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Matt Eastland [00:00:06] According to the United Nations World Food Programme, more than 900 million people around the world don't have enough food to eat, and with a number that large, you might be led to think the world just needs more food. But is that the case? In today's episode, we're talking about food loss, specifically in farming. So how big is the problem of food loss on our farms and how do we tackle this growing challenge?

[00:00:31] I'm Matt Eastland welcome to The Food Fight podcast EIT Food exploring the greatest challenges facing the food system and the innovations and entrepreneurs looking to solve them.

[00:00:42] Thanks to the new driven to Waste Global Food Loss on Farms report from the World Wildlife Fund and Tesco, we now have a much clearer understanding of the issue of food loss at farm level. The report reveals that an estimated two point five billion tonnes and yes, that is billion tonnes of food that is grown globally goes uneaten around the world each year. And as we work towards sustainably rebuilding our environment, minimising food waste on our farms surely has a very important role to play. To reflect on the report's findings and their possible solutions. We are joined by two amazing food loss heroes. First of all, we have the senior director of food waste at WWF Pete Pearson. So WWF is an organisation helping people and the environment thrive, and Pete works on food waste prevention and recovery, helping businesses understand the intersection of agriculture and wildlife conservation, and is also one of the authors of the Driven to Waste report. Great to have you on the show, Pete.

Pete Pearson [00:01:42] Thanks for having me.

Matt Eastland [00:01:43] And our second guest is co-founder and CEO of Oddbox Emilie Vanpoperinghe. Oddbox is a food waste start-up delivering wonky fruit and vegetable boxes direct from farmers to consumers across the UK. Emily, it's a pleasure to have you on the show.

Emilie Vanpoperinghe [00:01:59] Pleasure to be with you, Matt, and to be with Pete as well.

Matt Eastland [00:02:02] Great stuff. Thank you both for joining us. So I guess just to set the scene a bit for our listeners, so the Driven To Waste Report highlighted the 1.2 billion tonnes of food is wasted on farms each year, and approximately 40 percent of all food grown goes uneaten. And I guess just to really play devil's advocate, isn't this just a kind of a normal part of farming that's always happened? And why is this issue so important now? Pete, wondering if I can start with you?

Pete Pearson [00:02:33] Yeah, thanks. Well, I think there's this reality that in farming, you're probably never going to get to zero waste. And if we look at the entire supply chain, zero's an impossible number in reality. But what you can do is you can start to recognise where there's holes and where you do have maybe higher levels of loss than we need to be tolerating and we tolerate a lot of loss today in our system. So I think the real key is we need to start measuring better. We need to start looking at how much loss is being created. And then what I think happens from that is people get really creative. They start doing things when there's data, when there's an awareness around a topic and we start an explosion of innovation. And that's what's exciting to me about this is the positive that

comes out of the measurement and the recognition of loss is what we can do with it when we identify it.

Matt Eastland [00:03:25] And Emilie, from your experiences, have you seen with working with farmers that this is something that's always happened this this tolerance that Pete talks about?

Emilie Vanpoperinghe [00:03:34] I think there's always been some food waste and food loss, but I think right now our food system has actually become a lot more inefficient. We've grown to prize, uniformity over taste and over the planet. And actually, we live in a world where on demand everything is the norm. So that means farmers are left with surplus veg no matter what they do. If we want to blackberries in January or brussel sprouts in June, actually we can walk into almost any supermarket and pick them off the shelf. But that's not really how nature works. We overproduce a lot more than what we need because we want everything available all the time.

Matt Eastland [00:04:18] Thanks very much. And I suppose then that the reason that this is such an important issue now is because we have so many mouths to feed already, right? So wasting food and or losing food in the system is just completely wrong, correct?

Emilie Vanpoperinghe [00:04:34] Yeah, correct. And actually, on a global level, we could feed all the malnourished people in the world with just a quarter of the food we waste. So in some ways, we can solve our food poverty by reducing the amount of food we waste. Obviously, it's not as simple as that because it doesn't necessarily happen in the place where we have food waste, but on a macro level, we are just producing enough for everyone.

