

Dr. Anna Sulan Masing ([00:00](#)):

Hello, I'm Dr. Anna Sulan Masing and I'm host of the podcast Taste of Place, part of the Whetstone Radio Collective. This podcast investigates our relationship with nostalgia, the past and our place in the world through taste, and we're starting with pepper. I speak with scientists, academics, chefs, farmers, a perfumer and many more to bring the tangible and theoretical together. So tune in and subscribe to Taste of Place on your favorite podcast app now.

Egg Commercial Voiceover Speaker 1 ([00:38](#)):

They're fresh as the breeze.

Egg Commercial Voiceover Speaker 2 ([00:40](#)):

Eggs come to you fresh every day.

Egg Commercial Voiceover Speaker 1 ([00:41](#)):

Serve them anyway you please.

Egg Commercial Voiceover Speaker 2 ([00:44](#)):

Eggs are natural and economical. So keep enough on hand.

Egg Commercial Voiceover Speaker 1 ([00:47](#)):

Nature made and nice and neat.

Egg Commercial Voiceover Speaker 2 ([00:49](#)):

High and protein, and only 80 calories each. Eggs are a natural wonder for meals, snacks, appetizers, whatever.

Egg Commercial Voiceover Speaker 1 ([00:57](#)):

All you do is heat and eat.

Egg Commercial Voiceover Speaker 2 ([00:58](#)):

Eggs don't run out.

Egg Commercial Voiceover Speaker 1 ([01:00](#)):

The incredible, edible egg.

Jerusha Klemperer ([01:04](#)):

In the past decade, demand for eggs has grown with each person in this country eating about 286 eggs per year. But the kind of eggs we're looking for has changed during that time too, and in response to those hopes and dreams we all have for where those eggs come from and how those hens lived out their lives. Egg cartons and the labels and claims on them are working overtime to tell us a story.

([01:27](#)):

On today's episode, we look at the many labels on your carton of eggs and dig into what they mean and what they definitely don't mean. I'm Jerusha Klemperer and this is What You're Eating, a project of

foodprint.org. We aim to help you understand how your food gets to your plate and see the full impact of the food system on animals, planet and people. We uncover the problems with the industrial food system and offer examples of more sustainable practices as well as practical advice for how you can help support a better system through the food that you buy and the system changes you push for.

Patty Lovera ([01:59](#)):

If you want to dive in to the gnarly wild west of food label claims a great place to start it's the egg case. So it's not that big, how much could be going on there? But I think it's really kind of a good snapshot of the types of claims that companies use on pretty limited space it's actually astonishing if you pick up a carton of eggs, there's not a lot of white space. They have found a way to fill it with words.

Jerusha Klemperer ([02:28](#)):

That was Patty Lovera, who's worked for a long time on different food and agricultural policy issues, especially around how food animals are raised. The FoodPrint team decided to follow her assignment, so we headed to a bunch of different grocery stores to see what we could find in the egg aisle. It'd be great to do a round-robin where people just kind of share their own personal experience.

Samarra Khaja ([02:49](#)):

I went to the local co-op, I wrote down vegetarian feed, local farm fresh eggs from free ranging hens, also pasture raised, no GMOs, no antibiotics, and 12 grade A extra large eggs.

Kristen Link ([03:07](#)):

I think even beyond the just organic or cage-free or pasture raised or whatever it might be, even just the labels of jumbo, extra jumbo, large, double A, what does that even mean? I mean, there's all this other stuff that you have to take into consideration before you even get into the "How was this chicken raised and how were these eggs produced?"

Jerusha Klemperer ([03:29](#)):

Not to mention also the brown and white egg thing, just like "A bunch of them are brown and a bunch of white and what the hell does that mean?" I went to my little smaller supermarket and in this pretty small case, they had jammed in so many different brands, so many different types and certifications, whatever. It was a dizzying array of options. It was wild.

Ryan Nebeker ([03:52](#)):

It was funny to me that natural is the biggest word on the package by far.

Kristen Link ([03:57](#)):

I saw a lot of natural.

Jerusha Klemperer ([03:59](#)):

Fresh air, free to forage that's on Organic Valley's packaging.

Samarra Khaja ([04:04](#)):

Another package I saw had "Hand packed" as being a call out item, which all of a sudden made me question how all the other eggs are getting into the containers.

Jerusha Klemperer ([04:19](#)):

Anyone ever seen this label before EcoMeal?

Samarra Khaja ([04:24](#)):

No.

Ryan Nebeker ([04:25](#)):

This Trader Joe's pasture raised one specifies that vegetarian feed, but nothing about GMO. I do think in spite of the fact that you can find eggs that have... With plus or minus any of the certifications in any combination, they are often relying on the fact that people are mentally bundling some of these characteristics.

Kristen Link ([04:49](#)):

I mean, for me, most times it's local or like our CSA, we get our eggs. But if I do go to the store and I need to get eggs from the store, I'm usually looking for organic and usually pasture raised as much as possible and as many... If there are any certified claims, then I look for those. But for the most part, buy most of our eggs from just our local farm stand or from our CSA is usually where we get ours from. I'll say that I was surprised that a lot of the organic and cage-free ones came in plastic packaging, which was just a note that I was, yeah, just taken a back by.

Ryan Nebeker ([05:23](#)):

Again, scanning just to make sure it's the right size first. Having accidentally bought the wrong size of egg once or twice before, and then after that I think I'm at minimum looking for cage-free, usually cage-free organic. But I will admit if there's a huge price point difference between the organic and the not, I don't always go for it, but I'm looking at packaging and preferentially picking cardboard 9 times out of 10.

Kristen Link ([05:50](#)):

Oh, yeah. Cardboard.

