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Matt Eastland [00:00:06] Welcome to The Food Fight podcast from EIT Food. Europe's leading innovation community working hard to make the food system more sustainable, healthy and trusted. I'm Matt Eastland and on this show, we love talking to innovators and change makers from across the agrifood sector. And you might have heard the phrase from field to fork or even maybe from farm to fork are bandied around quite a bit in previous episodes. So we want to look at that supply chain in a bit more detail today, starting with the farmers in the field. So, you know, to me, farmers are incredible. They are the guardians of our land and its sustainability. They work incredibly hard and ultimately they're responsible for the quality ingredients that make it onto our plates. But so often, farmers struggle with the demands of the companies to which they supply. And some of the more kind of hyper industrialised farming practises that are grown out of recent decades have left us with questions about the potential harm being done to the planet. So the big question, has modern farming gone too far? And if so, what can we do to fix it? And with us today, we've guests from two very unique perspectives. Ana Digon is the co-founder of Agricultura Regenerativa, a regenerative agriculture movement based in Spain. And their vision is to improve sustainability of the food chain by promoting a system of crop diversity and natural soil rehabilitation. Hi, Ana. Welcome to the show.

Ana Digon [00:01:38] Hi, everyone. Thanks very much for the opportunity.

Matt Eastland [00:01:41] Lovely to have you. And joining Ana, is Ilay Englard, the CEO and Co-founder of Trellis, a Tel Aviv based platform that aims to improve efficiency and sustainability in the supply chain using artificial intelligence and is helping farmers avoid waste and profit loss along the way. So I'm real excited for Ilay to explain all of this as it just sounds so wonderfully futuristic. But first, Ilay welcome to the show.

Ilay Englard [00:02:08] Yeah, thanks.

Matt Eastland [00:02:09] Okay, great. Thank you both. So for me, just this start off with something very important. I think it's really vital to say at this moment that farmers are absolutely not the enemy in today's programme. So in actual fact, a lot of the enthusiasm to solve problems around sustainability actually comes from farmers. So let's just get that straight from the get go. But in simple terms, how have we got to the point where we're at today where market demand is leading to like industrialised intensive farming and huge sustainability issues? So would you go as far as saying that modern agriculture has failed? Ana, what do you think?

Ana Digon [00:02:52] Well, it's in simple terms, it is a simple answer. I think it has to be yes.

Matt Eastland [00:03:00] Ok.

Ana Digon [00:03:00] Because more food has been produced. This is true. And many systems have been improved in such a way that work labour is less heavy on farmers. So there's a certain amount of machinery that's really, really useful for farmers, obviously in certain amounts of technology, like even for example, if you think of pipes, you know, pipes are an amazing invention. So there's been huge advances that facilitate the work. But on the other hand, it has come the green revolution, the so-called green revolution in the fifties and sixties, even from the forties, has delivered whole packages of technology that have made farmers think that it would be very good to have that technology and has

made them rely on that technology too much. And forget in many cases, their own wisdom, their own connection to land their own connection to nature's cycles. And so farming in many places has become following a programme of application of different chemical substances. It's now proven beyond doubt that many of those chemical substances are toxic to nature and to people. And also products like fertilisers are something that simplify the nutritional cycle so much for plants that it actually makes them unhealthy. And that's why you then need to have insecticides and other sides which to actually things to kill. And all of that comes into our food system. And all of that is then consumed by us. And so we have a lot more illnesses of things that we didn't used to have. So it's all connected. And farmers in believing in what technology and agronomist who are pushing that technology, we're telling them, have gone down a road which has actually meant more toxicity to their system. And they're the first ones to suffer that because they're the ones applying these products and more toxicity for products at the end of the line. And also disconnection from their knowledge and Mother Nature. And now what we're seeing is that all of that has led to an impoverishment of the soil and of resources to such a degree that you need more and more inputs to produce. You have more and more pest problems and unwanted plant problems. And that means more cost to the farmer. But those inputs are now even more costly because petrol is more costly. So they're now in this sort of hamster wheel of higher costs in order to get reasonable yields, in order to maintain their own economy. And they have to go larger and larger or just go broke and leave the farm. So they're trapped in this wheel of debt between the products they need to buy, the inputs they need to buy, and then the price of sale of their product, which is not determined by them, but also by large industry and large distribution. So they're trapped between these prices that they do not set and they have huge debts to pay. And they have to continue on that wheel in order to pay their debts and feed their families or give up altogether. And this is happening all around the planet and particularly in Europe, definitely. So I don't think we can say that it's a success case. Definitely not.

