

Interview with participant E, 12th January 2018

E: Do you need any figures before we get started?

Int: I've got a few quantitative questions at the outset which we'll just go through quickly.

E: You can always email if you need any more details.

Int: We've also got an online questionnaire which is collecting the quantitative stuff, this is more of a qualitative interview, trying to gather opinions which are harder to gather via questionnaire.

E: Yep.

Int: (about me, project description, resilience definition). How many years have you been farming for?

E: Well, this farm is a family farm that started in 1957. We've sort of evolved it and built up over the years. So today we are growing on 6000 acres, pretty much 80% of it is irrigatable. We are growing a thousand acres of onions and a thousand acres of potatoes annually, which all have irrigation. There's also 800 acres of sugar beet which can be irrigated if needs be. Onions and potatoes are the main crops we have to irrigate to get quality and get yield.

Int: So it's a family business?

E: Yes, family business, I'm third generation.

Int: So you've basically been farming since you were born?

E: Well yeah I've been full time in the business since 2011.

Int: Okay. And is the land that is farmed all owned by the company?

E: No, it's a mixture. It's a mixture. Erm, probably just under half of it is owned. The rest of it is on farm business, hence these contract farming arrangements', or just yearly land rentals.

Int: And has the farm size grown over time?

E: Yeah. Yep. No, it's ever-expanding. If you go back about 10 years it was probably about 2000 acres. So the last ten years it's really kicked on.

Int: And is that...

E: That's been from taking up contract farming arrangements and tenancies on locally, and then renting more land in for specialist vegetable production, potato production.

Int: Okay, and what water sources do you use? Ground, surface...?

E: A mixture. So we're farming along [REDACTED] Valley. So the river [REDACTED] runs right through the farm, so that is, if you like, our lifeline, our primary water source. So we are pumping out of that either direct abstraction in the summer on summer licenses, or we've got 12 or 14 reservoirs, dotted around the farm, which are winter-filled reservoirs. So we are filling them up during the winter, out of the river [REDACTED] and then abstracting during the summer. We've got one borehole as well, which we irrigate from.

Int: Okay. And how much time is there remaining on your licenses? Or are they licenses of right?

E: Er, there's a complete variety. We've got about 18 different licenses, so they are all, yeah... At the moment they are all alright for the next five years. Trouble we get with the licenses is if you get a dry summer and they stop you pumping... you can pump every other day or something like that, or they stop you pumping. We've been struggling this winter to actually fill up the reservoirs, because they've stopped us abstracting out for winter fill. We've only just been able to start pumping sort of right at the end of December. We are pumping now, trying to get things full. But we are quite glad when that rain came end of December and early January, because it was quite dry before then. We hadn't been able to fill up any reservoirs yet.

Int: So what will, will that affect what you will do this year in terms of how much you can plant? Will you scale back because you don't have enough water in the reservoirs, or will you just take a risk and plant it and see if it rains or...?

E: No, take a r... Trouble is, you decide your cropping for this coming year... we decided in May last year, because you've got to get all your contracts and land agreements sorted out so. Yeah, if the reservoirs weren't full we would have to cut back, but at the moment we are filling them up now. We can pump now so we should be able to get them full erm in the next month.

Int: And are you confident in the security of your licenses, so in 5 years' time...

E: No.

Int: So tell me about that.

E: I think the summer abstraction ones we are probably going to lose, well I say lose, but erm, you can't get any new ones at the moment, and they are looking at them really hard and scrutinizing them and making sure you are actually using them, and we've had... farmers have had it if they are not actually using their license, licensed amount, they will take the license from them.

Int: Has that happened on this farm?

E: No because we are always using our licenses. We've bought in a couple of licenses from other farmers actually who don't need them any more. When the next real big renewal of licenses comes around it's going to be harder and harder, I think, to get summer abstraction anyway. Hopefully winter... I sort of think winter abstraction should be fairly safe because there's that much flow anyway and if we don't take it out it's going to go out to sea anyway. So we can put it in our reservoirs.

