INTERVIEW TRANSCRIPT

INTERVIEWERS: Dolores Rey (Cranfield University)

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FARM LOCATION (NUTS3): UKH14 (Suffolk)

Interviewers (I)

Grower (G)

I: In the online survey you gave us some details about the farm business that you are managing, but if you could tell me a little bit more about your story in the farming business, from how long have you been here…?

G: I have been here since 1993. As a family we have been here since 1938.

I: So it is a family business

G: Yes, well it was…now it is just me. So it was my grandfather, then my father and now me. Our biggest crops in term of financial commitment is potatoes, in terms of area is wheat. We irrigate 40% of the farm, and that varies from time to time in terms of what crops we are growing and…we don't rent land in just for growing crops. We look after the whole farm so we are growing crops in a rotation. We irrigate from rivers, from underground sources, from the chalk, so all about 25 km radio from here.

I: Have you been always growing the same crops and always under irrigation? I mean, I know you have both rainfed and irrigated, but have you changed your management…?

G: Potatoes we grow all irrigated. Maybe one field that is for seed production…So we haven't change in the last 20 years our production.

I: Talking about the different drought periods that have affected your business, you said in the online survey that you remember the 1976 drought like a very high impact. I know that you were not the manager at that time, but…

G: Everybody still talks about 76. It's been the big event. You know, because, it was not just the drought, it was the effect on the market. I guess irrigation was not such a big thing, and regulation was not a big thing on water abstraction so the effects of that were some more different. And the market has changed a lot since then. In those days the market was less developed, there was less supply to supermarkets. It was much more household trade, so potatoes went into bags and then to London and to markets and then distributed out by traditional methods of distribution. So supermarkets were not in the game in the way they are right now.

I: So, as you were the manager of this business since 1993, what do you remember from previous drought periods?

G: The first drought that I remember is the 1996, when we had severely low flows in the river, low rainfall. It was affecting the biodiversity in the river, so we have lack of oxygen. There is a river that runs 500 metres from here where we irrigate from, and that basically stopped, there were no flows, no oxygen in the river, fish were dying…There were some fairly drastic measures that we were taken to stop that, so there was no abstraction out of the river. It took a long time to recover.

More recently, I think the droughts that we have had has been much more managed, so you can see them coming almost. So we were actually able to do something about them beforehand. We have been very careful about managing our expectations from water abstractions because you suddenly get a S57 coming in, and you gotta stop. You need to be aware of that beforehand. So we have changed our variety mix, our cropping mix in terms of what varieties do we grow, where we grow them. We have about 12 licences to abstracts on the farm. So we are looking at the ones that are more vulnerable and fit them into the plan while we are cropping, so we crop them perhaps earlier so the pressure of irrigation is not in the historical times when we are gonna get really low flows…

I: So when you know that it is going to be a dry year you make different decisions…

G: Yes, what we do is to say: OK, we will plant that field in May and then it would need a pick requirement for water would be in July, we plant it in March and its pick requirement will be May, when the drought hasn't taking so much effect. And also we might get more rainfall earlier on, so we will plant in slightly moisture soils, so we are actually using the natural resources better…but then the drought comes in very different times…

I: Yes, you never know what is going to happen…And the last drought in 2010-2012, what do you remember about the information you were getting, the conversations you were having with other farmers, the implications for your business…?

G: The discussions are very much sort of arms-length, but one thing that sticks in the mind is that there are situations when you are coming to drought, that we as farmers perhaps we would like to trade water, but there is the inability to trade water. So there must be someone in your catchment our in your river that has finished irrigating but still have water available and you haven't finished irrigating; or the other way around, you have finished and they haven't. And actually looking at…so this is the total amount of water in the river, so this is what is available. And it is quite a rigid response that we get at the moment when there is this sort of...restrictions coming in is we are gonna get have of the rate, or we are gonna go to every other day. And there is no communication apart from that. So we are actually getting…I know these people in the river who will be allocated the same as everybody else, the 50% or every other day, but they are not actually using it anyway so it is irrelevant. So sometimes you think, well I am not using some of

mine, I can let somebody next door or further down the river or in the catchment to use this water, because it has been licenced, and being allowed for me, but not for them…So actually…we are not very joined-up in how we…if you say that there is a hundred thousand m3 available per day in a catchment but actually we are having a drought so we are gonna say there is only 50 thousand m3 available tomorrow and the day after, and until we know the river flows are up again. But if we were actually saying out of that 50 thousands we farmers only need 25, but 40 of this is people not using it and the people that got the need for that 25 they only have those 10 available…So there is no the ability to trade it quickly. And that is where we would love to see a more fluid system, to trade water more quickly.

