

The Paleo Solution

Episode 64

Andy Deas: Robb Wolf, Andy Deas, back with episode 64, The Paleo Solution. I almost said episode 4 today, Robb.

Robb Wolf: It's historical revisionism. We're going back in time.

Andy Deas: I actually think somewhere now they have a CrossFit.com and they reviewed the last three days of the blog. We should like do a little summary where we reviewed the last three episodes.

Robb Wolf: We could do that. That would be another -- what did David Letterman call that stuff? Network time killers?

Andy Deas: Oh, yeah, that's right. That's right.

Robb Wolf: We can do that. It's just like chewing up time inanely,but we usually do that very, very effectively so....

Andy Deas: We have no problem wasting time. What is going on with you today? What's shaking?

Robb Wolf: Not too much. The sun is out in Chico, so I'm stoked. I was getting a little squirrely there with six days of like low lying tule fog ground cover, and I was about ready to go just squirrely. Squirrely.

Andy Deas: Yeah. We opened up all three of the bay doors just a little bit ago at the gym, Robb, and that was like, uh, the sun has entered. It was so nice.

Robb Wolf: That's madness. You guys never open the place up. You never -- I always go in there, and it's like a dark cave.

Andy Deas: Because people aren't -- people don't have the same constitutions. They get cold. They complain. But today, just a little bit ago, it was very -- it was open and very nice. It was like summertime almost.

Robb Wolf: I would rather be cold than in the dark.

Andy Deas: I would agree with that.

Robb Wolf: Yeah. So what's cracking with you?

Andy Deas: Nothing really, man. Just trying to stay busy. I realized, Robb, I have not posted on my blog in two weeks, and so this week I'm committed finishing one of the 50 posts that I have in draft.

Robb Wolf: Andy Deas, big on ideas, slow on follow-up.

Andy Deas: Well, to be fair, I have been busy. I've been trying to catch up on some stuff at the gym, but I need to get some of this stuff done.

Robb Wolf: Yeah, totally, totally. Your fans are waiting, man.

Andy Deas: Yeah. Fan is a strong word. That's all I'll say.

Robb Wolf: Let's see here. We have a Paleo Solution seminars coming up, one in Chico on March 5th, the other one in Toronto March 26th. We've got three other locations that we're going to roll out here pretty quick, and that's going to be it for 2011. Abbreviated schedule relative to last year, part of that is because I'm going to be doing some stuff with Professor Cordain related to the Paleo Physicians Network. And also, I just don't want to kill myself on the road.

So if you want see a PSS, get one of those five because that's going to be it. Other than we are going to do a couple of international locations, and I'll let folks know about those pretty soon. And then we've got an interview coming up in Fighters Only Magazine, I think, next month. And then also in the March issue of MuscleMag International, you can get your body building whateverness done because they've got an interview with me in there too. So I'll let folks know more about that as they get closer.

Andy Deas: Now, will these PSS's be at larger venues? What's the deal with that?

Robb Wolf: Yeah. So we're kind of taking it out of the gym because we've had request to host things by hospitals and by multiple gym locations and whatnot; so we're going to hit some larger urban centers for the most part and then have multiple sponsors. So like the one that we have in Toronto; we have CrossFit Toronto, CrossFit Academy of Lions, Greg Carver's Strength Box, and then also it's sponsored by Dr. Bryce Wylde of Wylde on Health TV show. And then it looks like we're going to be able to rangle some CNEs, CEUs through the University of Toronto for that gig. We're still working on that, but the idea is that all of these gigs will be university accredited.

I'm debating whether or not I'm going to have a test on it, but we're moving towards a tested portion of this thing for kind of legitimate accredited certification. And it's just a lot of work getting that stuff done. So that stuff is all kind of in process. But yeah, it should be in like a hotel setting. The kind of nice thing with that too although it's been really, really cool being in the gyms, probably 50% of the time it's really noisy because of either a heater or an air conditioner or something like that and kind of skinny on bathrooms and everything.

So we're going to give this a shot this year and see how it goes and hopefully it's just a better, nicer experience for folks. And then my whole talk is going to be PowerPoint and mixed media; so that hopefully I can bang out a lot more material a lot faster. And my hope is to cover all the material that I wanted to put into an advanced topics course. So instead of having a second day and charging more money and then covering like ketogenic diets and intermittent fasting and lab work interpretation and stuff like that. I'm hoping that in this new format because people aren't trying to decipher my serial killer handwriting, that they're actually going to be able to take in all the material faster, and then I can get to that advanced topic stuff. But I still have not finished the talk, so I'm not 100% sure how that's going to figure out. But it'll definitely contain more material. I'm just not sure how much more material.

Andy Deas: Nice.

Robb Wolf: Yeah.

Andy Deas: All right. Are you ready for the questions, Robb?

Robb Wolf: I'm really to roll, man. That's enough preamble. Let's do it. Andy is trying to get me killed with the questions he's asking here.

Andy Deas: To be fair, as I told you before, I did leave out some of the other more controversial questions, and I'll save them for the next few weeks for --

Robb Wolf: We should just do the pure controversy edition, just completely inflammatory stuff.

Andy Deas: Or you could just be like Matt Lalonde. I sent him a question that was like a late add, and I'm like, "This is a pretty good question." And I get this response back. He's like, "Dude, this question is not appropriate to discuss in audio media. It could go on for five days." And I'm like, "Okay. Then just don't answer it."

Robb Wolf: Matt is very thorough.

Andy Deas: So the first question we have today is from Daniel. He says, "Hi, guys. Thanks for doing the podcast. It's such a great way to get information on training, diet, et cetera. I don't have much of an appetite in the morning, never have. I have had troubles in the past with having a hard labor job that required me to arrive early in the morning. It was hard for me to fuel myself first thing in the morning for a high energy expenditure day. I solved this problem by having shakes in the morning, usually by 9:00 to 10:00 a.m. I'm ready for a good breakfast.

Is it just that there are times when the schedule doesn't allow me to eat really light first thing in the morning, and then a good meal a couple of hours later? I know that shakes in the morning are not beneficial to my insulin sensitivity. So is there a way I can have a shake in the morning to help my lack of appetite? Is there anything wrong with an apple, a handful of nuts, seed first thing in the morning then maybe egg, sausage, kale, avocado a couple of hours later? I'm open to any other advice you have for someone who doesn't have a huge appetite in the morning?