Samarra Khaja ([05:54](#)):

I have a box that says "From the Happy Hens at West Wind Farms." Is that the same place?

Jerusha Klemperer ([06:00](#)):

Oh, no. Sorry. It was Happy Egg Company.

Samarra Khaja ([06:03](#)):

Oh, okay. So I have some other happy hens that are somewhere else, just to let you know.

Ryan Nebeker ([06:07](#)):

Happy hens is not [inaudible 00:06:10].

Samarra Khaja ([06:07](#)):

There are other locations.

Kristen Link ([06:12](#)):

Rhinebeck, New York happy hens.

Samarra Khaja ([06:13](#)):

Okay.

Kristen Link ([06:14](#)):

Yeah.

Jerusha Klemperer ([06:14](#)):

Oh, and Vital Farms has the phrase "Happy hens" on theirs. They have lots of these lovely handwritten phrases on their egg.

Ryan Nebeker ([06:22](#)):

Happy hens is not a regulated claim.

Samarra Khaja ([06:23](#)):

Interesting. Okay.

Jerusha Klemperer ([06:25](#)):

This must be the big question on consumers' minds, "How happy were the hens who laid these eggs for me?" Certainly egg producers are trying very hard to assuage our fears. So what is life like for a typical hen? If we're going to understand what any of these labels mean and get a baseline for hen happiness, we need to dig into how eggs are typically produced.

Urvashi Rangan ([06:46](#)):

As one might imagine industrial egg production is a very intensive operation. You can picture thousands, even tens of thousands of birds sort of all crammed together. I'm Urvashi Rangan, I'm the chief scientist at the GRACE Communications Foundation. Often cages are used, that's a slightly different production practice than what we typically see in broiler production, for example. Broilers are typically not caged actually. So when you see cage-free, it doesn't mean a whole lot on a broiler. On the other hand, on a chicken, it would mean something different because a lot of egg laying hens can be caged.

([07:27](#)):

I believe the space requirement for a chicken by the United Egg producers is about 8.5 by 11 inches. So it's like a sheet of paper is the size allotment for a chicken. So you get an idea of they're just sort of very cramped conditions almost on top of each other. Maybe you'd even be stacking cages on top of each other even without cages it's a very confined and dirty operation. We tend to manage this with feeding antibiotics on a daily basis just like we do with poultry production or other meat production. Of course these animals are living so closely that when they get diseases they spread very quickly and then typically in flocks, you need to treat the whole flock for disease. You can't just treat one animal simply because it just spreads so quickly.

[\(08:16\)](#):

So those are some of the highlights, I would say, a little bit on the animal welfare side of things. We talked a little bit in the poultry podcast about the cannibalistic nature of chickens. When they're too close together, they will start to peck at one another and that leads to other disease problems for them and illnesses. Same thing, of course, in eggs, so debeaking and things like that can be common, physical alterations one might make, which really makes it hard for the animals to live a natural life to any degree.

[\(08:49\)](#):

Industrial like production really does beg a lot of questions in terms of the animal's health and hygiene, the ultimate human health and hygiene of the system, the subsequent antibiotic resistance that is sent out into the environment from the farms, the poor animal welfare practices, and not to mention even workers who then work with poultry or in the slaughterhouses... Sorry, in the egg houses are also prone to higher risks of exposure when we're dealing with sort of dirty operation.

Patty Lovera [\(09:21\)](#):

You go to the egg section of the grocery store and it's not that big, but you could count a dozen different claims probably across those cartons. But the one that really I think has risen to the top just in terms of people are aware of it, big companies making claims about it is probably cage-free.

Egg Commercial Voiceover Speaker 3 [\(09:37\)](#):

So we're free.

Speaker 11 [\(09:38\)](#):

Yep, totally cage-free.

Speaker 12 [\(09:40\)](#):

Totally cage-free.

Speaker 13 [\(09:42\)](#):

Oh, I'm so excited.

Egg Commercial Voiceover Speaker 3 [\(09:42\)](#):

You know, we could do anything.

Speaker 13 [\(09:43\)](#):

Anything.

Egg Commercial Voiceover Speaker 3 [\(09:44\)](#):

We could fly.

Speaker 11 [\(09:45\)](#):

No we can't.

Egg Commercial Voiceover Speaker 3 ([09:46](#)):

Well, we could run.

Speaker 13 ([09:47](#)):

Yeah, run.

Egg Commercial Voiceover Speaker 3 ([09:48](#)):

Oh, I love running or just talk.

Speaker 13 ([09:50](#)):

I like to talk.

Speaker 11 ([09:51](#)):

Talk.

Egg Commercial Voiceover Speaker 3 ([09:51](#)):

We could make eggs.

Speaker 13 ([09:51](#)):

Yeah, eggs.

Egg Commercial Voiceover Speaker 3 ([09:53](#)):

Or maybe we could cross the road.

Speaker 11 ([09:55](#)):

You did not just say that.

Egg Commercial Voiceover Speaker 4 ([09:57](#)):

Today Denny's is making a commitment by 2026 to get their eggs from cage-free chickens. What they do with their freedom is completely up to them.

Patty Lovera ([10:06](#)):

Like any food label, the best advice I can give is to be as literal as possible and don't give anyone label claim too much credit. So cage-free is a great example of that. It means what it literally says, there aren't cages. It does not mean that the chickens are outside all day, are in this luxurious super low density, they have as much room as they want, fantastically natural environment. It just means there's not cages.

([10:39](#)):

Having said that, the cages are rough and if anybody's seen these pictures, that's something to not have. They call them "battery cages" because they would be a battery of them on the walls. I mean really extreme confinement is what you're talking about.