I: Yes, I have heard that from other farmers, that when you need the water, you have to wait for the approval from the EA…

G: The crops don't wait

I: But I think as they have to be sure that the transfer is not going to affect the environment…In Spain we also have water markets and it is the same, that sometimes you have to wait too long so it is not a solution in many cases…

G: It needs managing on a very local level at that time… you need to have a sort of emergency committee for a river that includes abstractors. So well actually he needs to irrigate his onions, and I need to irrigate my potatoes, but they don't need to irrigate their carrots because they have been harvested so that is water that can come back into the pool…So how you legislate this change is quite difficult, but it needs to be much more flexible. Because none of us want to see empty rivers, none of us want to see the water running out. So the perception that we are all taking water and we are harming the environment is absolutely wrong. Because actually we want to see it the other way, and we want to look at ways that we can actually help each others, and help the rivers so they don't run dry. And we can still have a sustainable abstraction on the rivers

I: Now, talking about S57, I saw in the online survey that some restrictions were applied to your business. I want to know if you get all the information when the restrictions are going to be applied, if you know how the EA make their decisions, if you know the triggers…do you think it is a transparent process or how do you feel about S57?

G: I think that we know they are inevitable, but as I said before, you need to have a bit more dialogue about…I mean, I have 2 licences to abstract from one catchment, and if they say voluntarily we are going to every other day, they will say…(I know I have it here somewhere but I couldn't find it), they will say Mr. X you have 2 licences on odd days and in even days you have nothing. Well, why I cannot have one on...so I am going to irrigate twice much on one day to get…They need to have much more dialog about how it comes in

I: Yes, to know what is better for you…

G: Yes, what is better for every abstractor

I: Yes, I mean for one farmer is better to have water certain days, and for others…

G: Yes, exactly. I think that would be more helpful. In this river here we are 10 abstractors so it is not a big task to get all the abstractors together and see what they like. Not necessarily what we can give them, but what could work for everybody. Trying to agree rather than impose this sort of draconian…you will do this, and you are not going to irrigate on Tuesdays and Thursdays and Saturdays…That is what we need to change because then we can all manage our businesses in a more efficient way. Because you have to make this decision, you keep all the crop alive, or you focus on a little bit of the crop…

I: And have you tried to negotiate these things with them?

G: No, historically no, because most of the voluntary restrictions that came in, just came in and then it rained, so…It could be better if they say: can we have a conversation? Rather than a letter arriving.

I: When there is a drought, it affects the fields, have you ever had some problems with supermarkets or processors because you didn't get the agreed yield or quality?

G: We have never had a real problem with customers during drought. They are not really interested, let's be honest about it. As long as they have stuff on the shelves, they are not really interested…I mean, the pay […] service to the situation. But we have got stuff on our shelves and if we cannot get it from you, we will get it from Spain, or France or Holland or wherever…

I: Talking about on-farm strategies to cope with droughts, you said that you normally applied some of them, like irrigate full area at a reduced schedule, or irrigate at night…I will like to know a little bit more about how do you choose among them, how is the decision process when you start to see that maybe is going to be a problem with water availability and then you really know that this problems is getting bigger and bigger…I mean, is there a decision process here?

G: Yes, there is a decision process because you have to look at the value of water to the different fields. So on a farm you could have carrots, potatoes, parsnips growing, and sugar beet and barley…And you have to think, OK, what is the most vulnerable? Which one needs the water? Where I am going to get the highest economic return? So you have to make this decision. If it is onions, then onions are going to be the priority. So if the bucket of water is only half full and we need half of that for the onions, then they get it and what is left in the bucket, what is gonna get the best return on that crop, or is there a crop that will die in the next two weeks because it is not going to get any water? So you look at the weather forecast and the moisture deficit in the soil, and try to have the crop survived, will it survive? Should I put more on that one and less on the other one? I can put a little bit less on all of them, but I have taken the view in the past that when you put a little bit less on everything, nothing does well. So it is better to have something doing well than nothing doing well. So that is kind of my logic, there is no structured plan.