Robb Wolf: I guess a big question I have is like if you're not hungry in the morning, why are you -- I don't know that it's that big a deal. So long as your energy levels are okay, and you're not wasting away; you're not seeing performance tip; you're not losing a bunch of muscle mass; I don't know that it really matters one way or another. I mean if a really light breakfast is what appeals to you and gets you going, I guess that's totally fine.

If you want you wanted to do a little of tinkering like taking some -- again like the good old standby some super enzymes, NOW Food Super Enzymes with breakfast. I do notice and it tends to be more on the female side interestingly, but folks who say like have some protein aversion for breakfast; they don't want to use chicken or sausage or something like that, I usually find that that situation improves if they get a little bit of digestive support. But beyond that I just -- what's the really compelling need here to have breakfast if it's inconvenient time-wise and if eating a hardier lunch and dinner makes things better, then I see no problem with that.

Andy Deas: Yup. Like the -- as you said, there could be some situational -- I've worked with some males some males that I would say have some adrenal stuff that used to actually be very hungry in the morning, and then over time, I think mostly due to some kind of overwork, then they were no longer hungry. And so in that case is usually with them. We played with stuff like

sweet potatoes in the morning to try to see if we could ramp up their appetite a little bit.

Robb Wolf: Yeah.

Andy Deas: Because they would start to see some performance degradations, but they just weren't hungry.

Robb Wolf: Right. And that's definitely where that meat and nuts Poliquin-esque breakfast could be handy kind of resetting neurotransmitters and all that sort of stuff. I know Ido was kind of horrified by the idea of kicking off the day and not eating like he's really a big advocate of getting that protein and fat meal in there and kind of set up neurotransmitter status and all that stuff. Because of my dabbling with intermittent fasting and all that, then I am not as freaked out about it. But it is a good point. The cortisol issue can definitely be lurking in the background too.

Andy Deas: Yup.

Robb Wolf: But again, it's kind of that they still -- if you look, feel and perform, then there's probably not that much you need to tinker with. If we see some decrease in that or we see that going sideways, then that's where we say, okay, we need to by hook or by crook shore up the breakfast deal.

Andy Deas: Right. Cool. I promise I wouldn't say cool anymore. So sorry for starting that, Robb.

Robb Wolf: Outstanding.

Andy Deas: Next, we got a question from Tommy. I'm kind of excited about this question only because I haven't heard the return of Ori and the Warrior Diet in years.

Robb Wolf: Whoo!

Andy Deas: So "Love the podcast, book, and the general Robb/Andy banter. A friend of mine told me about The Warrior Diet. We're both into health/fitness and the whole paleo/gluten-free thing, so I decided to read it. I used to subscribe to eating more meals more frequently but can't really find anything to justify it except for every health magazine repeating it as god-given wisdom.

The Warrior Diet advocates eating one big meal a day and just snacking on raw foods--fruits/vegetables during the day when hungry. The diet

doesn't care as much about food quality, but I never going back to eating what amounts to better packaged dumpster food anyway so the Warrior Diet for me would be eating one large Paleo meal a day. It sounds like it may fit the Paleo framework as I don't see our hunter-gatherer ancestors having much time in limited daylight hours to sit down and cook when there are rabbits to be killed and berries to be gathered.

I'd love to hear your thoughts as I'm trying to determine if there are advantages to this, if it's a better means of eating than the three squares a day deal or if it's just a whole load of malarkey. Thanks."

Robb Wolf:

I think it's actually a pretty good book, and I think it was probably one of the earliest kind of dabblings with the intermittent fasting concept. I think that it gets a little bit -- it's one of these funny things again, and this was the Brian Dunning deal when he did his piece on gluten-free diets being bogus or whatever. Whenever people cite bread and Spartans as being old, it's just kind of like, "Really? That's the best? That's the most comprehensive research you've done in the history of the world and history of humanity?" It's just kind of funny.

So it's kind of -- some of the premises that they draw from that I think are a little bit goofy. I think the Warrior Diet best applied would be something that -- obviously, I would have my bias towards more or less Paleo foods using yams, sweet potatoes, tubers as your kind of preferred carbohydrate source for glycogen repletion needs, lots of vegetables for the antioxidant nutrient density and all that. But I just -- it doesn't need to be the super tightly adhered to thing. It doesn't have to be one meal.

This is where a little bit more flexible intermittent fasting kind of gig where you do maybe two meals a day, possibly three meals but within a compressed feeding window. I think that that probably gives you kind of the optimum return on your investment. It's just a little bit easier, a little bit easier to live with. I don't really see any problem with the rest of the recommendations. I used to be -- just because we didn't really know much better, but when the question of fasting would come up it was like can you have some fruit during that time? Can you have some vegetables during that time, and I would generally say no because we're kind of looking at these mechanisms related to ketogenic state as being potentially the drivers of a lot of the anti-aging mechanism and stuff like that.

I think that we understand a little bit better now, that in addition to ketogenic status as just a period of protein scarcity which also modifies mtor expression and some of these other very important cellular aging

genes. And so the recommendation of eating some raw vegetables through the day probably is fine even within that kind of intermittent fasting type framework.

So much of that stuff is still so completely unknown. It's just a best case educated guess. But again, take what we know from Paleo diet research, gluten intolerance, all the rest of that stuff, and then just make this thing work to your schedule. So instead of being really die hard about it needing to be one evening meal, maybe your biggest meal is at lunch and then you have a lighter meal at dinner. I mean I just don't see the need to be super rigid about anything with that. Again, get lean, get strong, try to be healthy, make your performance health and longevity look good, make those biomarkers of health and disease look favorable and just modify the chow to work within that.

Andy Deas: Well said.

Robb Wolf: I'm not even sure what I said. All the tequila at lunch time is setting in.

Andy Deas: Warrior Diet. Good marketing though. I remember that.

Robb Wolf: Really good marketing. Ori Hofmekler is a super sharp dude, and he had some good stuff to say. He had a follow-up book on avoiding xenoestrogens and kind of optimizing testosterone production and stuff. He's a sharp dude. He's not trained as a scientist but pretty darn savvy with the application of a lot of the molecular biology and endocrinology and everything. Pretty interesting dude.

Andy Deas: Right. Next, we got a question from Niki. She says, "Hi, I have been eating primal/paleo for five months and although I do feel a lot better for it and have lost 20lbs I still have stomach problems such as diarrhea on a regular basis. I have celiac disease and wonder if there is more I should be avoiding, or adding into my diet, because of this. So far I have cut out all grains, sugar, legumes, and just recently dairy. I have not been taking regular supplements but have sporadically been taking cod liver oil. I really hoped that eating this way would sort out all my digestive problems so I am a bit disappointed. I am a 35-year-old female with a BMI of 24 .5 and am trying to get fit doing regular kettlebells and quite a lot of walking. Any ideas would be much appreciated."