([10:54](#)):

So is that an improvement not to have the cages? Yeah, of course it is. But don't assume past that. That it automatically means this is farmer Bob with three chickens outside and each one has a name and that's what it means. It means they're in a building probably without those really extreme confinement battery cages.

Emily Moose ([11:15](#)):

I hate to be a Debbie Downer, but I think most people are disappointed when they learn what cage-free actually means. My name is Emily Moose and I'm the executive director of A Greener World. We're a nonprofit, third-party certification program. Our goal and kind of the reason for our existence is to connect farmers and consumers around transparency and sustainability in food labels.

([11:39](#)):

There is no independent third-party verification of this term usually, and there's no legal regulated definition for laying hens. It usually signifies systems where the birds are raised inside large barns or warehouses and it doesn't address whether or not they have access to the outdoors. If there was access to the outdoors, if it was actually pasture or if it was concrete or a dirt lot, it doesn't address things like beak trimming. All that is not to say "Give up on food labels" obviously we definitely believe in the power of food labels and they're important that they have a really important role to play in the food system. I think the lesson here is really "Make sure you're asking for what you want and do your research before you demand a claim that's out of step with your expectation."

Jerusha Klemperer ([12:30](#)):

Okay, is that an improvement at all over the cages at least?

Emily Moose ([12:36](#)):

You will find arguments on both sides of that. Some will say that there is an increased risk of cannibalism in those systems and it really depends on the system. It's definitely a lower welfare potential than a outdoor high welfare pasture based system.

Jerusha Klemperer ([12:54](#)):

So if people are thinking "This label means the chicken had a better life" and they're picturing grass, let's say, that's where that disconnect is really going to be.

Emily Moose ([13:04](#)):

Yes-

Urvashi Rangan ([13:04](#)):

When you see it, cage-free, that's fine. Just like no antibiotics, maybe the animals were out of their cages and they weren't stacked in cages. Is that something? It's something but at the end of the day, being crammed on the floor of a house with thousands of other birds standing in your excrement is also not a good situation. That still leads to many of the same problems. Maybe they're just not as confined, but they could be because they really try to cram those houses with as many birds as possible.

Ryan Nebeker ([13:38](#)):

Cage-free eggs, we see them pretty much everywhere today. They're fairly easy to find, but that wasn't the case 10 years ago and even five years ago they kind of worked niche. My name is Ryan Nebeker and I am the research and policy analyst for FoodPrint.

[\(13:54\)](#):

The demand for cage-free eggs has really appeared within the last 10 to 20 years and that's largely a product of California. When California, the largest most popular state in the country, passes laws about things, the rest of the country that supplies California with things kind of has no choice but to supply things for that market and they sort of moved the needle all at once and this was definitely the case with cage-free eggs.

[\(14:20\)](#):

So back in 2008, California voters approved Prop 2, which was supposed to, and that's a critical word here, supposed to ban cages for laying hens. The proponents of the bill very much believed it would do that. Voters very much believed it would do that and the egg industry believed it would do that. Once the law went into effect, predictably, the industry was pretty upset. They put up the usual complaints that they do when this kind of legislation passes that it'll be too expensive and that producers don't have the resources to comply, especially without federal aid.

[\(14:56\)](#):

So they took it to court and the thing that they took it to court on was that the law was too vague about what you were actually supposed to supply the chickens with. The Ninth Circuit actually ended up siding with the law rather than the egg industry on this one. But then the industry kind of turned around and said, "Wait a minute, the law is too vague, let's work with that."

[\(15:16\)](#):

So functionally it actually didn't end up banning cages for laying hens, it just... They got around it by giving them more space inside of cages. It's still not a lot of cage space at all. But, recognizing that the market was going to probably move in that direction anyway, a lot of producers took Prop 2 as a signal that cage-free was going to become something that consumers increasingly demanded and that legislation around it could likely become more specific if similar propositions were to pass in other states.

[\(15:50\)](#):

So at this point there are a significant percentage of eggs produced in the country that are cage-free in a way that we would actually recognize as being cage-free. In addition to this sort of dubious, it's not a fully restrictive cage that Prop 2 enabled.

[\(16:10\)](#):

On the whole the fact that cage-free eggs have become so much more popular than they were in the past does just point to this idea that there's been a mindset shift around how we think about this. From an advocacy standpoint, picking kind of "cage-free" as a very simple phrase to understand sticks in your head, you intuitively know what that means, even if there's a little bit of a letter of the law versus the spirit of the law thing going on.

[\(16:36\)](#):

It was a very specific kind of thing to aim for. So advocates were quite smart in the way that they made that a target. So as of last year, which is the most recent data I can find in 2021, cage-free production accounted for 29% of all of the egg laying chickens. That's up from 28% in 2020, 14% in 2016 and only 4% in 2010. So to go from 4% to 29% in the space of 11 years is a pretty astronomical shift.



Patty Lovera ([17:16](#)):

There've been a couple different ways that something like cage-free really became widespread, had a lot of awareness and so different groups have campaigned on this over the years and in some there's kind of parallel tracks of trying to change what the standard of the industry practice is. This makes sense, they looked at the supply chain and said, "Who's buying a lot of eggs?" Like yes, as consumers we all go buy a dozen eggs, every... Eggs off, not everybody but lots of households go buy a dozen eggs periodically. But also there's a lot of eggs in the food system you don't see, you either eat them away from home, and you know it's an egg because it's in an egg sandwich. But there's eggs in baked goods, there's eggs in mayonnaise, there's lots of eggs being used when you don't think of it being in there. So they looked at the supply chain and started to pressure big restaurant chains, big processed food companies to switch and to say, "The eggs in our products or the eggs in our restaurants will be cage-free."

