

Revolutionizing the Food System From the Bottom Up

A Special Interview With Ashley Armstrong

By Dr. Joseph Mercola

Dr. Joseph Mercola:

Welcome, everyone. Dr. Mercola helping you take control of your health. And today, we are joined by Ashley Armstrong, who is a pioneer in providing healthy food, specifically healthy chicken eggs, which are an enormously important part of our diet because they carry some nutrients that are really difficult to get in other foods, almost virtually impossible, specifically choline, I'm referring to. So, Ashley has developed a process to make these excellent foods available without a metabolic poison. So, welcome and thank you for joining us today, Ashley.

Ashley Armstrong:

Thanks, Dr. Mercola. It's always a pleasure. I think one of my favorite topics is essentially just returning back to how food used to be made. That's kind of all that it is, right?

Dr. Joseph Mercola:

Yeah, yeah, for sure.

Ashley Armstrong:

Because 150 years ago, the dietary linoleic acid was naturally low, so people would just go to the grocery store and their food options didn't have a bunch of linoleic acid. It was, in my opinion, probably easier to source food back then. And now we're kind of inundated with vegetable oils, not just PUFAs (polyunsaturated fatty acids) from vegetable oils, but also unfortunately from animal products as well, because some animals are just vehicles for vegetable oils, which is unfortunate. But that's kind of where the agriculture industry has kind of shaped into where it is today for a number of reasons. But the statement "You are what you eat" has never been more true because of how much the agriculture industry has changed over the last 100 years.

Dr. Joseph Mercola:

Yeah. About the advent of the American Civil War, about [the] 1870s or so, is when they had developed the technology to extract oils from seeds. That didn't exist before then. So, you're right, the average amount of linoleic acid the person consumed was about under 5 grams and maybe closer to 2 or 3 [grams], depending on how many calories they took. That is probably exceeded within the first few waking hours of most people nowadays, easily.

Ashley Armstrong:

Yep, with eggs and bacon. Those are going to be two sources that are actually really high in PUFAs.

Dr. Joseph Mercola:

Yeah, and they're generally perceived as healthy by the population, especially those who are advocating carnivore [diet]. But they don't understand that these linoleic acid molecules are really a metabolic poison that impair, if not destroy mitochondrial function. So, why don't you walk us through the reason why it's not typically present in most animals? And that would be the animals that can ferment food in their stomach. It allows them to eat grass, which are typically ruminant animals. So, why don't you mention which ones those are and why they typically don't have this problem that regular animals like chickens and hogs do?

Ashley Armstrong:

So, in terms of livestock, there are two classifications. There are ruminant animals, so that's going to include cows, lamb, goats [and] deer. They have a very complex digestive system, often four stomachs, and so that's a lot of time and a lot of microbes to break their food that they consume down. And then on the other side are monogastric animals. We are monogastric animals, single-stomached animals. And for monogastric animals, the dietary fat impacts the fat in their tissues, so in bacon fat or egg yolks or chicken thighs. Whereas with ruminant animals, they have this process called biohydrogenation where the microbes are able to actually convert some of their dietary PUFAs into saturated fats.

So, in general, ruminant animal fats – so, dairy fats or tallow or butter – those are going to be significantly lower in PUFAs. However – and this will be a topic I'm sure we'll dive into at some point today – mainstream is so convinced that saturated fat is bad for us. Cholesterol is bad for us. And PUFAs, polyunsaturated fatty acids, are heart-healthy. That we are creating these technologies to now try to manipulate the fatty acid composition in ruminant animals as well through these things called rumen protected fats.

So, it's a shame what's happening in the agriculture industry, and reading the scientific literature in the agriculture industry is a little bit discouraging. But that's why I think conversations like this are so important to spread more awareness and empower those that are in food production, that our farmers need to be educated, why we need to go back to traditional farming styles, traditional feed programs, so we can return the natural fatty acid profiles that Mother Nature created. Humans are not smarter than Mother Nature, and we're trying to manipulate and tweak that. So yeah, ruminant animals and then monogastric animals. So, for pigs and for chickens, the type of fat that they eat dietarily strongly, strongly impacts the type of fat in their tissues. And unfortunately, with the increase in corn and soy crop production – those are government subsidized crops, so those are grown at mass quantities.

Most of those are grown for livestock feed. And soy is very high in omega-6, very high in PUFAs. And so, that forms the base of a lot of monogastric diets. And now a step further are these things called DDGs, dried distiller grains. So, back in the late 1900s, early 2000s, the ethanol biofuel industry has really taken off. So, corn is grown and the starch from corn is removed to create ethanol. Well, what's left of the corn when you extract that starch are PUFAs and protein. And so, a lot of these DDGs are waste products of the ethanol industry, and that's being fed to livestock across all industries, for layer birds, meat birds, hogs and even dairy animals and cows as well. And unfortunately, there are studies showing that for pigs fed DDGs,

the fat composition has the same amount of PUFAs as canola oil. So we're literally transforming the fatty acid profile in our agriculture system for the worst.

Dr. Joseph Mercola:

Yeah. And it wouldn't be as much of an issue if they gave it to ruminant animals because they have the capacity to convert these unsaturated fats and PUFAs to saturated fat. It's a problem when they hit the non-ruminants like chickens and pigs. Yeah, that's the big issue. And this is a concern, and we don't know what percentage at this point, because there are no rules, there are no regulations. They just do it because they think it's good or more than likely, they know there's a chance to increase their profit margin in some way, [inaudible 00:07:51]-

Ashley Armstrong:

These ingredients are cheap. They're cheap.

Dr. Joseph Mercola:

Yeah, they're a lot cheaper than the alternatives.

Ashley Armstrong:

Yeah.

Dr. Joseph Mercola:

So, because basically most all vertebrates require some form of fat – it's really essential [not only] for structural components, but also for burning fuel. So, you've got to have it. So, that's the key. It's one of the keys of optimizing your health is to get the right type of fats down and the composition right. And if you're leaning more towards omega-6 fats, like linoleic acid, you're going to have problems, major problems. It's one of the major reasons that we die prematurely, is an excess of this fat, and it really destroys mitochondrial function. So, one of the most important things you can do is avoid it. And the obvious ones are seed oils and going to restaurants, which is almost as bad as seed oils because almost everything they cook there is in seed oils.

I mean, if you go to a buffet and have a breakfast buffet, almost 100% those omelets are made with seed oils unless you ask them otherwise and watch them use butter instead. Now, butter is an acceptable alternative. It's an animal saturated fat, but there are some plant-based ones. One of your strategies is to create a way that people don't have to raise their own chickens because that's raised with a lot of problems – it's not hard to raise them, but it's hard to protect [them] against the predators. So, unless you take specific precautions, you're going to have all your chickens killed, for sure. I've had that many times happen.

Ashley Armstrong:

Yeah.

Dr. Joseph Mercola:

So, it's a lot easier to get from someone who's doing it the right way. And fortunately, you're in the process of developing a scaled operation to provide them to many people who can have access to them. Right now, it doesn't exist [or] really commercially available. But really, low linoleic acid eggs are essentially unavailable. I mean, you do sell them, but you have a long waiting list to get into it. So, they can go on the waiting list, but who knows when they're going to be able to get some. It's probably a long time out.

Ashley Armstrong:

It's unfortunate because there are farmers out there doing really great work. They're raising their chickens in a regenerative agriculture mindset, rotating the chickens out on pasture. Unfortunately, they're still using soy-based feed because that is just what is "business as usual." And that's the most unfortunate thing about our food system right now. "Business as usual" is just simply unacceptable, and it's clearly leading to a decline in our health. It's not working, it's clearly not working. And so, as Dr. Mercola mentioned, we are trying to scale up our operation to make changes at a higher level, but it is extremely expensive, expensive, they're-

Dr. Joseph Mercola:

Expensive, expensive.