Robb Wolf: Shoot. The first thing that I would look at since we don't have a super specific meal plan here; I would just be looking for any type of cross-contamination. Is there anywhere that you could still be getting some gluten exposures? Are you getting some cross-reactivity with other grains

if you're consuming grains at all? Do we have some dairy cross-reactivity? So there's a whole bunch of stuff within that like cross-reactivity. Like are you being as fastidious with this stuff as you can be? That would be one thing.

The other thing starts getting into sleep -- all those lifestyle factors that are really, really critical maintaining gut health. If you're a shift worker or something like that, then your production of secretory IGF can be really, really suppressed. And this is one of these key elements of your innate immune system that if it is suppressed because of stress or because of lack of sleep, it's going to be really, really hard to fully resolve the GI problems that you have. The standard deal like taking the NOW Food Super Enzymes.

I have a post that I'm going to put up probably on Monday about my current training and nutrition and some stuff that I've been doing. And I've been going and getting acupuncture at Chico Community Acupuncture. There are community acupuncture joints all around the US, and it's basically like they do some acupuncture in kind of an open room and kind of a sliding T-scale. It's kind of a cool set-up, and I'll post a link to it. But it's one of these funny things like when I lived in Seattle even before I went grain, legume, dairy free; when I would get acupuncture for the ulcerative colitis that I had, it would really help a lot. It wouldn't fully make it go away, but it would improve the symptoms pretty dramatically at least for about a week. And since I was sick after the book tour and all that and trying to get my health put back together, some adrenal fatigue and all the rest of that jive, going back and doing acupuncture once a week has just been huge for me, like totally amazing. So I would highly recommend checking that out. It works for some people; it doesn't work for other people. It works amazingly for me.

And then there's been stuff floating around like Dr. K's newsletter. Garrett Smith shot me some information on it -- on like this Cyrex labs which they have this huge comprehensive gluten screening panel. And within that, theoretically, they're able to tell you if coffee is a cross-reactor for you with gluten and really, really comprehensive. I don't know anything about this screen yet. I need to do some investigating on it, but if what they claim it to be is accurate, then that could be really, really helpful in delineating what other things you might have dietarily that are a cross-reactor and then finally just addressing some probiotics.

I don't know if you're supplementing with any type of probiotics, but usually I recommend that Jarrell formula probiotics, but it definitely does have a little bit of dairy in it. So maybe going with a New Chapter or some

other type of grain, legume, dairy free probiotic source would be really, really important that the microbiomics, the intestinal flora, gut flora is so important in maintaining normal intestinal integrity and actually protecting us from irritating foods.

And then the other side of that is dysbiosis where if we have abnormal gut flora occurring, that can -- almost regardless of what you're eating, it's still causing problems because of dysbiosis. So those are all the things that you can kind of look at, definitely tackling the gut flora, maybe checking out some acupuncture, definitely making sure that there are not some obvious cross-contaminants that are occurring somewhere in the mix. And that's about as comprehensive an approach as you can get and then also, of course, good sleep, pitch black room, all that sort of jive.

Andy Deas: And keep the dairy out.

Robb Wolf: Keep the dairy out. Yup. This is definitely a cross-reactor. There's no doubt about it.

Andy Deas: Yes. All right. Next, we've got a question from Half Fat.

Robb Wolf: I guess Andy and I are full fat.

Andy Deas: We're full fat for sure. "Hey, Robb and Andy. I wanted to throw a quick question out there; basically, should the morbidly obese consider rapid weight loss over gradual if they're eating Paleo in either case? To give you some background, I weighed 440 at my max and am now down to 360 after following Tim Ferriss' slow carb blog post. Since then, I've transitioned to eating Paleo as giving up the beans wasn't terribly hard. I recently saw the doctor and told her what I'm eating. Her response was a disapproving sigh, but since my blood test numbers are all normal, she didn't discourage me.

She did however recommend something like Medifast to lose the gallons of extra weight quickly as opposed to gradually. After learning that Medifast is a shake-based program, I instead read Thin So Fast by Dr. Michael Eades. His shake-based program is a Protein Sparing Modified Fast that includes one low-carb meal a day. I suppose the real question here is that, since I'm at around 50% body fat, would it be better to do something like a Paleo --

Robb Wolf: Protein Sparing Modified Fast?

Andy Deas: -- to get down quicker and then transition back to regular Paleo eating? I know most pundits recommend two pounds a week, but I'd love to hear your thoughts. Thanks."

Robb Wolf: I thought about this one a bunch and the most important -- the first thing is that you made really, really good progress. So I would just in some ways be a little bit nervous to recommend doing something so much more drastic like a Protein Sparing Modified Fast given the potential of kind of spinning out of that and going into bad food choices at the end of that thing. I think a very safe incremental way to tackle this would just simply be lift some weights, walk a lot, eat a lowish-carb Paleo diet up to satiety, and we should see some really, really good fat loss with that, and then amidst all that, building or at the very least maintaining muscle mass so that at the end of this whole process hopefully you have a lean muscle physique at the end of this thing.

The Protein Sparing Modified Fast -- somebody in a really dire situation, this could quite literally save their life if things are getting so bad that the person is starting to get organ failure like liver failure and stuff like that from non-alcoholic, fatty liver if they're literally getting crushed under the weight of their own body and having difficulty breathing and using a CPAP for breathing problems at night and all that. That situation you could maybe argue that you would want to do something pretty drastic like the Protein Sparing Modified Fast, but it sounds like you're doing pretty darn well right now. And I would just be nervous to rock the boat too much with that.

People do use the Protein Sparing Modified Fast successfully and then transition into good eating at the end of that. The bottom line is if you're eating enough protein to maintain your muscle mass, but you're dramatically restricting caloric intake, we're going to get faster results. There's no doubt about that. There's absolutely no doubt about that. But just the nervousness that I would is the rebound at the end of that where like you've been living such an austere existences, and it's kind of miserable that at the end of that you're kind of like F all this stuff and you just kind of go bananas and jump back in and eat the wrong types of foods again.

So I would be way more interested or way more excited about like establishing some lifetime habits and kind of -- you're excited about working out, you're excited about being active, about getting outside and running around, learning some new activities, doing some different stuff and just kind of growing into this new body that you're building along the way, would be to me a much more sustainable way to tackle this.