Jerusha Klemperer ([18:12](#)):

By 2015, a few major companies, including McDonald's, Starbucks, and Costco, announced that they would be requiring all of their suppliers to go cage-free. This had major market impacts. This was the result of a kind of parallel activist track to the one that was pushing for legal changes like Prop 2. These pushes were successful in changing corporate supply chains, propelling state laws about production practices, and also in persuading the hearts and minds of consumers.

Errol Schweizer ([18:40](#)):

If we were to have a battery hen cam, it was like, "Let's put a GoPro on the hen and let's look at the life of one of these hens." No one would want to eat eggs. You'd only have a few people in the world who'd be like, "Oh, yeah. I want to support this. This is amazing. These hens suffered to give me food. These hens bled for my breakfast. These hens pecked their eyeballs out and cannibalized each other so I can have cheap eggs."

([19:08](#)):

My name is Errol Schweizer. I've been in the food business since 1994. Off and on I've worked in food service, retail, farmer's markets, organic farms, landscaping warehouse, and retail. I worked at Whole Foods for 14 years, including seven years as the vice president of grocery where I was responsible for a 5 billion business unit. The grocery department for the most part, people don't want other things to suffer for them to eat or they don't want to believe that they're making other things suffer. I think there's been clear customer trends like every few months and other survey comes out that consumers want to eat healthier, more sustainable, more ethically produced products. It's growing plant-based animal free categories and it's growing, whatever you call it, organic, regenerative, ethical, humane. These trends get more and more stark as the consumer cohorts get younger.

Jerusha Klemperer ([20:11](#)):

cage-free has become a kind of floor, the base minimum that a lot of consumers expect. Another label that's pretty ubiquitous at this point is USDA Certified Organic for the moment USDA Organic does not mean that those hens were happily hanging out outside on grass. Patty Lovera has worked on organic rules for many years now and she explained a bit about the ongoing process for updating what's called The Organic Livestock and Poultry Rule.

Patty Lovera ([20:38](#)):

In the fall of 2022 if you go to the store and you see or certified organic eggs that have that USDA green and white seal on there, there's some things you do know, you know what they ate, they ate organic feed, you know they weren't given antibiotics, you know they weren't given other synthetic hormones or things like that, although there's not a lot of hormone use in any egg production. So there's some baseline things that you know, some things that need to be tightened up is about the buildings and the density and whether that... What is happening right now meets kind of those core principles of the folks who started organic agriculture, what originally went into the law in 1990 that created the USDA Organic label. So that law says that animals need to be able to express their natural behaviors and it says that animals need to have access to the outdoors.

[\(21:31\)](#):

That's a real contentious point in organic today, is whether everybody's living up to those standards. So there are some big organic operations, it's not... If you looked at the number of organic farms that raise some eggs, most of the number of those farms are meeting those standards, but there's a smaller number of really big operations and a lot of folks say they're not meeting those standards so the birds are indoors all the time or too much of the time and that they don't have essentially meaningful access to the outside.

[\(22:06\)](#):

So right now, after many fits and starts and attempts and rules getting written and then rules getting written at the very end of the Obama administration and then not getting finished and then they got withdrawn by the Trump administration. There have been lawsuits, just the drama of these organic standards around egg laying birds is serious right now there is a proposed rule out there from the USDA, so there's more steps. We're going to do a public comment period, they got to write a final rule. But there's a rule out there saying a couple of things. The porches don't count for outdoor access and trying... I'm not going to go through all of the numbers and the math, but trying to say there's a density you can't exceed in terms of each bird needs this much space.

[\(22:49\)](#):

There's lots of folks who are doing a good job and are doing what most consumers expect, but because it isn't crystal clear, no wiggle room for interpretation, there are some certifiers that are letting these big operations do things that I think don't meet consumer expectations. So we're long overdue to tighten those standards up and take away any wiggle room, any room for differing interpretation so consumers can really understand what is happening organic.

Jerusha Klemperer [\(23:17\)](#):

When the FoodPrint team went looking at supermarket eggs, none of us found any cartons that said free range, but this is something that has been put on egg cartons for years now though it sounds like it might be going out of favor if you do see free range on a carton, what does it mean if anything?

Ryan Nebeker [\(23:32\)](#):

Free range is not a regulated term when it comes to eggs. USDA does regulate free range for poultry more broadly, and that just requires that there's outdoor access for chickens, but again, that's not for eggs. Outdoor access is pretty vague, that can mean anything from genuine access to an outdoor space with plants and sunshine and it can also just mean a porch. But when we see "Free range" or "Pasture raised" on an egg label, if it's not attached to a third party that's verifying that, then that's just kind of up in the air and they're relying on kind of you as the consumer to do some vibe based associations on what you think that means and how happy the chickens are, it's mainly a marketing tool.

Jerusha Klemperer ([24:17](#)):

I suspect that "Free range" has mostly been abandoned for the trendier, happier sounding, "Pasture raised." "Pasture raised" shows up on a lot of egg cartons and while it doesn't have an official definition, it's generally used to mean something more than organic's access to outdoors. It's supposed to indicate that each hen has more than 108 square feet to move around. I asked Emily Moose if this definitely means that they were outside on grass.

Emily Moose ([24:43](#)):

In absence of a credible third party certification. I really wouldn't expect that they were. I wouldn't assume that they were. I'll put it that way. This is not to say that everybody lies on their labels, that's not true. Obviously some people are truthful and just not certified. But when you're in the store and you're looking at a carton of eggs, obviously that company has a big enough budget to get their eggs that far. They probably have a big enough budget to get certified, especially with one as affordable as ours. So I think that when you're looking at claims that imply a lot. It's good to look for verification as well. "Pasture raised" is one of those claims that just sounds so great and it's also really easy to make without being verified.