Matt Eastland [00:05:03] Wow ok. I didn't. I didn't realise the statistics were that stark - just a quarter of the food waste would feed all the malnourished people. That's quite shocking. And Pete, you know, just looking at the report itself, so why did the WWF commission the report? What was the incentive for you?

Pete Pearson [00:05:22] Well, I mean, you have to start with why we're even focussed on food systems in general. So World Wildlife Fund, one of the largest global conservation organisations like why are we involved in food systems? It's because food systems have such a huge impact on ecosystems and biodiversity. When you look at what's going on across the planet, we are losing forests and grasslands and ecosystems because agriculture continues to expand. And when you have that expansion, it squeezes nature out, right? It doesn't allow for biodiversity to thrive. And so this is part of the equation. But to me, this is a maths equation like, how do you feed a planet? You start plugging in the equation and you have to leave room for nature. If you don't leave room for nature, then you're putting at risk the entire agricultural system to begin with because it depends on nature, it depends on pollinators, and it depends on life on this planet. And so food loss and waste is one piece of that equation, right? We have to reduce and minimise loss of waste across the entire supply chain. And as we've been doing this work, we bring in partners like Tesco, who are... Tesco's probably one of the most serious about waste of any company in the world. I mean, they really have been pioneering waste reduction and it really started within their supply chain. We partnered with them because they wanted to look at how their suppliers and their farmers were also - how do you bring the whole supply chain on board? And so when Tesco and WWF partnered on that, that was how this report was born.

Matt Eastland [00:07:01] Thanks very much Pete. I love the fact that, you know, like big players in this space, like yourselves and Tesco, are kind of coming together to work on such an important issue that's so vital. And I love that quote you're saying about it's a maths problem where we need to make space. What was it you said? You need to make space for...

Pete Pearson [00:07:19] Save space for nature, but if we don't

Matt Eastland [00:07:21] Save space for nature.

Pete Pearson [00:07:22] Yeah, if you don't you...The food system relies on nature. It relies on all the ecosystem services that it provides. And it's not just about loss and waste, right? There's an element about what we're growing and what the landscape like, what types of things we're farming. But here's the other thing is we also talk a lot about terrestrial systems. Our brains just naturally go to fruits and vegetables and what's grown on land. But there's also an amazing amount of pressure on our oceans and our freshwater systems that provide protein and fish. And if you look at the loss and waste in those systems, that's equally as bad. Like why are we over harvesting our oceans and then comfortable with maybe 20, 30, 40 percent loss rates of seafood and fresh fish? That's just bonkers.

Matt Eastland [00:08:12] Yeah, really shocking stuff. I completely agree.

Emilie Vanpoperinghe [00:08:15] And I think Matt what's happened is that actually we've lost connection with food or we've lost connection with how food is grown now because food is too cheap, it's just too cheap and therefore we don't value it. And actually, the pandemic has made our relationship with food change because we've seen a scarcity of food, we've experienced that. But the price of food don't actually reflect on all the resources which go into growing up until restoring the land and restoring the water and care for the social and environmental costs of what it takes to grow the food we consume.

Matt Eastland [00:08:57] Yes, I agree, Emilie, and actually we've had a few people on the show before talking about, you know, the effect of the pandemic on the food system and people's habits and devastating as this this whole terrible thing has been, I suppose, one of the few positives, if there is such a thing that's come out of this, has been that like you say people are now starting to look more at their food and are starting to look at the value of food. And as soon as you start taking things away from people, that sort of rings alarm bells with them. So I guess, yeah, I guess that's one good thing. And one of the things that you've both been talking about is sort of food loss and food waste. And I wonder if just for the benefit of the listeners, you know, could we just quickly explain the difference between food waste and food loss because I think a lot of people use these terms interchangeably? So who wants to have a crack at it?