I: Yes, it will depend on the situation

G: Yes, because it can come early, it can come late…you can't plan when these droughts are gonna arrive. And I am talking about on land where we are irrigating from […] , but if we were irrigating out of reservoirs it is not so much of an issue. Because hopefully at some point in the year we will get some water to fill in the reservoirs back up to have some for the next year.

I: So do you have reservoirs in this farm?

G: Not in this farm, but we do in our farms, yes. So there are both winter and summer abstractions. And we would like to see more reservoirs just to give us more security of water.

There is a project going on in Suffolk at the moment to take the water…I don't know if you …

I: The holistic…

G: Yes, I am involved in that

I: Yes, I have been talking to P.B. so I know more or less what is this all about

G: Well, at the moment on that farm there is all flat water in that marshes area here and it is pumped out into the river and then goes to the sea. So the idea is to turn the pump round here somewhere and take it back in somewhere so it is available for irrigation there. This is just some of the land we farmed that would be affected. The most water that is pumped here, then is needed in here…

For our business this is very exciting, because it means security of water which has no environmental impacts on the water sources that we are using in that area. It is a win-win

I: After being affected by several droughts, would you say that your attitude towards this risk has evolved over time?

G: Yes, I plan for drought, I plan every year that we are going to have some sort of restrictions on water. Then this not always happen, but you plan…we would probably be growing different varieties of crops…We grow a lot of small potatoes which don't need so much water. I think if we haven't got droughts we will probably be growing a lot of bigger potatoes that need twice as much water. So constantly we are looking at ways of…we are putting more organic matter back into the soils, we are putting a lot more manure into the fields, we are using a lot more compost to try to improve the water holding capacity of the soils and the organic matter in the soils. So yes, we are constantly thinking about how can we use less water, and always planning that at some point we will have a drought. Even if we don't have a drought, we gotta plan because…Every 3-4 years we are getting some form of drought and that is getting more and more frequent. So it has been 12 years between the first drought (1976) and the next one, then 3 years between the last two, and then 6 and then 2 really, and finally 4. So the frequency of drought is much more regular

I: Yes, of course, you have to be prepared for droughts. What would you do in terms of drought management in your business if droughts start to become more and more frequent and more severe? You mentioned reservoirs, but any other option?

G: Well, I mean, we have done already. On one farm we have put 1/3 of the farm into asparagus that doesn't need so much water, so frees up the water that you have. So your crop cycle doesn't need so much water.

The same with the pigs. We now have 3 [pig…] on the farms, all of which take land but instead of having crops you have outdoor pigs that don't need water so they are not using any water. Also they are providing organic matter back in the soil, so when that soil comes back into crops, theoretically and hopefully you will need less water to irrigate your crops. So it is a long-term strategy rather…and it is also not just building a reservoir and store the water, it is actually to plan for when there is less water.

I: To adapt the business to drought

G: Yes, to make the business drought tolerant. Not resistant because you cannot be drought resistant…

I: No, no really…Well, hopefully, but it seems impossible. When there is a drought and you start talking and having conversations with maybe the EA, NFU, WAG,…how do you feel about it? I mean, their role in drought management, the help that they provide…

G: My first point of contact is always the WAG because it is local, and they understand the local problems. Because the NFU is very much a national lobby organization…I am not a member of NFU, but it is very much a national organization, and they have a very good water advisor, Paul Hammet.

But in my WAG, P.Y. has been very good at understanding the local situation, and also his dialogue with the EA is…if you have a problem or you are not sure about something, he can ask in an independent way, no names, you know. Because otherwise if you ask a question, you think it is like…my mum just robs the bank. Whereas he can say, someone has robbed the bank, what are we going to do about it? It is that sort of intermediary independent person but working on our behalf.

UKIA is more technological based organization whereas the WAG is really looking at how are you doing with drought and licencing issues. So this will be my first point of contact.

I: Do you think that drought management in the UK has evolved over time? Like the mechanisms put in place to reduce the impacts on agriculture, is it getting better?