Matt Eastland [00:06:29] I was going to say I definitely get the sense which side you're coming through on that. So we've gone down the wrong road.

Ana Digon [00:06:35] Yeah

Matt Eastland [00:06:35] Ilay, do you agree? And whose responsibility is it to address the problem do you think?

Ilay Englard [00:06:41] I think in general, it's a very complicated question. We have to remember that world population has tripled since 1950. So seventy years ago, there were less than one third of people on the planet. And we had to feed everybody. This is an enormous growth of our species. And as Ana mentioned, yields increased by a hundred to two hundred percent during the third green revolution between 1950, 1970. And that was the result of many technological advancements like selection and engineering of high yielding varieties, controlled water supply like irrigation, applying chemical fertilisers, pesticides, herbicides and also mechanisation. So in that respect, it was a success because we were able to feed everybody. What we're realising in recent years is that this production system is not sustainable. So we managed to build economies of scale. And you can also see that in farm sizes, now farmers are, farm size is huge. And the amount of farms dropped significantly. So farm size increased dramatically. The number of farmers and farms decreased, especially in the developed world. But we failed, too. So we produced we built economies of scale, but we failed to build sustainable economies of scale.

Matt Eastland [00:08:16] Got it. Okay, thanks for that Ilay. I'm just going to the question on responsibility. So whose responsibility is it to kind of address the problem? Do you think it is governments? Is it farmers? Is it everybody? You know where do you come down on that?

Ana Digon [00:08:31] May I?

Matt Eastland [00:08:33] Go for it Ana.

Ana Digon [00:08:33] Thank you. Well, in the ideal world, I think it would be a concerted effort between politicians who should be managing what is common to everyone, resources. And experts so scientists, academia, technicians, led by farmers, because they're the ones who know. They're the ones who on the on the ground, literally. So that would be the ideal world. However, unfortunately and this is this is a reality we have to accept and it is there. There are so many vested interests behind the first and second groups, I mentioned politicians and then also researchers and other institutions. There are so many vested interests behind that many reasons that as long to go into now, but that it's not going to come from there. So our vision is that it has to come from the ground up. And it has to come from consumers demanding better quality food and better quality production. And the work of farmers being dignified again, because once upon a time, farmers were the most valuable citizens in a village. And nowadays they are, you know, the last of the line. And nobody wants their child to become a farmer, you know? And so that dignity needs to come back.

Matt Eastland [00:10:01] I love that. Okay and Ilay, do you agree this needs to be a kind of a ground up mission?

Ilay Englard [00:10:07] Awareness is the most important thing. It's such a powerful thing awareness. And I, I totally agree with Ana that this will be driven by consumers. And the fact that millennials are more aware and becoming a major buying force globally is a reason to be a bit optimistic, because if consumers care means that the large brands and food enterprises will care. And to be honest, they control the vast majority of the agricultural supply chain because they buy more than fifty percent of agricultural produce globally. So they are responsible. And obviously, it's a shared effort. So regulations top down, bottom up. But it's about these food, large agriculture and food enterprises adopting holistic solutions. And I think the Rainforest Alliance is a great example for that. People would buy product with the Rainforest Alliance, seal on it, and they would be willing to pay premium even in order to preserve global resources.

Matt Eastland [00:11:21] Cool, thank you for that. And I think we'll definitely get into the solutions piece a little bit later as well. So, Ana, just to come back to you. So let's talk about regenerative agriculture. So what what is it? You know, and how does it work?

