space. So I think that obviously I would encourage people to be vigilant and keep an eye on what's happening, in terms of the sourcing and in terms of the ingredients and all those things of the products that they love and be vocal when they see changes or that are negative in the wrong direction. I mean with the

Niman Ranch question, the question is are they going to continue working with the same farmers? Are they going to continue respecting the same protocols? Are they going to continue to pay the farmers so well?

That's really one of the things Niman Ranch has been known for from the beginning is to pay a very good price to the farmers and ranchers. So I think these only time will tell but I think that vigilance is warranted but I don't think we need to you know, as you said get hysterical because I think that things have really dramatically changed.

Robb Wolf:

You know, I guess it's a thing too where we can't really have it both ways. If we want things to change, this can't remain a completely hippie, backwater process. There's going to be some degree of centralization, some degree of large players kind of getting involved with this. Again Russ Conser, when I had him on the podcast talking about soil carbon cowboys I threw out this idea that the real solution to this is decentralized food production coupled with the amazing centralized distribution that we have so that we get economies of scale at the production side and then also we're able to take advantage of the distribution piece.

[0:50:16]

This dude who has been a systems engineer for Shell for 30 years was like yeah man, you're spot on. I'm like okay, I guess I'm not an idiot. But you know, this is something that I think folks need to remind themselves that if it's going to change it's actually going to change. And some of that maybe you know, there's going to be some wait and see and like you said, I guess one of the really amazing things about the internet is that there is a degree of transparency that has just never existed in history.

Nicolette Niman:

Yeah and it allows for example a farmer to communicate directly with about, you know, with a whole huge number of customers on a daily basis about what they have. Now I actually really agree with something you said about how we're going to have to have these larger players to see large-scale change. It can't just be a backyard hippie thing because I mean we're criticized sometimes my husband and I and we have this little tiny company you know, but we don't even do farmer's markets. You know, our direct consumers. Everything we do is with retailers and restaurants. Because we've learned that we don't want to spend all of our time marketing and distributing the food.

We want to have other people doing that and then we can focus on the farm, on the raunchy and doing that well. Actually I think that degree of specialization and having entities that are really good at distribution

doing the distribution and so forth. It's not only more efficient that way but it's going to make you know, the thing more affordable. It's going to make it more available and accessible to a lot more people.

So you know, to me it's an absolutely essential component of the change is the involvement of the existing systems and the existing efficiencies that we already have. that doesn't mean that I don't think pretty large scale change is required because I do but I don't see you know, a sort of post-apocalyptic society being desirable. You know, --

Robb Wolf: Right.

Nicolette Niman: --from food distribution and creation standpoint. So I mean one thing people forget about is that if they look in their pantry I mean even the most militant person about buying local and eating in season which there aren't that many people that are really doing that, even those people have tea and coffee and salt and sugar in their cupboards for the most part. So you know, and a whole bunch of spices that came from all over the world and not to mention a household full of objects that came from all around the world.

So if we pretend like these things are going to go away, I think we've got our heads in the sand.

Robb Wolf: I could not agree more. The folks that were complaining so vocally about all of this stuff and the sellout and whatnot we're doing all this from maybe 70% of them from Apple computers or iPhones that --

Nicolette Niman: Right.

Robb Wolf: --made some people very, very wealthy. But we oddly don't demonize, criminalize Apple computers the same way that we do some of these other players. Well Nicolette, we could go on for hours and hours. Just really grateful for you taking the time both to write these books and to continue just chopping wood, carrying water in this arena. Folks are really excited by abs. People are really excited by doing Instagram pictures of themselves lifting weights and but they really are not that fired up about the sustainability thing. Like it's changing and it's growing but problems like this are down the road. It's not that sexy. The main thing that they get fired up about is if we actually do get some positive in a direction that they didn't anticipate then they kind of freak out about it.

But you picked a vertical that I couldn't imagine being more challenging and getting more pushback and backlash and so god bless you for --

Nicolette Niman: Right. Thank you.

Robb Wolf: -- jumping in here and doing this. I've been slowly pitching, some soft balls over the plate about this stuff for about the last seven years and trying to make it more palatable without chasing off the folks that want to hear about abs and fran times and all that. So it's' been a slow process. But I lean on you heavily for the more rigorous backing to all this stuff.

Nicolette Niman: Yes. well I'm happy to play that role. [laughs]

Robb Wolf: Awesome. Well you do a fantastic job really, really good job. Where can folks track you down on the inner webs?

Nicolette Niman: Well our little company BN Ranch which is based in Northern California has a website that just shows a little bit more about what we do for people who want to learn more about that. That's just eatlikeitmatters.com. Our amen is BN Ranch. I have my own very tiny little website that has links to a lot of my writings and so forth and that's NicoletteHahnNiman.com.

**[0:55:05]**

Then of course my books are available on Amazon and you know, other and Chelsea Green. Chelsea Green is my publisher of the latest book.

Robb Wolf: Fantastic. Well Nicolette thank you again for being on the show. We should probably do this about once every three to six months and just keep this fire stoked and maybe do a roundup of what's' been in the news and what type of progress you've seen and I've seen and just keep pushing this message forward.

Nicolette Niman: I'm happy to talk to any time Robb. [laughs]

Robb Wolf: fantastic. Well will talk to you soon and thank you again.

Nicolette Niman: Bye-bye.

Robb Wolf: Bye-bye.

**[0:55:38] End of Audio**