G: It starts with this whole S57 issue because only agriculture is subject to S57. And we are punished, I think, unfairly. Because food… people need water in their homes, I get all that, we have hosepipe bans and everything else that comes in from the water companies. But we need to be on a level paired with actually…you know,

what potentially happens to people businesses and the potential…we have lost track of food security, so we have to look at…is it S57 really something that has has these days? Is it an over…That would be my view.

We need something in place, don't get me wrong but we need to have it much more on a level way for everybody, the water companies, the agricultural abstractors, the business abstractors…what is more important? You know, even S57 a golf course is in the same position as somebody producing food? And nursery producing plants is in the same position as somebody producing food? Now, is food more important that people playing golf? Is food more important than people having plants on their gardens? I am no saying…

I: Yes, I understand…all the sectors should help when there is a drought

G: Yes, because I would think somewhere on the Nation's agenda food should be slightly higher than leisure. And in leisure I include gardening, I don't have anything against gardening but we need to look at…And it is only for a short period of time and agriculture is a very very small part of the water that is abstracted nationally. I am not saying that we need special treatment but we need to have a recognition that we are providing something that every human being needs. And not everybody needs to play in a golf course…And I guess it is the same in Spain.

I: Yes, in Spain we have the same priority level, so when there is a drought irrigators suffer restrictions or bans…

G: I have been in different parts of Spain and you see these beautiful green golf courses in the middle of the summer when there is 40 oC and you think…where is all this water coming from?

I: You also mentioned that another thing that could be improved is water trading, we already talked about that, also giving farming a central role in water management…is there any other key issue that you think should be improved to better manage drought episodes in the future?

G: I think there is a need to be a linkup with the use of water…that is when the Holistic Management Project comes in, because at the moment we have a lot of water in this time of the year, and in the summer we have to little. We want to move that balance somehow. We have some fields that flood every winter, even they flood during summer when there is too much water.

My definition of a river that I understand is a river is channel for taking water from inland out to sea. We use it for other things on the way you know, we use it for energy, for mills and…for generating electricity in certain parts of the country and certain parts of the world. The fundamental role of the river is to take water from uplands or mountains out to the sea, simple. So these remains land and that remains sea. What we have at the moment is that the rivers and a lot of the aquifers are completely [salt?]. You understand the work crap? They don't have the capacity to take the water so the river used to have all this cross-section and you can have water all in here, and now it is all full of weeds and rubbish and soil and erosion…because over time, all the rivers stopped being clean out. The same in

Somerset, where was shown in the news last year, that Somerset levels were flooded and now they are [drenching?] the rivers. You need to actually have the rivers with some capacity in them, not just during winter to take the floods out but also for the summer so the rivers are actually rivers and they have a lot of water in them. Because we can store water in the rivers just managing how it flows down, with dams and structures in the river. But we don't do that and we have lost sight that…And I am an environmentalist as much as an […], I like to see the wildlife and the fish and everything else. But even the fish in river like this…there is no deep water, there is lack of oxygen, in some times of the year they flood and get brown…So there needs to be much more engineering link within the EA to balance that the environmental is gone with the WFD and the Habitats Directive against abstraction is weighted really in favour of the environment. So it needs to come back into balance so we need to be cleaning the rivers and managing the water resources so we actually get a balance back into our water systems

I: What lessons can be learnt from previous drought periods in the UK

G: Plan! That is the one

I: Is there anything else you want to say before concluding the interview? Anything related to drought management that we didn't talk about?

G: No, I don't think so…We need to be prepared for more droughts in the future and if we can plan for them whether is through the legislation, engineering, crop technology…if you take potatoes, we still grow all the old varieties of potatoes that the market accepts but they are not the best varieties for growing in a drought tolerant environment. So it is a consequence…you know, we are not embracing best practices because the market is preventing of…

I: So I better understanding from customers and supermarkets about this would help maybe?

G: Yeah…the biggest variety grown in the UK is maris pipper. It is very susceptible to common scab, which have a close link to water, because the scab control if it is dry…but everybody like to use it. But there are other varieties that could do the job that that variety is doing. And it would yield better, cleaner skin…but this is not acceptable because we have being growing this variety for 30 years. Whereas a lot of the other crops we grow, varieties are always changing so we are getting better and better and better, doing more with less…more crop from less land, but not with the potatoes we are growing. So you know, it will help but is not the only strand.