Ashley Armstrong:

Expensive. The feed alternatives are not government-subsidized, so they're automatically a lot more expensive because government-subsidized means there are incentives for farmers to grow these crops. Let's say that they have a drought or they have a ton of rain one year, for some reason their crops don't work on their land, they get a subsidy back from the government, so they're more secure in producing corn and soy. It is a safer option for row crop farmers to produce that these days. It's not to the fault of the farmer at all. They're doing the best that they can to be able to pay the bills and stay alive. It's the system that is extremely messed up because for example, raising an alternative to soybeans like peas or various types of heirloom wheat varieties, not genetically modified wheat, rye, these other options, you aren't going to be as secure as a row crop farmer in growing those.

And so, the options are just same quantities – There's so much more corn and soy available than there are these alternative grain options for livestock feed. And so, that's where the huge price difference comes into play. The feed is just simply so much more expensive. But over time, the more that consumers kind of demand these things, we can kind of level off the prices as we go on and on and raise awareness, and I think educate and empower farmers to make these decisions as well. So, that way we aren't just blindly listening to these health authorities who want to tell us that saturated fat is bad for us. It's clogging our arteries. Dietary cholesterol is killing us, and instead, you should be consuming vegetable oils to be heart-healthy. It's maddening because those unfortunate health myths are propagating into how we produce food as well. And it's negatively changing the types of dietary fat that we consume across the board.

Dr. Joseph Mercola:

Yeah, for sure. And it's not just the challenge of obtaining foods, there are typically barriers put in place to thwart competition for innovative entrepreneurs like yourself to come up and offer a better, healthier alternative for [a] reasonable rate, which is hard to do because of the subsidies that you mentioned. But the other barriers are these legislative initiatives that were designed solely to benefit the first mover advantage of the people that were initially in this industry. And the regulatory barriers they have initiated are enormously difficult to get through. And you've encountered this, so maybe you can explain your challenges with it.

Ashley Armstrong:

Yeah. I'm sure we all know the company Bayer very well. Bayer sells seeds and it also sells fertilizers, pesticides [and] insecticides. And so, they kind of have a chokehold on the agriculture industry right now. So, "business as usual" is very profitable for Bayer. And of course, on the pharmaceutical side of things, "business as usual" is making people sick, very profitable for pharmaceuticals. And so, how things are working right now, people high up, people paying billions of dollars for lobbyists to keep it like this, they want to keep it like this. It's not to their favor for us to produce low linoleic acid eggs, to not use feed crops that are sprayed and doused with glyphosate and things like that. So honestly, I think that the biggest obstacle is the feed because the big feed mills are so efficient in what they do that they can bring in massive quantities of the feed ingredients at the same time. They have that economies of scale that it's really hard to have at a single farm level.

We're not bringing in truckloads, semi-trucks of feed ingredients at a time. And so, the more trucking that you have in creating your feed, that automatically raises the prices. Anyone that is involved in trucking knows how expensive trucking is right now. So, if there's this system set in place where massive quantities of corn and soy are trucked in at the same time and a bunch of feed is made at the same time, that's where you can cut a lot of costs. And that's [a] good thing, that's advantageous. But right now, I don't have enough volume to push those types of economies of scale. It's just going to be more expensive as we're starting to grow and grow. But the more farmers that we bring into our partnership – I don't ever want to be like a Tyson dictatorship.

Like you have to do this type of thing, but it's more of a collective partnership of farmers that are empowered. They're fed up with the current system and they're aware of what we feed our livestock impacts the nutrition of the final product. And so, this collection of farmers that – We may be located at various places around the country, but if we develop hubs in our area and we can create those economies of scale a little bit better, where trucking is a little bit more efficient, bringing feed to a general hub, that's where we can start to lower costs over time and can get more and more competitive with the prices at the grocery store.

Dr. Joseph Mercola:

Yeah. So, I think we should address the elephant in a room, which is the cost of the eggs. Typically, for someone who's interested in doing it commercially like you are, because of the cost of the feed and the lack of subsidies of the feed, the costs are significantly higher and most

people aren't able to get locally from a mill. So, then you have to pay for the shipping. And the shipping, and I've done this, is typically as much as the feed.

Ashley Armstrong:

Yeah.

Dr. Joseph Mercola:

It's as much as the feed, sometimes even more.

Ashley Armstrong:

Yeah.

Dr. Joseph Mercola:

Because you're getting bulk sizes. You're not buying 10 pounds, you're buying typically 50 pounds at a time.

Ashley Armstrong:

Yeah.

Dr. Joseph Mercola:

Multiple bags, for sure. So, that adds up pretty quickly when you're shipping.

Ashley Armstrong:

We are making steps. If anyone were to log onto my website right now and see what the price per egg box, they'd probably be a little bit alarmed, right? Like, "Oh my gosh"-

Dr. Joseph Mercola:

No, no, no. They wouldn't be "probably." They would be, period.

Ashley Armstrong:

I'm not making a ton of money on the eggs.

Dr. Joseph Mercola:

No, you're almost producing these below cost. It's not like, "Oh my gosh, how could she get away with-" I got to do this, I got to grow some eggs and charge \$20 a dozen.

Ashley Armstrong:

Hey, okay, his are more expensive because the further you live away from us, the more expensive [the] shipping costs. It is my goal, it is my personal goal to lower the costs significantly over time, we are actively making steps towards that. One thing, for example, is we're kind of optimizing box dimensions so that we can get better shipping rates. Another thing is our feed is now going to be, hopefully in the next couple months, delivered in semi-trucks with an auger arm. We've been doing feed bags or tote bags for years now, and that's so expensive. And the fact that now we can potentially have the option to a semi-truck, that's going to save significant costs on delivery of the feed. We are actively making steps behind the scenes. And ultimately, at the end of the day, I think one of the coolest things that can happen – and this actually happened with one individual, Dr. Mercola, from our first interview a few weeks ago. I've connected with this gentleman named Greg, connecting feed crop, row crop farmers with livestock farmers.

We need people to grow our feed. I don't have enough land to grow the crops for our livestock. How can we build a network of farmers where the feed is grown? We don't have to have the USDA Organic certification. I think that there's a number of loopholes and barriers there, but we're not going to have feed that's sprayed with pesticides. That's unacceptable on our end. So, how can we have a network of row crop farmers working with livestock farmers to produce low-PUFA, low linoleic acid food grown as nature intended for these livestock farmers? So, [we're] currently working on those steps behind the scenes as well to directly connect with the people growing the feed as well, because that's a very integral part of this. Because as you mentioned in the beginning, unfortunately, chickens and pigs, you can't just release them out on the field and say 100% grass fed chickens. That doesn't exist. That chicken would be very unhealthy, [and] have a very low metabolic rate.

Dr. Joseph Mercola:

Well, they're not just eating grass. They're going to eat some bugs too, which is fine. But if you live in where you do in Michigan and it's January, the ground is frozen solid, there's no bugs that come through, zero.

Ashley Armstrong:

Well, okay, so it's February 4th and it's 15 degrees outside [Fahrenheit]. The chickens-

Dr. Joseph Mercola:

Well, I said last month.

Ashley Armstrong:

Yeah, last month was-

Dr. Joseph Mercola:

It was below zero, when it was below zero.

