



Our Hen House Podcast: Transcript for Episode 656, Interview with Andrew Knight

Jasmin Singer: Welcome to Our Hen House, Andrew.

Andrew Knight: Oh, thank you.

Jasmin: I'm so excited to talk to you. And before we get started, can you tell our listeners where you are today?

Andrew: I'm in Southampton, United Kingdom. One hour south of London.

Jasmin: Wonderful. We have a lot of flock members, we call them, our members, in the UK...in that area. So I'm sure they'll be very excited about this interview.

And I have so much to unpack with you. Let's start with our discussion with the study you conducted. I'm sure that you don't have to convince any of our listeners why it's important to be vegan, but of course, many people are worried about whether a vegan diet is healthy for their companion animals.

Hopefully this study will put those fears to bed regarding dogs. So let's start with dogs. I'm holding mine, by the way, which you see because we're on video, but our listeners don't know I'm holding my wonderful 15 year old vegan dog Birdie. Can you tell us, including Birdie, about the design of the study that just came out?

Andrew: Yeah, sure. And by the way before I start, I must congratulate Birdie on his ears! He has the most beautiful ears of any dog involved in a podcast with me in recent times. They're very wide, I feel like he could almost fly at low level using them.

Jasmin: Oh, definitely. We'll include a photo for people listening who wanna see. We'll put one in the show notes.

Andrew: Fantastic. So I've been a veterinarian in small animal practice treating dogs and cats for nearly a decade, mostly around London before I got recruited to go and teach at one of the world's largest vet schools in the Caribbean. With mostly US students.

And I had been vegan myself for many years and I had wondered about the health of dogs and cats on a vegan diet and had been keeping abreast of the scientific research in this field for many years. But nobody had conducted any large scale studies looking at the health outcomes of vegan cats and dogs until the first ones were published a couple of years. And there are now a tiny handful of those and the results are extremely exciting.

So, what we did was, in 2020 we surveyed over 4,000 cat and dog owners, which was the largest study of its kind ever. And we were questions about health outcomes, behavioral outcomes, indicating how much the animals like their different diets and other key factors, such as the factors that were most important to the cat dog guardians when considering different dietary choices.

So we recently published the dog health outcomes in probably the world's leading open access scientific journal, general scientific journal. So open access means that the entire text is freely available on the internet. Readers don't need to pay anything to access it. And what we found in this really large scale study of more than two and half thousand dogs, the data from those was included. We found that the healthiest and least hazardous diets for dogs was nutritionally sound vegan diets. And that's just been backed up by another study, also a really large study, that has been published less than two weeks prior to this interview so we're talking about breaking news! And this has come from researchers at one of Canada's leading veterinary schools. And they looked at more than a thousand dogs of who about 360 were vegan. The average duration of their diets was about three years. So the study was a little bit smaller than ours, but still a very big study.

And they also found that the vegan dogs were at least as healthy, and in some respects even more healthy, than the meat based dogs. So in fact, the lifespan of previously vegan dogs was, on average, one and a half years longer than the lifespans of dogs eating meat based pet foods.

So the data is telling us really clearly, I think, that dogs on nutritionally sound vegan diets are at least as healthier and in some respects may have health benefits. And we don't know why this is, but we can speculate. And I'm seeing certain clusters of benefits in the study that we conducted. We looked at the 22 most common health disorders in dogs and some of these related.

And we're finding, for example, that the vegan dogs had less problems with gastrointestinal system, skin and ears, and all of those could be related to dietary allergens. And we know the vegan diets are lacking the animal sourced, allergens of beef, lamb, chicken, pork. So it actually makes sense that we would expect to see less problems with the skin and ears because in dogs, dietary allergens very commonly manifest as skin reactions and the ears are the most sensitive part of the skin in this respect. And it's where they tend to have hot spots for these skin problems. So we're seeing less of those and less gastrointestinal problems and that matches not being exposed to dietary allergens.

And another cluster of benefits was dogs having less problems with their body weight. This is really important because being overweight is one of the most common health problems in dogs today and it reduces their quality of life and their life expectancy quite significantly. So this seemed to be less common, having body weight problems, and also related problems such as mobility disorders and other musculoskeletal disorders.

And the hazard of over nutrition, I think, is probably more common in meat based diets than it is in vegan diets. And we certainly know that amongst human beings, those on vegetarian diets tend to have less problems than those on meat based diets and people on vegan diets are even slimmer actually on average than people on vegetarian diets, on average.