Honestly, I don't know which one is better because I think different temperaments would probably respond differently to this, but that's kind of my gut sense on the whole thing.

Andy Deas: Yup. I think -- I would say I think you hit it on the head there at the end. Some of this -- unless there's dire situations, I just feel like most people I've seen do better over the long run if they make sure they've taken that time through the process to develop those really key lifetime habits.

Robb Wolf: Yeah. Yeah. And I mean there all kinds of just like internal dialoging frequently that goes on with this change. And I think getting comfortable with you as you are changing and what is the -- what were the psychology and the habits that kind of got you to 440 pounds, and then kind of understanding what those were so that we can then make informed choices about not getting back there again.

Again, reestablishing or recreating the life path such that it's taking you away from that situation that you had. And that takes a little bit of time in and of itself so I would be comfortable with a longer approach. And even then I think if you do this stuff smart, you lift weights a couple of days a week, go for a walk every day, it will happen very, very fast. Make sure your sleep is dialed, it will happen very, very quickly.

Andy Deas: Yeah. Good. Very good question.

Robb Wolf: Yeah, yeah, and definitely, let us know how you do. Let us know what you're doing and what the follow-up is. That would be cool to hear what's happening.

Andy Deas: Yup. Next, we got a question from Lacto Addicted Caveman.

Robb Wolf: Oh man.

Andy Deas: No. We've created some whole new layers, Robb. "After striving to eliminate dairy hopelessly, I am now looking for you to give a theory, some weight, to validate my failure in this area. I have not been able to eliminate dairy products. Whenever I do, I yearn for some dairy (milk, yogurt, cheese - yum, yum). If I don't eat meat for a few days, I yearn for meat. I think this craving fits in the same category (not like sugar), and I am most healthy consuming some dairy products.

My hypothesis that recent ancestry has made a difference in terms of milk and fructose tolerance, Northern Europeans that consumed a lot of milk made the genetic adaptation to consume milk. People living around

the equator with much more fresh-fruit, developed adaptations to handle fructose much better. These adaptations should be easier to make in a briefer evolutionary period than for grains. It does not seem that big a jump from baby's drinking milk to cow's milk. Consuming some fruits to consuming a lot is a fairly small evolutionary change."

He provides a couple of Wikipedia links on lactose intolerance and fructose malabsorption.

"My ancestry is all from very Northern European roots (not so much fruit floating around those parts). When first adopting a Paleo diet, I ate a lot of fruit. I felt good in many ways but also developed dark circles under my eyes. Since greatly reducing fruit intake, my dark circles are gone and I feel a lot better."

Robb Wolf: Pretty interesting.

Andy Deas: What are your thoughts, Robb?

Robb Wolf: Pretty interesting stuff. There is kind of a reality that there are these things, casomorphins, which are these dairy proteins that hit the opiate receptors -- in the gut, which you can get that opiate response basically in the brain. And it's a little bit of the addictive characteristic of both gluten-containing items. They hit these opiate receptors but you also get this out of the dairy products. My deal with the dairy is get some grass-fed sources ideally, play with it, see how you respond to it. If you don't feel like you're getting any type of an inflammatory response, God love you, go for it. I find a lot of people have difficulty losing body fat if they're doing too much dairy, if the dairy displaces too much regular protein like chicken, fish, beef, all that sort of jive. Pastured butter seems to be in kind of a different category altogether.

Matt Lalonde has talked to me about the A1 versus A2 beta-casein that we find in old varieties of dairy versus the newer like the Jersey cattle, I think what we typically use in the United States have, I believe, the A1 version of the casein. I always get this backwards so it could be flip-flopped on this. But basically, this older variety of the casein is less gut irritating, less pro-inflammatory. And so there -- so maybe opt for some goat dairy or something like that. I would just kind of play around with this stuff and see what -- if you feel better eating a dairy, then by all means eat the dairy. Use some yogurt. Do some fermented stuff that tends to improve the digestibility.

Also, really try to track down some grass-fed sources. I think that also kind of stack the cards in your favor. Goat dairy, I think typically falls under that less pro-inflammatory variety of the dairy and so then just kind of play around with that stuff. And there definitely are some genetic adaptations that we're talking about there with regards to Northern European ancestry versus, say, like if you live in the Middle East or in Asia and different abilities to digest carbohydrate and stuff like that. There are some legit distinctions there, but at the end of the day I think we end up having still kind of a lot more similarity than differences on that stuff.

Andy Deas: A question from Robert from the UK, "Hi, Rob and Andy. Great podcast. I have listened to it from day 1 and learned so much and have also bought the book. Me and my wife Lisa have stuck to the Paleo diet. There is one question I have that I cannot find on the internet. I know that you can have sweet potatoes and yams, therefore is it ok to have yam flour which make fantastic pancakes? Keep up the good work."

Robb Wolf: I'll go out on a limb and probably say yes, so long as it doesn't have anything else goofy in it. I mean it's going to be a refined carbohydrate source so always the potential of overdoing it if you've got any type of metabolic problems or just don't tolerate carbohydrates that much. But outside of that, it should be fine.

Andy Deas: I have not tried yam flour. I'm out of the loop.

Robb Wolf: I'm shocked. I figured you would be on the yam flour wagon. We'll see -- if we tell DeLuca about it --

Andy Deas: Yes. That's what I was thinking.

Robb Wolf: -- our trainer Katie DeLuca. We experiment on her. We sent her out to Mark Rippetoe's place years ago either in the hopes that she would learn to be a good coach or possibly die in the North Texas desert which she came back. But she's a good little cook. We'll turn her on to the yam flour and see what happens.

Andy Deas: It's very interesting. Every day something new pops up, Robb.

Robb Wolf: Indeed.

Andy Deas: Here we go. Back to the Tea Nation marketing bandwagon. A question from Julius, "Velocity diet. Go."

Robb Wolf: I'm not really a fan. I really like sorghum. Dan John I think has had probably the most lucid explanation for why you would try the velocity diet which is the -- everything else is going crazy and you just need this one simple approach that you can nail down and control in this kind of minimal modification because you're doing all these shakes and all that sort of jive. I'll buy all that up to a point, but then at a certain point also you just see real high recidivism off of this stuff.