Ashley Armstrong:

Yeah. Yeah. So yeah, chickens need a supplemental feed to give them the energy, carbohydrates, a little bit of fat and some extra dietary protein as well. They need those ingredients to be healthy, whereas a cow has that complex four-chamber stomach system that can convert blades of grass into fat and protein. That's amazing. It's incredible. But chickens can't do that. Pigs can't do that. And there's actually literature showing that for chickens fed carbs and fat, even if it's a little bit of fat, the dietary fat that they do consume gets preferentially pushed into the egg yolk. And so, the type of dietary fat that a chicken is eating and that a pig is eating is very vital in determining the final fatty acid composition of the final products.

Dr. Joseph Mercola:

And [in] determining the fatty acid composition of the mitochondria, which is where it really counts, where the rubber meets the road. And in so many different ways — producing metabolic water, producing carbon dioxide gas, and radically improving health, just almost innumerable ways. So, it's magic when it works. And the key to remember is you want low linoleic acid. And egg yolks, specifically – not so much the whites because they're high in tryptophan, which is a precursor to serotonin, which is a problem. Most people have too much serotonin, not too little. And the SSRIs, the drugs that are the [selective serotonin] reuptake inhibitors, tend to be even worse. There's almost no reason to take those drugs. They should be removed from the market. Most of them have a black box warning anyway, so don't take those things. They're not good for you.

Ashley Armstrong:

That's the unfortunate thing about a lot of the standard American diet. They think that chicken breasts and containers of egg whites are healthy because [they're] low-fat, but they are just giving themselves so much tryptophan and missing out on the metabolism-boosting benefits of those amino acids in the skin, the connective tissue in bone broth, things like that. But in terms of maximal nutrients in square footage, I don't know if you can beat an egg yolk. If you take a step back, Mother Nature designed the egg to protect the yolk because the yolk is the most precious part of the egg. The shell acts as a physical barrier to protect the yolk, and then the egg whites are actually very antimicrobial, antibacterial in nature to protect the integrity of the yolk.

So, nature knows, we know, hopefully you know, the listener, that the egg yolk is a nutrient powerhouse. It has all of the nutrients needed to grow a chicken. From this little yolk, an entire chicken is grown. How beautiful is that? It's incredible. So, I think the nutrients that are spotlights in an egg are definitely going to be the B vitamins. It contains a large amount of B vitamins, and all of the B vitamins are necessary cofactors in the steps to produce energy in your body. If you don't have enough of the micronutrients, if you're micronutrient-deficient, your metabolism won't be able to be as strong, be as robust, because you don't have the necessary cofactors to generate ATP (adenosine triphosphate), and one of those being choline. So, the egg yolk is, I'm fairly certain, I think it even has more choline than liver. Is that right? Beef liver?

Dr. Joseph Mercola:

Well, it's the density of it. You'd have to eat so much liver. You could get it in there, but you'd overdose on other nutrients like vitamin A, the retinol.

Ashley Armstrong:

You would definitely consume a lot of copper, a lot of retinol, vitamin A, to get equivalent amounts of choline that you can just get without nutrient toxicity concerns from an egg yolk. So, choline, I think, is one of the most important nutrients that a lot of people are deficient in. In carbohydrate metabolism, carbohydrate oxidation, choline is definitely a necessary step in energy production. I think that someone should be consuming at least one egg yolk a day, truthfully.

Dr. Joseph Mercola:

No, it's more than that. One egg yolk, if that's all you're getting you're going to be deficient in choline. You need more, actually.

Ashley Armstrong:

Okay. How many egg yolks is the min?

Dr. Joseph Mercola:

Well, assuming you're not getting any other dietary sources, and that's incorrect, if you're taking an amino acid protein supplement, at least two, probably three and more, then you can know you're getting it if you take four [yolks], for sure.

Ashley Armstrong:

So, the only-

Dr. Joseph Mercola:

I happen to take six [yolks] a day because I like to work out and I move a lot. I walk at least 5 [to] 6 miles every day. So, when you move more and exercise more, you're going to have more nutrient requirements. That's the downside of it. So, you need to replace them.

Ashley Armstrong:

Yeah. Higher metabolic rate, which is awesome, also means that you kind of have more of a responsibility to consume higher micronutrients to support that metabolic rate.

Dr. Joseph Mercola:

Yeah, that's the beautiful thing about eggs is because it's so nutrient-dense, it's not like you're just targeting – It's not like a supplement with one ingredient. It's this whole food that's loaded with the nutrition required to build a chicken from scratch.

Ashley Armstrong:

Okay, I have something you should try. Have you ever heard of honey cured egg yolk?

Dr. Joseph Mercola:

Honey cured egg yolks? I don't even know what that animal looks like.

Ashley Armstrong:

You got to try it. So, you put your egg yolks in a glass container and just submerge them in honey and let them sit in the fridge, and then the next day they're cured a little bit. So, the texture is a little bit – Basically the yolk won't just go run all over the place. Definitely [inaudible 00:26:25] to try. Try a honey cured egg yolk.

Dr. Joseph Mercola:

How much honey? How did you put it in? Like 8 ounces, 4 ounces, 2 ounces?

Ashley Armstrong:

Just make sure the yolk is submerged. So, it depends on the size-

Dr. Joseph Mercola:

Can you reuse it?

Ashley Armstrong:

Yeah.

Dr. Joseph Mercola:

Yeah?

Ashley Armstrong:

Yeah.

Dr. Joseph Mercola:

The honey, of course.

Ashley Armstrong:

Yeah, yeah, yeah.

Dr. Joseph Mercola:

I would be a little concerned with that because obviously there's fat. Usually, there's linoleic acid in most of it. Even in your eggs, there's linoleic acid. It's just not that much. It's less than a gram. It's actually probably a fifth of 1 gram. Was it 200? Wait, no, fifth of a gram? 20 milligrams, is it? No. Did I get that right? How many milligrams are [in] your egg yolks? It's low. It's one-fourth the level of conventional egg yolk.

Ashley Armstrong:

I want to say it's 20 milligrams. 17 [milligrams]. It's 17 to 20 [milligrams].

Dr. Joseph Mercola:

Yeah. So, I thought it was like 20 milligrams. And just so you know, most anyone don't know what the limit of linoleic acid [is]. I said 2 grams to 5 grams. Initially it should be under 2 [grams]. A gram is a thousand milligrams. So, if it's 2 grams, it's 2,000 milligrams. If it's 5 [grams], it's 5,000 [milligrams]. It doesn't sound like a lot. Well, it sounds a lot when you make it 5,000, but if you have two walnuts, that's 5,000 milligrams of linoleic acid. People don't know that. Ostensibly, walnuts are [a] health food, right? But they're loaded with linoleic acid. You got to be really, really careful of most all nuts. It's probably not a good idea except for macadamias, which are mostly saturated fat. Because why? Because they're grown in the tropics. It's a tropical nut. Almonds are not tropics. No, they're not. So, because they're grown in colder climates, the biology has to unsaturate the fats, otherwise it will freeze. It will turn solid, and then that organism dies or that nut dies because it's frozen essentially.

Ashley Armstrong:

And that's why fish that are way in arctic cold temperature waters, if they were rich in saturated fat, they wouldn't be able to move. They would be stuck.

Dr. Joseph Mercola:

They'd be dead. Yeah, they'd be dead. Yeah, for sure. So that's why we want tropical fish because usually over time they're going to have much lower polyunsaturated fats, less omega-3s and more saturated fats.