Ana Digon [00:11:35] Ok well, regenerative agriculture is basically recovering and regenerating what we have lost. And the focus of that regeneration is the soil. So living soil is the capital of any farmer. And any action needs to go in favour of promoting that living soil. Recovering it and and healing it and promoting it. And in order to achieve that, what's really important is to know about the connections, the incredible symbiotic connexions between soil, plant, herbivore, bird and all of the microbiology that is involved in each of those groups and the human as the manager of that. So it's a fascinating world in which, you know, the more you dig, literally, the more you discover just how amazing nature is. So regenerative agriculture in a nutshell as well, for those who know about permaculture,

is about permaculture for professionals of the agro sector, because permaculture is a great set of tools. You can look it up if you don't know about it, that are based on that living soil concept and how to promote that and connect all the cycles designing things well so that everything is connected and everything is nurturing and regenerating each other. That's the idea. Now, farmers who are feeding people and who are living off their business need to be very efficient in many ways. And they need different tools to do that than someone who's just growing a vegetable garden or has a few chickens at home, which is a wonderful thing to do. But that's not feeding the world. So you need to give solutions to farmers that are based on these visions. And luckily, there's many families and researchers and groups who have been developing many methodologies and techniques around the world for decades now. And so what we did here in Spain is once we connected with this information well basically it came from a guy, an Australian guy called Darren Doherty, who I'm sure many have heard of. And he was one of the best permaculture teachers in the world. He was defined that way by Bill Mollison himself. And he understood at a certain point, ok we need to address large acreage. We need to to talk about big food production, not just small individual family, a family production. So he went on a trip around the world for years, discovering all these different families and initiatives who were doing stuff perma culturally and yeah.

Matt Eastland [00:14:18] Amazing.

Ana Digon [00:14:18] And so he decided to bring all that under an umbrella and decided to call it regenerative agriculture instead of permaculture. The reason for that is because permaculture is a bit of a weird word and how can you go up to a farmer and say, oh, I'm going to talk to about permaculture. Like, excuse me, you're talking to me, a farmer. So they decided regenerative agriculture, call it what it is. That's how Darren Doherty's vision and his colleagues at the time, that's why they called it that way. And at that time, he'd been coming to Spain to teach for a while and I was lucky, very lucky, incredibly lucky to be his interpreter, which is my profession.

Matt Eastland [00:14:55] I was going to ask you about your you know, the way you got into regenerative agriculture.

Ana Digon [00:15:00] So, yeah, this was my way in because I was a small farmer at that time at a small organic farm with my partner, very tiny. But we were selling and things. So I was just amazed when I was interpreting him because it just went so much further, so much beyond organic. And I was an organic farmer myself at that time. So I was able to, I knew the difficulties of organic farming as I was able to see how this provided solutions to many of those difficulties just by connecting the cycles of plant, soil, animal and managing that, imitating natural cycles, imitating what big herds of herbivores do in the wild, and how can we do that on a farm. And that's basically the secret. And in that sense, I want to say that animals, herbivores, from our point of view, are the key of the system.

Matt Eastland [00:15:50] Right.

Ana Digon [00:15:50] And that's something that in Spain we've seen through the experience of the last ten years here. Is that where you don't have animals involved in the equation, you have to come up with all sorts of solutions and other things that you need to do that are very costly, complicated, difficult and difficult to do at scale. Whereas where you have animals. So in some places it'll be sheep. Other places there will be cows, other places it'll be goats. When you have those animals and you manage them well on the land, then you have the key to healing the soil.

Matt Eastland [00:16:25] Right.

Ana Digon [00:16:25] And we're discovering that like in practise, you know, that animals are the key. Even if they're not your own, you can borrow them from a neighbour. You know, have them a couple of times a year. The neighbour be happy. They'll have their animals fed a few days. You've got the animal impact that you want and then you save yourself a whole bunch of other techniques and tools that you need to apply. Now, this is set in very simplistic terms, ok? I'm not saying this is miraculous and it's really important to be very realistic. It's an art of being like the choreographer of your farm.

Matt Eastland [00:16:58] I've never heard farmers referred to as choreographers before. So I love that.

Ana Digon [00:17:03] Yeah.