([25:33](#)):

I'm sure you're familiar with the term "Greenwashing" that I think that is one of the most commonly used greenwashing phrases to imply the animals are raised outdoors in a pasture-based system when they may not be. It may be that proverbial door at the end of the warehouse where they may or may not go outside. I don't think most people would call that a truly pasture-based system.

([25:56](#)):

So when you see the animal welfare approved logo on a carton of eggs, you know that the hens were raised in a high welfare pasture-based system, you know that they had the freedom to run around and scratch and peck and had a species appropriate diet, clean water, that there were no routine antibiotics given. You also know that they were raised to some of the highest welfare standards out there.

Jerusha Klemperer ([26:23](#)):

When it comes to eggs, one of the most common certifications you can find at the supermarket outside of organic is "certified humane." So what does it tell us? What can we assume when we see that "certified humane" label?

Ryan Nebeker ([26:34](#)):

As the name implies, it's mainly about animal welfare. So there are minimum space requirements, there is outdoor access that is required, but critically that's only if they're making claims about there being access or free range. So there's kind of levels within certified humane and they will give you sub certifications. So if you are certified humane and your packaging says that you are free range, then they are verifying that your chickens do have outdoor space and that they have a significant amount of it.

([27:07](#)):

But when it comes to animal welfare, what we really care about is the idea that these animals can engage in natural behaviors. When we look at a system like battery cages where hens are just parked in a little shoebox, cannot do things like walk around, they cannot kind of sit on perches of various heights, they can't interact. Birds do things like dust bathing where they kind of get their feathers all cleaned by rolling around in the dust, which sounds a little counterintuitive, but it works for them.

[\(27:34\)](#):

So certified humane does require, even without outdoor access, they require housing that allows birds to engage in those natural behaviors. So the big ones are the hens need to be uncaged, they need to be able to perch, they need to have access to things like nest boxes and dust bathing. So when we look at kind of the natural behavior of laying hens, they need to be able to engage in all those things. They also limit flock density, which means that you are not cramming as many chickens in as you can.

Jerusha Klemperer [\(28:05\)](#):

So "certified humane" assures that some basic and important animal welfare provisions are met. And when it's paired with words like "Free range" and "Pasture raised," it actually certifies that they are what they say on that front too, which makes it a pretty useful certification. Another phrase that shows up on egg cartons a lot is "Vegetarian fed." It's clear that egg producers are trying to convey something important with it, but what? Why should we care if chickens were vegetarians?

Urvashi Rangan [\(28:33\)](#):

Chickens in nature love to scratch the dirt. They preen themselves in dirt, they like to roll around in it. What does that do? There's all sorts of microorganisms in the dirt. It turns out they need essential amino acids, chickens, they're not actually vegetarian, they're omnivores and a lot of industrial poultry and egg production will feed synthetic amino acids to chickens. But actually insects are the way chickens get those amino acids naturally, it's how their bodies want to absorb them naturally. So nature gives to them some essential amino acids, for example...

[\(29:10\)](#):

They take those and they'll eat larvae and other things like that from insects. Again, this is how nature sort of intended for it all to happen. That is what a chicken's gut wants. A chicken actually doesn't naturally eat corn. That which is what we feed so much of our chicken and that's not what their gut biome wants. It's not the best for their gut health and it actually can be problematic for pathogen contamination as well because their guts end up being a different pH, even, than they should be because they're eating food that nature again didn't intend for them to eat.

Jerusha Klemperer [\(29:46\)](#):

So why did vegetarian fed become something that companies felt was important to say?

Patty Lovera [\(29:51\)](#):

My theory is that it spun off of mad cow disease when people were like, "Cows are eating cows? What other animals are eating things?" In theory, a chicken that went outside on a pasture might eat some bugs. So I don't know what that tells you except that that chicken ate what most factory farmed chicken ate, which is probably corn, but okay, fine, it was vegetarian fed.

Jerusha Klemperer [\(30:13\)](#):

What you might not know is that many hens are fed, not just corn but also antibiotics.

Urvashi Rangan [\(30:18\)](#):

Antibiotics are basically commonly given to healthy animals on a daily basis, especially in this country. It's used to sometimes promote growth, although the government tries to discourage people claiming

that use. But the other use is what they call prophylactic treatment or disease prevention where you're trying to give antibiotics to prevent a problem from happening in the first place and that wanes you feed it or put it in the water for animals to have on a daily basis. So it's sort of low levels of antibiotics every single day.

[\(30:54\)](#):

That is a great recipe for creating resistant bacteria. So bacteria that get to see these antibiotics, it's not enough of a dose to kill them, but it's enough of a dose to get them to mutate, to be able to cause more virulent strains of Salmonella, more resistant strains of Salmonella. And that is a result of the myriad of antibiotics that we put into these systems in addition to pesticides, chemicals, disinfectants, all crutches for good hygiene when really what we need to be doing is addressing the density of the farms that we are trying to raise animals in to make sure that these animals can lead a more natural life where they can literally have a little elbow room and space and clean conditions. That's really fundamentally what you need in order to have cleaner operations.

[\(31:51\)](#):

Salmonella frankly, is a problem throughout the poultry system. It's in the feed, it's at the farms, it's in the slaughterhouses. We do not take the steps that we actually need to do to get to the origin of the problem. We, in our sort of management from a regulatory perspective, often start at the end of the line. So we're looking at the end of the line and "What are the washes you can dunk the meat in at the end when they're dirty and clean them up?" "What can you wash the egg with?" Rather than asking the questions of, "Well, how do I make this system cleaner to begin with?"