So I'm not a huge fan. It's right in that wheelhouse of like the protein sparing modified fast kind of gig. It's rare that -- particularly for the folks that were really -- if you're a coach or a trainer or healthcare practitioner, you're really trying to save somebody's bacon, and they're coming to you and they're saying, "Hey, I want to do this like shake fast. What do you think?" and they just have a lifetime of bad eating. One is that the fact that they've had a lifetime of bad eating like you're really fighting an uphill battle to get any type of legit solid buy-in of health and wellness.

But then the other side of that is letting them do something squirrely like a cleanse or some sort of a shake fast. It's not setting up good behavior in these people at all. It's a stop gap, short-term intervention that doesn't really allow them to learn these different life skills that they're going to need to be successful. They need to learn to cook. They need to learn to navigate social situations in a way in which they either don't binge eat or binge drink or whatever it is that they're doing and then might need a little bit of life coaching along the way with that stuff.

So for really specific -- again, it's always this question -- I like to couch a question. Who are we talking about? What is the goal? Within that, could we potentially find someone where it would be appropriate to do like a shake fast? Maybe. I might be able to find some situations like that. Is it something that I would generally recommend? No. If I had a supplement company, I might modify my stance. I might find some different ways to sell the idea of the need for a velocity diet kind of gig. But other than that, not really.

Andy Deas: It's a good way to sell shakes.

Robb Wolf: I think Amber had an idea for us making a shake. Changing the whole thing around just becoming a shake company.

Andy Deas: Each episode would be an hour long.

Robb Wolf: Totally, dude. That would be awesome. We could just -- if it's a bad question, we just make a blender noise in the background.

Andy Deas: And then we can sell blenders too.

Robb Wolf: Horizontal and vertical integration in the market. I love it.

Andy Deas: Next, we got a question from Lauren, "Robb and Andy, okay, I know we ask booze questions all the time, and I know it's not healthy for me at all but then I read this:" And this is from our good friend Martin at Leangains and it's about the Truth About Alcohol Fat Loss and Muscle. And she says, "It confuses me. What are your thoughts? Is he full of shit? Thanks guys."

Robb Wolf: Martin is really on his stuff. He really knows his stuff in general. If there is any article that he's written where he is a little fast and loose in some of the molecular biology underpinning stuff, I would actually say it's this one. And it gets a little bit technical, but the way that he accounts for like the ethanol metabolism in the liver is not entirely accurate. There's some wacky stuff out there where if you have a drink, then it blocks the reduce NADH production in the liver which is one of the main things in like the alcohol dehydrogenase pathway and also involved in the conversion of testosterone into estrogen and some different things like that.

And so you could maybe make an argument for one drink of alcohol, about an ounce of alcohol potentially increasing free testosterone levels, like Art DeVany wrote about this thing a long, long time ago. But there's this other side of the coin which is if you want to get a prescription for testosterone gel from your doctor, an amazing way to do that is to go out and do an all night bender drinking, show up at the doctor's office still reeking of the bar, and then get your testosterone levels checked, and you'll look like a seven-year-old girl, a 9 or 2 of no sleep and a serious alcohol bender will make you virtually chemical castrate.

So you need to kind of watch the amount of booze that you take in for some obvious health concerns. So I mean it seems like kind of the most ridiculous thing, but a little moderation goes a long way with this stuff.

Andy Deas: Yeah, we had a client do that recently.

Robb Wolf: Moderate or -- oh, oh, oh, I remember what you're talking about. Yes. I know exactly what you're talking about. Yeah, so it works. This isn't just hyperbole. The go out and drink all night and then show up and get a script from your doctor, it works. I'm not recommending it, but it works.

Andy Deas: And this is not a good idea. All right, moving on. Next question. Allison, she says, "Hi. First, I apologize if this question has been addressed

previously (either on the podcast or elsewhere on the site). I'm relatively new to this whole Paleo thing (um, five days!) and there's something I've been struggling with but haven't found a good answer anywhere. (Again, this is probably my fault because I'm sure it's somewhere...)

Anyway, here it goes. A while ago I read an article about how Paleo is great for the individual but on a larger scale we run into real problems with the production of meat (even grass fed). Basically, the suggestion was that if everyone went Paleo, we just wouldn't be able to produce sustainably enough meat/fish/fowl for everyone to partake. I was just wondering if you could comment on the legitimacy of this claim. Thanks very much for this reading and thanks for producing such an excellent reference site. Happy New Year!"

Robb Wolf:

Oh, this is a big one. There's a lot of different ways that I could launch in on this one. This is one of these funny things where the folks who usually write these types of articles are so busy trying to save so many other things instead of themselves that it's like they kind of lose the forest through the trees or something like that. So here's a deal. There's been some really interesting research this guy -- even from the ethical standpoint. Let's tackle this from the ethical standpoint.

There's this thing put forward that if you become vegetarian somehow you're ethically and morally superior because you're not eating animals to perpetuate your life. But what's not being accounted for is all the bugs and snakes and worms and mice and birds that are killed in the process of simply producing the agricultural products. And if you consider a mouse life equal to a cow life, and this gets a little bit nebulous, but both of them are mammals and all that sort of stuff. When you start considering all that and you apply this thing called the Least Harm Principle, then the reality is that you would be better served by having large grazing herbivores working on free open grassland and then cultivating fruits and vegetables which tend to be much less impactful with regards to the disruption of birds and vertebrates and all that sort of jive.

This was a -- I forget the guy's name. I linked to it before from the University of Oregon., and if you do a little Googling on the Least Harm Principle, then you'll find this gig. This guy has received death threats from vegan groups because of putting this stuff out there, recommending that you would be better served from an ethical standpoint to essentially have grass-fed meat, wild caught fish, and fruits and vegetables which ironically ends up looking a whole lot like a Paleo diet.

So then there's this other side of things in which people start hand-wringing about, "Well, we can't feed the world the Paleo diet and the meat production and all that sort of stuff." Nobody takes into account the fact that our current meat production is propped up with grains which are propped up with oil. None of these things are sustainable and all of them are remarkably dirty, and the grains are being grown on what formally was open prairie grassland.

And so there's an accounting thing that happens at some point which it's pretty clear or probably pretty clear that if we have some sort of catastrophic failure in whale sources, petrochemical sources, that we're all going to be super screwed if we don't figure out some sort of an alternative to that, if we don't get wind or solar, if we don't convert over to like natural gas and use some other sort of fuel. The fundamental thing is that right now without some sort of an artificial input from an unsustainable source currently, we can't feed the world population.