Pete Pearson [00:09:53] Yeah. I mean, so this is one of the things that the driven the waste report was trying to it wasn't trying to shake it up, but it was just trying to rethink this a little bit. So what you see from groups like FAO and the definition of food loss is that it's like this decrease in the quantity of food. As a result of things happening within the supply chain, things happening on farm, I would put it in terms of when you get up until the grocery store are things that are classified as lost, so everything that happens before it gets into a grocery store. That's one way of like trying to simplify it and then everything that happens after it's received commercially in commercial food service or in a retail grocery store that is classified as waste. And the idea there is that there's this idea of waste as we

are wasting things because of poor decision making or because it's really a choice for us, right? We have the amazing luxury of wasting food as a choice in our society. Things are so abundant and some societies are so rich with food that we, we can choose to waste it. But I think what we tried to do with Driven To Waste is to say that look, the loss that is happening prior to it being received in the food service and throughout the supply chain, that loss is also driven by poor choices or poor design or just inefficiencies that we can improve. And so in that way, we can think about it a little bit as it's waste like we are consciously - we know about it and we're creating this. But that's a little bit on the definitions. I would say loss as anything before in the supply chain, more towards farm and then waste are these like consumption patterns that are happening once it's in a grocery store, once it's in our homes.

Matt Eastland [00:11:47] Perfect. That's super clear, but also one of these quite important things to get right. And I know we're talking about mainly about food loss in this podcast so that's useful. Emilie, coming to you. So Oddbox obviously deals with both food waste and food loss. So what was your inspiration for starting Oddbox? Where did the company come from?

Emilie Vanpoeringhe [00:12:08] Yeah, so actually as you can hear, I'm originally from France and I actually grew up in the north of France, and my grandparents on both sides were potato farmers. When I grew up, I actually didn't know at all about the issue of food waste until 6 years ago. So 10 years ago I moved to the UK and I was quite amazed by the fact that, as I mentioned, I could get strawberries in winter. But strawberries in winter don't really taste great because they are imported from Spain or North Africa. They've been picked up ripe and they kind of lacked that sweetness from ripening on the plant. And there's amazement in the value but there was also some frustration in the fact that I knew what proper strawberries tasted and couldn't get that. Actually we would say the light bulb moment happened six years ago when we went on holidays to Portugal and again there we would do our shopping at a local market and we tasted our amazingly tasty and juicy tomatoes, which looked ugly were different size, shape, colour. And that kind of brought me back to thinking about that's disappointing experience with the strawberries. And that's when it kind of made me question why the U.K. food system was so different from what I could get on the local market in Portugal. And that's through doing some research, that's when I really realised the extent of food waste and why there's so much food which is being wasted or lost, or why there's so much of over production, just wanting to do something about it to make a difference. And when we started, actually, we started on a really really small scale at the weekend with a handful of customers in South London. And since then, we've been kind of on a journey of... so for us, it's not only about rescuing produce at the risk of going to waste, but it's also about actually, we've got an amazing medium to bring awareness of the issue and to educate people on how to make better choices. So we provide fruit and veg, but we also provide a lot of education and awareness and helping supporting people in changing their mindset and behaviours.

Matt Eastland [00:14:44] Amazing. What a story and how very worthy as well. And my understanding is that you work directly with farmers, right? So you work with them to kind of take the food that would otherwise go to loss?

Emilie Vanpoeringhe [00:14:55] Our model is actually unlike anybody else in the system is that we don't tell our growers or suppliers what to grow. Nobody grows for us. We work with them and take produce that, so they don't necessarily have a place to sell so we can position ourselves as if you've got any surplus or if you know that there's produce which will be out of specs because in a lot of cases they kind of know that the proportion of the

crop will be out of specs and they won't be able to sell it to a retailer. In some cases, they might be able to send it to animal feed or to other destinations. But quite often it might be a distress sale. Or actually, we feel that it's a less efficient use of resources. We're not growing food not to feed the animals. The food was grown in the first place for human consumption, so it should go to humans.

Matt Eastland [00:16:05] Got it. And I'd like to unpack that particular point a little bit later about why these things happen. Thank you Emilie. Why don't we talk more about the report itself and Pete I'm very interested, and I know our listeners would be as well, you know what are the findings of the report? You've done this amazing piece of work, which I think is the first time. I'm sorry, that it hasn't been done for like ten years I think? So this is obviously very like a seminal piece. So what are the main things that you found?