[\(32:29\)](#):

If you see the "No antibiotics" label, there will be some truth behind the fact that probably no antibiotics were used in order to raise those animals. It probably means also that if there was a treatment of the flock for an illness that then they would not be able to be labeled with that. It's a truthful label on some level. It doesn't mean that much in the grand scheme of things. For example, if you're not using antibiotics but your hygiene conditions are still really bad, then you may have two distribution systems for your eggs, one that come from sick animals that are being treated and you get your eggs out through a non labeled system. Then your ones that have this so-called added market value.

Jerusha Klempere ( [33:17](#) ):

How worried should we be about Salmonella in our eggs?

Urvashi Rangan ( [33:20](#) ):

I actually, for listeners, spent about 17 years at consumer reports and I led food safety and sustainability investigations. Among those were testing national sample sizes of chicken and beef and turkey and shrimp and a variety of different foods, looking specifically at pathogen contamination, filth contamination, proxies for filth contamination and drug resistance of those organisms to various antibiotics. So we could take a look at some of the, "How risky was it all?" And there's a couple of things to note in all of it. One is that Salmonella is one of these very prominent promoters of foodborne illness. There's over a million infections every year that are Salmonella and food related. About 26,000 hospitalizations in over 400 deaths a year from Salmonella and food.

[\(34:22\)](#):

So that's not nothing. Then when you to sort of look at the food breakdown of it's actually kind of interesting. Eggs actually make up about 18% of Salmonella illness cases a year. Poultry meat on the

other hand, makes up about 30%. So it is true that eggs are a carrier for Salmonella, but when you look at what else carries Salmonella, there are a lot of other things too, pork, beef, even incidents on fruit and nuts. We can talk about why Salmonella gets to those points because ultimately it's a gut pathogen. It lives in the gut. When the gut is nicked or there are bad hygiene conditions or bad manure management, that's when you start to see this type of contamination. When the slaughterhouses, you might nick the gut and get contamination that way on meat.

[\(35:15\)](#):

On eggs, there are two ways Salmonella might get into the egg. It can get into the egg itself, although they say that cases of that have actually gone down over the years. I think there were measures taken that started to reduce the incidence of that. Primarily these days it's about what's on the shell of the egg. If you crack it, you might get that Salmonella break into the egg itself. Generally most commercial eggs are washed, that has reduced incidents even more. But really when you want to look at the source of these issues and why they've become so prevalent in our industrial ag system, you kind of have to go back to the farm itself and look at what's being done or really what's not being done that is proliferating this problem. When we look to better ways of production, there are better ways to do this in which you can manage the levels of filth and contamination and thus these types of pathogenic risks that come from it.

Jerusha Klemperer [\(36:27\)](#):

In terms of those better ways of production like pasture raised, they're more and more available at a lot of grocery chains. I wanted to learn a bit more about these companies to understand if the higher price points and the good vibes from their packaging and their brands are worth investing in as a customer.

Errol Schweizer [\(36:42\)](#):

The majority of eggs 15 years ago were conventional factory farm produced mass market eggs. So that means the hens are grown in cages with usually less than a square foot of space each. They were fed conventional feed, brought to you by your tax dollars. Genetically modified soy and corn heavily grown through government subsidies on large monoculture farms usually in the Midwest. So there was a small section of eggs that was organic, organic standards 15 years ago. Then there were some local farms around the country, small to medium scale growers who had direct sales relationships with customers. They were selling into farmer's markets like all over the East Coast and West Coast. They were using a "New" method, everything old is new again, called "Pasture raising", where they gave the hens significant access to the outdoors.

[\(37:41\)](#):

Now it greatly affected the quality of the egg in terms of these hens were eating bugs, they were eating grass clippings and grass. I mean, they were mowing lawn in these hens and it made the yolks like bright orange, high keratinoid, different omega fatty acid profile and then really stronger taste, more buttery, a little gamier. Essentially when you would compare the look and what we call, in product development, "Organoleptic qualities" of the egg, it was night and day. They're completely different.

[\(38:14\)](#):

Eventually a couple of entrepreneurs realize, "Oh, we could be selling these really cool eggs produced in this more humane, holistic way into grocery stores." But customers really started liking these types of eggs and they liked the marketing, they liked what the products were about and what they were saying. So a couple, larger retailers, because these smaller scale brands were able to sell into cooperatives and small national and specialty and local stores. But when you get to the size of something like at the time

Whole Foods, 15 years ago, having a couple hundred stores, you need some level of scale. And so they identified a few suppliers around the country who were producing eggs through this technique, getting humanely certified using legit pasture raised methods and negotiate with them on the type of scale and the quantities they could provide as well as what the price point was and eventually start seeing these eggs on shelf.

Jerusha Klemperer ([39:15](#)):

This comes from About Our Eggs page on the website of Vital Farms, one of the suppliers Errol was referring to. "We began as a single family farm as we grew, we didn't make our farm bigger, we found more like-minded farmers who put the welfare of their feathered friends first. Today we partner with over 275 small family farms." Handsome Brook Farms, another big pasture raised producer across the northeast and Midwest, also works by overseeing and distributing eggs from a network of small producers. I asked Errol about these three brands that show up at a lot of grocery stores and it's important to mention that when Errol was VP of grocery at Whole Foods, he was an early champion of Vital Farms and partnered with them to bring them to market at scale.

Errol Schweizer ([39:58](#)):

Handsome Brook is an organic pasture raised brand that is based in upstate New York in the Northeast that has to seasonally pasture the birds because, as you Yankees know, it's tundra for three or four months of the year. It's not really great to be pasturing little chickens out there. Vital Farms is based across the South from the Southeast to the Southwest. They try to stay below Mason-Dixon so that they can pasture and run their birds outdoors year round.