Int: So what happened to those farmers that you know of that lost their licenses?

E: Well, a lot of them it didn't really matter because they weren't using it because they weren't growing crops that needed it. They were just old historic licenses that they'd had for years and not used. But it is getting tighter and tighter and you can't get any new ones at the moment, winter or summer it seems.

Int: So do you think that even though they've lost those old licenses, in a year where there were major water shortages, would they have been using them, is it just the case that those shortages haven't occurred within the last few years?

E: No, I think it's just a case that they weren't really using them because they don't really irrigate any more, they are not growing vegetable crops and they haven't got the irrigation systems in place.

Int: So it's not likely to impact negatively on them that they lost their licenses.

E: I'd say so.

Int: That's good. So is it mostly onions that are produced here?

E: Yes, onions and potatoes, about a thousand acres of each.

Int: Do you think that the proportion of the business income that is coming from irrigated cropping is staying the same over time, or increasing or decreasing.

E: Er increasing. Although it's 2000 acres out of 6000 acres, it's our main source of income really, it accounts for 75% of our income because they are all high value crops, and that's increasing really.

Er. Especially in onions because we've got [REDACTED] over there, our sister company, which is an onion packhouse. So we've got a direct contract with supermarkets to supply to them, and that business there is increasing. So they are demanding more and more onions which we are trying to produce for them.

Int: So you are increasing that because there's an opportunity?

E: Yes, there's a market there for it. Potatoes we've sort of stayed pretty well still for the last few years. Potato market does that really and it's a hard one to get new contracts and new volumes on.

Int: Well, people in the UK are eating less potatoes these days.

E: That's the trouble, yeah and there's over-supply at the moment. Prices crashed out this year, there was just too many potatoes in the market. It's a good value crop for us but definitely onions will probably be increasing more than potatoes.

Int: And how much do you produce for contracts and how much do you produce with the aim of selling on the open market?

E: All the onions are on contract, and potatoes, probably 75% is on contract.

Int: And is that a preference to try and keep things as stable and possible to avoid the risk of...

E: Yes

Int: But you still keep a quarter of the crop to sell on the open market.

E: Yes, it mostly goes to the same customer, but it just goes on market prices rather than on contract prices.

Int: And is that because there's the possibility to profit?

E: It's driven by them normally. They sort of dictated, they wanted to have a certain percentage of their volume on contract and a certain percentage on market price so they have flexibility in their system.

Int: Okay. And is it all sold fresh?

E: [nods]

Int: And do you have a marketing group or do you just have a relationship with...

E: No we do it ourselves and have a close relationship with our customers really.

Int: And do you have multiple different customers or is it just one?

E: Well, onions it's all goes to [REDACTED] so that's one customer and as I say we are the sister company so there's joint ownership there so, it doesn't really need marketing. Potatoes predominantly goes into [REDACTED], erm that's our main customer. [REDACTED]. So there's two customers really.

Int: Thinking about the types of water risks that you face on farm, just broadly, which ones are the main concern for you?

E: Obviously direct summer abstraction is a concern. Either losing those licenses or just being stopped in the summer, or being cut back in the summer. Because when you've taken the crop that far and then you get cut back...

Int: Could you cope for an entire year just relying on your reservoirs or...?

E: Erm, no because you can't always get the water to the field from the reservoir. You need, where reservoirs are placed you've got all the pipework and for the rest of it you need, there's some fields and some areas of the farm where you have to come straight out of the river, because the infrastructure isn't in place.

Int: Would you have any plans to put that infrastructure in place or is it not worth it for the investment?

E: There's no plans at the moment, but I think looking to the future we are going to have to start thinking about building more reservoirs, or connecting up more reservoirs to more parts of the farm.

Int: Okay. And are you concerned with any other types of water-related risks outside of the water scarcity issue?