Matt Eastland [00:17:03] Just going from regenerative agriculture right back to Ilay. So just thinking about sort of fixing the problems with intensive farming. So Trellis is looking at this from obviously from a very different angle. So technology and data. So could maybe you could just explain to our listeners, you know, what is Trellis and what's the platform and how does it work?

Ilay Englard [00:17:24] Sure. So at Trellis, we predict supply and demand behaviour to really resolve inefficiencies and deliver opportunities to optimise food production. And this helps ag food enterprises to preserve resources, increase sustainability while also increasing profits. And I think a great example is just a simple notion of let's take from the planet only what we need. Take what we need. And we met a food company just recently ago that sources field crops for processing. And like looking into the data, we saw that at some point they asked farmers to plant ten, fifteen percent more acres than the original plan to accommodate various production risks. So being able to control various risks related to agriculture production, whether it's past disease, will allow us to use less resources and managing soil properly and also using more holistic methods for agriculture will reduce risk over time. So this is one of the ways that these two worlds are connected.

Matt Eastland [00:18:36] Amazing. So just from a farmer's perspective then, so how would they go about using the platform themselves? How does that...talk us through it. You approach a farmer, they're really interested in the technology. What steps do they take?

Ilay Englard [00:18:49] So our approach is a very top down approach. We work not with individual farmers. We work with food enterprises and food enterprises who buy from sometimes hundreds and thousands of farmers. And this allows us to make much greater impact in short amount of time because we provide the full solution to managing the agricultural supply chain to a food company. And then they win because they have better control over their ingredients and the supply chain. And the farmer wins because they have insights, actionable insights that can help them improve their profit and also produce better ingredients for the food industry. So it's like a win win situation. Just to give you an example, we've seen cases where using excessive amounts of fertiliser actually reduces the quality of agricultural produce. So it increases yields, but it reduces quality. Potato production is a great example for that overuse of ammonia, of nitrogen and over-irrigating it can produce very large potato with low amount of solids. And for snack production, for crisps or french fries, the amount of solids is really a key driver for production efficiency

because you fry away all the water. So if you have a very big potato with eighty percent water, it's much less efficient than seventy percent water in the potato.

Matt Eastland [00:20:26] I imagine it probably doesn't taste as nice either.

Ilay Englard [00:20:28] Exactly. Exactly. And you get thirty percent more crisps, if you have a proper potato. So the input on the field level can even impact the taste and the production efficiency downstream.

Matt Eastland [00:20:42] So that's interesting. So it sounds like what you what you're doing is you're actually potentially increasing yields and making farming more sustainable. So it starts to sound to me like there is a potential crossover here between the worlds of regenerative farming and the sort of high tech farming, should we call it. So we've got two very different solutions. But do you think they could be used together? I'd be interested Ilay, if you can tell me what you think. And then, Ana, maybe you can kind of reflect on that, because I think it's quite a fascinating, fascinating debate.

Ilay Englard [00:21:15] So there is definitely overlap. I think one of the challenges is farm size. I think regenerative agriculture I'd be fascinated to hear from Ana how it can work in large scale farming operations. But if we take, for example, the developing world and crops like coffee or cocoa where it's still grown in family owned, very small farms, we see that farmers sometimes fail to manage their own PNL and they're losing profit because they're using excessive amount of fertilisers and inputs and chemicals. And obviously, these industries have many companies and stakeholders have vested interest in that industry from the large coffee roasters to consumers and and other alliances. So applying regenerative agriculture in those industries where the farm sizes is still small. I think that that could be a good entry point.

Matt Eastland [00:22:17] Okay interesting. And, Ana, do you agree? I mean, just kind of listening to what Ilay saying, do you think there could be a place here within regenerative agriculture for this kind of high tech stuff?

Ana Digon [00:22:29] Well, it's definitely a really interesting debate and it's definitely a debate that needs to happen and it needs to happen not just here amongst us, but actually beyond. And it is happening. So, for example, I'm part of I'm lucky to be part of a group of twenty European expert advisors who are putting together a series of recommendations for the European Commission about sustainable beef farming. So to my joy, I was not the only one there talking about regenerative agriculture. In fact, there's a whole bunch of us amongst that group of twenty.

