

Chickenology Part 1 with Tove Danovich

Ologies Podcast

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Oh hey, it's your neighbor's daughter, who approves of your new mustache, Alie Ward. Get ready. I don't even want to belabor this intro; this has been a long time coming. Okay, we already did an Oology episode about eggs of all varieties but never, never have we done a chickens episode. Chickens, what are they up to? Who are they? Are they soft? What's up with their flappy faces? Do they like us? Where do they come from? Should I get a chicken?

I knew that there was a chicken book coming out by this guest, and I hounded her for the better part of a year, asking her to talk turkey about hens and roosters, and today's the day. Her book, *Under the Henfluence*, it hatches today, March 28, 2023, and the world of chicken people may never be the same. So, she hopped on a mic from Portland, Oregon and amid ambient animal noises, we just clucked on and on about chickens, so much that it necessitated a Part 2, which is due out next week.

But before we get to it, thank you to everyone on Patreon.com/Ologies for supporting the show for a buck or more a month and submitting your questions for Part 2. In the history of *Ologies*, we've been making this show for five and a half years, we've never had so many questions submitted for a topic. Even more than our 2022 ADHD episodes. So chickens, oh we're into this. So, thanks patrons, and thanks to everyone who tells a friend about the show and who subscribes, and rates, and leaves me reviews like a basket of golden treasures, I read each one. And to prove it, here's a farm fresh one from Krstink who says:

Alie, my new dad, is more relatable than most relatives. I'm no longer ashamed of wearing the same sweater every day, the goth days, or eating smoked oysters out of a can because somehow, she made it cool.

Krstink, if there were a vibe check, you'd pass it. I read them all. Okay, let's get into this.

Find a comfy perch, perk your ears up for chicken ears, egg colors, junglefowl, world records, fallen political figures, chicken statues, Hollywood hens, coop logistics, agricultural semantics, chicken clucks, fuzzy babies, rooster thorns, and so, so much more as we chicken scratch the surface in Part 1 with hen mom, chicken researcher, journalist, and author of *Under the Henfluence: Inside the World of Backyard Chickens and the People Who Love Them*, chickenologist, Tove Danovich.

Tove: I'm Tove Danovich and I use she/her pronouns.

Alie: And it's [ph.] Tova?

Tove: It is [ph.] Tova, mm-hm.

Alie: I've been calling you Tove this whole time.

Tove: I mean, you and everyone. So, you're not alone.

Alie: Oh, that's so good to know! I'm already learning so much.

Tove: [laughs] Yeah, that's it, that's all we had to do.

Alie: Do people call you the chicken lady?

Tove: Maybe behind my back [Alie laughs] which, you know, would be fair honestly. But not to my face.

Alie: I feel like once your book comes out a lot more people are going to be calling you the chicken lady.

Tove: Probably, yeah. I mean, it's okay. I'm ready; mentally and emotionally prepared. So...

Alie: What is it like for someone who deals with chickens and eggs to incubate a book about chickens and eggs for so long and have it hatch?

Tove: Yeah, it's weird. I've been kind of talking about chickens to anyone who will listen in my much smaller circle of, like, husband, and friends, and family, and the occasional article. But I've been working on this book almost as long as I've had chickens, close to five years.

Alie: And you are based in Portland?

Tove: I am, mm-hm.

Alie: Does everyone in Portland either have a beehive or chickens? Is it one or the other?

Tove: I think so. They might make you sign something before you move here. [Alie laughs] Certainly that or dogs, which was one of the reasons we chose to move to Portland. We have, now two, very spoiled dogs but we learned through some article, Portland was "The most dog-friendly city in the United States" and we were like, "Well, that's a good fit for us." But yeah, certainly if people don't have chickens, they have one or more friends who have and keep chickens, which keeps the overall numbers down. We get too many eggs from our chickens for what we can use, as two people. So, we need someone to give those eggs away to.

Alie: This is unlike anything else that's happening in the country right now. You're flush with eggs and everyone else is eggless. I went to Trader Joe's the other day; they told me I had to get there by noon in order to get eggs of any kind. They're also like \$8 a dozen at some places.

Aside: More on the eggcruciating crisis of shortages and what the future holds later in the show. But for now, how does one become a chicken expert? We all need to know.

Alie: But take me back a little bit in your history. Did you grow up on a farm? Did you grow up with animals?

Tove: Yeah, you know, so my family on my mom's side are all farmers. They were Norwegian, German immigrants, came to the Midwest, started some farms, some people are still farming there. But they used to have a dairy, and so I grew up hearing all of these stories about, like, my mom going to visit her uncles and having to hold the cows' tails during milking.

My grandma definitely had chickens when she was growing up and her mom actually raised chickens for something called egg money which was very, very common. They just kind of gave chickens to all the ladies and were like, "Here, you'll make some money out of this, and you can use that to spend on school supplies, groceries, clothing." Literally, all of the household expenses were from these chicken businesses that women used to have back in the day.

Aside: I had no idea that egg money was a thing and I found a paper titled, "The Social Meaning of Money: Special Monies," published in the *Journal of Sociology* in 1989 and it explained that among farm families, women's' egg money and butter money were distinguished from husbands' wheat money or corn money, suggesting a dual economy with women and children providing for living expenses while husbands paid for mortgages and new machinery. This paper explains that for middle-class families, egg money was more of an innocent slush fund for clothes and treats, kind of like the original good vibes only, girl-boss side hustle, but without any pyramid schemes selling stretch pants to your Facebook friends.

Although now, with college expenses what they are, and kind of a weird economy, a young lady can make up to \$10,000 in egg money, but it's a different kind of egg money and chicken money doesn't involve syringes.

Tove: So, I kind of grew up with those stories very much in my mind. When I was little, I did 4-H with my sheep, but I did not have chickens until five years ago. And that was mostly because, you know, I just wanted some eggs in the backyard. There wasn't even an egg shortage then, but it seemed like a nice thing to have. I was very interested in animal welfare also, so that way... you know, if you're raising your chickens, you can guarantee that they were raised well. So, that was kind of how I wound up here. *[laughs]* *["Into the hen house I go."*]

Alie: What was it like when you got the first chicken? Did you just go get 12 fertilized eggs from Whole Foods and *[Tove laughs]* put them on a heating pad? Or did you go to the feed store and try to pick one out? Who was your first chicken?

Tove: Who were they? Yeah, so I ordered them online, as you do these days. And they came in the mail, which is wild.

Alie: What?!

Tove: Yeah, since like 1913, our good old USPS has been shipping baby chicks that are a day old through the mail across the country. So, initially it was like, by train. And then of course, we got planes. So, now it's trucks and airplanes that are bringing baby chicks, even the ones you get at the local farm store, those have come through the mail from one of these hatcheries that have chicks. So, that was how I got them.

I thought I was going to get really classic chickens and then I started looking at what was out there and was like, "Oh my god, there are like 450 breeds of chickens, *[Alie gasps]* this is crazy." I didn't know what I could have. So, I got slightly fancier chickens, and then I went to the post office, I stood in line. *["You've got mail.]* The post clerk went back and brought out the little box that was peeping, you could hear it getting closer. *[little chirps]* And then I brought them back home and put them in their little brooder box in our bathroom and that's how the chickens came to be.