So then you start asking, "Well, how do you get a world population that's sustainable?" And this is where some of my libertarian leanings come in and maybe completely the jumping of the shark for the whole show and Andy is like, "I'm out of here." But if you want to reduce global population, then you educate people, provide them infrastructure, educate women so that they're not broodmares popping out kids left, right and center because of traditional value systems, and you educate the population, and you have a post-industrialized society that usually values fewer kids as opposed to more kids.

We see a little bit of this stuff within India and China where they are bypassing it with regards to infrastructure development. A lot of stuff that took decades in the United States, these guys are doing in a couple of years, and it could be much more clean although a lot of the process that they're using are very, very dirty right now. But these folks are looking ahead in a pretty aggressive way at some sort of sustainability within their economic systems, maybe not as aggressively as we need to avoid some sort of like global financial meltdown or whatever if you really read into all that stuff. But when you start looking at this thing on a really big global level, we can't feed everybody the way it is right now.

If you want to feed everybody the way it is right now, then we need lower populations. To have lower populations, you need to start educating people and getting them into some sort of a post-industrialized scenario in which people value fewer kids as opposed to more kids. And then at the end of all of that stuff, it still boils down to would you rather grass feed the cattle that we're eating, a.k.a. open up these farmlands

and have the naturally occurring grass be fed to the naturally occurring cattle; the stuff they're naturally supposed to be eating, and dramatically improve the efficiency of that system or not?

And that's really what it boils down to on what we can control today, and that's part of the reason why I lean a little bit heavy on people to make options for sustainably harvested fish, wild caught fish, their sustainable fish harvest, grass-fed meat because we're reestablishing normal ecosystem, normal biomes. And there's been a recent deal in the Utne Reader which was actually taken out of -- what was the name of the original article? I'm pulling this up on my computer. From the Chronicle of Higher Education, not Utne Reader, and we can throw this stuff in the show notes, but I'll read to you guys a little excerpt of this, and I know this is running long, but I'll try to boogie here.

"Cows eat grass. You wouldn't think it's a big deal to state this, but at Iowa State University a highly qualified job applicant who had the temerity to voice this simple biological fact was ejected from consideration for a post leading to a sustainable agriculture program. The Chronicle of Higher Education reports: Among those who study sustainability, saying cows should eat grass is not a controversial topic. But saying so in Iowa—which grows more corn than any other state—is likely to attract attention."

So it goes on to talk about this guy, Ricardo Salvador, who was a super well-respected guy within the agricultural department at Iowa State. He just made this very simple statement that -- let's see here. What was the thing? Oh, it's a little bit later down. "The danger of the truth is so great that the Chronicle," which was the one doing this original interview, "couldn't even get Wendy Wintersteen, the Dean of Iowa State's Agriculture School, to go anywhere near it. When asked whether cows should eat grass, she replied, "I do not have an opinion on that statement."

So this is just goddamn ironic and interesting to me. It is politically inexpedient to simply say that cows should eat grass, and we can show economically that it works better because we're not putting petrochemicals that we are taking from dodgy geopolitical scenarios that we're pretty much selling like our national soul to acquire this stuff, to then grow grains which then fatten cattle, which fatten us, make us sick, make the cattle sick, and we can't politically just come out and say, "Hey, cows eat grass." People get fired for that.

And the ironic thing, the extension from that is that never before like the advent of agriculture -- it wasn't even the advent agriculture, we weren't feeding grains en masse to critters like cattle until very, very recently in time. And people will buy into this concept of like, "Maybe we should grass feed cattle," because it's more ecologically sounds and all the rest of that, but yet then making that statement to human beings is somehow some giant leap of "No, it doesn't work." But yeah, it does. It's the same economics. It's the same stuff that going on there.

So the stuff that's really a big pile of crap and you can assail it from a lot of different directions, but it's a really complex system or scenario that people make ridiculously simplified when they're making these arguments that "Well, we can't feed the world population. So therefore, we're done." It's just a ridiculous notion with that. Thoughts, Andy?

Andy Deas: I'm not even touching that. I know that cows eat grass.

Robb Wolf: You're fired, dude. You're out of here. You are on the skids, baby.

Andy Deas: Next, we got a question from Charlie, "Robb and Andy, first, I wanted to say thanks for interviewing Tim Ferriss. He's the reason I found your podcast. He is certifiably insane, but he almost always steers me in the right general direction on any subject." I love that. He's definitely insane. "You've mentioned trying to rebrand the Paleo concept as less of a reenactment.

My question is, what kind of problems do people have with the idea of eating as our ancestors were adapted to eat? It should be obviously right to anyone who ever visited a zoo. Would you try to make lions live on salad in a refrigerated room? Would you keep pandas in a hot sandy box and feed them crickets? No, that would be silly. Same goes for us and the farm products that we eat.

The only way I see a problem with this is among devout creationists. But even they can be brought on board with the idea of food quality, our livestock was created to live a certain way, and factory farming isn't it. By the way, I'm a vegetarian who has been subsisting on Cool Ranch Doritos and Coke Zero for years. If it's intuitively obvious to me, it should be for anyone. I started on a more Paleo-like diet yesterday. More eggs, no chips or candy. Baby steps."

Robb Wolf: Well, this I guess kind of dovetails into that last tirade I had there. You would think that it should be an easy thing to make a statement about what critters are wired up to eat, but it's anything but a simple deal. It's

kind of funny, and I even hesitate even saying this. But when we were -- but heck I will. And Andy is like, "Oh, okay, God, no." But when we were at Art DeVany's book promo gig, his publicist wanted Art and I to write an op-ed piece and submit it to the New York Times basically saying vegetarianism is dangerous. It's not as ecologically sound as what it's claimed to be and on and on and on.

And Art and I just kind of looked at each other, and I was like, "That would be a great piece for selling books, but it's also one of the most likely ways for me to get shot. Because if there are two groups within the United States that would go out of their way and kill me for just making a statement about cows eat grass or like we evolved or whatever, it would be the vegan is on the one side, and I think kind of the really extreme right wing religious group on the other. And these are both folks that you can get riled into the desire to go kill somebody over a statement about food or different stuff like that.

So even saying this will probably get me firebombed at the very least. But it's just an interesting gig that that is such a contentious deal. That simply assessing what a critter eats, and the fact that every day and except the last 10,000 years of human existence has not seen grains, legumes, and dairy and maybe those foods might be problematic. But it shouldn't be all that controversial a topic, but it still is. Twenty years from now it might not be, but that's going to be at a really dramatic change in political landscapes and all kinds of stuff. So I don't know. It would be interesting.