Matt Eastland [00:23:04] Ah fantastic.

Ana Digon [00:23:04] Yeah. Which is great, you know, and it's something that's definitely there regenerative agriculture and however you want to call it. But the systems that are working in favour of life and in favour of soil are definitely up high on the agenda at many levels at last, which is great.

Matt Eastland [00:23:21] Okay, great.

Ana Digon [00:23:23] Exactly. It's no longer, you know, a few hippies over there, you know, having a bit of a rant. You know, it's not. It's something that's very practical that's being developed in many places in Spain for over a decade. And we have a lot of

experiences now of success. And unfortunately, we don't have more because it's so difficult for farmers to do, because bureaucracy is incredibly complicated and in many ways doesn't include this kind of vision, you know, and so laws and legislations need to change to facilitate people doing this kind of work. Ok so that's one thing. But it's definitely high up on the agenda. On the other hand, artificial intelligence and all of this kind of technology is also something that has been coming for a while and it's definitely boom, had an absolute boom moment. So how these crossover is a really important debate to have so that no one's left behind and we don't fall into the mistakes that we have already done in the past so that it doesn't become another green revolution where farmers become the product or become the receivers of something that is imposed upon them. Without them really understanding or really having been part of the development of that.

Matt Eastland [00:24:36] Ilay, in response to what Ana was saying about sort of technology and making sure that this isn't another green revolution, say, which hasn't maybe been that successful in later years. How do you think that you can get the technology like Trellis into farmer's hands? You know, but make sure that it doesn't then go the wrong way again.

Ilay Englard [00:24:59] So I would say that A.I. and cognitive learning is just another tool that we didn't have in the past and we have today. And the goal of this tool is to help managing exactly those trade-offs of looking into the future and understanding how decisions we make today are going to affect the future, especially in dynamic systems like agriculture. Well we have to take into account the environment and what farmers are doing in and soils and many factors into play. And when we look at large scale systems and we're looking ideas like regenerative farming and we're thinking, ok how can we apply that at scale in multiple regions and multiple crop types, multiple environments. A.I. machine learning, cognitive learning can help us do that. So it can help us magnify the effect of things that are good things that we're happening, that are happening and can help us also reduce negative, negative things that we're seeing across the system. The key is to be able to have enough data. So I think one of the things that helped us understand that what we're doing today in large scale farming practises is wrong is the fact that we have data.

Matt Eastland [00:26:19] Ok.

Ilay Englard [00:26:20] Without data and people would just ignore it. So people today can quantify soil degradation. They can quantify, we know that the world has lost one-third of its arable land over the last forty years. That's a piece of data. Well, we lost one-third of arable land now without having that piece of data, it would have been much harder to convince people that we need to take action now.

Matt Eastland [00:26:47] So that's interesting. It's almost like we needed the technology to be there in place to get the data, to be able to prove that the technology that came before wasn't actually then working. So that's fascinating.

Ilay Englard [00:26:58] Exactly. So the fact that we live in a data-driven world and I have met a lot of criticism about that, we need to be connected to nature in many levels, way beyond data. But we live in a data era, so data can help us understand what are the consequences of what we do today and what we need to do in order to improve.

Matt Eastland [00:27:22] So Ana, you are reaching out to your various communities about what they thought about potentially merging like super tech, let's call it, like the likes of A.I. with regenerative farm.

Ana Digon [00:27:32] Yeah. So when I heard a couple of days ago that I was going to be talking with Ilay from Trellis, well I normally when I go to different forums and speak, I don't speak for myself because I'm not a farmer. I'm their spokesperson. So I always consult my farmer, and I say, you know. So I put out this debate to three key groups within Spain, which basically adds up to almost two hundred farmers. It's been a fascinating couple of days. It's provoked huge debate. And I'd like to say very respectful debate. So some of the concerns that farmers raise have to do with very practical issues. So regarding the scale, most of the farmers agree on the fact that the size of their farms, which go anything from, let's say, twenty hectares to four hundred.

Matt Eastland [00:28:26] These are regenerative farmers?