Ashley Armstrong:

Yeah, I think that the best thing that someone can do for their health is track their food on Cronometer for five days and just truly pay attention to the amount of PUFAs, polyunsaturated fatty acids, in their diet. If you can push that as low as possible, I think you're going to see improvements in your health pretty quickly. And you can't achieve that [by] going out to eat at restaurants. You can't achieve that eating a ton of nuts and seeds. You can't achieve that eating conventional bacon, conventional egg yolks, conventional drumsticks and wings, like that. You'll have to really pay attention to the types of fat that you're eating. And it's kind of eye-opening that food sourcing actually really does matter in today's day and age, because the abundance that we have in these high-PUFA, high linoleic options, it's kind of alarming and frightening.

Dr. Joseph Mercola:

It is, yes, indeed. And you mentioned restaurants. I mean, it's not intuitively obvious, and I like to share the story that you can almost be guaranteed – Not all restaurants, but virtually all restaurants would be more accurate. Almost all of them, but not all. Because some understand this and they make compensations for it, but when they do, it's going to increase their costs. I mean, it costs more to cook with butter than it does with canola oil, a hundred percent. So, their margin levels decrease. So, there's this financial incentive not to do that. Most of the time, it's just not done for the finances. These people are unaware, very few people understand the dangers of these seed oils, but they're there nevertheless. And I understand there are some restaurants now – there's like an app or something. Are you aware of that? That-

Ashley Armstrong:

I think it's called Seed Oil Scout.

Dr. Joseph Mercola:

Seed Oil Scout?

Ashley Armstrong:

Yeah.

Dr. Joseph Mercola:

Yeah. So, it identifies restaurants. It's easier now. This is a recent innovation. This is one of the benefits of technology that will help you identify. So, I've never used it. I've never even seen the app, but it sounds like a useful tool. But you can almost assume if it's not in the app, then a hundred percent of them are almost going to be giving seed oils and when you go in, really the only safe thing you can eat is a ruminant meat dish because almost everything else, including the sauces that you might use, the salad dressings, they're all loaded with seed oils.

And what Ashley mentioned earlier, these ruminant protected fats, which is another method of saying timed release linoleic acid or timed release omega-6 fats because they put some type of coating over it that allows them to slide through these biohydrogenation chambers that saturates the fats, so they don't get hydrogenated. And they slip there and they go in the intestine, and they dump their load of polyunsaturated fats and then make primarily omega-6, and you've got bad news bearers. And when this is given to ruminant animals, which they're targeting now, we just don't know how much. We don't know how much, but they are targeting and their goal is to replace all the feed with these fats and make all the food equally damaging. And the only way you're going to avoid that is to raise your own cattle or sheep or goats. A lot of people do that, not that many, but enough do it where that's a possibility.

But if you're not doing it yourself, you want to find someone who is doing it because you want to really know the person who's raising the foods that you're going to eat. That would be ideal. Most of us don't do [and] rely on third-party certifications agencies to do that, like the organic

label or cooperatives. In some ways, like you're creating with the eggs, is that you're providing standards for the feed and the rotation of the coop over the grasses so they don't obliterate the supply of the healthy plants or more importantly, the bugs. So, when they apply these standards, then you can get [inaudible 00:32:43] good low linoleic acid egg that will nourish you, not destroy your health.

Ashley Armstrong:

For sure. Yeah. As we build these other hubs and networks in the cooperative, we're definitely going to be fatty acid testing all of the eggs from the new hubs to provide guarantee to the customer like, "Hey, yes, this is a separate part of the country. But I am delivering my custom-made feed. I am educating these farmers how we should be rotating the chickens out on pasture so that they don't obliterate the insect population and they can spread their manure, enrich the soil, grow better nutrient-dense pastures, which supports just the improvement in the biodiversity of Mother Nature in general." So doing that fatty acid analysis testing, Dr. Mercola, imagine having a linoleic acid meter where you could just go through the grocery store and just measure the fatty acid profile of various things as you're trying to shop out. So, that's kind of our goal.

Dr. Joseph Mercola:

Unfortunately, the technology is not as simple measuring glucose. It's a lot more sophisticated. You almost have to do a HPLC, high[-performance] liquid chromatography, to identify these fats. And then they're complex. It's not just one, it's a whole battery of them. There's dozens of them. But how much does this testing cost to measure the linoleic acid? Is it like 50 bucks, a hundred more?

Ashley Armstrong:

So, one single test isn't that expensive, but in order to run a proper scientific experiment, you've got to have, I would say, [a] minimum of six eggs. I would like to see 12 as the minimum. I think that that's a better test. So now you think about, "Okay, we've got 12 eggs running a test each." And maybe I think it's close to 200 to 500 bucks each. And then you always want to have a control. So then there's another dozen of eggs. And so, when we did our test, we had three dozen eggs. We had our own dozen eggs, and then we had eggs from a regenerative farm where the chickens were pasture-raised outside, but they were still fed corn and soy. And then the third group was cage-free. Whatever "cage-free" means, right? That's pretty much just chickens raised in a confinement farm just fed corn and soy.

So, it can add up over time, especially the better experiment that you run in, the more subjects that you include in the test. But that's my goal to do for all of the food products that we provide. Our eggs, but then also all of our pork and our dairy products in Nourish Cooperative. To provide confidence to the consumer like, "Hey, this outlet for food is low linoleic acid." We're just trying to replicate what Mother Nature did 100, 200 years ago. And I think having that fatty acid analysis validation can be very informative for the consumers and it can allow a consumer to be a little bit more confident in spending their dollars in various outlets so that way they're not blinded and misinformed by various labels like the term organic.

It doesn't matter if a dozen eggs is organic, If those chickens are still fed organic soy, it's still going to have high linoleic acid. Organic soybeans don't have low linoleic acid. A conventional and organic soybean is the same. And so, kind of understanding labels a little bit better and not buying expensive "vegetarian-fed" chicken or things like that, and instead knowing how the animal was raised, what the animal was fed, I think that transparency, consumers deserve that.

Dr. Joseph Mercola:

Yeah, for sure. It may be wise to explore – I could probably trigger that alternative test. It doesn't have to be expensive. I know you can test it in humans for a hundred dollars.

Ashley Armstrong:

The OmegaQuant test?

Dr. Joseph Mercola:

Yes. [Dr.] Bill Harris' test, the omega-3 index. Well, the omega-3 index doesn't test that, but there's an upgrade to it. It only costs a hundred dollars. You get a pretty complete acid profile. So, if they can do it on that, it's just a simple blood spot. It should be able to get the price down. It shouldn't be 200 bucks, for sure. And I probably should talk to Bill because I think he can lower the price even more if the only thing you're interested in is omega-6 fats. I mean, it's nice to know the others, it gives you some valuable information, but it's not critical. The most important is linoleic acid.

Ashley Armstrong:

Well, something that I do know is the machine used is actually really important. And I think that the machine is very expensive. And there's a lab at Michigan State University, they are a fatty acid analysis lab. They are one of the leaders in it. I know the main researcher in the lab. And so, I'm in contact with her about getting a lot more tests done. We're just kind of saving up a little bit because we want to get our bacon tested, our dairy tested and stuff like that.

Dr. Joseph Mercola:

Well, I'm thinking you should find a better system so that you can test it more frequently. I mean, you shouldn't have to pay that much for each thing. There's economies of scale that can kick in if you get enough people looking for it, and they can ramp just like you. You can produce eggs a lot cheaper if you have a lot more farmers and distribution. Same thing for these tests. Once it's widely adopted then the scaling radically reduces the cost.

Ashley Armstrong:

Yeah, yeah. But it's unfortunate that that's where we're at these days.

Dr. Joseph Mercola:

Yeah.

Ashley Armstrong:

Where foods that should have naturally low PUFA levels, we have to go out of our way to – I have to make my own feed to ensure that it's low in linoleic acid. But that's just where the agriculture system has put us. Yeah.