Andy Deas: And plus Charlie said "baby steps," which always reminds me of the genius film that is "What About Bob?"

Robb Wolf: That is a good one.

Andy Deas: Baby steps down the hall. So thank you for that. Next, we got a question from Gerard.

Robb Wolf: Gerard.

Andy Deas: Gerard. "I'm starting to peak while making linear gains following a simple 5-3-1 approach. Most people say eat more, but I did the whole go mad thing for a month. Squat went up, abs said bye-bye. I would like to know how many calories of Paleo food to take in with what protein/fat/carb ratio. Obviously per person will vary but as a baseline, is 2500 cal sufficient to gain strength for a 175-185 lb male? Gaining, as in maybe 5lbs/week 5x5 Monday 3x3 Wednesday and 1RM Friday, with metcons on Tuesday/Saturday."

Robb Wolf:

Well, a couple of things here. One is you need to really delineate what it is that you want to do. And if you really want to get strong, then you need to ditch the metcons on Tuesday and Saturday because you're sending conflicting signals in your body that are not productive. And when I hear metcon, I'm thinking some sort of like a CrossFit-esque lactate producing deal. I'm not thinking, because most people don't do it this way, some weight on a prowler that's getting pushed at sublactate levels or putting on a vest and going for a walk for 40 minutes.

So if that's what you mean by GPP, then by all means you should be good to go with that. If it's Fran, Diane, Helen cardiac redline, those are competitive inputs that are going into your system. Welbourn just got back from hanging out Westside Barbell guys. They absolutely do not GPP in that manner. Can you do this at various blocks of time and make some progress? Yeah. But if you really want to get strong, at some point you're going to have to drop the GPP or make it very, very smart. And that smart piece is that you're not causing a lactate production such that you're converting your type 2B fibers into 2A fibers, and you're converting your explosive fibers into power endurance fibers.

But you need to pick what the heck you're up to and then make a decision to go with that. And then from there, you need to make a decision, do you want to get as strong as you can at your current weight or do you want to keep adding a bunch of food and get big and strong? But probably fat also because the two things are completely different ways to go about doing this. And then also after you are no longer a no-vest athlete, then five pounds per week of gain on any of this stuff maybe completely unattainable. As you become a more advanced athlete, if you get five pounds a year on a movement, you may be stoked.

So it really depends on where you are on that developmental curve, but you will probably need to shift into something more sophisticated than a 5-3-1 at some point to take that next step. But you really, really need to delineate what your goals are. What do you want to accomplish here? Do you want to get as strong as you can while being lean and jacked? Then that's a completely different story than simply saying, "Well, I'm going to eat a ton of food, and I don't really care what my body composition goes to." And these things are antagonistic roads. They're not along the same road.

The only time that you can have it all, all the time is when you're a beginner, and then you have to start picking which route you want to go down if you want to make any more progress. If you want to stagnate

and stay exactly where you're at, then you can keep the same old thing which is everything.

Andy Deas: Well said, Robb Wolf.

Robb Wolf: Thank you.

Andy Deas: Five pounds a week. Come on, people.

Robb Wolf: Only for a beginner.

Andy Deas: If that was the case I'd squat like 2000 pounds.

Robb Wolf: Yeah. I'd do like 20,000 pounds. Yeah, yeah.

Andy Deas: You'd be lifting cars in the parking lot.

Robb Wolf: I would be an ant.

Andy Deas: Very good question though, that's why I wanted to throw it in there. 2500 calories, I don't know. It's probably enough.

Robb Wolf: It's probably enough for the maintenance deal within a lap. It's probably fine for the maintenance deal, and that's -- even breaking this stuff in the blocks of time, maybe you spend six months just trying to get real strong at that level. And looking ahead it's like if you want to be in a big masking deal for like three months, and then it's like "Two months from now summer starts and now I'm a fat slob, and now I need to really work to try to lean out." So maybe looking ahead a little bit and just trying to be lean and jacked going into the summer, and then if you want to up your calories and do things a little bit differently, do it at the end of the summer assuming you live in the Northern Hemisphere and all that.

Andy Deas: Good. Next, we got a question from Cristy, "Hi, Robb. I heard you mention in a recent podcast that you'd been consulting a woman who'd had melanoma. I am 31 and had a melanoma a couple of years ago-found right after I had a baby. It was caught in the early stage and, other than a huge chunk being removed from my leg, no other treatment was required. I suspect that there is a hormonal component because I have heard of other young women discovering skin cancer during or soon after pregnancy.

I live in the Deep South and enjoy spending a lot of time in the outdoors (also used tanning beds as a teenager, but wouldn't go forward). I

have been eating Paleo for about a year. I have never been overweight and am in otherwise good health. What do you recommend as far as future sun exposure? I'm careful not to get sunburned. Should I drench myself in sunscreen every day? I enjoy a tan and want to get enough vitamin D. Any specific diet recommendations? Thank you very much."

Robb Wolf:

I haven't researched this a ton, but it kind of makes sense that you might see some correlation with increase in melanomas right around the pregnancy scene because being pregnant does suppress the immune system a little bit. This is why we see improvements in autoimmune diseases during pregnancies. So again, this is just kind of shooting from the hip, but I didn't get a chance to research this, but it makes sense. Mechanistically, that makes sense. As far as like what safe levels of sun there are, the biggest factor in this is getting burned. Low level exposure that consistently ramps up is not well-correlated with increasing skin cancer rates. It doesn't really play into the mechanism either.

So I think just being smart and safe with that. What I do is I tend not to use sunscreen so much. Like if we go to Nicaragua or something like that where I'm getting a lot of sun, I will get like my 40 minutes or an hour exposure the first day, and then I will a rash guard after that while I'm walking around. So I'll use clothing and hats as my primary skin protection, but then just slowly ramp up over time. And that's because I like the protection that the clothing offers as kind of a complete protection versus with the sunscreen you may still get some UVA, UVB stuff going through depending on how the formulation is.

So it's just kind of a personal preference with that. But I like getting adequate sun, and the fact that you've had one melanoma, that you've got kind of a higher likelihood of having more melanomas, but then we also know for a fact that good vitamin D levels are preventative in all types of cancers. So that's a tough one to balance. I would just be reasonable and really avoid getting burned.

Andy Deas:

All right. Next, we got a question from Geoff, "Robb and Andy, I've been following the podcast and love it. Your book was killer. Been Paleo about a year and it has made a tremendous difference in the quality of my health, my life, and my athletic performance. At 40 I'm healthier, fitter, stronger, and faster than I was at 30. I'll be even better at 50. Thank you both. Still have some questions. So let's get 2011 started with a Paleo Lightning Round." Are you ready, Robb?