Alie: How was the post employee? Were they like, "This box is peeping." Did they want to see? I would have been like, "Open it up, let me touch their little, tiny, fuzzy heads."

Tove: Yeah. You know, the first time she was like, "Oh yeah, we get chickens all the time, it's really nice." But the second time she was like, "You know, it's really good to check and make sure the chicks are okay... Here is a box opener in case... you want to do that right here." *[both laugh]* And then we just stared at them for a while.

Alie: Oh my gosh, bless her moxie for that. *["I can't imagine a more beautiful thing.]* I'm so glad that she made her desires known because that's human nature and I'm proud of her.

And so, when you say fancier breeds, are we talking the ones with just lustrous plumage, or hairy feet, or big ones, little ones?

Tove: I mean, all of the above. I'm trying to even think... So, the first three that I got, one was an olive egger who is still with us, and she is just kind of a giant gray lady with a beard. Her breed is kind of a mutt, so they can come in any feather color, they just all lay olive-colored eggs. The other was a cream legbar; she's all white and then she has a little fancy mohawk of feathers, but she laid blue eggs. I was really going hard on the egg color initially. And then the other one I got was a Dominique, which was apparently the oldest chicken breed in the United States but she's just very classic. She was the black and white barred chicken, the little red comb. So, that was my initial flock.

My chickens now are much fancier than those even. [*laughs*] So, some of them are quite big, and then others, they're so small they literally fit in one palm of my hand, I can just hold them there. They have feathered feet or poofs on their heads. Some of them I'm really into now are Cochin breeds, and they have these little bustles, like an old-timey lady with a skirt and I just love watching them run-waddle around, it's so cute.

Aside: Just a warning, if you are prone to impulse buys, do not look at chicken catalogs. Because I made a casual visit to Cackle Hatchery, a Missouri-based mail-order chicken business, and before I knew it, the sun had set and I was still looking at birds with names like the Buff Orpington chicken, Crested "Top Hat" Special, Turken "Naked Neck" chicken, the Golden Comet, Cinnamon Queen, Mini Cackle Surprises, Bantams, Frizzles, Sizzles, Frazzles, and Silkies, the latter of which look fuzzy as a puppy. Some have black skin and bones. But whether you get a bitty, which is a newly hatched chick, or a cockerel, a young rooster, or a pullet, which is a young lady hen, they're all just a chicken.

Alie: And all of these 450 different breeds, they're all the same species?

Tove: Yes. They're all *Gallus gallus domesticus*.

Alie: *Gallus gallus*! I was thinking this would be gallusology, and I looked it up and it has been used exactly one time in the literature. Although I understand chickenology might also be a term that's out and about?

Tove: I think it is. And I was thinking about that because I would guess the gallusology or gallogony probably refers to the fact that they're Galliformes, but that includes pheasants and, I think, turkeys. [*dog barks and howls*] Sorry, my dog is having some feelings downstairs.

Alie: I love that your dog's like, "I have a lot of thoughts about chickens!" [*Tove laughs*] So do we!

Aside: You know, after this episode, her dog Bandit emailed me to say that what he was trying to convey in the moment in the background was that while gallusology is tempting because it sounds more academic and esoteric, it would be too inclusive of avian families and species that we weren't touching on. And then Bandit included a link to the work of Dr. Paul Wigley of the University of Liverpool's Institute of Infection and Global Health program. Apparently, Dr. Wigley is an expert, spending decades studying the biology of major zoonotic and endemic bacterial pathogens in poultry. And Dr. Wigley identifies publicly as a chickenologist. So, thank you, Tove's dog Bandit, for taking the time to weigh in with that vital context so, good boy. Chickenology it is.

Alie: So, tell me a little bit about their species and genus. What kinds of birds are we talking here? What is a chicken? Are there wild chickens?

Tove: There are wild chickens, yes. So, all chickens are descendant from junglefowl, which still exist. [*dog continues to bark*] [*Tove laughs*] I'm going to text my husband to go take care of our dog.

Alie: Aww.

Aside: That was Bandit asking for a belly scratch for previous input, well deserved. Onward.

Tove: So, back to chickens. Chickens are in this class, (or family I'm so bad at this) but the Galliformes, and that is basically land-dwelling birds. So, they can fly a little bit, they're not very good at it, they're not going to be migrating anywhere. But they can fly up pretty high into a tree to roost at night if they need to, or flutter somewhere to get away from a predator. But all domestic chickens come from mostly red junglefowl with a little bit of... I think, gray junglefowl is the other subspecies, probably. And they just were domesticated, you know, about... the current estimate is

3,500 years ago in Southeast Asia and then slowly got more and more like the many types of chickens we see today.

Alie: Wow. Do they look much different than they did pre-domestication? Because there's still wild junglefowl out there, right?

Tove: Yeah, there are. The proper junglefowl that are still there, though they are increasingly mixing with domesticated types of chickens. But then we also have feral chickens.

Aside: Just a quick FYI here that you can weaponize to annoy people. So, there is no such thing as a wild chicken. There are ancestors, there's wild junglefowl. But a chicken, semantically, has been the product of domestication and then released. So, if you ever see a freewheeling unattended no-cares-in-the-world chicken, they would be feral and not wild, no matter how wild they're feeling that day.

And also, were it not for this aside, I would never have known that in Los Angeles, there's a feral colony of chickens that have lived in the Valley under the Vineland offramp on the 101 freeway since the 1970s. No one knows how they got there but according to their Wikipedia page, which completely lacks photos and is thus killing me, news stories generally ascribe them to an overturned poultry truck. And then apparently in the last decade or so, some of them have just taken off to go live under the Burbank Avenue exit like two miles away, like it's chicken Brooklyn or something.

But yeah, feral chickens just living their best lives, comparatively, all over Florida, California, Texas, Tel Aviv, Sydney, hello chickens, Bermuda, Virgin Islands have chickens, and a place called Fitzgerald, Georgia, which is home to possibly the closest descendants to these small brightly colored red junglefowl brought in from Myanmar 60 years ago as a game species and that just kind of never took off, literally or figuratively, no one cared. And now the town is so known for its chickens that Jim Puckett, the mayor of Fitzgerald, hatched a plan to build a 62-foot wire frame bird as a topiary framework which would also be the largest structure of a chicken in the world. It also costs \$291,000 and the voters cockblocked its completion, and then they ousted him as their leader. So, they kicked out Puckett and now there's an uncompleted chicken statue in Fitzgerald, Georgia. But anyway, all those chicken locations have something in common, perhaps vacation destination for you?

Tove: And if you've ever been to, really a lot of warm climates tend to have them, they don't do so well in the cold over winter. But Hawaii, full of feral chickens. And most of the chickens there are a mix of junglefowl and domesticated chickens, which is very interesting.

Alie: And do people ever nab them and then put them in a pen and say, "You're my pet chicken now!"? [*"Let me kiss you, I love you."*] Would that ever happen?

Tove: [laughs] Probably. It's kind of interesting. I know in Hawaii, the chickens, they're so overrunning things that it's getting to become kind of an issue and people aren't really sure what to do about them. And the junglefowl are protected but domestic chickens would not be, and so figuring out who these chickens actually are really has some bearing on if people will try to do away with them or not.