So it doesn't surprise me that I think we're seeing similar effects in dogs on vegan diets. So ultimately we have the data demonstrating very clearly that there are those health benefits. We dunno why, but there seem to be reasons that make good sense in at least some of these cases. So this is hugely exciting.

There are now eight studies about the health of dogs on vegan diets. With the first large scale studies only just being published earlier this year. That's our really big study and now a new one by colleagues at a vet school in Canada. All the other studies have been much smaller up until that date.

Nevertheless out all eight of these studies, seven of them support the use of vegan diets in dogs and the oldest smallest study does not. On balance, the weight of evidence is very clearly in favor of the use of nutritionally sound vegan diets for dogs.

Jasmin: There was recently a New York Times article. It was about "trendy" diets that people are putting their dogs on and they had all of these like ridiculous diets and then they lumped veganism in with that. And I was so angry

when I saw this. How do you get past this idea that veganism is a trendy thing that a few elite people are doing for their dogs and really get out the word about how this is a giant benefit? And not to mention, of course, the ethics involved, which we can get into in a little while.

Andrew: Yeah. I'm not concerned at all about that because the underlying reasons why this is occurring is that people are increasingly concerned about the health and happiness of their pets, their longevity, their fitness, and also the environment. Things like climate change, biodiversity loss, which are very much caused by the current farming and food systems, along with our other sources of fossil fuel production within societies.

So these are interests, they're trends, but they're also really long term trends that are only going increase in time. They're not gonna be passing fads that fade away.

The environment is not going sort of magically get better and become less of a concern in the future. Climate change isn't going to sort of magically reverse. It's only to going become a bigger and bigger concern and people are gonna get more and more interested in finding solutions and ways to live sustainably.

The most recent studies are telling us in nature food that the livestock sector produces about 20% of all global greenhouse gas emissions. So it impossible for us to really address the changes that are needed within our societies without addressing the food system.

That also includes the pet food system, even though society generally hasn't realized that very much until now. There was another key study demonstrating that up to a quarter of the impacts of the whole food system are due to pet food. So that's actually really substantial if we think that 20% of all greenhouse gases come from the food system, up to a quarter of those, that would be up to 5%.

Even if it's a bit lower than that, as I suspect it is a little bit lower than that, it's still a substantial proportion of all the greenhouse gases produced by humanity that virtually no one seems to have focused on seriously so far. The number of people that are currently researching actively on this issue full time, or for a substantial proportion of their time, is myself and one other person in Canada at this veterinary school. And that's about it. There have been individual researchers doing bits and pieces around the world and that's all! So that's an amazing degree of neglect or under attention for something that could be, well apparently is, the cause of perhaps three or more percent of all human generated greenhouse gasses.

As with dietary change for people, the solution is something that is very quickly and easily available and doesn't require us to radically alter our transportation systems, ways that we work, or generate energy to power our industries. It's something that is simply a choice that can be made by consumers.

And when they're in locations where they can access nutritionally sound vegan pet food, and that can be made very quickly and easily. And those brands are coming onto the market very, very fast now, driven by the recognition that many consumers are interested in this and there's an awful lot of money to be made commercially by producing these nutritionally sound vegan pet foods.

Jasmin: Well, do you think that most commercial vegan dog foods meet the requirements or do people have to be careful?

Andrew: I think people do need to be careful as is also the case with meat based pet foods. Errors during formulation are not uncommon and have been demonstrated in past studies, amongst meat pet foods, vegan pet foods probably, and certainly raw meat pet foods as well as conventional meat pet foods.

So I think it's important to use a good quality product, to be checking the labeling, to make sure that the diet is not just intended as a treat or a snack, but is formulated to be a nutritionally complete and balanced diet. And to be looking for companies that hopefully are working with experts, such as veterinary nutritionists to ensure their diets are nutritionally sound, and that can provide some information about the steps that they take to ensure that the diet is nutritionally sound. And a red flag would be a company that didn't have any information or didn't respond to any request for information, for example.

But on the other hand, a company that is able to provide some information about the steps that it's taking to ensure the quality and nutritional soundness of its diets, that's a good sign.

Another one of the studies in this set that we did recently and published last year looked at the steps taken by manufacturers to ensure the nutritional soundness of their diet. And we surveyed both meat based and plant based pet food manufacturers. And we had 10 companies producing vegan, vegetarian, or almost vegan pet foods and 19 producing meat based pet foods. And we looked at every stage from initial design of the product, what level of expertise were they using, the ingredients that were being sourced and how they took steps to ensure that they were sound in the formulation of the diet, the testing of the diet, the steps taken to ensure the soundness of the diet over time, and to preserve the quality of the diet, steps during shipping and transportation, information

provided to retailers, and so on...Most companies were doing things fairly well at most stages. The ones that were doing things slightly better overall were actually the plant based manufacturers.