Dr. Joseph Mercola:

That's for sure. So, we never really dove into the cost of your eggs. Now for me, it's like \$80 because the eggs are coming from Michigan to Florida. And you might wonder why the heck am I getting eggs from Ashley? Well, unfortunately, it's called predators. I've had over 50 chickens and four geese killed by predators. Most recently, it was the foxes that took them out. In the previous times it was owls. Raccoons would be other predators. There's probably another one that I'm thinking, I'm forgetting – Coyotes. Coyotes, for sure. There's a lot of them. Birds. Well, owl's a bird, but hawks would do it.

Ashley Armstrong:

Chickens are easy prey.

Dr. Joseph Mercola:

Yeah, they're easy prey. Easy. So, you got to protect them. So, fences. A good fence will keep many out, but certainly not all. What's even better, and I'm very, very grateful for Ashley facilitating the delivery of a livestock guard dog. And if you're like me, four weeks ago, I never heard of that term. They're called LGDs for short and anyone who's in the farming industry knows, especially for animals like goats or sheep and chicken, they know these animals really well. And they've been bred for hundreds if not thousands of years. These are very special animals. I've never ever encountered them before. And there's a specific breed, Great Pyrenees. Oh my gosh. This is a spiritual dog. I just got mine – I've never really had a pet from a puppy before. I've taken care of my mom's dog when she had to move, and she was quite old at the time.

I enjoyed her, but she was small. But this dog is big. These dogs, I believe they can be some of the fiercest dogs on the planet. They can go up to 140 pounds and you got two of them. They can take out a mountain lion, they can take out a panther, a cougar. Think about that. Two of these dogs taking them out, they do it. A German Shepherd is nothing. They'll take them out in a heartbeat. I mean, German Shepherds you would think would be pretty fierce, but they outweigh a German Shepherd quite significantly. But the beautiful magical thing about these animals is they're so calm and peaceful. They're centered. They're like chill juice.

There's no extra noise. The only time they make a sound is when they need to. There's no hyper exuberance. It's quiet all day long. The only time they bark is when there's a problem. I've had the dog for two, three days. I think I only heard him bark once or twice. That's it. It's crazy. The

whole day he's just quiet. It's peaceful. It's amazing. So why don't you give your thoughts on these LGDs? I mean, I'm so grateful for you. I always will be because this dog is just amazing.

Ashley Armstrong:

Yeah. Dr. Mercola-

Dr. Joseph Mercola:

I'm actually going to get his wife, his mate from your litter that's coming real soon. Well, maybe not real, about three or four months down. About five months [inaudible 00:42:05]. How long do you need to keep them? For about two months with their moms or parents?

Ashley Armstrong:

Eight weeks is fine. And the nice thing is we'll make sure that those puppies are exposed to chickens from day one. So then that way they know chickens are friends.

Dr. Joseph Mercola:

Yeah, of course.

Ashley Armstrong:

Livestock guardian dogs are just special. I love my house dogs so much, but livestock guardian dogs are just this-

Dr. Joseph Mercola:

Wait, wait, wait. Stop there. Hold your thought. So, your livestock guardian dog is not your house dog?

Ashley Armstrong:

No.

Dr. Joseph Mercola:

Oh, different.

Ashley Armstrong:

Well, because we have 26 acres, and so there's a perimeter fence. And Dr. Mercola, I've got a thousand chickens out there. I got to keep-

Dr. Joseph Mercola:

How many do you need to guard them?

Ashley Armstrong:

I think for a thousand, I think that two livestock guardian dogs would be plenty. Even for 2,000, I think that two - We have four, probably a little bit too much, but-

Dr. Joseph Mercola:

Better more than not enough.

Ashley Armstrong:

Yeah.

Dr. Joseph Mercola:

And these animals are big. I think they're larger than you. Way more than you. Yeah, they're way more than you. So, they need food, and they need real special food. They need their carnivores for sure. So, they need meat. And you care - This is part of your whole [inaudible 00:43:15]. You're just not raising chickens. You're doing the whole deal. You're integrating it in a comprehensive way. Really, the optimum type of regenerative agriculture. You're down to the predator protection because you cannot grow chickens without predator protection. Even if you have fences, it just doesn't work.

Ashley Armstrong:

[inaudible 00:43:31].

Dr. Joseph Mercola:

They'll take them out. So, you've got to feed the guardians and that can be [a] costly process. So, you have to find inexpensive ways to feed them healthy food because if you feed them unhealthy food, it's sabotage. They're not going to serve their role and they'll die way prematurely.

Ashley Armstrong:

You cannot have obese or diabetic livestock guardian dogs because they wouldn't protect your chickens, right?

Dr. Joseph Mercola:

Yeah.

Ashley Armstrong:

They've got to be fit. They've got to be agile. They've got to be thinking smart, thinking straight. You have to have healthy livestock guardian dogs to properly take care of your chicken flock. And I don't know if you've noticed this about Joy - Dr. Mercola's dog is named Joy, he provides

endless joy. They're naturally nocturnal, and so they're going to nap and lightly sleep during the day while looking up for aerial predators and then at night they are on duty. They are walking around protecting, looking for raccoons, foxes, whatever. And so yeah, feeding them what they are biologically designed to eat is very important so that they can function at their best and protect the chicken. So, an integral part of what we do here – and this is just something that I started way back in the beginning when I was like, “Costs are so high. How do I reduce costs in a way that doesn't sacrifice quality?”

And I was like, well, for some reason the butcher shop by me has a bunch of extra organ scraps because humans don't like organs, and they've got meat scraps. So, for the last two and a half years, I've gone every week to a local butcher shop, picked up beef. That's important, beef meat scraps and beef organs. And I have these massive trash bags, and I record myself pulling these trash bags out of the back of our truck and feeding them to our chickens. And the nice thing is that the livestock guardian dogs just munch right along the chickens. So, they get bones, they get calcium, they get all the connective tissue around the bones, they get the muscle meat, they get the organs.

And so that's kind of an integral part of something that I'll try to set up for all of the farmers in our network is connecting to a local butcher because there is so much food waste. At a butcher shop, most people, most Americans are like, “I want my rib-eyes and I want my tenderloins and I want my steaks.” There's so much waste in an animal that gets thrown into a landfill. So, that's kind of infuriating. So, how can we utilize waste without sacrificing quality? And gosh, beef meat scraps and organ scraps, that's been a really successful thing that we've done here. And it allows the chickens to get a protein boost. It allows the chickens to get a nutrient intake boost, and it really does help the livestock guardian dogs as well.

Dr. Joseph Mercola:

So, how do you coordinate the beef scraps? Because typically they come in bulk. You're not going to buy them in 1 pound. And then you have to freeze them because they're not going to last that long if you don't. So, do you have someone that you assign to divide it into the appropriate sizes and then freeze them?

Ashley Armstrong:

I know my butcher well, and I think that that is a missing element of current food production as well. Because if you take a step back, 85% of the meat that Americans eat is butchered by four companies. The huge four: JBS, Tyson, Smithfield, and I forgot what the fourth one is. Cargill, maybe?

Dr. Joseph Mercola:

Cargill, I think, yeah.

Ashley Armstrong:

And so that's a huge disconnect. So, I know our butcher well, and so we talk every single week and I just go weekly to pick it up. So, he-

Dr. Joseph Mercola:

Oh, so you don't have to freeze it then if you get in a weekly?

Ashley Armstrong:

Nope. I tip him, and I also bring trash bags, and it's a great relationship because he now – it costs the butcher money for garbage trucks to come take these scraps to landfill.