Pete Pearson [00:16:34] I think one of the main things is that there is a huge data gap like we just don't collect enough data. There's not a real measurement. There's not a real recognition about what is going on in the farm, especially for fruits and vegetables. They tend to be more what I'll just call free market type endeavours where, you know, growers are trying to identify what markets will be hot in certain years. Some of them are always growing the same things year over year. But there's a, I think, the relative lack of... measurement that's happening each year to understand how much surpluses there are and a real failing of the entire supply chain. This does not rest on the farmer's shoulders in terms of what's going on. And I think that's the biggest piece that we wanted to communicate in this report. This is something that the supply chain and in particular retailers and institutional food service buyers like the buying community of foods, they have to recognise that they have a stake in this. They have a role in creating a more efficient system. And that could be even kind of simple things that we think about, like better contract mechanisms where you're taking responsibility for the entire crop or you have a concerted effort to make sure that when you do have surpluses, you're trying to find the best possible place for them to go. And I really like what Emilie said where food is meant for human consumption. And so if you have more actors in the supply chain that are trying to make that effort to make food available for humans and for people, that's what you want. It's not just about putting all this on the farmer because they want nothing more than their food to go to people, right? And I think the big thing too is there has to be a little margin in it. Nobody just wants to donate their way out of this because that's not sustainable. Like, you have to have some profit. And so some incentives financially in order to do this because it's a cash game like trucks have to move food from one place to another. You have to have a cold chain and nobody does this for free so that you have to factor that in.

Emilie Vanpoeringhe [00:18:50] And I think of the food industry is actually trying to do something, but I agree. And actually, the report is amazing because that's the leading of the very first time there's proper data on how much food waste is wasted at farm level. And for us, it's kind of amazing to have access to this data because there's been a lot more focus on food waste in the retail or in manufacturing or in people's home. But there's never been really a lot of focus on food waste at farm level, and the solution right now is very much about redistribution. So it's kind of not really addressing the root of the issue, but finding alternative routes and donating food to charities. And so a lot of the retailers now will not have any like waste or surplus in their store because they have mechanisms to partner with charities and donate, which is great, but they are not really taking responsibility for what happens before it arrives to them. Because, as Pete mentioned, actually, they don't take the responsibility for any other production. They work on very

flexible contracts where actually they change their contracts on a weekly basis or sometimes daily basis based on the actual consumer demand.

Pete Pearson [00:20:21] Which is unfortunate because if you think about food and especially perishable food, the worst time to be wanting to donate it or get it to people in need is actually at the end of its life in a retailing or a merchandising situation. So here's another problem that needs a lot more study and real time measurement is when you do put food that is coming out of retail into a donation market. A lot of that goes to waste because it's at the end of its life, right? And so we need to be measuring that metric as well, because I think you probably have a lot of food donation and food banks that are receiving product that doesn't ultimately make it, and it's just creating waste in their waste system. The best time to be rescuing food is probably when it's like on farm or when it's been maybe rejected or something's happening in the supply chain. Distribute it then, because then you have more life to the food, it's less you have more availability and time to get it to where needs to go.

Emilie Vanpoperinghe [00:21:20] And that's why, for us actually, we work directly with suppliers because as Pete is saying, because then we get some really good quality produce, which then ends up being eaten by people.

Matt Eastland [00:21:38] Just listening to you talk and and kind of things are sort of sparking and I'm thinking, so there is an issue here of visibility than right? So like you say Emilie, we're more and more aware of food waste as kind of consumers, so from sort of retail into homes and businesses. But as far as I can tell, anyway, there seems to be much, much less visibility of food loss at a farming level. And I wonder if anybody really knows how big this is. I mean, I think looking at the report Pete, it seems that actually there is a lot more food lost at the kind of farming level than there even is in the residential and consumer space. Is that right?

Pete Pearson [00:22:19] Here's our experience. We've been working on food loss and waste fruit farm to fork for about 6 years. I can't think of an example where we when we started measuring there was always more than what we thought there was almost in every example whether you're working in a hotel or a restaurant or retail grocery store or a farm like, there's this anticipated level of loss and waste that you think there is. And once you measure almost every time, there's more than what you thought. And so this idea of a radical transparency, I think, is what's needed. We have to start being comfortable reporting and continuously measuring on waste. And that is not something that the business community in the world at large really likes to do. Waste has always been this thing where we don't want to talk about it. We don't want to measure it. We don't want to report on it because it makes everybody look bad. Well, unfortunately, we don't live on a planet that can handle this anymore, like we can't carve out every last place in the world and turn it into agricultural systems and then be tolerating waste like there's just no way to sustainably do this if we continue to build waste in our design. So we've got to just be comfortable reporting it and measuring it, and we've got to dispel this myth that it's this secret thing that nobody can talk about.