E: Erm, water pollution is always on the list, because a lot of the water here comes out of the [REDACTED] and goes into [REDACTED] for drinking water. So we're very tight here on pesticides into the water, pollution into the water.

Int: So that's sort of runoff from the farm. You are not concerned so much with the water that you are abstracting in terms of quality issues?

E: No, quality of the water we are taking out is pretty good. The reservoir water's good. We have to test it 3 or 4 times a year as part of our assurance for onions and potatoes. Quality has always been...

Int: So are the EA testing for runoff?

E: Yeah, they are doing quite a lot of testing around here. Because they've got a big reservoir, [REDACTED] reservoir, which is a drinking water reservoir. There's a lot of river that feeds into that, a lot of streams and ditches which feed into that.

Int: And would they be able to trace it back to a specific farm if they...

E: Yes, they are trying to trace as much as possible. They are struggling with pesticide residues really in water, more than anything, at the moment. So we are working with them to try and resolve it.

Int: Have you had any negative impacts either from runoff or from water shortages, since you've been involved with the farm?

E: Erm, no. We've had a few shortages, just where our reservoirs have run out of water because maybe we are growing too much water around that reservoir for that reservoir to cope with, and then we are being stopped in the summer from abstracting.

Int: And then did you change anything after that happened?

E: Yeah, we probably changed the balance of cropping for that reservoir, just to reduce it slightly. Or change the type of cropping, so you might grow an earlier potato variety or an early onion variety so it doesn't need quite as much water...

Int:... In the height of the summer...

E: Yeah. It's a job to know because how do you predict rainfall events and all the rest of it. I mean some years you might hardly irrigate because you don't need to. And other years you might be flat out irrigating or, like this year it's a really dry spring, so we are busy irrigating, we did a bit in April or May, and you think, well, if this carries on I'm going to run out by July, but then the weather changed. The weather broke, and then we had plenty of water left at the end of the day, so. It's... you've got to second guess it, and you know, do you start irrigating early, risking you might run out, or do you go for it early and then hope you'll get some rainfall.

Int: And I guess also the runoff problems get worse if you've irrigated.

E: If you keep irrigating and irrigating, yeah.

Int: Well, hopefully in the future, prediction will get better.

E: Yeah! That's the thing that holds farmers back - a decent weather forecast!

Int: Yeah.

E: They can get the next day about right, but anything past that. You just can't plan for it. You can't plan for anything can you?

Int: I read that wet summers in the UK are connected to ocean surface temperatures so they might be able to predict when the summer's going to be wet in the UK, which might help.

E: Yeah, we are getting warmer and wetter I think. Rainfall in the last few years has been more sporadic and more intense. It might be dry for a few months and suddenly you get a massive deluge. And that's hard because most of that water's then lost, if you have a really heavy deluge, it just runs off and is just gone.

Int: Is that having an impact on soil structure?

E: Yeah, it must be. You see more sort of soil compaction when you have big deluges of rain. And we are trying to grow more cover crops and using different machinery to alleviate compaction in things like potatoes to stop runoff, and just to capture that water as much as possible.

Int: Okay, so what do you understand by the term irrigation efficiency?

E: Erm, just the amount of water you are putting on to what you are sort of getting out from it all, the net benefit really in terms of yield.

Int: So I'm guessing that there's a different understanding from the EA, for example they might be interested in irrigation efficiency as a way to reduce overall water use, but if you were trying to make your production more efficient in terms of the irrigation, that wouldn't be to reduce your overall water use.

E: Yeah, yeah. We are always trying to use technology to look at whether we are putting the right amount of water at the right times. Using more and more erm... measuring soil moisture more to

calculate deficits and that sort of thing and then adjust irrigation amounts according to deficits... neutron probes and tensiometers.

Int: Are those the main ways you check? Do you go round and physically look at the soil or is that not really practical?

E: Yeah, the main way we probably check is we put a spade in the ground and you probably calculate it yourself.

Int: Do you see that approach ever being supplanted by technology?