Dr. Joseph Mercola:

That's sinful.

Ashley Armstrong:

You know how infuriating this is?

Dr. Joseph Mercola:

Yeah. So interestingly, this is a good part of the story because you're facilitating that, reducing this waste, reducing landfill use and recycling it the best way possible back into the animals so that they consume that and they poop into the soil. And that eliminates the need for synthetic fertilizers and all the damage that gets done from those.

Ashley Armstrong:

Yeah, yeah.

Dr. Joseph Mercola:

Yeah. So, it's a beautiful cycle if you can harbor it. Unfortunately, we've perverted the whole system over the last a hundred years or so.

Ashley Armstrong:

And I record myself and I post these videos on social media with the title of "Chickens Are Not Vegetarians" because, Dr. Mercola, how did we become convinced that chickens are vegetarians? You go to the grocery store and you see "vegetarian-fed" on chicken meat, chicken thighs, eggs. Somehow-

Dr. Joseph Mercola:

Those are the ones you want to avoid for sure, because they're really unhealthy, especially the dark meat chicken thighs. Oh my gosh.

Ashley Armstrong:

How did we get to this point? All vegetarian-fed means is that those chickens live in confinement barns and are fed corn and soy. That is simply what vegetarian-fed means.

Dr. Joseph Mercola:

Yeah, it sounds good. Sounds very catchy. It's a great marketing scheme. But scam, I should say.

Ashley Armstrong:

If you buy our eggs, we are certified non-vegetarian-fed, non-vegetarian-fed.

Dr. Joseph Mercola:

Yeah, that's what you want.

Ashley Armstrong:

Yeah.

Dr. Joseph Mercola:

So how many pounds are you getting from your butcher every week of beef scraps? Just curious.

Ashley Armstrong:

Probably-

Dr. Joseph Mercola:

10, 25, 30, 50 pounds?

Ashley Armstrong:

I'm going to have to increase this soon because we're going to 2,000 chickens in a month and a half, so I'm going to have to go twice a week for pickups. I want to say each bag is probably 70 pounds. And so, I would say anywhere from 120 to 160 pounds is every pickup.

Dr. Joseph Mercola:

Wow. That's a lot of food. Lot of food.

Ashley Armstrong:

And this is from one to two cows. So, imagine how much is being thrown into landfills across this country.

Dr. Joseph Mercola:

Yeah, yeah, for sure. Yeah.

Ashley Armstrong:

The bags are so heavy that he uses a skid steer to dump them in the back of my truck, and then I drive the truck straight out to the field and pull them out. It's a workout to pull them out. But yeah, it's a lot of meat scraps.

Dr. Joseph Mercola:

Wow. It's surprising because a lot of these butchers have recognized that there's a market for that. Some of the organs and other scraps that can be made into hotdogs or even certain types of hamburgers. But I guess a lot of them never caught onto this and just don't know that there's a market for this.

Ashley Armstrong:

Well, I honestly think that the conventional agriculture system like those top four, like JBS [and] Cargill, they're not going to let stuff go to waste. They're going to squeeze out every penny that they can.

Dr. Joseph Mercola:

You would think so, right? Yeah.

Ashley Armstrong:

I think that a lot of that goes to dog food plants. And so, where I think that there's a lot of waste is these smaller butcher shops that aren't at this huge scale. And I think that that's the important connection, is working with a smaller butcher that is butchering animals from homesteaders, regenerative farms, grass fed and finished beef and cattle that have slightly smaller volume that a big dog food company isn't going to try to source stuff from a small butcher shop like that.

Dr. Joseph Mercola:

That's the piece of the equation that you figured out. There's this, not a loophole, but a special niche that if you're aware of, you can leverage that to reduce the fee, which is a significant cost. And it was one of the reasons why you raised so much higher. But you've got the shipping involved, you've got the packaging. I mean, these are coming via Federal Express. And you know what some of those drivers are like, and they toss it around like crazy. But it's interesting, all the eggs have gotten from [you] I don't think one was ever broke. So, you engineered away, and you are an engineer, by the way. You have a Ph.D. in Engineering and you chose to be a farmer. So, that's an interesting story. Why don't you talk about that?

Ashley Armstrong:

So, I think the timeline of this decision is important to think about because just a few years prior, I wasn't in that grade of health. I was clearly struggling with mitochondrial health energy production. I was in a low thyroid state. And when you are in a state like that, your body doesn't have the energy to expend on non-essential tasks. And making a choice for yourself is a very energy intensive process. It requires a lot of brain power. Your brain uses a lot of glucose, it requires a lot of energy. And so, if I was not in a good state of health at that time, I don't think I would've made the same decision because your mitochondrial health will impact how much energy that your body has. And making these types of decisions does require energy. It's very energy-intensive. And so, taking care of your health will then give you more power, more flexibility, more freedom to be able to tune into what your body actually wants.

Dr. Joseph Mercola:

Yes, I think the brain uses 20% of the body's energy. And I forget, maybe 2% of the body weight, I don't know, some ridiculous percentage like that. But more importantly too, especially related to the discussion, is that one of the things that decreases cellular energy production in the mitochondria is linoleic acid, probably one of the most important [inaudible 00:53:13]. Other things would be estrogen and endotoxin, those are probably the top three.

Ashley Armstrong:

And the timeline with this decision, it had been about two to three years since I really tried to work on my PUFA depletion. And so, I think I was in a new state of re-saturated tissues. I had less and less PUFA in my body. My energy metabolism was improved. And yeah, I agree.

Dr. Joseph Mercola:

You got magic and you were able to make some brave choices because you had enough energy in your body to do that. And that's actually why I was invited to write this book with my co-author is because I'm an expert in this, one of the top experts in the world in helping people understand how to do that. And you're a classic illustration of that principle in spades, that when your body has enough energy – and you illustrated it, you demonstrated before and after. And after you did that and you got that cellular energy back, you were able to make these choices you couldn't do before. No matter how much you desired, you did not have the fuel to make that type of choice or even think about that choice. It was not going to happen. So, this is the reason why we make these decisions to engage in eating healthy foods and avoiding toxic ones like seed oils.

Ashley Armstrong:

So, health and wellness had always been a big question mark. I tried all these different fad diets, and in graduate school I thought that I was pursuing something that I was interested in, and that was prosthetic and 3D printing and control engineering. And looking back, it was interesting to me, but it was definitely – I was a little bit disconnected from what I actually wanted. And I instead was pursuing what my peers and other people thought was a good path for me, and I pursued it head on. But at the end of the day, I realized I actually wasn't happy and it actually wasn't what I wanted to do. And so, along the way, I figured out about regenerative agriculture. I

volunteered at local farms and, Dr. Mercola, it was just what was keeping me up. It was what excited me, what I spent all my free time on.

I just got so obsessed with food production. Like regenerative agriculture, we can grow food in a way that supports the soil health, [and] is better for humans, better for the livestock. And I just got obsessed. And so, in graduate school, I was on my fifth year working on preparing for my final defense for my Ph.D., and I told my advisors, “I’m going to be a farmer. I’m not going to go into academia. I’m not going to be a professor like I said I was going to, and I’m actually going to do what makes me truthfully happy and provides me endless joy.” And it was one of the scariest conversations that I’ve ever had because when you’re in grad school, your advisors, they fund you through research programs to get you through to your Ph.D. They put so much time and energy into me, and here I am feeling like I’m going to be a failure, not going into academia, not continuing their legacy, and instead going to be a farmer, which is seen as a lowly position these days, which I think is so sad.