Emilie Vanpoperinghe [00:23:40] And actually, Matt, when we started Oddbox, whenever we would go to a visit growers, they actually would say that they don't have any waste because in their definition, waste is something which ends up in landfill. And so there definition of landfill waste, there was no waste because they were finding an alternative. So they would leave it in the field which they would say is not waste and they would send it to animal feed so they would find them. Growers don't want to waste. So they'll always find

a way to minimise what they send to landfill. But on that and another point that Pete mentioned, people are a bit more aware of the issue of food waste. However, only 30 percent of people realise that actually, food waste is what we see as the invisible monster driving climate change. So on a macro level, if food waste was a country, it would be the third largest contributor to greenhouse gases after the US and China. And people don't understand that, people don't realise all of the resources which go into growing. And maybe just to put it more at an individual level, one kilo of potato take some 300 litres of water to grow. So that's the equivalent of three showers and people don't know that. So there's a lot of focus on plastic waste. There's a lot of focus on electric vehicles, on moving to electric fleets, but they're still, in our opinion, not enough focus on food waste and food waste is actually not really on the agenda for COP26, which is the conference discussing climate change in November.

Matt Eastland [00:25:38] Wow ok, some shocking statistics there Emilie and thank you for sort of flagging that to our listeners as well. I think you're right, people do need to know this. And also it's really interesting that you say about farmers that they don't see it like this. It's like, you know, well, food loss is well we plough everything back in or they don't see in the same way. And one of the things that seems to be coming through a lot here is this whole measurement piece is super important because it's actually exposing the scale of the issue. Now that we've kind of laid this out and it's, you know, everybody can see how big this problem is. What are the reasons for it? So you've spoken about there some issues around contracting with farmers, and we know that it's not farmers fault and that you say Pete, no farmer wants to waste anything. So where does this come from?

Pete Pearson [00:26:28] One of the things that the report also highlights is that there's these two myths that exist in a developed country context and a developing country context. So the idea is that, you know, in places where you have more sophistication in terms of cold chain harvest mechanisms, machinery, you have less loss. Well, we found that that's actually not the case, right? If you look at what's going on in developed country contexts, you're still having that loss but it's mainly because of market factors. You know, last minute changes to orders, cancellations, rejection of loads at distribution centres. And so what you have is a market dynamic that needs to be corrected. And I think, you know, it's 2021, we live on a much more sophisticated planet in terms of our connectivity and the way that we can trace and track information. And so what we need to do is we need to build in, and people are doing this like companies are doing this, build in that more sophisticated information system so that you can always be monitoring what's happening, what your supply chain looks like, what your surpluses look like. And when I say measurement, I don't mean it in the academic sense, like we don't need academic studies to be doing measurement. I think what we need is to institutionalise measurement, to make it sexy in some way, which if we can figure that out. I think we'd be great, but we haven't figured that out yet. But if you can get the supply chain constantly in a feedback loop where it's learning from itself, it's identifying the information flows on loss and waste, real time or near real time. Then you start to learn from yourself like you start to have that feedback loop and you make corrections when you have the information. The problem is today is that that information isn't in a feedback loop.

Matt Eastland [00:28:22] And Emily, I can see you are nodding along there. Do you have anything to add?

Emilie Vanpoperinghe [00:28:27] So I think as much as we're better at forecasting crops, the weather is becoming increasingly unpredictable. And so that's also a constant challenge for growers. So, for example, last year there was a heavy hail storm in spring

when apple were still tiny. It's damage the skin. And once they grew to be perfectly good quality, they have skin markings. And that can be one of the reason why they will be rejected by a retail because they don't look perfect.

Matt Eastland [00:29:06] Hmm. Okay, thank you. And I guess we're now moving into the more positive side of the podcast, which is we're starting to talk about. So we've sort of outlined the challenges and it's huge, but we're sort of moving into the solution stage and so Pete, you know, institutionalising measurement and making measurement sexy, if that's possible, obviously a really big thing. But what do different players need to do and how do they work together to make this happen? Pete, what did the report find here?