E: We use these soil moisture probes and things, but unless you have one in every field which is not really practical when you've got 60-70 odd fields to do it. So the way I use it is that you have the soil moisture probe in one field and then you sort of use that to calibrate your spade, if you like, so you look at what that's reading, then go and look in the field, and you sort of work off that. Get a feel for it that way of how much your soil moisture deficit might be.

Int: Do you see approaches becoming more technological over time.

E: Yeah.

Int: And how do you feel about that?

E: It can only be a good thing really. Erm, because obviously we don't want to put on water when we don't need to, because obviously there's a massive cost to it, and you put on too much on a crop, you can have negative quality impacts.

Int: So do you think the irrigation efficiency has increased over time.

E: Yes, I think we are getting better at planning it and responding to it and varying water amounts. The trouble is a lot of time when you are irrigating that quantity of crops you can only irrigate that field maybe once a week, because that's all the capacity you've got in the system really. So then you need to put on 25 mm in that week, so it will last that week. It would be great if you could go in every other day and just give it 5 mm. If we had trickle tape or drip irrigation you could do that.

Int: Is that something you have considered?

E: Yeah, we are doing a trial of it this coming year on an onion crop, using drip tape. It's just expensive. It's two to four times more expensive than traditional gun irrigation.

Int: Right, so mostly what you use at the moment is guns?

E: Guns and booms. Everything is either guns or booms. Drip irrigation is great, it's a much better way of irrigating a plant. But it's just the cost of it, the infrastructure you've got to put in for it and like you say, you go in for it and you get a wet year and you mightn't even turn it on, you've still got the cost of laying all that tape, it's all single use, putting it all down. Whereas if it is wet we just... the irrigators just stay in the shed. No one needs to move them so there's a zero cost for that, we don't use the water, we're not paying for pumping water.

Int: So thinking about approaches to increase irrigation efficiency, with the understanding of irrigation as something that enhances your ability to respond to anticipated or unanticipated shocks, do you think that increasing irrigation efficiency is compatible with increasing resilience to water shocks?

E: Yeah, because yeah, you should be using less water if you increase your irrigation efficiency, and you should be using it a bit smarter. And just yeah, but trouble is you've got to look into the future a bit when you are irrigating and the rest of it if you don't know if you are going to have a deluge of rain at the end of the week or next month or month after or if it's going to be dry for three weeks or...

Int: I guess in some respects using trickle in the way that you describe because there's a big financial outlay, and then you may not have needed to have made that outlay in some ways that could be reducing your resilience because you could have saved that money? I suppose it depends doesn't it... if you were growing everything under cover...

E: Yeah, if you've got everything in a greenhouse then you are sorted! But yeah irrigation, I think irrigation needs to get smarter and technology will get it there. People are looking into variable rate irrigation, so you are varying the amount you are putting on in a run depending on the soil type across that field because that soil type across the field will change, so your moisture deficit across the field and holding capacity will change, so you can vary your irrigation across that based on soil texture. That's sort of coming.

Int: With your current approach what can you foresee going wrong, obviously there's the possibility that you won't be able to abstract during the summer, but beyond that are there any other areas where you notice that there's problems.

E: Yeah, we are probably not as accurate as we should be with water, or could be, don't know if could be is the right word. But again, it's getting round every field, because you need to give that crop the water, and it's juggling your water resource because you are stretched at times, that's how it works. You know all the crops are crying out when it's a hot dry week and you've got to prioritise and get around those crops, so you are not being as accurate or as efficient as you probably could be.

Int: How much is it left up to the irrigation manager to make decisions about when to irrigate and what to irrigate?

E: Yeah, it's in conjunction with the agronomists and field managers, along with the irrigation managers.

Int: And do you worry about losing staff that are experienced in that respect and having to rely on people that don't have the same level of experience available?

E: Yes, staffing's always hard, it's always hard to get good people in agriculture. But I think if you can get the right people in you can train them and get them engaged with it, and get them in tune with it a bit more.