Alie: Wow. I imagine there's probably also ecologists being like, "Hey listen, maybe we got some extra chickens, maybe we've got some people who need chickens to eat." I'm sure that they might... you know, like wild boars and stuff, feral hogs.

Aside: So, yes. [stutters and sighs] ... Do people eat escaped and feral chickens? Do people eat 'em?

Tove: Yeah, I mean traditionally, they were definitely hunted. I'm sure people are still going out and doing that but they're much smaller than what you would get in a backyard. And it's interesting when you see feral chicken populations, some of them will have things that you can tell came from domestic chickens, like they might be white, which is a color that just does not occur in feral populations because they live in the jungle and white is not great for camouflage. But they're much smaller, they tend to lay eggs a little more similarly to junglefowl ancestors, which would be fewer of them and maybe more seasonally. And then they get smaller. So, when you go to Hawaii, the chickens there really look a lot more junglefowl than what you would find even if occasionally, you know, I'm sure some large lady or gentleman kind of wanders off into the woods to try and join them. But those genes just don't work out as well for wild ones.

Aside: So, feral fowl may not have all of the genetic bells and whistles that humanity has bred into chickens for the last 4,000 years, but because escaped and growing chicken colonies in cities and their roosters tend to be regarded as a bit of a nuisance, there aren't a lot of protections for them. I mean, on the contrary, in researching this I found that some local governments will supply free traps to help capture these truly free-range hens and roosters. And I don't think they ask what you do with them, from what I gather.

Alie: And speaking about gentleman chickens, when you get your little box of peepers in the mail, them's all ladies, right?

Tove: Hopefully, they're hopefully ladies. Most hatcheries will guarantee about 90% accuracy, and they are trying to figure out if the chicks are boys or girls through something called vent sexing, usually, which the vent is kind of like the chicken's all-purpose orifice for everything. And when they're a day old, it's still pliable enough that you can peek inside and see if there's a little tiny bump in there or not, and that's the only way to tell unless they're one of the color-sexing breeds where the chicks hatch out a different color. But it's really hard to do.

For the book, I went to a hatchery and watched someone do it and he tried to explain it to me, and I was like, "I think I'm hallucinating, [laughs] I don't know what you're looking at, I could just be making this up." So, it's really hard to do and that's still the best we've come up with on a large scale. So, of the... I don't even remember how many chickens I've actually had in total, but we've had one accidental rooster in our flock who had to be rehomed because we live in the suburbs. [rooster crows] And that is unfortunately pretty common for people.

Alie: What happens to those roosters? Are there farms that need alarm clocks or are there insta-pots?

Tove: Yeah, I mean both. It has gotten to be a bit of a problem because back in the day... So, my great-grandma raising her chickens, she wouldn't have cared too much about sexing them and would have gotten them all; it's called straight run. And then the roosters, those are the first ones you eat for Sunday dinner, or sell at the market in town, and that was all fine and good. But people like me who are getting chickens where they are pets, we don't really want to give this chick that we've lovingly raised to about six to eight weeks old when you find out that she is really a he in disguise. I want them to have a nice life, I've gotten attached to them.

As a result, a lot of people try to bring them to animal sanctuaries or The Humane Society, which is fine, but there are too many, there just aren't enough people who need roosters compared to all of the people who get these accidental roosters that suddenly, the neighbors are complaining, and they can't keep. So, there's definitely been an increasing issue of animal abandonment, which is not great. I kind of feel like it would be better for them, if you can't rehome them, to just have them turned into dinner rather than making them suffer in the woods until something eats them.

Aside: Hello from the deep cave that I fell into researching the fate of roosters. This is where I live now. Okay, so when you buy laying hens, little, tiny cute chickies, their brothers have been disposed of pretty promptly. So, at day-one hatched, someone takes a peep at the cockerel's pecker and sadly, they go straight into a macerator, or if they're lucky, a chamber of argon gas. Although, maceration, which is the preferred method in the US, is argued to be a quicker and more humane death, taking less than a second.

Now listen, [*deep breath*] do I want the job of making you imagine fluffy baby chicks being tossed into an industrial woodchipper? I do not. I don't want that job. And I don't want to think about it when I'm eating a quiche, but that's the reality. So, here's the hope, okay, things could be getting better. So, Europe is not fond of this practice. In January 2021, Germany was the first country to outlaw male chick culling and it was followed by France and then Italy. So okay, well then what do you do from all of those baby roosters? You prevent them using something called in-ovo testing and science.

So, there are technologies that involve boring a tiny, tiny laser hole in a 6-day-old egg to get an itty-bitty genetic sample of the embryo and then sending males on their way as edibles. There are also data scientists that are trying less invasive machine learning to look at the shapes of eggs to figure out which ones to hatch, which ones to eat. Those are called no-kill eggs or brotherless eggs. Or, you can just let roosters live, for a while.

There's a Netherlands-based company called Kipster Farm that raises these roosters for meat, and they've managed to be a cage-free, carbon-neutral egg supplier. They also use solar power and they feed their chickens food scraps from local bakeries and stuff to divert waste from landfills. And if you listen to the Discard Anthropology episode you can learn more about landfills and food scraps. And if you're like, "Okay, a nice chicken farm; I'll believe it when I see it." I did see that Kipster Farm offers a livestream, actually several livestream cams, in their chicken houses. And last night I just sat, and I stared at these ghostly night vision images of a bunch of fluffy white sleeping birds. But sadly, there's no sound because for a second, I was like, maybe I could use all those roosters as a free livestreaming alarm clock, but no. But yes, people in general are trying to figure out this elephant in the room, or the rooster in the roost.

Tove: But it's definitely a problem that is still kind of being grappled with and I don't think we've really figured out what to do about that now that people get more attached to their chickens than they used to be.

Alie: But in terms of animal welfare, are there folks who would argue that it's better to eat a rooster who has had a good home for a while than to eat a chicken from factory farms?

Tove: Definitely. And there are definitely people who are very keen to do that. Certainly, if you're homesteading, that's kind of part of the reason that you have chickens is to have a source of meat that, you know, is better raised, healthier, all of those things not involved in the factory farm system. But if you're in an urban area, slaughtering a rooster in your backyard is not the most neighborly behavior [*laughs*] and most people aren't really prepared to do that and process a chicken, and all the things that go with it. So yeah, it's kind of a choose-your-own-adventure but it's definitely something I tell people to think about in advance. What are you going to do if you wind up with a rooster? Is it someone that you want to rehome, or are you going to be fine with it becoming dinner for yourself or someone else?

Alie: Right. I wonder if there's a rooster exchange where it's like, "I can't kill and eat my own chicken, but I'll eat a friend's chicken that I've never met before." [*Tove laughs*] Horrible but, augh.

Roosters, why are they doing all that dawn squawking? Why not the bock-bock?

Tove: Yeah, you know they, contrary to popular belief, they do not crow just at dawn. I feel like if they just one-and-done'd it, it wouldn't be such an issue actually. [Alie laughs] They keep it going all day long so, yeah. I mean, it's a form of communication that they use, it's certainly a territory marking deal. I know that roosters, if you have a lot of them in an area, they're like wild chickens or feral chicken population, the first rooster will start crowing a couple of hours before dawn actually. But it's the highest-ranking rooster in the flock who gets to do the first call, and then I don't know if they have a strict kind of sign-up sheet going down the list after that or if it's just a free-for-all. But I do know that number one rooster, he gets to break the news that it's almost daytime again.