Pete Pearson [00:29:35] Well, there's some positive trends. Obviously, you have groups like Tesco and you have another coalition called Champions 12.3, which has launched basically an initiative called 10 by 20 by 30. The idea was you get 10 of the largest food service companies in the world. To get 20 of their major suppliers reporting on food loss and waste and meeting the 2030 goal that we have. What has now happened is that has now ballooned. It's more and more companies are now asking their supply chain actors to start measuring food loss and waste. And so that's what we need. We need this general recognition that we've got to start identifying loss and waste within the entire supply chain and set targets and goals to reduce it. So very positive. You also have companies like Wal-Mart that has really invested in this in terms of not just food loss and waste metrics, but all kinds of carbon reduction measurement that they're trying to get their supply chain to start measuring. So all really great things that are happening. And again, what I love about it. When you look at loss and waste, you start to identify all the unlock possibilities of what you can do with things, right? And so for the examples where maybe it's not a human edible food, but it can go to animal feed and it can create a by-product that then feeds fish and aquaculture, or I just saw something yesterday where you're taking by-products from things like corn husks and all kinds of different by-products in agriculture, and you're turning it into disposable plate ware that bio degrades in seven days. You know, like all of these possibilities start to become unlocked when we look at a better efficiency in the system. And I think it's a really fun time. I mean, there's still the depressing numbers and the figures that we got to wake up to every day. But I think we're realising what happens when we take advantage of everything that is going to waste and realise there is such an abundance of raw materials. We don't have to even have the idea of waste anymore. We can totally change the game.

Matt Eastland [00:31:45] Yeah, this is where the kind of the magic of innovation starts to happen, right? When everyone comes together and really sees the problem and starts exploring all sorts of creative avenues to solve it. And I guess Emilie Oddbox is one of those solutions, right? I mean, this is obviously why, you know, you saw the need and you know, this is what you're trying to do.

Emilie Vanpoperinghe [00:32:04] Yes and actually for us one of the things that we're doing is for every box that we send to people and we actually quantify the resources which have gone into growing the produce and with did deduct our own emissions because we do home deliveries. So there's also actually some things that businesses are starting to do is not only show what it costs in terms of the price, but also what it's taken in terms of CO2 emission. So I think there's a huge part that a business can play in showcasing the environmental impact of the food that we consume.

Matt Eastland [00:32:50] Brilliant. Yes. And let's encourage more businesses to be doing exactly these kind of things. I love that. So Pete, I mean, the report is fantastic, and I really

encourage all of our listeners to read it. But I guess just kind of looking forward a bit, you know, do you think that there's a big seismic shift coming in the world of food loss? Do you think we're at that place already or do you think we still got some way to go?

Pete Pearson [00:33:17] I mean, we've got to get governments committed to look at this and want to invest in it. You have to hit critical mass. I mean, when you look even on the waste side and the fact that you know, it's something like 10 or 12 percent of food waste is composted or recycled, like 2 percent of our nutrients globally are returned back into soils or return back and I mean, we've got a huge uphill road and what that requires is governments have to commit to this. They have to do this in collaboration with the private sector. So you've got to get businesses involved with government and you've got to make investments like there is a real infrastructure investment that you have to make and it's likely in the billions and billions of dollars. And so that investment is going to include better harvesting technology for developing countries, better information systems across the board, things like better roads, better cold chain, better waste management systems and specifically, like we, our brains tend to go right to composting and anaerobic digestion. But it can be also as simple as collection, like how do we collect food waste and how do we manage it better? These things all take money and they take commitment from governments and business. If we get that and if we get that in the next three to five years. Things can look pretty hopeful, but if we just keep dragging our feet and you don't see those commitments of government and private sector level, it doesn't look that good.

Matt Eastland [00:34:53] Well, let's hope that we do get those sorts of commitment, particularly with Cop 26 this year as well. And Emilie, you know, given what you do with Oddbox and you're on the ground, you're sort of speaking to farmers, you understand kind of what consumers are asking for here. What do you see for the future sort of food loss, but also, you know, specifically with regards to Oddbox?