Ana Digon [00:28:29] Regenerative farmers here in Spain. So that scale family farming is something where even the existing technology in the sense of computer programmes that exist to predict things or to get information, just don't get it. They're useful to have and to get information. But the reality of a farm like that is that the best technology is the farmer's feet, which is actually an ancient two thousand year old Chinese saying. The best technologies are farmers feet. That means going out in the field, looking at what's going on, going up in the morning, midday and evening at night when it's raining, wet, dry. What's going on? Knowing your land. One of the things we say a lot in regenerative agriculture is farmers need to once again become scientists of their own land. You know, regenerative agriculture terms, the same farm in the hands of two to four farmers will be managed differently. So how can an algorithm know that? You know? Another concern is who feeds the information into that A.I.? So you have A.I with algorithms and that amazing stuff, but somebody needs to train the A.I. to give the information. Who is giving that information and under which perspective? Because one of the farmers made a really funny comment, when I put this topic on the table and he said, well, if those algorithms are as clever as our regular conventional agronomists, we're done. Like, you know, which is the science and which is the vision and the knowledge there's going to be preparing those algorithms for people to then use. Because there's many lines of thought. So when I am the one who decides which things I read, which things I try out, which things I exchange with my farmer colleagues, which I apply, what works, what doesn't. When I'm the one who makes the decisions, then I can decide the line I want to take and it will be my responsibility and my ethical behaviour and my parameters I use to decide that will take me where I want to go or not. I decide, you know? When a machine is making the decisions for you, then who is actually deciding?

Matt Eastland [00:30:47] Ilay, just listening to what Ana was talking about there, you know, sort of funnelling the thoughts of the farmers in terms of the technology and how they use it and who's providing it and also can it predict, you know, unforeseen events. I mean what do you, what are your thoughts?

Ilay Englard [00:31:03] So Ana you were making some great points. And I think the basis of this discussion is exactly what you said about two farmers, farming the same land and they will get different outcomes. So we have that in our end goal is to build resilient and robust and sustainable food systems. And you ask how these two things connect and it's about breaking the silos. So there are good farmers and there are other farmers who are not as good. And if we could look and analyse food production systems across farmers, across regions with massive amounts of data, we can close this feedback loop between what farmers are doing and the outcome yields, productivity, profitability etc, and then bring back those insights to the people who produce food, which are the farmers. So, as I

said, I don't see a situation where A.I is going to grow food for us or make food for us, but it can help us analyse systems and break the boundaries of the individual farm. Exactly as you said, because every farmer today wants to know what their neighbour farm is doing. And if there is a past or a crop epidemic that attack the nearby farm, they want to know about it in real time so they can prepare ahead. And these type of insights and alerts at scale is only possible with digital technologies and A.I. So this is where I think we can analyse the entire system and look at it from a different point of view than the individual farmer who really needs to farm their land.

Matt Eastland [00:32:56] I would really love to see both of you collaborate and work together on this because, like I say, really fascinating debate.

Ana Digon [00:33:03] It is.

Matt Eastland [00:33:04] And if it feels right that there needs to be a better connection between the two sides. So I get the feeling that after this podcast, you two may well be discussing things a lot more further together. Just kind of moving this on a little bit. So I think farmers are generally in favour of anything that helps them to be more sustainable. So I think the good thing here is with the common ground between you is about sustainability.

Ana Digon [00:33:29] And the resilience as well Matt.

Matt Eastland [00:33:31] And the resilience absolutely. And the limiting factor though always appears to be profit margins. And Ilay before was talking about the scalability. So is it do you think it's really possible to be more sustainable and more profitable at the same time? And I'd be interested to get your perspectives on a regenerative side of farming. And, you know, Ilay, you're kind of high tech version of it. So, Ana, what do you think?

Ana Digon [00:33:58] Yes, definitely it's possible. In fact, many of the farmers who look to regenerative farming come from a place of big debt. And knowing that the system that they're following, conventional agro systems based on inputs and machinery are just not profitable. In fact, they're going straight for bankruptcy. And that often is the driver. It's what makes them look for something else. Now, going organic is an option because you have a product that you can sell for more. So basically, there's that extra value, right? But it involves a lot of bureaucracy, a lot more. Which means high costs. And it also limits very much the things you can do. It's basically you can not use these inputs anymore. You have to use these others and they're more expensive. And who knows where they come from. Yes, some of them come from Brazil or whatever. You know, it's like.