And my suspicion is that that's because these diets are often seen as being new. And so people are going to greater efforts to ensure the nutritional soundness and good quality of these diets.

Jasmin: Well, we just talked a bit about commercial vegan dog foods. On the other hand, what kinds of things do commercial meat based dog foods contain?

Andrew: I think there's a couple of obvious hazards associated with commercial meat based pet foods. And I think the lack of those hazardous ingredients within vegan pet foods may be explaining some of the clusters of health benefits that we are frequently seeing in the studies that are coming out now.

One obvious source would be animal based allergens. So we're talking about beef lamb, pork chicken, for example. And we're seeing less of the side effects that you see as a result of food sourced allergens. So we're seeing less skin disease, less ear disease, less itchiness, inflammation, hotspots, chewing of the paws, gastrointestinal reactions of all sorts of signs.

Another study has just come out actually, also in the last couple of weeks at time of this interview, demonstrating the dogs that transition from a meat based onto a vegan diet have a reduction in all of these sorts of problems. And in fact, I've seen that myself with some cats that we looked after some years ago, that when we did look after them, we maintained them on nutritionally sound vegan pet food. Their coats became glossier and less scabby and these sorts of benefits are commonly reported actually, in people that make these changes.

So I think that that's one of the hazards that the meat based pet foods have. I suspect that the problem of over nutritional, excessive calories is perhaps one of the most important dietary hazards that they have as well. Apart from that, there are concerns about the quality of the ingredients in those diets, the use of lower quality ingredients. Countries such as United States, parts of the animals in slaughter houses that are condemned as being unfit for human consumption getting recycled into pet food.

Concerns about things like pesticides, antibiotic and hormonal residues. When those pharmaceuticals are used to treat intensively farmed animals to try to prevent the disease that would otherwise occur because of overcrowding and

poor sanitation and chronic stress amongst those animals. So, none of these hazards are likely to be present within nutritionally sound vegan diets.

And if you supply diet which meets all the nutritional needs but doesn't include any of the hazards, it stands to reason that you might have animals that not only thrive but actually do better than those on the traditional diets. And that seems to be what the data is telling us from the large scale studies that are being published in leading scientific journals now.

Jasmin: Well, I am going to get into the cat issue in just a moment, but just one more question about dog food.

So many people are offended by the idea of feeding animals a vegan diet, which I honestly don't understand. Are people overly focused on the concept of what is “natural” when it comes to feeding their companion animals? And if so, how does that lead them astray?

Andrew: I think people, I suppose understandably, are making the assumption that some pet guardians are trying to force their personal ideology onto their pets, and it's going to result in suffering for their pets. So that's an understandable position, but it's not necessarily a position that actually matters to cats and dogs, although it might matter very much to people.

What matters to cats and dogs is whether they're enjoying their food. So we're talking about things like the taste and the sense of smell is much more important in cats and dogs than it is in people. Texture of the food, potentially things like variety and freshness, the feeding behavior that they're able to engage in.

So do cats and dogs really suffer on vegan diets? And in order to test this question, we actually studied this and published this study also in one world's leading open access scientific journals last year. We did by far the largest study of this that's ever been conducted.

So we looked at more than 2,300 dogs and more than 1100 cats. And we looked at every behavioral indicator of palatability, so how much they like their food, that had ever been described in the scientific literature and then some additional ones as well. Firstly, we looked at how commonly all these animals were likely display all of these behaviors at feeding times. And we looked at whether these behaviors co-varied one another.

And in doing this, firstly, we were able to identify some new indicators of palatability that hadn't been previously recognized. Secondly, we looked at how

much these behaviors varied across different pet foods. And we ended up with 10 different indicators of positive or negative palatability in dogs and 15 in cats. And we found that, across the board, looking at these thousands of animals, when we analyzed this in great detail, statistically, there was at the end of day, there was no significant difference in indicators of how much these animals were enjoying their food when they're on vegan pet food versus meat based pet food.

That's as good as we can do until we learn to actually talk to our cats and dogs and ask them directly. But as far as we can tell from detailed study of the behavior of thousands of these cats and dogs, they're just as happy on vegan pet food on average. And their welfare is not being compromised in any way, providing all the necessary nutrients are supplied.

So I think that people that have those concerns are not aware of this information and it's understandable that when you're not aware of this information, you might well think that it's enforcing an ideology on an animal that is going to result in suffering and get very upset about that. And I think that's why people would get upset about that.