Alie: Do you hear in Portland, rooster calls, here and there?

Tove: Not that often. Definitely when I get a little bit farther out of the city because you're not allowed to have roosters here.

Aside: Definitely check with your local government. You might be surprised to find that it's fine to have a rooster or two in the eyes of the law. Now, in LA, a city that ChickenCoopGuides.com described as very chicken friendly, you just have to situate your coop 25 feet from your house and 35 feet from your neighbor's. And I found LA City Ordinance 180899 Section 53.71 Article 3 or Chapter V of the LA Municipal Code states that, "The City wishes to balance the desires of individuals to keep roosters with the rights of their neighbors to live in peace and tranquility," therefore each LA household can have one rooster. And I was like, how many households are there in the city? 1.3 million households. In my experience, people choose peace instead of roosters.

Tove: There have been a couple of springs where I've been hearing them in the neighborhoods, and I wonder if a neighbor is trying to just sneakily keep one and see if their neighbors care. But then it usually goes away after a month and the rooster has been rehomed elsewhere.

Alie: I had a neighborhood rooster for a while and it was a 4 AM situation where I kept sticking my head out the window at 4 AM to be like, what direction is that coming from? Part of me wishes that I did have a 5:45 rooster, or a 6 AM rooster. I kind of wish that we did have something so irritating that it would get me out of bed, that I couldn't silence at the whim of my thumbs.

But augh, I have so many questions for you, it's absolutely boggling. This is such an exciting topic; you have no idea.

Tove: I do have an idea, it's what happened to me! [laughs]

Alie: [laughs] Oh my gosh, okay, where do I start? How does a person go from a, "I do not have chickens in my backyard," to a person who is like, "Anyone thinking about getting chickens can text me with chicken questions." How does one become a chicken owner, a chicken lover, a chicken fosterer? What's the jump? Where do people go when they become a chicken person?

Tove: Yeah, I don't know when I crossed that line. I wish I did, it would be interesting. I feel like it happened early on. Yeah so, I brought these chickens home from the post office and they're really cute. I mean, chicks are not the naked altricial baby birds that look really unfortunate and scary.

Aside: Just PS, I had never heard the word 'altricial' either, so I had to look it up. But it means, being hatched as tiny, teeny, little babies who need a lot of love and care, kind of like the squirmy little birds that stay in the nest for a while, looking like screaming ball sacks. But rather chickens, they are not altricial, they are precocial and they come out with open eyes. They're like, "I'm here, my shawl's off, I'm going to strut around with the floofiest, downy cuteness in the breeze."

Tove: They're just little fuzzballs and I was just delighted by everything they did from the beginning. I mean, the fact that they were egg-shaped when I got them, which I'm like, of course, it makes so much sense, you were just living in an egg for 21 days, of course you're shaped like a little egg that

has legs on it. And they were in the bathroom, we set up a little tote for a brooder and it's across from my office, and I would just take breaks and wander in there, and then sit in there a little longer and be like, "What are you guys doing? What are you up to today?"

I was reading all these books about chickens and just got more and more interested in the world of chickens and wanted people to know about this exciting world that I was discovering. There's this phrase that chicken people like to use a lot called "chicken math," that kind of just refers to the fact that you think, like me, "I'm getting a reasonable three chickens, I'll get this small coop, it'll be fine." And then suddenly you have eight chickens, and you've written a book, and you don't know what happened in the interim. [Alie laughs] So, they're very addictive and I think some of it is there are so many kinds that you can get, like all these different colored eggs, different personalities. All of the things that make it a really rich... I guess, hobby is the word, but then I turned it into part of my profession, so who even knows anymore. But yeah, there's just something about chickens, they're weird, and fascinating, and adorable.

Alie: Do you feel like they have different personalities? Do you feel like you have different relationships with different chickens? Or is a chicken kind of a chicken?

Tove: They definitely have different personalities; they're so different. So, Finie, [ph.] who is my Polish chicken, and she has this giant mop of feathers on her head, and she is just always surprised by things, and I think partially because her vision isn't great because of the hat of feathers she's wearing. So, if you sneak up behind her, she just jumps. And it's kind of changed her entire personality, she has a special kind of scream that's different from all the other chickens, so I know when she is talking.

I have one of my chickens who is very standoffish and... I've hand-raised all of them and she just wants to be a wild bird that hangs out in the coop and that's fine. And then I have my tiny chicken, Emmylou, who has giant foot feathers and a beard, and she was getting picked on for a little while, so she wouldn't come into the coop with the other chickens and would kind of hang back. And now she discovered that by hanging back she gets special Emmylou-only treats that I hand feed her. So, she purposefully waits until I give her her special treats before she comes in and has gotten really friendly as a result. She'll just kind of hang out with me as long as I have treats on hand. So yeah, and they get into different kinds of mischief depending on who they are. They're all chickens, they're all chickeny, but they're definitely their own birds.

Alie: But they're not mean, right? Is that flimflam, that chickens are dicks?

Tove: I think they can be. Anyone can be a dick; a chicken can be a dick too. I think roosters are what people have the biggest problem with because their whole job is they're protecting their ladies and the flock, and you are a big thing coming in to mess with the flock, and sometimes they decide that they don't like that. And then there are other roosters that are very kind and gentle. But yeah, chickens, they will peck you, but they can't really do a lot of damage. I mean, compared to a parrot that we think is a very normal pet that can sink its entire beak into your skin and not let go, a little peck from a chicken is not a big deal.

Aside: I had a note here that just said, "Redeem parrots" and so I started googling parrot injuries and I stumbled upon a 2012 *Washington Post* headline, "Parrot injuries and other tales from the annals of medical billing," which notes that the international classification for diseases has not one, but nine codes to categorize parrot-related injuries. One refers to being bitten by a parrot. Another denotes being struck by a parrot. I was like, "Is that real?" I looked into it a little further and I saw there are additional codes for being struck by a macaw, bitten by a macaw, having other injurious

contact with a macaw. But then there's another category for contact with other psittacines, bitten by other psittacines, et cetera. Psittacines are parrots. I don't need to parrot this all back to you.

But if you google, let's say, "Killed by a parrot," you might find a TikTok video from 2021 of a parrot perched on someone's bedroom doorframe and it's carrying a knife in its mouth, a metal sharp knife in its mouth, flying around. And the caption reads, "The chance of being killed by a parrot is low, but never zero." And I was like, "Maybe that's not fair to parrots."

So, to be balanced, I googled, "Killed by a chicken," and I found a weathered sepia-colored page from an 1875 edition of the *Atlanta Medical and Surgical Journal*, which included the all caps headline, "CHILD KILLED BY A CHICKEN," which went on to offer the rather gory details of an infant child by the name of Mr. A.J. Langley who, whilst at play in the family's yard in Alabama, was furiously attacked by a rooster, knocked down, spurred several times, puncturing the skull and causing brain injury that resulted in Mr. AJ Langley's death. And the article concludes, "The doctor thinks this is the first case of the kind in the history of the world." Thank god they didn't have the internet in 1875 because it's better to not know, am I right?