([40:28](#)):

Pete and Jerry is an organic brand period. Handsome Brook is an organic pasture raised brand period and there's nuances there. Vital Farms is a brand with multiple competitive segments. So they have an organic pasture raised brand, which is as good or even better than Handsome Brook in some ways because they're able to pasture the birds year round. Handsome Brook is only using organic feed and then Pete and Jerry's is an organic certified producer only using organic feed but is not a pasture raised operation. They're using cage-free, large scale barns with outdoor access and all the other benefits of organic certification. So in some ways they're probably the most efficient producer. They're the most large scale producer because the amount of hens that any one of their operations can be housing and the amount of eggs that they can produce because they don't have the 108 square foot outdoor space requirement for all their eggs.

Jerusha Klemperer ([41:26](#)):

But let's say a person wanted to just avoid all this nonsense, forget about having to decipher labels and just get some hens and produce really great eggs themselves.

Tove Danovich ([41:36](#)):

I've always been really interested in animal welfare as a subject in a lot of the food writing I've done that's a pretty common theme for something that I've written about. My name is Tove Danovich, I'm a freelance journalist and the author of the upcoming book "Under the Henfluence: Inside the World of Backyard Chickens and the People Who Love Them."

([42:01](#)):

I think typically we treat animals very poorly in the industrial farm system and I kind of believe in if we are going to use them for food, there should be more of a transactional encounter where we take care of them and they take care of us. I feel that we have broken our side of that bargain for the most part these days.

[\(42:21\)](#):

So I was mostly interested in having backyard eggs because I knew that the chickens would be treated really well. Obviously, you have the added bonus of feeling like the eggs are better. I know there have been a lot of people that have tried to do A and B tests. "Can you tell if a backyard egg is better or not?" Oftentimes they can't. But I think that animal welfare component is super important.

[\(42:46\)](#):

I was living in New York unseen to be getting backyard chickens between maybe 2005, 2015, they were really having a moment because everyone was doing the "Know your farmer, know your food," "Best way to know your food, have hens in the backyard. You know exactly where eggs are coming from." So I was living in Brooklyn and that is not an easy environment to raise chickens in, but my husband and I made plans to move to Portland, Oregon, and I knew immediately top of my to-do list going to get chickens in Portland, it's going to be great. So like everyone else, we moved to Portland, got settled and we got this flock of chickens mostly for eggs, at first.

[\(43:30\)](#):

I knew I liked them enough to be willing to take care of them, but mostly I just thought "They're going to lay some eggs. Eventually they're going to slow down their laying and then probably I'll have to take them somewhere to be retired because they're just egg producers." That's something you do have to think about when you're making the decision to get chickens in your backyard. But I just completely fell in love with them and now they've turned into pets. I currently have seven and they're all different sizes and breeds. They lay different egg colors, but a lot of them are honestly kind of useless for egg laying. They don't lay very regularly or they lay tiny eggs. But for two people, seven chickens still gets you way more eggs than you could ever possibly eat on your own.

[\(44:19\)](#):

A funny thing about chickens that I really didn't know until I had them is that eggs are a seasonal product. So in the industrial farming system, people use supplemental light in these barns that they keep chickens in all the time. That puts them in kind of perpetual spring and summer. So their egg laying is tied to the amount of light that you get during the day. So if you don't have supplemental light, they lay a lot in spring, summer and then fall they start to taper off and winter they go on kind of a three months break from egg laying.

[\(44:53\)](#):

So we let our chickens take the break because I think it's better for their overall health, which means starting about August, September, we start stockpiling all of our eggs. I bought a small mini fridge just for this purpose because it keeps the eggs longer. So we just have cartons with dates on them in this fridge ready to go and get us through the winter until they start laying again in spring.

[\(45:19\)](#):

The eggs that most people are getting in the grocery store, I forget the exact amount, but they're going to be at least a month old by the time you get them. So they are collected from the hens, they have to be washed, which they don't make you do in other countries, in the US they do. And because they're washed, we're washing off this protective layer called the bloom that makes it so they have to be refrigerated in order to stay good. And then these eggs are tracked all over the country and then they sit



in a grocery store until someone is ready to buy them. "I'm going to go home with you and sit in your fridge." So you're getting some old eggs by the time you get them, which they're fine to eat, they make a great hard boiled egg, hard boiling fresh eggs takes... It's more difficult for chemical reasons I do not totally understand.

[\(46:09\)](#):

So when you're getting eggs from your backyard, you're starting on day zero. We keep our eggs unwashed, which means we can store them on the counter, which is great when you sometimes are getting seven eggs a day from seven chickens and that would take up a lot of fridge space if we had to refrigerate them. So they can last quite a while, I like to say about three months I feel good about and we store them unwashed in the refrigerator. Maybe they would last longer, but they don't last that long in our household. So I've never found out.

[\(46:46\)](#):

When I got chickens, I kind of had the farmyard types in my head, so I knew there were white chickens, I knew there were black and white chickens, I knew there were red chickens. I was like, "Great, I'll get one of each. Won't that be amazing?" So you start going to websites or places where you can get chicks from and suddenly there are like 400 plus kinds of chickens to choose from. You have bantam varieties, which are going to be miniature chickens, and then you have the full size ones. You have them in all kinds of different colors. Some of them are that classic chicken shape, but then you get ones that have almost like bell bottom pants on their feet or they have little poofs of feathers on their heads and the world of chickens just gets bigger the more you look into it.

[\(47:34\)](#):

So my first chickens that I got were more on the side of "These are going to be good egg producers." I got a chicken that was going to lay a blue egg, a dark green egg, and then just a normal brown egg laying hen. I still love having rainbow eggs, especially if you're going to have a pile of eggs sitting on your counter it's nice for them to all be different colors and sizes and it really makes you feel like you have something different from what you're getting in the grocery store.