They would say that perhaps it's some violation of the animal's rights, but this is a human construct. It's a human concept that doesn't actually matter to the animals themselves. And when you study what matters to the animals, as far as you can, by interpreting their behavior and analyzing that, you learn that actually the animals seem to be just as happy.

So I think everybody needs to relax about that.

Jasmin: They sure do. Why did you decide to get involved in this issue? I'm curious.

Andrew: It's an incredibly exciting issue because these recent studies are telling us that a really significant proportion of all of the global impacts of the livestock sector might be due to pet food.

So we're talking about all the greenhouse gases produced. We're talking about land use, water use, fossil fuel consumption, pesticide production and use, fertilizers, biodiversity loss. So we know the food system has got to change, but hardly anybody's really looked at pet food so far. But now recent studies are telling us that actually the pet food contribution is a major contributor to this problem, even though it's received almost no attention to date.

So I wanted to actually look at this problem. And as a veterinarian in small animal practice, treating cats and dogs for many years, I have been following this issue and following the scientific studies. And I realized that nobody had actually studied yet the health outcomes or the behavioral outcomes or other aspects of this problem when looking at really large numbers of cats and dogs.

And so with the support of external funders, and I always want to acknowledge them and I'm very grateful to them. It meant that I was effectively able to hire junior lecturers to do a lot of my teaching marking at the university where I work and I was able to do all of this research instead. So I'm now part way through a multiyear research project looking at all these key aspects of vegan diets for cats and dogs and the results have been incredibly exciting.

Jasmin: Ooh, very exciting. We'll definitely have to have you on in the future when there's more information about those. Let's really get into it. I know a lot of people are going to be uncomfortable with this part of the conversation. so I'm just saying right now that I don't know the right answer here and I'm just exploring the topic.

So dare I ask about cats?

Andrew: I think you should dare and with cats, it's very interesting because until the latest studies were published a few weeks ago, there was actually more evidence about cats published than there was about dogs. Because there had only been...there had been no large scale studies of health outcomes in dogs until very recently, but there was in cats.

And that was published last year from researchers at the same Canadian veterinary school in one of the world's top veterinary journals this time. And they looked at more than 1300 cats and they found that guardians of vegan cats were more likely to report them as being in very good health and vegan cats were less likely to have problems with the gastrointestinal system, the liver and body weight problems.

So actually we're seeing some similar benefits to those that we have recently seen about dogs. So the same principles apply with cats. Although human beings may have strong opinions one way or the other, what the cats actually need biologically are diets which supply all of the necessary nutrients in formulations which are sufficiently palatable, aka tasty, so that the animals will actually eat them. And sufficiently bioavailable. So mostly digestible so nutrients can get into the body, circulating the bloodstream, reach the cells and be used.

And providing the diet supplies all of those things, there's no reason to expect that the animals wouldn't thrive on those diets. Note that there is no requirement there for the diets to include any particular ingredient, whether that be meat or any other ingredient. So vegan diets aim to supply all of the necessary nutrients using plant, mineral and synthetic sources, which are exactly the same ingredients that go into meat based pet foods, along with meat. Meat based pet foods are rarely entirely meat, they would be if they're raw meat diets, perhaps, but not conventional meat based diets.

They also include plant-based material, minerals and synthetic material. People often worry about the amino acid taurine, which is found in meat. And long term deprivation of taurine will cause problems for the heart, birth defects and eye problems as well. However, what people don't know is that the taurine along with many other nutrients in meat is effectively, largely destroyed by the processing of pet foods, by the high temperatures and pressures that are used. And after that processing is finished, then taurine has to be added back into the product. And a synthetic source of taurine is used and exactly the same synthetic source of taurine is applied to the vegan pet food.

So, this is an example of where a little bit of knowledge can be a dangerous thing. People have heard of the need for taurine, they know it's in meat. They assume that therefore vegan diets are lacking in it and nothing can be further from the truth. So yeah, the biological requirements for cats and dogs are very simple. You just need to supply them with all necessary nutrients in a formulation that they are happy to eat, that is adequately digestible. There's no reason to think that vegan diets can't achieve this.

Modern commercial diets are formulated specifically to achieve this. And the study that we published of 29 manufacturers recently demonstrated that those producing vegan diets actually do this better than those producing the meat, those diets. So it's an understandable concern, but it doesn't stack up when you consider the evidence on this.

Jasmin: Funny side note, my cohost Mariann, long, long time vegan, has gone through periods where she herself needed taurine so she took some. We like to pretend that she's a cat, but anyway, just a little side note.