And I was like, spurred, what even is that? And now I know, roosters have spurs which are these boney, hooked projections above the foot, they come out of a little spur nubbin on the leg, and they will fuck you up with them, which is why some chicken keepers keep a rooster around, kind of like an armed bouncer, in case some hungry raccoon approaches the coop and instantly regrets it. I was like, "Okay roosters have spurs. Wait, but what? Hens can grow spurs too?" Yes! Particularly a variety of chicken known as the leghorn, and now you know why a loud rooster cartoon would be named Foghorn Leghorn. Although I couldn't *not* look it up and the Looney Tunes chicken doesn't even have any leghorns. So then I was like, "Wait, Foghorn Leghorn is loud but doesn't have leghorns, well then where does the breed of chicken known as a leghorn even come from? They've got to be named for their spurs, right? They have horns on their legs."

Turns out, the leghorn chicken is an Italian breed from a place called Livorno, which is a port town near Tuscany in northwestern Italy. And Livorno was once called Liguorno and English speakers butchered it and called it Leghorn. So, does *liguorno* mean leghorn? No! It means the people of Liguria, which is now Italy! It has nothing to do with leghorns. So, leghorn chickens are known for having spurs, but they're called leghorns for completely unrelated and coincidental reasons. And I need you to know that this podcast comes out on Tuesdays, but shit like this is why sometimes it's out on a Wednesday. Nothing makes sense and everything is interesting.

And as long as we're miles off course, can I tell you that I was reading that 1875 medical journal about the chicken killer and my eye was caught by the sentence, "She informed me that the orgasm experienced during coition was as exquisitely enjoyable as anytime previous. I have the specimen in my office." And I was like, wait, "I'm sorry, come again doctor man?" And in the paragraph above the chicken homicide, there's a published letter from a doctor who gave a woman a hysterectomy, and the article was debating what menstruation was and if you need a uterus for it, because this guy was keeping someone's uterus in a jar and talking to her about orgasms. Remember, this is 1875, they were like, "Why does a vagina ghost throw sanguineous matter at us?"

So, they also describe menopausal patients in general as, "Decrepid great-grandmothers of ninety, just tottering into her grave," before concluding that it's not their purpose to discuss the subject at all. Yes, sirs, we're going to couch that debate for now. But it's a miracle that I put this podcast out weekly.

Okay, let's get to the question at hand, should you impulsively order some chickens today? [*"Yeah hi, you guys got any of those baby chicks? 'Cause I was watching this commercial on TV and man, those things are cute!"*]

Alie: What about the coop, what type of backyard chicken coop does one need? If someone is considering getting chickens, what type of investment is a smaller scale investment?

Tove: I feel that most premade chicken coops on the market are garbage, [*"Ouch!"*] which is not to say they all are. But I think that, like, your chicken keeping journey can really be made or broken by how good of a coop setup you have. Because if you don't have enough space or it's not laid out really easily for cleaning, you're going to be cleaning it all the time, you're not going to be happy, the chickens aren't happy. If it's kind of really flimsy and a raccoon, or a coyote, or a dog, or any of the many, many things that likes to eat chickens breaks in and kills your entire flock you've gotten really attached to, that's not a fun experience for anyone.

So, we found someone— I'm not good at DIYing things as much as in my heart I feel like I should be. But we found someone on Craigslist locally who made an amazing coop, I think it was maybe \$1,000, and this was some years ago. But it was all out of cedar, and it had the run attached, and it's really nice. I feel like we could have that thing for another 10 years and it will not go away. So, having someone build it for you, or building your own can be really great options, you just want sturdy wood and predator proof it, and then you will be much happier. Of course, plan for more chickens than you think [*laughs*] you want initially, just in case.

Alie: How long do they live if there's not a raccoon or coyote massacre?

Tove: Yeah. So, the oldest chicken on record I think was at, like, 22 years old.

Alie: What?!

Tove: Which is real old. That is not common for a number of reasons. I mean, chickens definitely get sick with a lot of things and especially if you get production breeds that are meant to lay, like, 280-plus eggs a year, they're really prone to reproductive issues or cancer. And so, there are a lot of things that can kill a chicken early. This is very anecdotal, but I feel like a normal, good lifespan for a chicken is probably closer to 8 to 10 years.

Alie: That's so much longer than I thought!

Tove: Mm-hm, yeah, it's a lot longer. And most chickens in the world do not get to live that long. When we're talking about the rotisserie chicken, broiler chickens, is what they're called, those are killed now at like 6 weeks old. They just grow so fast, so quickly, and their genetics are so messed up that if you try to keep them alive, it's very difficult, they're kind of just, like, incompatible with life, long term. They have heart attacks and all these issues; they can't walk around because they're too heavy for their bones. And then laying hens, most of those are killed between 18 months to 2 years old in commercial settings. So yeah, most chickens do not get the chance to live out their days.

Alie: Augh, are those laying hens also processed for meat?

Tove: They are not anymore.

Alie: What?!

Tove: Yeah, which is kind of wild. It's a long story but, back in the day, we now refer to these breeds as heritage breeds or dual purpose. But chickens were only raised for eggs, mostly on farms, that was their main thing. People didn't eat a lot of chicken because the only time you would is if you had an extra rooster or you had a laying hen that's slowed down enough that "Great, she's going to turn into stew meat now."

But they started kind of specializing in figuring out how to breed animals, and not just chickens, for specific traits. So, they were like "Great, we have all these chickens laying eggs, what if we just really max out that egg-laying potential?" And so, I think in like the 1940s, the average laying hen would lay about 150-180 eggs a year, and now we're at like, 300. They've really super charged. But as a result, they don't put on a lot of meat, all their energy is going to laying eggs.

And around the same time period, the egg industry was kind of a West Coast thing and on the East coast we started a broiler industry. And people were like, "Hey if I just raise a bunch of chickens in a shed and then sell them for meat, this is a really easy income source." And so, they were like, "How do we get chickens that put on more meat and more meat?" And there was this whole Chicken of Tomorrow contest that they put on for "which chicken has the best genetics to be raised for this industry?" [clip from old news report, *"The chicken of tomorrow, a broad-breasted bird with bigger drumsticks, plumper thighs, and layers of white meat."*] So, these broilers that grow now to be six weeks old and I think, like, six pounds, it's really crazy.

Alie: Wow.

Tove: They have so much meat, so quickly that slaughtering any of these egg-laying breed roosters or even the hens when they're old, it costs more to process them than what that meat is worth, which is nutty. So yeah, they are a waste. I think a lot of them don't even go into pet food, it's so not worth it.

Alie: No.

Tove: It's just a lot of death for no reason.

Alie: And I guess that means they don't use the feathers either? None of that.

Tove: There is some feather meal and I think garden products that they can turn them into but a lot of people I've spoken with, they're like... they're just kind of composted.

Alie: Augh, that's terrible! What about the difference between cage-free and pasture raised... I'm trying to think of the different things on egg cartons. What are they called?

Tove: It's kind of a mess. Egg cartons are really hard to decipher. So, most eggs still in the United States come from what's known as battery farms, and that's where the chickens are just kept in cages all of the time. The cage-free eggs, which is now kind of the big thing, I think we're up to maybe 30% of the industry is doing cage-free. Those birds are still inside, so they're in giant warehouses, there might be a couple of perches here and there, but basically, it's a lot of birds on a floor, inside. And they're still inside forever, they're still really cramped but at least they can, theoretically, fly somewhere and spread their wings. But these birds are also really prone to osteoporosis, and keel fractures, and all of these problems that come from laying 300 eggs a year. So, some people think that maybe it's not really that big of an improvement and that the birds are getting more injuries in these cage-free environments.