Robb Wolf:

Whoo-hoo!

Andy Deas: This is the end. "1. Grains are bad, got it. But why, then, do you talk about enjoying an occasional gluten-free beer? Do the lectins and phytates not survive the malting and fermentation processes?"

Robb Wolf: No, they are concentrated on multi-fermentation processes, but sorghum has a different component of lectins and antinutrients than gluten containing items do. The interesting thing with that though is that some people respond worse to sorghum, than they do to gluten. Like Dutch Lowy, kind of gluten intolerant; he would get a little bit of funky belly from having a regular beer. He had a sorghum beer, and it destroyed him. So this is again where some individual variances pop in there. I really have not done much gluten free beer since the book tour and who knows? Maybe that's a little bit of what contributed to me being that beat up.

Andy Deas: And I think when we talk about gluten-free beer and alcohol we are I think admitting to ourselves that these are not the healthiest choices, but we're choosing our own poison.

Robb Wolf: Yeah, yeah, for sure. But for me, if I had a regular beer, even something really -- like low-gluten content like a Budweiser or something, it would crush me. Whereas like the St. Peter's or some of the gluten-free beers, I don't feel particularly bad with those, but I'll say this, I feel much, much better with a NorCal Margarita.

Andy Deas: Amen. "2. Okra a seed pod for sure, but is it okay to eat?"

Robb Wolf: Yeah. I think that they are kind of high in lectin content so I would just rotate through them, and usually that's not even really a choice. They're very seasonal vegetable, so I would enjoy them while you have them.

Andy Deas: Yup. Good. "3. Since adopting the Paleo diet, getting smarter about my exercise and sleeping conditions, and reducing the level of stress in my life I need less sleep. I just wake up naturally and feel great after about seven hours' sleep. Should I take it as a good sign that my body's now getting the quality of sleep it needs even if the quantity of my sleep is less than 8 hours?"

Robb Wolf: Yes, you're fine.

Andy Deas: Move on. "4. What's the deal with butter? Some Paleo folk (like Nora Gedgaudas) swear by it, but I recall a recent podcast where you mentioned it would be best to limit it to once a month. I have no autoimmune issues, and, damn it, I like the taste of butter on my veggies

and seafood. Now calm down, I'm not slathering it all over myself like Paula Deen, but I do enjoy a tablespoon or two of local pastured butter a few times a week. Is it really that bad if I am seemingly not having any problems with it in my diet? Is it any better if I clarify it or make ghee?"

Robb Wolf: Yeah, the ghee is definitely better because we're removing that protein fraction which has some casein in it. So that would be ideal. Even within that like if you are going to Trader Joe's and getting a little bit of DairyGold pastured butter, it's just that thing again. We know that casein can be a potential gut irritant, and so if you got every other duck in a row and you're feeling great, and that's the only thing that's a little bit dodgy, God love you. Go for it. But then if you ever noticed that maybe you're getting some allergies or you've got some other problems going on, that might be a thing to look at to eliminate and see if that's a factor.

Andy Deas: Yup. "5. This one's for Andy, I'm resolving to kick caffeine in 2011 too. Rock on, man. In your experience what's the best way to handle the withdrawal symptoms? Just man up and deal or is there something that help makes it less hellacious or, as Nicorette might say, 'suck less'? From your experience is going cold turkey the way to go even if the withdrawal symptoms make me want to go "Wild Turkey" to ease the pain? Or am I better stepping it down over a few weeks before kicking cafe to the curb altogether? Thanks again for the advice, guidance, information, and humor you provide."

Well, I think this is a purely individual thing from a psychological level. Robb, you can chime in. but for me, I'm just not good at moderating anything, and I know we've had some folks I've worked with that can like dial it back over a few weeks, and then the last week they have a half a cup of coffee and then they say goodbye.

For Andy, that does not work really well, and it's just better if I suck it up and deal with it. I did once have a guy that worked for me that would do his caffeine withdrawals when he was sick. Now, I'm very rarely sick. But he would usually get the flu once a year and he consumed about 12 shots of espresso at a time. And so he would combine his illness with the caffeine withdrawal. So that's a third option that I just remembered.

Robb Wolf: Nicki had -- I think she had a little bit touch of the flu maybe last week, and she got up on a Friday -- yeah, it was when I was in New York. She got up like Friday morning, did not feel good, she didn't make coffee, kind of puttered around the house. Saturday, the same deal. Sunday, felt a little better. But basically, she went like three days with no coffee, and so now today is like she's coming up, I think, day 7 so maybe -- what? Today is

Wednesday so I guess maybe it was Wednesday the previous week that she started all that.

So she kind of did the same thing, and she's doing pretty good. And then out of guilt I went ahead and this is actually day 2 of no caffeine, titrate down, not even green tea for me. And it was way easier for me this time than previously because I had rated down a lot. I basically was doing two shots of espresso first thing in the morning, two shots of espresso maybe about 10:00 or 11:00 a.m. versus when we were drinking 16 shot espresso deal where I would make one poured in a mug and drank on that and maybe have two of those throughout the day. So my caffeine intake has gone down a lot. And I don't know if folks remember when I went off caffeine the first time, I was having auditory and visual hallucinations. It was crazy.

Andy Deas: So I think for you, Geoff, you got to give that a try. It's definitely easier if you can titrate down and you will not feel like your head is going to explode, but I find it fairly individual. And I've tried a bunch of these coffee replacements including the mythical Raja's Cup, and I think you're better off with just some hot water.

Robb Wolf: Did you try the Raja's Cup?

Andy Deas: I did. I have some actually if you want some.

Robb Wolf: You have some? I kind of like that stuff.

Andy Deas: It's so freaking bitter, and it's --

Robb Wolf: Oh, I love that. Wow!

Andy Deas: Yeah. I don't think it works for me. I'll bring you some.

Robb Wolf: I'll buy your can from you then.

Andy Deas: All right. And with that, Robb, that's the end of episode 64. You survived another one.

Robb Wolf: Get out of town.

Andy Deas: Yeah, you believe that? It's crazy.

Robb Wolf: Cool. I dig it.

Andy Deas: Well, we will talk to you next week. Thanks very much.

Robb Wolf: All right. Thanks, Andy.

Andy Deas: All right. See you, Robb.

Robb Wolf: Bye.