Are there even any commercial cat food diets available that are vegan?

Andrew: Oh, there certainly are commercial cat food diets that are available that are vegan.

And the growth in this sector is amazing with companies developing new brands and bringing them to market at an ever faster rate. A couple of years ago, a company would come and talk to me about once every three months about doing this. And now they're coming about once a week for reviews of the latest scientific research in this area.

And they're responding to what is an exploding consumer market. There is huge amount of money that will be made by pet food companies that develop nutritionally sound vegan brands. The market was already estimated to be worth \$9 billion globally in 2020 and is estimated to be worth \$16 billion by 2028. And that's before all of this emerging new evidence has come to light, demonstrating the major environmental benefits associated with these diets and health outcomes as good or better for cats and dogs.

So once this information becomes widely disseminated, that fast growing market is going to grow exponentially more quickly.

Jasmin: Hmm. What would you do to keep cats healthy on a vegan diet? I ask partly because just generally speaking, I am curious, but also more specifically, we did have a vegan veterinarian on a couple years ago, and she had recommended doing a urinalysis every month.

It just seemed so invasive and painful. Like, I know my cat would not be okay with that. So can you just elaborate on how to keep a cat healthy on a vegan diet?

Andrew: Yeah, there was historically a concern based on a few reports in books and on internet of cats having urinary problems on vegan diets. So people were recommended to collect urine samples non-invasively using a catalyst tray with nonabsorbent plastic beads so that you can collect a urine sample that way and have it checked.

However, the large scale studies have come out now from colleagues at Guelph vet school in Canada, and also our own large scale study, which is under review at the moment and is forthcoming in another major journal, have actually not demonstrated statistically increased risk of urinary problems for cats on vegan diets. So when you look at large numbers, it turns out that that concern is unfounded based on the best available evidence today. So we don't need to be doing that anymore, which is fortunate.

All that we do need to be doing is ensuring that the diet is nutritionally sound and reasonably balanced. And as I said before, that's just a matter of checking

the labeling, making sure that it's not intended as a treat or a snack, but is intended as a nutritionally complete diet and checking the company. Trying to use a good quality company that's producing products to good standards, that's hopefully working with veterinary nutritionists, hopefully can provide some information about the steps that it's taken to ensure nutritional soundness of its diets.

Jasmin: Wow. Okay. Good to know. I wonder if it's too far to commute for me to have you be my cat's vet.

Andrew: No, I'm sure it's not too far to commute.

Jasmin: No problem. Yeah, I'll just get on a solar powered sailboat or something.

So there is currently a company called Because, Animals that is developing cultured mouse meat for cat treats. Do you think cultured meat will end up being one answer for what to feed cats?

Andrew: Yes, I do. Because as we're seeing in the human space at the moment, there are plenty of people who recognize the problems associated with animal sourced meat, conventional animal sourced meat, being animal welfare problems from farming animals intensively or extensively, the environmental problems associated with that. But they still wanna keep eating meat.

So these cultured meat products are being developed for that consumer base. And there are very large numbers of people who, in fact most meat eaters I'm confident, if given a choice between eating one meat product that didn't cause any welfare problems, any animal cruelty, any environmental problems and another that did, the vast majority, virtual all, would happily switch to the better product.

Even if those people did not agree with the idea of vegan diets. So with cat and dog guardians, the proportion of people that are wedded to the outdated concept that meat is necessary is even higher. Most pet guardians, even if they're vegans themselves, are not yet ready to provide vegan pet foods. So providing a cultured meat product, which lacked the environmental and animal cruelty problems associated with traditional animal farming, would be fantastic for all of those people.

It's something that needs to be scaled up at the moment. This technology is in its early stages. It's not very available yet and when it is it will be costly. Whereas

vegan pet foods are very rapidly becoming available. They're already widely available in many locations and they're much more affordable.

With respect to costs, I should also say that people using vegan pet foods that are nutritionally sound are also likely to be spending less money on veterinary visits and on medical treatments. We found in our study that the proportion of these animals requiring medications and high numbers of veterinary visits was significantly lower. And that actually results in significant economic benefits, which I think most people haven't realized yet either.

Jasmin: Small aside that I definitely should not admit in public, but I am. Anytime I bring home an Impossible burger, my cat like wherever she is, she's in the attic or whatever. She'll just come like zooming down to wherever I am.

And like just, I have to give her a little tiny bite, which is probably not healthy for her, but like, that's why I don't wanna admit it. But oh my God, I have never seen anyone more obsessed with the Impossible burger than my cat.