So, then you have pasture-raised, which I think maybe doesn't have a legal definition.

Aside: Okay, I looked into this and yes, it's a little amorphous. But in general, cage-free hens, they can saunter between inside and outside, they usually have access to perches to sleep, but there's no defined measure of how much room they have. And free-range chickens have outdoor access, at least 51% of the time. But again, there's no guidelines for how much space they have or when they're outside. Now, pasture-raised have continuous free access to the outdoors but no guidelines for how much space they have or the quality of the land. However, certified humane pasture-raised eggs mean that a hen has at least 108 square feet of outdoor space with good vegetation so they can scratch for worms and do chickeny things.

So, if you look in your fridge right now, you can build a whole narrative of your chicken's caged, cage-free, or pasture experience based on the carton... Unless it's not even from a supermarket.

Tove: If you're getting eggs from a farmer's market and you trust the farmer or, you know, something like that, essentially, pasture-raised poultry means that they are raised with some kind of access to the outside, they're supposed to be living on grass. But what those pastures look like is very up for interpretation. Chickens, they are junglefowl who have been made domesticated and they like an area with spaces to hide, they like bushes, they like open areas. So, if you just have a dirt field or even an expansive grass, that might not be a super comfortable environment for a chicken and maybe they'll just prefer to be inside instead.

So honestly, it's kind of a mess. When I do have to buy eggs every once in a while, I just kind of default for what says pasture-raised and is a little more expensive than I want to pay, because it costs a lot of money to raise chickens that way. And if you're finding pasture-raised eggs for a couple of dollars, unless they're coming from your friend down the street with chickens, probably the pasture they are raised on is not amazing.

Alie: [whimpers] What situation would you need to buy eggs?

Tove: [laughs] Yeah, so this is a fun thing most people don't know about chickens is eggs are actually a seasonal food.

Alie: What?!

Tove: Yeah, I know, wild. So, junglefowl, they laid like 10 to 15 eggs in springtime, that was kind of their breeding process. That is not the case anymore. But chickens still go on a little winter break every year if left to their own devices. So, if you look at old newspaper recipes from even the 1900s around Christmas, they'll have recipes for making cakes without eggs and making other recipes that you might want around the holidays that are egg-free because having eggs in winter was a real delicacy. They cost a lot more money than eggs laid the rest of the year, especially if you wanted them to be fresh. People had methods of storing eggs but then they weren't as nice, it's an older egg.

So, what they did is when people started moving chickens inside, they added artificial lighting and, this lighting kind of makes chickens' bodies believe that it's, like, ever-spring and summer. So, chickens will only lay eggs when there is a minimum of 12 hours of light. So yeah, they kind of just stop in the winter. I think it's nice for their bodies to have the break from laying, they can put some energy toward other chicken things. [*"Just really busy."*] But yeah, we just kind of trick them into thinking that there are eggs year-round, and then we got really used to there being eggs year-round, and kind of forgot the fact that, like, it's kind of a special thing that eggs are just forever in stores in these great quantities, and you don't even have to think about it.

Aside: While you're thinking about that, let's have a quick break to hear from sponsors of *Ologies* who make it possible for us to donate to a cause of the ologist's choosing. This week, Tove chose Second Hen'd which is nonprofit and all volunteer; it's an organization that works to find loving, forever homes for ex-commercial egg-laying chickens. So, maybe if you want to adopt a chicken, you can check out Second Hen'd, which will be linked in the show notes so thanks for choosing them. And thank you sponsors for allowing us to support them.

[*Ad Break*]

Okay, this is just Part 1 so we're going to continue with some basics including the important questions that we need to know to get an academic foundation.

Alie: Well, what about their buttholes and [Tove laughs] their diet? How do they make so many eggs all year round if seasonally they've evolved, maybe not with breeding, but if they're typically more seasonal birds, what do they have to eat in order to produce so many eggs?

Tove: Yeah, I mean, most layer feed is going to just be really high in a lot of different nutrients, especially calcium because, you know, eggshell is calcium. So, you can give them food that will help them lay more eggs and bigger eggs, but it's definitely hard on their bodies and especially their reproductive systems.

One thing that just kind of endlessly fascinates me about chickens is I think they're one of the only, if not *the* only animal that spontaneously can get ovarian cancer in the way humans do. [Alie gasps] So, they've actually been a model for a lot of ovarian cancer research, and a lot of that is tied to the fact that the modern chicken lays so many eggs in the way that we ovulate once a month until we don't anymore. So, yeah, it's just really hard, I mean they can have like prolapses, they can have cancer, they can have infections of the oviduct and other parts of that system.

Aside: For more on this, you can see the 2022 paper titled, "Ovarian Cancer: Applications of Chickens to Humans," which explains that spontaneous ovarian tumors are common in humans and hens and that monitoring the chickens with serum markers and transvaginal ultrasounds alongside genome sequencing, might be able to help create these models for earlier detection. And yes, chickens have vaginas, but they don't have periods, so an egg is in fact, not a chicken period. But if you do ever get a blood spot in the yolk, that might be because the hen was more active and there was a tiny burst blood vessel just from jumping around. But double yolks, probably a younger hen who is just pumping out yolks, just doesn't know how to reign it in a little bit. And we go into more of that and also how much an ostrich egg purse costs in the Oology episode which I'll link for you.

But another thing that can sicken a chicken is herpes, and the virus can cause nerve issues and tumors, even paralysis. And it's commonly known as Marek's disease. It's passed via dander, and it's just picked up by inhalation. So, if your chickens have pale combs, which is the boingy-boing skin on their head, or they seem depressed or are losing weight, it might be time to get them checked out for fowl paralysis, AKA Marek.

And I'm like, who is Marek, and does he know that he has a chicken herpes named after him? Was he a jerk? Did he lose a bet? No, on the contrary, József Marek was a Hungarian born vet who identified this disease in 1907, but then later on, much later on, bird pathologist, Dr. Peter Biggs, isolated the viral cause of the disease, back in 1960. And when it came time to name it, he thought that Marek should be honored with the name for all the work that he did in chicken science.

And the beloved Dr. Peter Biggs recently passed away after a brief illness which made me sad, which made me read a PDF of his 2009 autobiography via the American Association of Avian Pathologists, Biographies of Professionals in Poultry Health. And two things. Number one, the day that Dr. Peter Biggs announced that he found the cause of Marek's disease, he was giving this presentation at the Congress of the World Veterinary Poultry Association. He was so nervous, and he was excited, he was young in his career, he made a giant discovery. He went through his whole presentation and when we got to the big finish, explaining the viral mechanism... his last slide wasn't in the projector. So, he had to stand up there like a clown and mime how chicken viruses work. But he got through it like a boss.

And I'd also like to give you a little nugget, if you will, of wisdom from him, not having anything to do with chickens. But in his biography, he wrote:

One experience which left a deep impression on me was when colleague Ray Bryan took me out to the rapids on the Potomac River, a place of fascination and tranquility. What stays in my memory and influenced me was Ray Bryan saying that this was where he came to think. He taught me by this one act that one needs peace and time to think.