Matt Eastland [00:34:48] Yeah.

Ana Digon [00:34:48] So it's a whole other set of constraints, but it's not actually changing the management. Whereas regenerative agriculture is about profound changes in the management of the farm. So that cycles become cycles again and you reconnect that. So by reconnecting animals, soil, plants, cycles again, what you get depends on the starting point of the farm. So what's the medical history of the patient? First of all, what's been done here so far and then where you're at the climate, especially the rain. The rainfall is a key factor. But generally speaking, farms experience a jump at the beginning. It's almost like the soil was so hungry for a different type of management that when it happens, it's like, boom, hello you know, I'm starting to recover. And then it goes into a plateau and sometimes it falls. So come some years that some people call the years of misery, which

is basically, you know, it's almost like a drug addict that had all this stuff being injected into it and then when it stops, it's got this shock you know withdrawal symptoms syndrome. And so the times of nature are slower than the times of our personal economies and of wider economies. So sometimes farmers cannot sustain those years of misery. And so that makes it complicated. So what we often say to people is try it out first on a piece of the farm, on a smaller piece, say a quarter of the far more piece of it. You can try it out, see what works, what doesn't work. And then as you develop the techniques that are going to work on your soil for your reality, then you can expand that to the rest of the farm. So don't give up your daily income but do a transition, you know? And I think that's a pragmatic way of looking at things because you don't want people to go bankrupt right?.

Matt Eastland [00:36:43] Absolutely.

Ana Digon [00:36:43] So you have to do things in a certain pace. And when you can do that, basically we're seeing cycles of about seven years, which is the time that it takes for the system to really heal itself and get back into a really nice action that is productive and that is regenerative truly, yeah. And so that's where profits comes in. So some farms have had a few rough years and then have gone into profits in year four, year five, year six. Others have started to go into profit from the very beginning because they stopped using a hodgepodge of things that were really expensive and were able to use their animals. Many farms find that their carrying capacity increases so as they have healthier soil, better grass, better pastures, they can put more animals into the field, which means more profit. So at the last meeting of regenerative cattle farmers in Spain, we had twelve farmers expanding their case and about a hundred in the audience, many of whom already practising beginning. All of them who were on that road were saying, I can never go back. This is the farming of the future. This is the way I want to farm. That makes me happy. And this is the way that is going to make me profitable. Which is absolutely key. So happiness and profit are both part of the equation. And that's what these farmers are seeing.

Matt Eastland [00:38:11] Ana why don't we let Ilay kind of answer this?

Ana Digon [00:38:13] Yes.

Matt Eastland [00:38:14] We were talking about the question around profitability and sustainability, about whether it's whether it's possible.

Ilay Englard [00:38:21] So first of all, to Ana's point, I think that the fact that people are willing to pay premium for sustainable production and fair trade is the key. I think that's something that farmers can leverage and can help improve the entire value chain. Countries like Colombia or Brazil rely on coffee production, for example, as part of the entire economic viability of the country on the country level. And we found that farmers who are focussed on sustainable quality coffee with good farming practises have higher chances of selling that at premium price to companies like Nespresso or Starbucks that are looking for the sustainable, high quality coffee. So I think that sustainability, efficiency and profit go hand in hand, especially in the food industry. It does not collide at all. And farmers, as well as food companies who will adopt this as a strategy will become more successful.

Matt Eastland [00:39:28] Amazing. That's, I love that. And actually, that's that's a kind of a nice point to start wrapping this up because we're almost out of time today. Ilay, Trellis is part of EIT Food's Rising Food Stars Network. So how are you hoping to connect and collaborate you know, with our partners and beyond?