Andrew: It sounds like this is an example of where we want a (imitation) meat product to be less palatable, not more palatable.

And maybe, and the other thing I'd say is your cat sounds a bit like our seagulls. We live on the seafront here. We've got these high rise flats right on the seafront. We have these massive ocean going seagulls who literally patrol back and forth along our apartments, that they treat us as sea cliffs.

And I'll tell you what, if you leave a sandwich out there on your balcony for more than about 10 seconds, it'll be carried away.

Jasmin: That is so funny. I love that.

Okay. So I'm always surprised when I'm talking to a vegan who is an ethical vegan, and has been vegan for a long time as I have, and then they might say that they haven't yet transitioned their animal from a meat based diet to a vegan diet. I'm always taken aback. I sort of like assume people's dogs are vegan and I'm wrong.

Can you offer people advice on how to transition animals from a meat based diet to a vegan diet?

Andrew: Sure. And look, this is because the vegan community generally is not yet aware of this new information. To be fair has only just appeared in scientific

journals within about the last year or two. Most people in the world don't know this yet and it's an incredibly exciting area once we start to discover that actually cats and dogs can be as healthy or healthier on nutritionally sound vegan diets and there are major environmental benefits. So the work that you are doing in this podcast and the other journalists are doing, getting this information out there is super important.

In order to transition animals onto these diets, it's been said that many dogs have a tendency to eat first and ask questions later whereas cats can be much more fussy. And in fact, there's a veterinary term for this in dogs. We politely refer to the problems that dogs have by bolting down things that are edible or inedible and subsequently having problems, we refer to this as something called dietary indiscretion.

Jasmin: Um, I have that. Well, within veganism, but I have that. I'm like, it's vegan. Give me, I'll eat it.

Andrew: Right. So if cats and dogs rapidly and suddenly change their diet to something new, you might be lucky and they might be completely fine. Some dogs seem to have cast iron constitutions. However, there is a greater chance of adverse gastrointestinal reactions, and we're talking about things like diarrhea.

So you can minimize any adverse reactions by a more gradual transition. And this allows two things, it'll allow time for the digestive enzymes to transition to a set which is more appropriate for the different diet. And it also allows the bacteria within the gut to transition as well. So by allowing time for those transitions to happen, you're less likely to get adverse reactions. So I always recommend that people try to do this over a couple of weeks.

And it's also the case that animals that have been maintained on commercial meat based diets really long term. And I'm thinking the classical, stereotypical old fussy cat can become virtually behaviorally addicted to a particular brand of pet food.

And the reason for that is because commercial pet food companies have spent vast amounts of money and skilled personnel hours trying to work out ways to addict people's cats and dogs to their product. And that's through the addition of particularly tasty additives. One of the best known ones is something called digest.

Digest is actually partially dissolved entrails of usually chickens. So we're talking about intestines and also the abdominal thoracic viscera, the heart's

lungs and so on. And they're partially dissolved with certain enzymes and additives, which help to give the batches different flavors. They might be fishy flavors, beefy flavors.

And the can of miscellaneous assorted body parts might then become labeled beef stew or ocean Whitefish. And it may have a lot to do with the flavorings that have been added and a bit less to do with the actual assorted miscellaneous meat based ingredients that are within that can. So animals that have been fed on a particular brand containing these carefully designed flavorants very long term can be fussy and difficult to transition. And if you've got one of those, then fear not, even the most stubborn animals have been successfully transitioned over long periods of time, but it can be a very gradual process. It can be a matter of mixing up the new food into the old food, trying to mix it thoroughly making it difficult for your intelligent cat to go picking out the old food.

Demonstrating by your behavior that you think nothing unusual is going on, acting as if you think this is a delicious tasty, fresh meal. And in fact, you might eat it yourself if your cat's not quick enough about it. Removing uneaten food and supplying only fresh food. And you can consider things like gently warming the food because that helps the odors to be released and the sense of smell is much more important in cats. And flavor enhancers such as vegetable oil, nori flakes, nutritional yeast flakes, spirulina. These sorts of things are all available by the way, along with advice about transitioning onto diets, on my website which is sustainablepetfood.info.

Jasmin: Great. Yeah. We'll link to that as well for people who might be listening to this while driving, don't write while driving.

While there are many wonderful vets in the us, the veterinary profession, as a whole, particularly the AVMA is generally considered a major hindrance to progress for animals, especially farmed animals.

Is it the same in the UK?