Emilie Vanpoperinghe [00:35:17] So just kind of on the food loss part, I think for us, actually what we've seen with Blue Planet and plastic waste is that as citizens, we've got a huge power to influence some big businesses and governments. So our ambition is actually that by bringing awareness and educating people around the issue of food waste, then we can try to influence governments to do something about it. As citizens, we also need to change the way we eat and not expect that we get everything all the time and the way we shop will influence what retailers will do. So they respond to kind of consumer demand. In terms of Oddbox, we're only in half of the U.K., so it's about expanding to the rest of the UK and being available to more people to do something on a daily basis. So one thing that we've started is actually kind of collecting a lot more data from our growers in terms of what would happen if we were not taking the produce that we take. So helping in terms of we think we can have a role in terms of that reporting at farm level.

Matt Eastland [00:36:35] Amazing. Wow. OK. And, you know, Pete on from WWF's side, you've got the report now. Obviously, you're looking to drive change as well. So what's the next step for you in this space and how are you sort of pushing these recommendations forward?

Pete Pearson [00:36:51] The way that we're pushing recommendations forward is to we have a couple large groups that we're trying to work with on the producer side to get loss and measurement. So there's a couple of initiatives where that's happening. I'm particularly interested in developing country settings where you have growing economies, growing tourism in specifically sub-Saharan Africa, places where you're going to see a big increase in population, a big increase in fluency. People are going to be increasing their

livelihoods, getting out of poverty. When that happens, diets shift. People expect more in terms of their diet. So I would love to see better design happening in those systems. Like, wouldn't it be amazing for these developing countries to leapfrog what is happening in the rest of the world and to really move just immediately to that next stage and better food system design, minimise loss and waste and to see a really circular system where you're trying to limit the expansion agriculture has because these places in Africa, it's wildlife that we're trying to make, keep room for. And so that's my ambition is to see that really happening, that leapfrog effect happening in developed countries.

Matt Eastland [00:38:11] So in some ways than, you know, developing countries are going to learn from the mistakes of developed countries and try to avoid all of this, all of the things that we've done wrong, right?

Pete Pearson [00:38:20] Hopefully, I mean, because the planet can't handle them not. I mean, we're just going to be needlessly wasting the entire resource base for food that doesn't go anywhere. And it just is - it makes no sense. And I would say if I had one wish, it's for this idea of no more conversion of landscapes. Let's leave nature alone. Like, let's not just start tilling up all the grasslands and let's stop cutting down the forest. I mean, that's my one wish. If we just stopped agriculture's expansion and had a zero conversion mindset throughout the food system, that solves a lot of the problems that we're going to be looking ahead to.

Matt Eastland [00:39:02] Yeah. And it's funny you say that you're talking about the one wish I was going to ask you both actually to end on something maybe a little bit more positive and imaginative, let's say. So, you know Pete, I can hear your one wish, but in an ideal world, you know what would be the one thing that you would change the way that the food is produced, Emilie?

Emilie Vanpoperinghe [00:39:23] So I guess for us I'm not sure we would change they way food is produced, I think we wish to change how food is perceived and how food is consumed. So actually, in terms of how food is perceived kind of more value and people to understand the true value of food and for prices to reflect the true cost of growing the food, conserving gallons of water and other resources which have grown into the food we consume and realising that actually, we're in some ways living on credit, and it's the future generations which will pay the price of what we didn't pay. And so that's kind of for people to realise that and also for people to kind of understand that we need to consume in a way which is closer to our nature walks and adapt... maybe going back to our grandparents eating in more seasonal way and enjoying the fact that you don't necessarily get everything all year round, and that's what people are saying about Oddbox, there's some joy in getting the surprise of different types of fruit and veg on the weekly basis and not always consuming the same thing and consuming things which are surplus or which might not look perfect but needed.