I think that farmers, it’s one of the highest positions because we are in control of the health of the next generation. It’s so backwards. And yeah, so when I finished my Ph.D., [I] moved to a farm, started farming, someone gave me advice of starting with layer birds because you immediately get something out of it. You get eggs. So you buy pullet chickens, you get eggs right away. But at the time, I was very aware of the work of Dr. Ray Peat and linoleic acid and PUFAs, and I was looking through all the chicken feed options and I was like, “These are all garbage. Why would I want to give my chickens this?” So, from that point on, I’ve been experimenting with different feed options, different feed ingredients, and we’ve really finalized on a really great recipe that we’ve had tested for fatty acid analysis. We’ve been able to reduce the linoleic acid, PUFA concentration of our eggs significantly.

Dr. Joseph Mercola:

Well, not significantly, 75%. That’s four eggs.

Ashley Armstrong:

So, four of our eggs contain less PUFA than a cage-free egg. So, if you were to eat four cage-free eggs, you would have four to five times the amount of linoleic acid than four of our eggs. It’s a pretty big difference, just essentially showcasing – And I hope that that’s what my story and this path that we’re paving, I hope it can just help encourage others. It’s very expensive, and that’s the unfortunate thing to pave your own path and not doing “business as usual.” It is a costly venture to get there, but if I can help bring others along the way with us, we can all reach an economies of scale where we can start to lower the cost down over time.

Dr. Joseph Mercola:

Yeah. I want to go into it a bit, but before I do, I just want to point out what you just shared, and many people are going to miss it, but I just want to emphasize what happened because this is a perfect – In fact, I might even put it in the book. There’s a good chance I might because you gave a perfect story of how you moved from being essentially like almost everyone, just doing a job to earn money, to do what you think is going to make you happy. It’s almost a prescription for

failure. And you went down that path because you listened to not yourself, you listened to others. That's the common denominator. And usually others can be a spouse, parents, advisors, and they're encouraging you down a path that they think is useful, that may have been useful for them, but they're thinking for you. That doesn't work.

That never works. It may wind up, but you have to listen to yourself. And you used a metric to identify happiness, or I think more accurately called joy, because joy is active where happiness is passive, and it's a fascination of mine, is joy. And because it's the metric you use to see if you're making a right choice. And the book I'm writing is called "The Power of Choice." And the way that you know you're making a choice that's correct is you look and see how joyful you are. And you just heard Ashley share a powerful illustration of this, couldn't be more perfect actually. You might want to listen to it again just to see if you can pick up the pearls of what that process is like because it could change your life. It really could. So, it's nice to have low linoleic acid eggs, but that's not the wisdom she's sharing. She's shared the process of how to keep joy.

Ashley Armstrong:

And I think something that's important to point out, if I was to continue down the path that I was headed down, I would probably be in a very comfortable financial state right now. I would've been able to pay myself. I instead chose a path. Dr. Mercola, I haven't paid myself in four years. I've never paid myself, but it doesn't matter. I am so happy every single day in what I do.

Dr. Joseph Mercola:

That's what matters.

Ashley Armstrong:

I have put-

Dr. Joseph Mercola:

Ashley's making enough money, [but] she can't even pay herself.

Ashley Armstrong:

No. Any amount of profits that we are making is going back into the business because I care about this so much. And at the end of the day, I've recognized that for me, my sense of joy is participating in food production. And if I have a role in that, and if I can change the health of our customers, that to me is extremely satisfying. That is where I light up. Dr. Mercola has talked about this before, like when you start to shake and get vibrant about something and can't stop talking about it, that's where I am. This is how I know this is what I'm meant to do. And of course, at some point in this journey, I'm going to have to pay myself. And I know that that day will come hopefully sooner rather than later. But-

Dr. Joseph Mercola:

It doesn't matter.

Ashley Armstrong:

At the end of the day-

Dr. Joseph Mercola:

It doesn't matter.

Ashley Armstrong:

Exactly, exactly. Exactly. At the end of the day, joy doesn't come from financial reward all the time. Joy comes from doing something that you are very aligned with mentally, spiritually. And success will come when you pursue that. Good things will come when you make decisions for yourself.

Dr. Joseph Mercola:

Yeah. Because joy is the metric and it will guide your choices. But typically, when you continually make choices that are useful to produce joy, you tend to get out of your mind, which is a crippling thing to be in because it limits your access to data. It has a very limited capacity compared to other sources like your consciousness. And when you are activating joy all the time, you drive towards consciousness, which is a synonym for – Well, we'll just leave it at consciousness. But that is such a gift that you shared that. And I'm putting this in my book, your video, this will be in the book because the book is essentially 14 chapters, nine of which are on consciousness and five which are on health. But this will be one of the health chapters, which is going to be about linoleic acid and eggs, because it's so important.

It's crucial to understand this because we all should be eating these eggs. Now, Ashley shared some of it, and I just want to summarize some of the economies of scale that she alluded to and help you understand this in a way that – She doesn't have access to venture capital. She's bootstrapping this. She is not in debt. She's reinvesting the capital she's earning and growing the business. That is the way you do it. It's when you take debt – I mean, sometimes your debt's okay, but most of the time that's what will ruin the company. And you lose cashflow and you lose everything, you're bankrupt. And Ashley's not going to do that.

She's doing it the right way, but it's a little slower. So, one of the ways you can help her if you believe her story, if you think that linoleic acid low eggs are a good thing to have in our country, then you could support her. Yes, the eggs are a little high right now. That's because there's no economy of scale, but she's building towards it. She's seeking to identify farmers who can grow these all over the country. Thousands of farmers. She only has what, dozens of farmers now, right? Just dozens.

Ashley Armstrong:

Less.

Dr. Joseph Mercola:

Less than a dozen. Yes.

Ashley Armstrong:

We're getting there.

Dr. Joseph Mercola:

But it's going to scale. She gets to hundreds and then thousands. And it's podcasts like this, and share the word. If you know a farmer, they can go on board and they can start producing these eggs and then we can get hubs, and that solves the distribution problem. And when you get the distribution problem solved, the price goes down. It's theoretically possible that it could go down by 50% if we have enough people doing this, the right thing. And then what happens is magic because the competition sees what's happening, sees an enormous potential here.

And since we have an objective barometer, you can actually measure the linoleic acid in these eggs, and anyone can do that, then you can see you can actually get healthy eggs because it'll inspire other companies that may not be interested in this at all until they realize the market. And Ashley is proving the market and you can still help support. It's kind of like what Tesla did when they launched their expensive sedans in 2011, and most people couldn't afford them. But because some people saw that vision and purchased the cars, they were able to have revenues to scale and they could produce the Model 3, which is a third of the cost of the other car. But you can get to that level. Now, Ashley's not making cars. She's making chicken eggs. But the illustration is equally valid because the more you do of something, there's economies of scale that radically reduce the cost.

So, that's what we're looking for. It's considered almost like a charitable contribution and you get a reward. You get healthy chicken eggs, which literally these eggs are not available anywhere else commercially in the United States. They just aren't. They do not exist. Now, healthy eggs do exist, but you'd have to grow them yourself or a farmer who's not really selling them at scale at all. Just you have to know him and understand what their process is. And that's one of the things that Ashley does is she helps train them. These are [inaudible 01:06:02] chicken farmers. These are people who may be interested. They got cows or something, and they want to start exploring this. And she basically holds their hands and helps them know how to do this. So that's my overview. And Ashley, you can certainly fill in the gaps that I left.