Int: And I guess the technological side of things reduces the risk?

E: Yeah it does. Yeah you can keep more of a check on things, moisture content and all the rest of it.

Int: So have you always used the same scheduling approaches on farm?

E: Yeah, well, we've been using soil tensiometers for the last five years in ever increasing degree, because we are investing more in it.

Int: And do you notice the impact, in terms of your irrigation efficiency.

E: Yeah, it's hard to measure but I think anecdotally... tensiometers are very good at letting you know when you should be starting, when you should be stopping. That's always a hard one, you know, can that crop wait a few more days, or has it got enough now to finish it off and get the maximum yield, is there enough actually there. Often there's actually more moisture in the soil than you think there is when you put a spade in.

Int: Sometimes when it's dry on the surface it's actually sort of keeping it down isn't it?

E: Yeah. But I mean the traditional approach of going into the field and digging a hole and putting a spade in, it can't be beaten really, as long as the person doing it is trained and knows what they are doing.

Int: Okay, so thinking more about the broader fruit and veg system now, how do you feel that UK field veg production systems are changing over time in relation to the food supply chain?

E: Er. Everyone's getting a lot smarter with it because the risks involved of not getting it right are higher and higher financially, so the sector as a whole is getting much better at tailoring itself really to the market needs and to the quality and specifications of the supermarkets and their own customers.

Int: Why is the risk increasing? Is it because farm businesses are getting larger and producing it more?

E: Yeah, it's just the costs of getting it wrong, customer specifications are so high for some of these crops.

Int: So that's coming from the retailers?

E: Coming from the retailers yeah.

Int: And what happens if you don't meet those specifications?

E: Well, if you can't get your crop into that primary market then there is obviously a massive financial loss, there'll be a massive drop in price per tonne of crop.

Int: So, has that ever happened to you?

E: Yeah, that happens all the time!

Int: And what happens? From your description you don't have many customers that you sell to, so you must be able to maintain the relationships over time even if you're deviating?

E: Yeah

Int: Is it that they will just take what you've grown, but at a lower price?

E: Yeah, with [REDACTED] it's a bit different because it's joint ownership. But if they are saying it won't meet Tesco's specification for that crop then they will use it for processing, so they'll peel it, slice and dice it, something like that. Or put it into the wholesale market in the bag. But that almost sort of halves your prices, halves your return.

Int: And can you end up not breaking even if that happens?

E: Yeah, you can end up losing a lot of money on it.

Int: And this may not be a very easy question to answer, but how many years do you think you could not break even before your business would be in serious financial trouble? Do you keep like a float to prepare yourself for those eventualities?

E: Yeah, there's a bit in reserve. I mean if you have one bad year where a potato crop... not failed, but failed to meet specifications, or an onion crop, you'd be in serious trouble. Just because of the amount of investment that has to go into that crop every year. I think it depends because normally if our onions haven't met specification there's a reason for that, which is normally season and weather related, and so the market will adjust to it a bit, and you'll get a bit of a price increase. It's when you've got a really bad crop and everyone around you has got masses of really good quality onions that you really struggle.

Int: So why do you think that retailers are increasing their quality specifications over time, what's driving that?

E: I'd say the customer, but I mean they're fighting against themselves really aren't they, the retailers, it's price driven, they all want to do the cheapest and best they can. They are trying to get customers through the door. They always say it's the customer demands are higher and higher, but I don't always believe that. I think customers would actually accept a slightly stained onion, because they realise an onion isn't perfect.

Int: Well, Tesco's doing wonky veg now...

E: Yeah, it's coming, a bit of a revolution there of the wonky veg.

Int: But it might be a bit niche.

E: Yeah, it's probably a bit niche, it's not really massive sales in it.

Int: So when you do have a bad year, do you feel that that risk is borne partly by the retailers, or is the risk all with the producers, or is the risk shared along the supply chain?