Andrew: Unfortunately, I think it's generally true worldwide. And that goes back to the origins of the veterinary profession back in the dim darkness of time, one or 200 years ago, the main sectors of society that could afford veterinary care were wealthy horse owners. That might have been using horses as pleasure animals or potentially in the military or as workhorses and those in the farming sectors. There wasn't the disposable income in society to support widespread pet ownership or pet guardianship.

So that has now changed. Of course. And we have affluent societies, westernized nations that do have significant disposable incomes and there is a high level of pet guardianship and now the vast majority of the veterinary profession works in providing care to small animals and cats and dogs and other companion animals.

In poorer nations, the reverse is still true. And other nations such as China are transitioning at the moment and adopting what they see as these desirable affluent lifestyles. And so their pet ownership is rising rapidly. So the origins of veterinary schools have been associated with supporting farmers to maximize the productivity of farmed animals on a sort of a herd level or a flock level without caring as much about the individual animals. And potentially also supporting wealthy horse owners as well.

Veterinary schools today continue to receive significant funding from sectors which are involved in these uses of animals. And I am talking about the farming sectors and the laboratory animal research sector. And this actually compromises their ability to take positions which quite rightly point out the problems associated with these users of animals.

The AVMA aims to represent all sectors of the veterinary profession and that really spans a very wide spectrum from farmed animal vets and laboratory animal vets at one end, who are involved in industries using animals very invasively, and whose incomes are directly dependent on those industries. To, at the other end, animal welfare specialists, such as myself, whose job is to provide expert knowledge about the animal welfare problems associated with those use of animals and many others.

So the general public views veterinarians broadly as animal welfare experts and feels that they should be leading society on progressing welfare issues. But the reality is quite different because the AVMA wants to, I think, try to support veterinarians working in the farm and laboratory animal sectors and indeed all those other sectors as well.

Jasmin: Well, one of the major complaints about the veterinary profession in the US is that the veterinary schools tend to weed out the more proactive students and then the culture in vet schools pushes people away from taking a more progressive position. Is that a problem with veterinary education in the UK?

Andrew: In the UK, surprisingly and to its credit, it's the only major region of the world in which animals have not been used harmfully and on a wide scale in

veterinary education. And this disappeared in favor of humane teaching methods so many decades into the past that nobody can remember anymore when this happened. It was a very long time ago, whereas animals continue to be used very invasively in preclinical curricular in subjects like biochemistry, physiology, parasitology, where they're used in demonstration experiments, which can be very invasive, with animals killed at the end of those procedures. To demonstrate scientific concepts that have been well established for decades and also killed to be dissected in anatomy.

So that occurs very widely in the preclinical part of the curriculum. And then in the clinical and surgical training parts, animals traditionally have been used as teaching models whereby students anesthetized animals, practiced surgical procedures on them and then kill them at the end of the procedure prior to regaining consciousness.

When I was a student, a veterinary student in Western Australia, I launched major campaign at my veterinary school to replace this sort of harmful animal use with humane teaching methods and to establish an alternative humane surgical training program. And that was very successful. And we went on to establish similar programs at other Australian veterinary schools. The first students graduated without harming animals in surgical training in 2005. And I've worked with students in the US and other places such as New Zealand to bring in similar changes. And there has been a sea change going on in veterinary education in the last couple of decades. And it's the case now that there are only a few terminal surgical procedures in which animals are killed in veterinary schools left still in Australia. There are many more still in the United States, unfortunately, but there has been a wide recognition that humane teaching methods need to be introduced. And vet schools are taking some steps to do that, which is really good news. It has been the case reportedly that applicants to veterinary courses that display sympathies that could be interpreters being animal rights sympathies will be weeded out of the selection process because of a fear that they might come in and campaign against various harmful uses of animals within the curriculum or within research that might be going at the veterinary school.

This is not something that would be legally permissible, I think, if it were a formal policy and so it's not something that is ever written down, with very rare exceptions. But it is something that apparently does occur and continues to occur. So I have guidance for students on how to approach this issue and for people who wish to get into veterinary courses. And I have a website which is called humanelearning.info.

And I have advice there for students on how to present themselves when applying for admission to veterinary courses and how to maximize their chances of success, if they need to campaign for humane teaching methods, after being admitted to veterinary courses. And students, and occasionally faculty have supported them have been very successful on this issue worldwide.

And there is a sea change underway, so that humane teaching methods are being brought into veterinary curricula across the US and internationally now, which is great.

Jasmin: Oh, there's some hope there and your website humane learning. Tell us more about it. Tell us more about what we can find there.