Peter Biggs, a real one. So, if you're not coming up with enough ideas, give yourself some peace and some time, look at a river, eat an omelet, I don't know.

How many eggs do chickens lay? Okay, junglefowl in the wild lay as few as four per year. Four per year! Modern egg-laying hens, maybe 300 per year, and that's just with one ovary because when little pullets mature, apparently, their right ovary just hangs up a "Gone fishin'" sign and shrinks and they're left as like, okay I guess I'll just churn out hundreds of eggs a year until we can't produce anymore and then someone eats or adopts us. But sometimes the right one comes out of retirement if the left one has just had it with their bullshit.

Now, if you're wondering "Hey, what does a massive chicken ovary look like?" You've come to the right podcast. If you're not able to attend a chicken autopsy, you could enjoy the delicacy of a Filipino dish called Bahay Itlugan Adobong, which is a cooked chicken ovary, and it might be unfamiliar to some but it's not weirder than a chicken omelet, it's all the same parts. I was watching a recipe video on YouTube, and I was struck at how much a chicken ovary kind of looks like ballerina tights stuffed with canned peaches. And at the time I was watching it, I was eating canned peaches and sometimes... timing just does you dirty. But it's a delicacy and I'd try it in a heartbeat.

But yes, because these chickens are producing such calcium-rich protein bombs for us...

Tove: As I mentioned, osteoporosis is definitely an issue for a lot of commercial laying hens.

Alie: What about salmonella? What's up with that?

Tove: Yeah, salmonella. So, it occurs in the digestive tracts of just about any animal and chickens are one of those animals. So, I know it's always a big to-do when we have these outbreaks of "Salmonella in backyard flocks" and the CDC is like, "Don't kiss your chickens." And the backyard chicken community is like, "I'll kiss my chickens if I want to, you can't stop me." [Alie laughs] [*I kiss who I want, when I want.*] "*Oh yeah?" "Yeah.*" I do feel like it is a concern but perhaps a little bit overblown in the backyard chicken domain. I hold my chickens, but I also wash my hands every time after I've hung out with the chickens; it's a good habit to do with any outside animal that you've been petting or touching on or anything like that.

Salmonella in the egg industry though is related to why we have to refrigerate our eggs in the United States. And if you go to Europe, or another country, the eggs are just sitting out on the shelves. So, we know that salmonella can happen both inside the egg and then also on the outside of the shell. And what we have decided to do in this country is we're like, "Great, we will wash the egg off and that will get rid of the salmonella that's on the shell, everything will be awesome." But because we've washed the egg, we are also washing off this protective cuticle that all eggs have, that at least in chickens we refer to as the bloom. It's kind of this antimicrobial layer that keeps bacteria from getting inside of the shell.

Aside: Where does the bloom come from? You wonder. Well, the egg starts as a yolk in the ovary, and it grabs some egg white on the way down, and then it gets coated in a shell, it might pick up some pigment as it travels down the oviduct, which looks like a big sock, and all of this happens pointy side first until it pulls a rally car J-turn and it scoots out the booty fat side first. And as it does, it just gets a little tacky coat of that bloom from the vagina. It dries quickly though, and it protects the eggs from any germs by putting kind of a turtle wax coat over the eggshell's 7,000

pores... unless you get it in the US, where we hose that off. For some reason, that's where we're like, "Mm, too much."

Tove: And because that's not there, we have to refrigerate it now, which is a lot of energy and room in your refrigerator. So, our eggs from our chickens, we just have them in this beautiful little spiral container that sits on our counter and then we give them a quick rinse right before we use them and that's it.

But in Europe they're like, "We think washing eggs is actually more likely to spread salmonella inside the egg and on top of that, we believe that there's more salmonella in farms where the welfare is not as high, the animal husbandry isn't where it's supposed to be. And if people know that their eggs can't be washed, they're going to put their laying hens in an environment which results in cleaner eggs, which will be better all around." So, that is kind of the difference. And in this country, we do have much, much more intensive egg-laying barns and things like that than they do abroad, even in their commercial markets.

Alie: Augh! Well, what about the avian flu? Is that why eggs are so expensive right now?

Tove: It's definitely part of why eggs are so expensive. I think, like everything else, inflation and the price of gas, and the price of a lot of feed has also gone up, which I believe has to do a little bit with wheat in Ukraine, like the war over there. Any food is so global at this point, it's hard to point to any one thing. That said, since January of last year, 58 million birds have been killed in the United States because of avian flu, and that definitely has an impact on the supply of eggs. We only have about 300 million laying hens, I think, in the United States, so that is a significant portion to be dying.

Aside: Let's have a number party. So, right now on planet Earth, there are about 35 billion chickens. That means that if chickens wanted to kill us, there would be 4 or 5 of them to take on each human, and honestly, I think they have a chance. But here in the US, there's about 1.5 billion chickens at any given time. There's about 380 million egg-laying hens. But according to the USDA, more than 43 million of those egg-laying hens were lost to the avian flu or depopulation in 2022, which is why you'd need an egg money side job to afford eggs, or you'd need chickens, and Tove's book.

Tove: It's quite bad and quite serious. This outbreak started in Europe a year or two before it got to the United States. Avian flu has been around for a really long time. In the past, what usually happened was it would be a problem during migration season and in the winter because a lot of wild birds like geese and ducks tend to be carriers, but they're not affected by it, so they'll spread it around while they're flying from place to place. And then the summer comes along, and the warmer weather and it all dies out and things are great until another outbreak happens again, hopefully many years later.

That did not happen this time. So, it's continued during the summer, it's been spreading to wild bird species and also to some mammals, the occasional human case too. So, that is potentially serious. But it's a disease that has nearly a 100% mortality rate in chickens. It's really bad and it happens quickly. So, people might have one chicken that just suddenly is dead and then the next day like, five more have died. And the only thing you can do is call, like, your local state veterinarian and they send people out, I think usually in hazmat suits, and they just humanely put your entire flock down. And that has been the way they've been trying to control the spread that, I guess, has worked for a while, depending on how you feel about, "Let's kill these sick animals," as a way of preventing disease.

But it's pretty bad now and it's not going away, and people are starting to think, maybe just killing millions of chickens is not the best way to handle this, especially when we have actually had a vaccine since 2003, they just did not want to use it in this country for a number of reasons. One of the biggest ones is that the birds can still carry avian flu, they just won't be affected if they're vaccinated. And there are some countries we like to export our meat and poultry products to that we're not vaccinating. So, we're like, "We don't want to lose that market, we'll just kill a bunch of birds instead and stop it that way."

So, I think there is now more serious consideration that avian flu has become endemic, and we need to seriously think about a vaccine, which I personally would love. I'm very attached to my eight ladies in the yard. And it's definitely something that's very much on my mind is, tomorrow, a goose could fly by and poop in the yard and if they get it, all of them are just dead and it would be pretty devastating.

Alie: And that's kind of how it can happen, just with bird droppings from a wild population?

Tove: Yeah, or like, if I go to a pond, I make sure to change out those shoes, and clean them, and wear different ones in the coop. I think where we are, the risk is very minimal, we would have to be super unlucky, but that's where, like, biosecurity, and not letting your friend who has pet ducks that hang out in the ponds, they should maybe wash their shoes before they come to visit you and your chickens.