E: It's getting better, it's getting better. We are more sort of open book, open costing with our customers now. And they are with the retailers. Apparently customers like Tesco are quite good at realising that it's quite a poor yielding year for the farmer, so they will adjust the prices they are paying based on yield. A lot of the models now are cost plus models, so they just get adjusted for different costings and things like that so there is... they are getting better at it. But they are still taking the biggest chunk of the margin.

Int: I guess the relationship is very important from the retailers point of view as well, because they probably don't have that many other people they can go to.

E: No, and they are trying to get closer and closer to their growers and make it all more sustainable. It's good. Yeah, it's good PR for them, that's probably the main driver behind it. But it's good for us.

Int: Do you think there's less growers in the game these days, as you said about farm businesses expanding...?

E: Yeah definitely. The smaller growers have been dropping out.

Int: And how do you feel about that?

E: It's just the way of the world a little bit isn't it? Erm, there's still room for small growers doing the more niche products, or doing local markets, farm shops, that sort of stuff. But for retailers and for big customers they want to go to a big grower, get their consistency of the product using a single supplier, it makes it easier for them.

Int: And what are the implications for agricultural water use and water efficiency. Do you see increasing use of technology...

E: Hopefully if we are going towards bigger growers who've got more money for investment in new technologies, they've got more people who are looking at the R&D side of it and monitoring it more closely, then you'd like to think that efficiency would increase hopefully.

Int: And do you think that that system is a more resilient system than a system that is perhaps less concentrated amongst fewer people?

E: Yeah, yeah I would. Obviously you are putting more eggs into a smaller and smaller basket aren't you, but it's er... I think if you get more and more larger, more professional growers then you are going to increase efficiencies and better uses of water.

Int: So who do you see as your main competitors? Are they other growers mostly in this area, or other growers elsewhere in the UK, or overseas producers?

E: Overseas really, erm. We like working with other growers in the area, we sort of see ourselves in the same boat really. For us it's more overseas. I mean the UK onion market is only 50% self-sufficient really. The other half comes in primarily from Holland. Holland or Spain. So our main competitor in onions is Holland really.

Int: And do you think that consumers are interested in any way in the water that is used for agriculture to produce their food? Is it on the map for consumers, or do they not think about it?

E: I don't think they really think about it. I think consumers like it if it's got a British flag on it. But ultimately most of them are price and quality driven. Supermarkets are good at backing British agriculture. Erm, and I think consumers if they had a choice they'll buy British over anything else, as long as there's not a massive price difference between them.

Int: And I suppose the water implications for onions grown in Spain... The water scarcity implications are much greater than for onions grown in Britain.

E: Yeah in Spain they are really struggling at the moment to get their water.

Int: Do you think that is something that consumers should be more informed about, when they are making a selection at the supermarket when they are choosing between local produce and produce that is being produced in a water scarce area?

E: Yeah, more information is always good, but I don't think they are really going to care. That's the trouble, isn't it? If you go into Tesco's to buy onions you are going to buy onions aren't you. You are going to look at the quality and look at the price and choose based on that.

Int: So do you think that regulators, both in the UK and elsewhere, should really be responsible for ensuring that the water used in agriculture is appropriate for the environmental requirements and standards.

E: Yeah it comes down to regulations.

Int: Thinking about the impacts on your water use coming from the retailers, things like accreditation schemes. How much has that changed the way you use water, and how effective is that as a tool for influencing agricultural water use?

E: Um. It does make you think about it because you have to, as part of some of the accreditation schemes, you have to measure water use efficiency and justify it. So that makes you actually look at it every year and makes you think about it. And they want you to show them that you are using new technologies, investing in it to make it more efficient. Erm. So it does help. It doesn't go that far because you can... it's more of a tick box thing.

Int: Okay, so you kind of know what you should be saying that you are doing, but there is no actual check that you are actually doing that?