Ashley Armstrong:

Yeah, we do have a waitlist right now, and we're slowly increasing the number of chickens in our network, but I'm not going to do it in a confinement building way. I'm going to stand pretty flat on the ground and [be] strict about the way that these chickens are raised. Regenerative agriculture and mobile pasture-raised is very important for me. And so, [on] a single farm, I don't want to have more than 2,000 chickens because at that point, potential diseases start to come into play. You start degrading the landscape. And I don't think that that's where chickens can really be super healthy. So, it's ultimately going to be hubs and more and more farmers

getting involved. And so, you can check out our website, Angel Acres Farm. You can just search in Google, Angel Acres Farm Eggs, and there is going to be a waitlist for the eggs right now.

But joining the waitlist, that's who's going to be first notified when more spots open up. We're adding a lot more chickens on our farm, which is really exciting. And getting more farmers in our network. We also have Nourish Cooperative, and so it's a sister company of Angel Acres, and that's where we are offering low-PUFA pork bacon, ham, pork chops, and then also low-PUFA chicken meat and dairy products, and 100% grass fed beef and lamb and things like that. So, that's Nourish Cooperative and they're kind of sister companies. And the goal of both is returning back to how food used to be produced and creating these food systems where humans can naturally consume lower levels of linoleic acid. We're trying to make it easier for humans to get their nutrients without increasing their PUFA intake. So, we're starting both from the ground up.

And like Dr. Mercola said, as we reach more economies of scale, we bring more farmers into the network. And I really like that's how we make a change when we show these other big players in the industry like, "Hey, this is actually metrics that consumers care about. So either make that change or get out of the way." That's when we can truthfully make a change. When we can start making the people high up in the agriculture system start to question, "Oh, maybe we were wrong about polyunsaturated fatty acids. Oh, maybe saturated fat actually isn't bad." And we can show that by consumer interest and where consumers are buying food from.

Dr. Joseph Mercola:

Yeah, you vote with your dollar. It worked in the past and it can work in the future, for sure. That's one of the ways we got interested in non-GMOs. We did this process over a dozen years ago. It works. It totally works. When we first started getting into opposing GMOs, 95% [to] 99% of the people had no idea what a GMO was. None. Zero. They had no clue, thought it was a car or something. So now it's a joke. Everyone knows what it is. But once people catch on and they understand, then change happens.

Ashley Armstrong:

It really is up to a partnership between consumers and producers, where [inaudible 01:09:32]-

Dr. Joseph Mercola:

Yes. And it doesn't exist now. They want to separate you from the producers.

Ashley Armstrong:

Exactly. Exactly. It really is up to us, working together to show the industry what actually leads to health. Because unfortunately, when you go through the literature and you read these livestock agriculture papers, the first line of introduction is like, "Dairy is known to be a health food, but unfortunately contains high levels of fats that are not good for humans, called saturated fats." And so, this false premise [that] is so deeply propagated in livestock feed [and] agriculture networks. We got to knock that out of there. Like Dr. Mercola said, we got to start thinking for

ourselves, being more in tune of what we actually need, not what authorities are telling us, and then blindly accepting what the conventional food system is giving us.

Dr. Joseph Mercola:

Yeah. Well, it's all about choice. That's what we're doing. You're offering people a choice, so hopefully you'll consider that. And you can say there are other ways to get low linoleic acid. If you think about it, you could be carnivore and choose to only eat ruminant animals, and that doesn't involve eating eggs, right? You could, but it doesn't have to. And you would achieve a very low linoleic acid diet, probably less than even eating eggs, but you're not going to get the same benefits. There's very little choline in meats. There's some in liver, but as we mentioned earlier, it's not the density you need. You can't eat enough liver to get the choline. It's really only available in eggs. That's the magic of it. And that's not the only nutrient index, it's just not a source of choline. It's probably one of the most important sources of a nutrient. But there's vitamin A, there's vitamin K2. Sorry?

Ashley Armstrong:

Vitamin E.

Dr. Joseph Mercola:

Oh, there is. It's a significant vitamin E?

Ashley Armstrong:

In pasture-raised, yeah. It's non-detectable in caged.

Dr. Joseph Mercola:

Wow. That is interesting. I did not know that. But it would make sense. And vitamin K2 is really important. It's really underappreciated and probably just about nearly as important as vitamin D. And then you've got the other carotenoids that are typically – they're vitamin A precursors, carotene, beta-carotenes, but the carotenoids and there's other ones that have other nutrients in dependence of, typically very potent antioxidants like lutein, xanthine [and] zeaxanthin that [are] particularly useful for retinal health and other benefits, too. So there's a lot of nutrients in there. There's probably a dozen or more that we never even discovered yet because anytime you're eating whole food, you don't have to worry about figuring out what specific nutrients you need to get. It is really quite simple. All you've got to do is eat whole food that's healthy and not contaminated with toxins that shouldn't be there. And believe me, seed oil is one of the worst toxins in the world. It's probably one of the most pernicious poisons in our food supply. And that's not a light statement, but it's true.

Ashley Armstrong:

Unfortunately, some of the whole foods have been manipulated so much due to the types of feed that animals are given. And so, the goal with these other alternative co-ops is that the whole food

options are easy for you to achieve these things because I don't blame – Being a consumer in this day and age, it's hard, Dr. Mercola. It's hard. All the labels are confusing. You don't understand-

Dr. Joseph Mercola:

Intentionally. Intentionally.

Ashley Armstrong:

Exactly. Exactly.

Dr. Joseph Mercola:

Yeah.

Ashley Armstrong:

At the end of the day, knowing where your food comes from, what those animals are fed, knowing the farming practices and eating whole foods, those are the very simple things of how to regain control of your health.

Dr. Joseph Mercola:

Yeah. So why don't you tell people where they can find – You've got Angel Acres, is that hyphen[ated] or you just type in Angel Acres into search engine it will come right up?

Ashley Armstrong:

Yeah. Just type in Angel Acres Farm. It's angel-acresfarm.com, and that's where the eggs are. [We're] working towards more of an egg cooperative. So, if you are interested in being a hub or a producer, you can also contact me at support@angel-acresfarm.com, and we'll include this in the description. And then our farm cooperative with all the other farm products like pork and chicken and beef and lamb and dairy, cheese — that's Nourish Cooperative, www.nourishcooperative.com. And yeah, I'm so excited for the future. I'm so excited.

Dr. Joseph Mercola:

Me too. You're doing a great thing. And notice that she said there's no affiliate codes here. I'm not getting anything for promoting these eggs other than joy and satisfaction knowing it's the right thing to do to provide you and the country with one of the healthiest foods possible. And I'm so grateful that Ashley has been inspired and [has] made the choice, a really brave choice, courageous choice to do what she's doing, and she gets to reap the benefits not only providing you with healthy food, but experiencing joy in your own life.

Ashley Armstrong:

Yeah.

Dr. Joseph Mercola:

Yeah, it's a great thing. It's wonderful. It's what we're supposed to do.

Ashley Armstrong:

Yes, for sure. I'm excited to meet Joy, the dog, one day.

Dr. Joseph Mercola:

You will, you will.

Ashley Armstrong:

His girlfriend's [inaudible 01:15:04].

Dr. Joseph Mercola:

Yes. He's so precious. Mostly, dogs don't live to be past 20, especially bigger dogs. This is one of the biggest dogs out there. I mean, it's not at St. Bernard or something, which that's over 200 [pounds], but 140 pounds is a big dog. Big dog. But when you feed them the right way and you give them sunshine, you don't give them vaccines, you've got an animal that can get maximum life expectancy, for sure.

Ashley Armstrong:

I think so.

Dr. Joseph Mercola:

Yeah. All right, well thank you for everything you're doing. It is just a delight and a joy.

Ashley Armstrong:

Thanks, Dr. Mercola. Always a pleasure.