Ilay Englard [00:39:46] So, first of all, it's amazing to be part of this network and to collaborate with other Start-Up companies and innovators as well as large food and agriculture corporates. And the fact that organisations to collaborate is really helpful because we can cross these barriers of technology, adoption and having these debates, especially when we're trying to improve a legacy industry. This is the oldest or second oldest industry on the planet. And it's really a big challenge to disrupt and to change existing paradigms. So organisation like EIT Food and Food Stars is definitely the way to accelerate the process.

Matt Eastland [00:40:35] Thanks, Ilay. And that's good to hear. And actually that it's kind of been my reflection as I've been listening to this podcast. We're listening to you both today talking. It's probably the best example of a kind of a meeting of minds. You know, it was really interesting to get that different perspectives. And I think this is why what we do here is so important. So I really hope that you both manage to connect afterwards and you will manage to get the answers that you're that you're looking for. So just to say, you know, to you both, it's been an absolute pleasure. And I do think we could probably have done with about three or four hours to go, but unfortunately, we've run out of time. So, Ana, where can people find out more about you? And how can farmers learn more about how to adopt regenerative agriculture methods to their businesses?

Ana Digon [00:41:22] Well, I think there's more and more information about regenerative agriculture online. And so you can search for it. And there's very good material. I would like to drop some names of English speaking masters that have inspired and trained us and have come to Spain to train us. One of them, as I said, is Darren Doherty with his project Regrarians. And there's Joel Salatin from the States, who was an amazing pioneer in this and has written many books and has many talks on a line which are so inspiring. You know, every time he opens his mouth, it's like wonderful. And for example, holistic management is something to really look at. And this different schools there. There's the Allan Savory Institute. There's Holistic Management International. In Britain, there's the Pasture Fed Livestock Association. There's many collectives that are doing work. But I think that's a good place to start. Our spanish network you can find on agriculturaregenerativa.es so regenerative agriculture in Spanish and we've got a YouTube channel, Facebook page and website that you can look at and follow. And there's, like I said, more and more information around that you can look at. So we really say to people, don't believe anything you hear. Just look, search, find out. And what's really interesting is to connect with other farmers in your region who are doing this and as a consumer to actively look for farmers who are producing in this way. So think of where you're voting every single time, you know, and it's in your own interests and in the interests of your children for the future, you know, we need to change things. We're not going the right way. We have to change it. And I want to say thank you for this opportunity to talk.

Matt Eastland [00:43:13] Thanks Ana.

Ana Digon [00:43:13] It's a lovely way with you guys.

Matt Eastland [00:43:15] Thank you.

Ilay Englard [00:43:15] And Ilay, I really would love to continue this conversation and I hope that EIT Food can also perhaps in that framework, you know, really bear in mind that farmers need to be at the centre of the debates. So it's not about me. It's about, you know,

I can bring to you the voice in English of Spanish farmers who are actually very innovative and pioneering.

Ilay Englard [00:43:34] Amazing.

Ana Digon [00:43:34] With regenerative agriculture in Europe. So thank you for that opportunity.

Ilay Englard [00:43:38] Keep doing a great job Ana.

Matt Eastland [00:43:39] Thank you very much Ana. Some sound advice there as well. And Ilay, you know, whats the first steps people can take to explore the Trellis platform, how did they find out more about you?

Ilay Englard [00:43:48] We're online, so follow us on LinkedIn, Facebook. Go online to our website at trellis.ai or trellis.ag. And we're really happy to collaborate and explore synergies with every stakeholder across the value chain. Farmers, food and beverage companies, scientists.

Matt Eastland [00:44:08] Amazing.

Ilay Englard [00:44:09] So it was really great to be here with you. And it was wonderful to hear your stories Ana and in general about regenerative agriculture.

Ana Digon [00:44:18] Thank you Ilay.

Matt Eastland [00:44:19] Thanks, Ilay. And thank you. Thank you both for such a fascinating discussion. So you've all been listening to the Food Fight podcast from EIT Food. If you'd like to find out more about us and what we're doing check us out on www.eitfood.eu or hit us up on Twitter @EITFood. And it's also just worth giving a little bit of a plug to one of our programmes, which is the Regenerative Agriculture Revolution, which is looking and exploring all of these topics that both our guests today were talking about. So thank you very much and keep fighting for a better food future.