E: They don't really come out and properly check it. It's all an office-based audit and they look at it, and as long as you are showing willing, it's alright. But at least it brings it into your focus a bit more and makes you think about it, which is good.

Int: And the environment agency. Do they do anything other than the threat of withdrawing licenses to affect your water use? Are there any other ways in which they engage with you on water?

E: No... Anglian water, our local water authority, they engage with us on pesticides and pollution, yeah and the environment agency will engage with us on licenses and pumping but that's about it really.

Int: And how effective do you think their relationship with you is?

E: Erm...

Int: Is it kind of just the threat of punishment the whole time?

E: Yeah. Yeah, they are always about round here. We have a fairly good relationship with them.

Int: Are you part of an abstractor's group or anything like that?

E: No, no.

Int: And... Are you satisfied with the way they measure environmental water requirements? Do you know how they do that and do you think that they do it correctly?

E: You have to question some of their water management a little bit when you see the river flooding and we are flooding water meadows, but then we can't pump at the same time. Erm. We often get stopped from pumping because of the eel migration, which is an odd one for me.

Int: I didn't know that eels migrated!

E: (laughing)... but we've still got eel cages in all the pumps so you can't suck any eels up anyway, so that's a bit bizarre. Yeah you just you see it when they are flooding certain wetlands and creating wet habitats but they don't want you pumping at the same time. And further down the river, not so much us, but other farmers, who have been stopped pumping in the summer and the next stop for that water is out to sea. Well the water's going out to sea anyway, so you sort of think, why can't we just pump out of it? It's going to be lost into the sea anyway.

Int: And do you have any way of sort of saying that to the EA, or opening up those discussions with them... or have you tried?

E: Yeah, I don't think it's really going to go anywhere. Obviously it's there policies and basically they very much stick to their policies and their flow rates and all of the rest of it.

Int: And is that changing over time? Are they getting more stringent?

E: I think they are probably getting more pressure, aren't they, at their end, so they need to prove what they are doing is right and that they are looking after the environment.

Int: I think we've covered everything on my list.

(chat for a minute)

E: I mean farming, it's all money driven isn't it. You are going to irrigate, most farmers will over-irrigate, because of the cost of not irrigating, not giving enough water, on quality and final yield, is too severe. And you can't trust the forecasts, so. There's 10mm of rain coming, you might irrigate anyway, because you might not trust that you are going to get 10mm, you might only get 2mm.

Int: And the risk is much greater of not...

E: Of not having it. Yeah.

Int: Do you see that there could be anyway to make the food system more flexible in terms of accepting different qualities and having that less attached to price. It sounds like it's very fixed, there's not much flexibility, as in if the quality goes, you are losing money.

E: There's not a lot, there's a little bit. You get temporary specifications with things if you have a problem in a certain year. But as I say, you want to produce the best crop you can, the best-looking crop you can, the best yield you can, so, that's what it comes down to. The trouble with a lot of vegetable production is it's on predominantly sandy soils, so, that water is just going straight through it half the time.

Int: But that's better for quality I suppose, because you don't have the risk of things being too wet for a long time.

E: Yeah, it goes through. And that's the soil type these crops grow on best so you can't really avoid that. Farmers are trying to increase organic matter and do various things, trying to hold onto that water a bit better. But ultimately you're farming on a sandy textured soil, so you are not going to hold onto it for that long.

Int: And in terms of the food system going into the future, like what sort of role do you think domestic produce will playing vis a vis against produce coming in from overseas.

E: Well hopefully it will be more and more important, in this Brexit world we are going to live in. There'll be a bit more of a focus on UK production, on veg production. Get more self-sufficiency. It depends on which way Michael Gove wants to go doesn't it? If it's with his environmental policy as opposed to his production policies and farming. Which is an interesting one.

Int: It could be a growth area.

E: Yes, it should be a positive thing for UK farming really.

Int: Great I'm going to type up the interview, so if you'd like me to send you a transcript?

E: Yes, that would be good thank you.