Andrew: Sure. So humane learning includes guidance for students to maximizes of success for human teaching methods, along with all sorts of resources to help them. So links to the most recent studies, which show that students using humane teaching methods have educational outcomes which generally are as good, or in about a third of the case, actually better than those achieved via harming animals. So this sort of research is on that website and that's something that my colleagues and I have been conducting and publishing in key open access scientific journals within the last couple of years.

It's another area that I've been very involved in. There are links to free online alternatives and maybe web based dissection simulations, alternatives like these where people who can't afford to purchase alternatives can borrow them and hopefully use them in their courses.

And lots of other useful resources to help people as well, including examples of submissions that students have prepared and delivered to veterinary schools asking for alternatives, which have been successful, which could then be adapted and reused elsewhere. And also inspirational success stories from students around the world.

So that's all there to help people and that's humanelearning.info.

Jasmin: Wonderful. That's cool. That sounds great. I'm sure that our listeners will love it. I have one more question for you before we get into our bonus content. Do you get a lot of pushback from other vegans in the UK?

Andrew: Initially there's a lot of pushback from vegans and veterinarians and all sorts of groups about the concept of vegan companion animal diets.

But once I actually lay out the evidence on this issue, I've not had any significant pushback and that's been surprising to me, I had expected more. But I think it shows that the opposition of people to vegan pet food is based on of knowledge and when you provide that knowledge and you address the key concerns that people have, almost everybody is a rational person and they change their position. We all want the diets that are going to have the best health outcomes in our cats and dogs, the best welfare for farmed animals and the least adverse environmental impacts on the planet. So, this is a really easy sell as it were and, you know, people don't need to be convinced.

I think they just need to know what the information is and what the evidence is and then most people will make the right choices.

Jasmin: It's funny. I actually misspoke. I said, do you get a lot of pushback from vegans, but I meant vets so...but I think you kind of answered for both.

Andrew: So there is pushback from vets. And in fact, the main veterinary association in United Kingdom has been issuing statements opposed to use of vegan pet food for some time, including recently. But, in response to that, I published a technical letter in the leading veterinary journal in the United Kingdom. And I said, well, there are eight studies looking at health outcomes in dogs, and seven of them support the use of nutritionally sound vegan diets and one doesn't.

And here's the pros and cons of all the diets. The one that doesn't for example is the oldest one and it's the smallest one. It only included eight animals and the exercise regime they were subjected to bore no relationship to the reality of domesticated dogs in people's homes.

So I said, look, here's the evidence and the weight of evidence overall is very clearly in support of nutritionally sound vegan diets. So veterinarians are evidence based. So nobody has any rational reason for disagreeing with that. And nobody has.

Jasmin: It seems you are the person we all want, like so many people I know who have animals just are endlessly frustrated with the fact that their vets don't get it, or perhaps their vets reprimand them for putting their dogs on very healthy vegan diets.

I mean, my dogs blood work speaks for itself. As does mine, you know, for people who are skeptical. And I would just...how do we make more Andrew

Knights? How do we clone you? Is there like a kind of cultured meat thing we can do here? Swab your ear and make more of you? *laughs*

Andrew: I'd suggest feeding me an experimental regime, uh, comprised of a whole lot of vegan Magnums, uh, tasty beverages, and then injecting some electricity and see what happens. *laughs*

I think the real problem is that veterinarians are simply not aware of this information. There have been plenty of studies showing that alternative and experimental diets are often formulated with nutritional deficiencies. And so veterinarians are reasonably and rightly skeptical of new diets.

However, once they see the evidence, then it's pretty easy to turn them around because they all know that they need to be providing advice and positions which are evidence based, based on scientific and medical evidence. And they're just not aware of this evidence. And that's why, what you are doing is so important because this is one of the first channels that I've had to actually get this information to US based audiences.

These really large scale studies in leading scientific journals have only been around for the last couple of years and in crucial cases, just for the last few weeks. And there are almost no vets in the world that actually know this information yet.

Jasmin: Wow. That's amazing. What you're doing is really revolutionary and I'm so grateful that you joined us on Our Hen House.

Please hang on the line so we can pick your brain a little bit more for our flock. But before we go, can you reiterate how people can find you online and support your efforts?

Andrew: Sure. So people can find information about this issue, vegan pet food at my website, sustainablepetfood.info. And it's incredibly easy to find me on the internet Andrew Knight with a K and my website is [Andrew Knight.info](http://AndrewKnight.info)

Jasmin: Thank you so much. Very, very, very exciting stuff here. Lots of hope. And I appreciate you taking the time.

Andrew: Thank you so much.