Aside: So, check with your country's health department if you want more local data but, in the US, H5N1 bird flu has been detected in about 6,500 wild birds but it's resulted in the depopulation of 50 million agricultural birds to try to stop the spread. And there's been one US case with a human, and it was someone working to depopulate potentially infected birds and they contracted it but recovered. And then there was another case reported in the UK and that person who also worked with chickens has recovered.

Alie: Who is the avian flu hitting the worst? Is it the larger factories?

Tove: Yeah, it's... I mean, by number of birds, definitely the larger factories. That said, there are definitely people with backyard flocks whose flocks have had to be all euthanized because they've gotten them, or a lot of small-scale farmers. So, it can hit anyone, though a lot of people do think that the commercial poultry industry is part of why avian flu has now become such a problem. I mean, anytime you have a lot of very genetically similar birds in a confined space where many of them are still dosed with preventative antibiotics to keep them from getting sick, it's not a good environment for health and for not having diseases spread. So, there are certainly people who are blaming this on the commercial poultry industry. I, at this point, don't know based on the information that's out there, who is to blame; maybe we're just really unlucky. But it certainly wouldn't surprise me if that's not helping things.

Aside: But that's of course a much broader issue with agricultural supply and feeding large human populations. But last October, a mink farm in Spain was hit with an H5N1 outbreak and though some other mammals have contracted it by feeding on infected birds, the mink outbreak was a big deal because it was the first real incident of widespread mammal-to-mammal transmission. And scientists assured the public that, "No one should freak out," in the actual words of Washington State University pathologist Dr. Chrissy Eckstrand, who was quoted in the *New York Times*, but it's a reason to stay vigilant.

Now, if you've been listening to this episode while making a secret Pinterest board to DIY a self-sustaining homestead full of hens and heirloom produce, you're not alone. Also, if you get goats, can I pet them? Or if you get chickens.

Alie: Do you have a lot of friends who did not have chickens that have chickens now because of you?

Tove: [laughs] I have some friends that have chickens now. I definitely have a lot of people that have gotten specific chickens because they've seen me post about them on the Instagram and are like, "I love Emmylou! I have to have one." So, that has happened a lot. So many of my friends live in apartments, where, you know, as much as they want a chicken, hard to pull it off.

Alie: Do you give them eggs if they need them?

Tove: When I can. I actually have sent eggs through the mail a couple of times. [laughs] One time it did not work out as well, which was sad.

Alie: Oh no.

Tove: But I often... You can bring eggs in your carry on, little tidbit for anyone who needs this information.

Alie: I didn't know that.

Tove: So, when I visit family or friends, I'll get a cute little carton, special cartons that have a little stamp that says they're, like, from my chickens and I get a little range of colors and sizes and then I bring that with me where I'm going.

Alie: Augh! Is it a myth that you can tell what color egg a chicken will lay based on its comb or...?

Tove: Earlobes! And it's not a myth. So, typically hens that have white earlobes will lay white eggs and red earlobes will lay brown eggs.

Aside: Yeah, chickens have earlobes, they look like earmuffs made out of raisins. And white earlobes, probably going to lay white eggs; red earlobes, tend to lay brown eggs. And then there are those Silkies which have hairless necks and blue earlobes and they lay light brown eggs, so there are some eggceptions.

Tove: That said, it's not exact. So, all eggs start off as white because they're formed by calcium, which is white. I compare it to, like, printer toner being added. So, apparently blue, if you have a blue egg-laying chicken, that will be the first color that is added, and this is all determined by genetics. You're not going to have, like, "My hen laid a blue egg today and tomorrow it's a brown egg." That is set based on the breed of chicken that they are. So, the blue egg color, when you crack it, it goes all the way through the shell because it's put on early in the process. But if you have a brown egg and you open that, you'll notice that it's kind of white-ish on the inside and that's because the brown color is a later pigment that gets added. I don't know why. I believe this is the same process for all birds with shells, which is super interesting. So, that is where the egg colors come from. So, you at least know if they're a white egg layer. But even within that, you can get creamier whites, you can get a white-white.

The bloom I talked about also changes the color of the egg. So, sometimes you can get these eggs that look pink and it's like a dark brown egg with a really heavy bloom and that kind of makes it look pinkish or purplish. So, it's very cool.

Alie: Augh! I have so many questions from listeners, can I just lob them at you?

Tove: Please.

Alie: Augh. Well, Shannon Feltus, who worked on our merch for a long time, very good friend of the pod, she's a self-professed chicken nerd and she asked about chickens having fully colored shells and why some don't. But we have so many good questions.

So, Shannon, we got yours off the list. Everyone else come back for Part 2 where we answer so, so many chicken questions. In the meantime, you can gawk at Tove's squawkers on Instagram @BestLittleHenHouse and we'll link that and her website and her Twitter account as well as her brand-new book, *Under the Henfluence*, which is what every potential chicken-haver needs. And we'll be back next week with more with her.

And we're @Ologies on Twitter and Instagram, I'm @AlieWard on both. *Smologies* are kid-friendly episodes that are shorter and G-rated, we have them all up at AlieWard.com/Smologies. Thanks Zeke Rodrigues Thomas and Mercedes Maitland for working on those. Thank you, Erin Talbert for adminning the *Ologies* Podcast Facebook group with assists from Shannon Feltus and Boni Dutch. Emily White of The Wordary makes our professional transcripts and those are up at AlieWard.com/Ologies-Extras. Susan Hale handles merch at OlogiesMerch.com, keeps this whole ship sailing. Noel Dilworth schedules it all, Kelly R. Dwyer makes the website and can do yours too. And additional editing was done by the incomparable Jarrett Sleeper, who might now want to get chickens, and by longtime listener and now professional lead editor, Mercedes Maitland of Maitland Audio who does a great cluckin' job. Nick Thorburn made the theme music.

And if you stick around, you know I tell you a secret. This week it's kind of business-related. But I'm considering, tell me what you think of this, peeling off *Smologies* and giving *Smologies* their own podcast feed so people can subscribe in a different place for the G-rated shorter kid-friendly ones. What do you think? And then I was thinking maybe I'd toss in a couple extra bonus episodes on this feed of Field Trip episodes, for funsies. Patrons, weigh in on this week's discussion thread. What do you think of that?

Also, I can't remember if I've told you this, but I'm just going to tell you again. If you make chai lattes at home, you know what you deserve? Do yourself a little favor. Get adventurous, add a dash of cayenne pepper in there, crack some black pepper, maybe add a pink peppercorn if you've got one lying around. It's spicy, it burns in that fun way that Fireball or mouthwash does, and it keeps me alert and I love it. Okay, see you next week to wrap up chickens. Berbye.

Transcribed by Aveline Malek at TheWordary.com

Links to things we discussed:

[See Tove on her 2023 book tour!](#)

Buy Tove's book: [Under the Henfluence: Inside the World of Backyard Chickens and the People Who Love Them](#)

Visit Tove's [website](#) and follow her on [Instagram](#) and [Twitter](#)

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[Dr. Peter Biggs 2009 autobiography via the American Association of Avian Pathologists Biographies of Professionals in Poultry Health](#)

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