Matt Eastland [00:40:54] Yeah, and I so agree. And you're right, you know, we all get used to just eating the same things over and over again. You know, life is hard and life is busy and I guess that's what people do. But you're right when somebody delivers something to you where actually you just have the surprise that you say forces you to be creative and innovative and puts you more in touch with food and you know, it makes you want to cook and all those great things where lots of other important things happened off the back of it. Before we finish, actually, there was a question that I wanted to ask you both and it's...I don't know maybe it's a philosophical one, but I'm always really confused, I guess, is the word as to why people perceive fruit and vegetables, for example, to be kind

of ugly and you know, this which leads to all this sort of farm loss etc. Is it because I grow, you know, as much fruit and veg at home as I possibly can and I delight in the fact that when you get a tomato, it's all ugly and it's kind of grown in different ways because I find that just makes it more natural. So why is it then that when you get to a supermarket that suddenly you want everything to be perfect? I'm just wondering, where does that come from? Is it just that we're all kind of so led by marketing and branding that we just assume that's what food should look like.

Pete Pearson [00:42:11] I think it is just, I mean, look at when you just watched the television, how much imagery is, at least in the US. I mean, I'd say most of the commercials we see are all about food right? And so you're constantly hit with these visual images of what food is and what it's supposed to be. And over time, I mean, you have decades and decades of reinforcement of that. You're going to just, it's going to be automatic and instinctual when you go into a grocery store, when you shop for it. So it absolutely is a product of marketing and the imagery that has just been burned in our brains.

Matt Eastland [00:42:49] Hmm and Emily, I guess on your side, you're probably finding the alternative now, right? That people are actually - they want to have this kind of fruit and veg now.

Emilie Vanpoperinghe [00:42:58] Yeah and actually sometimes we get people who feel that they are not getting enough of odd looking produce in their boxes. So they have that expectation that everything will be odd looking whilst in lots of cases is just kind of bigger or smaller. But I think it's the expectations that we've set and people have never seen, a lot of people have never often grown their own produce, so they've just been told them that's how a cucumber needs to look like.

Matt Eastland [00:43:34] Yeah, yeah you're right and maybe this is just on me because like you said, unless, you know, then I guess what I'm trying to say, you don't know what you don't know. So, yeah, I can understand that. But embrace the odd is what I take from that.

Emilie Vanpoperinghe [00:43:49] Yes.

Pete Pearson [00:43:49] Can I add just one final thought?

Matt Eastland [00:43:51] Yeah. Of course.

Pete Pearson [00:43:52] So fruits and vegetables, totally I mean, I am all for making sure that we're reducing loss of them, but I think it's really important for everybody to realise that dairy, seafood, animal proteins, these carry such a high environmental weight that wasting them should almost be a taboo in our society and our cultures right? Because when we waste those products, we not only waste them, but we waste all the resources that went into the production of those, right? And you have, especially in oceans, just we're totally overfishing our oceans, and they're stressed out to the max, like we cannot be wasting these products. And so I think that's a big imperative, too, for everybody to really focus on and to try to reduce waste and loss as much as possible for those protein products.

Matt Eastland [00:44:41] Thanks Pete and that's very, very sage advice. And, you know, a really nice way to finish the show as well. And like I say, I really encourage everybody

listening to read the report from WWF. It just really leads me to say a huge thank you to both, an amazing discussion. I love the fact that we're kind of unearthing this issue, and I really hope that people pay attention to this. Where can listeners go to find out more information about the report and what you do? So Pete, starting with you.

Pete Pearson [00:45:10] I mean, the report is titled Driven to Waste and so just a quick search in your browser Driven To Waste WWF will pop that right up to the top. And I'd encourage everybody to go check it out.

Matt Eastland [00:45:21] Great stuff. And Emily, where can people find out more about you and Oddbox?

Emilie Vanpoperinghe [00:45:25] Yeah, so people can go on our website oddbox.co.uk or on social channels at [oddboxldn](https://www.instagram.com/oddboxldn).

Matt Eastland [00:45:33] Amazing. So thank you both again for coming on the show. And thank you everybody for listening in. Remember, head over to WWF and check out they're Driven To Waste food report like Pete says to learn more. And of course, sign up to Oddbox to do your bit to reduce food loss as well. This has been The Food Fight podcast. Make sure to check out the EIT Food website at www.eitfood.eu and please also join the conversation via #EITFoodFight on our Twitter channel @EITFood. And if you haven't done so already, please remember to hit the follow button so you never miss an episode. See you all next time!