[\(48:04\)](#):

But once I started adding to my flock after that, realizing these are now pets, they don't have to be remotely useful. I got just the silliest variety of chickens. I have two that are actually the same breed. They're a Duke old bantam in two different colors and they're so small, they fit in the palm of your hand and they have these giant, giant feet and little beards I discovered I just love bearded chickens for whatever reason, that's what appeals to me.

[\(48:39\)](#):

The way egg color works in hens is that they all start off white when they're first being formed and then colors get added, almost like printer toner as they're traveling down the ova duct and out into the world. So when you have something like a green egg, I'm not great with egg genetics, but I believe it's actually a mix of brown and another color bred together chickens that have the genetics for those two, and that produces a chicken that raises green eggs. So if you get really into chicken breeding, you'll know all of that side of things. But the reason that we only have hens currently that lay white or brown in the grocery store is those are the breeds that produce 300 plus eggs per year.

Jerusha Klemperer [\(49:24\)](#):

Now, the whole reason that you began your journey, if somewhat naively at the beginning was a desire to get away from the factory farm's system. Now having raised chickens for this long, has it further entrenched any of your feelings brought up new feelings?

Tove Danovich ([49:41](#)):

When talking eggs specifically, one really big thing that people are working on is in egg sexing of chickens because when we're looking at the egg industry, the specialization of egg laying breeds and meat breeds is so different that egg laying hens when they become too old to be useful in the industry, are worth so little money, they're just killed and landfilled a lot of the time because it costs more to process them than you'll actually get back for the meat.

([50:13](#)):

So if you're a male chick born in the egg industry, you are useless right away, and there are billions of these chicks that are killed every year. No one likes that that is happening. In Europe they already have some preliminary systems of actually being able to sex chicks before they hatch and not allow the male chicks to further develop. It has not become scalable and cheap enough yet for the US egg industry to want to take current technologies that we have and put them in place. But I know that's something that everyone is actually trying to make happen, and I think just that alone is going to make a really big difference.

([50:54](#)):

But there are certainly things like getting rid of battery cages for hens, which I think the cage-free movement has done a lot to help further that will help. But a lot of it are incremental steps towards making things better for chickens who I think are really the most mistreated animal of all the mistreated animals in industrial agriculture right now, they're the only ones that don't even count under the humane slaughter rules to have standards for how you dispose of them, which is not the case for pigs or cows or other animals. So I think that really speaks volumes to how little we think about the welfare of these animals.

Jerusha Klemperer ([51:33](#)):

Is it because of some... Because they're not furry or what is that based on?

Tove Danovich ([51:40](#)):

I have to believe that it is this mammal bias we have. I think it takes a lot more time with the chicken to have their personality come out and they have a lot of personality once you let that happen. But they don't have sad baby cow eyes and big eyelashes and their beak can't express any kind of emotion whatsoever. So it really takes that extra step to kind of come around to the fact that birds are just as thinking and feeling as interesting as all of the other animal species we have on the planet.

Errol Schweizer ([52:23](#)):

The thing that people should be doing if they have enough time to be thinking about this, is lobbying for better organic standards like the implementation of the organic livestock and poultry rule to assure that there's better animal welfare standards for organic. But I think even more than that, why is it only California that's past this cage-free egg law? What about where other people live?

([52:47](#)):

The fact that still the vast majority of eggs are produced in battery hen operations. So yeah, there is nuances between these brands that make up less than 5% of the egg category. There's differences, there's definitely some compromises some of them have made relative to scaling, but I think it's besides the point because 80% of the category in most stores, in most areas of the country are still battery hen eggs.

[\(53:14\)](#):

If you want to move the needle on eggs, you have to talk about policy. We need to stop putting it on the shoulders of consumers. It makes me... It just pisses me off that all these things boil down to individual consumer choice as if that is actually a source of freedom. I actually find it to be deeply exploitative and oppressive because it deflects blame and responsibility from the large scale industries and actors that we really need to have greater scrutiny and control over.

Jerusha Klemperer [\(53:43\)](#):

We hunt for the eggs from the happiest hens, learning about labels and scouring company websites for explanations of their production practices. We calculate the humanity of a square foot versus 108 square feet. We measure the externalized costs of air polluted with chicken litter. Maybe we even buy a few hens of our own at this moment it's what we have available to us to support a better system, to raise the floor of acceptable practices.

Errol Schweizer [\(54:10\)](#):

We could always subsidize the good stuff, both in terms of subsidizing organic and regenerative feed, subsidizing producers more effectively and more extensively for tearing out barns and trying to do more pasture raised eggs. I don't think we can only do pasture raised eggs. I'd be very curious if we could ever produce enough eggs to meet demand in that, but we can definitely do a lot more and we probably are doing way too much of the battery he eggs.

[\(54:38\)](#):

Then finally, imagine if consumer subsidies covered organic food prices. Like what if consumers were refunded the price difference between what they were paying for the battery hen eggs or the cage-free eggs and organic regenerative, or if there was some food utility, public food access, a public option for food where food wasn't commodified as an individual price that folks essentially took out a food library card and said, "Well, I need this many eggs for the week. I have two growing kids and I want to make a few omelets." And you get your food library card in and just take your couple cartons of eggs. I'm just saying, call me an extremist, but maybe food should not have to always be priced and treated as a commodity. Maybe food should be a right.

Jerusha Klemperer [\(55:27\)](#):

What You're Eating is produced by Nathan Dalton and FoodPrint.org, which is a project of the GRACE Communications Foundation. Special thanks to Patty Lovera, Urvashi Rangan, Emily Moose, Ryan Nebeker, Tove Danovich and Errol Schweizer. You can find us at [www.FoodPrint.org](http://www.FoodPrint.org) where we have this podcast as well as articles, reports of food label guide and more.