

1 **INTERVIEW TRANSCRIPT**

2 INTERVIEWERS: Dolores Rey (Cranfield University)

3 DATE: 19TH FEB 2015

4 FARM LOCATION (NUTS3): UKH13 (Norfolk)

5 ***Interviewers (I)***

6 *Grower (G)*

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8 **I: I saw in the online survey that you have nearly 400 hectares and you grow**
9 **potatoes, vegetables, cereals, sugar beet...Can you tell me a little bit more**
10 **about your business? For how long have you been here, the type of crops**
11 **that you have been growing...**

12 G: This is a family business started by my great grandfather in 1927 and then
13 progressed by my grandfather whose initials are the company name, and then
14 progressed further by my father and my uncle, and now it follows to myself and my
15 cousin who do the farming business. We grow potatoes, cereals, sugar beet, peas,
16 beans, we have livestock, cattle, sheep as well...and we have over the years grown
17 all sort of other things like onions, sprouts, cabbages, broccoli, cauliflower...the
18 whole lot. This year we are trying out onions again and we are also growing carrots
19 for the first time this year because we have very good soils, it is a very kind medium
20 loams. Good soils for growing all fruits and vegetables. The difficult thing is finding
21 the market and the transportation, because it costs us quite a lot of money to get the
22 crop out of Norfolk. The transportation to major centres of population is one of the
23 difficult areas.Is that enough?

24 **I: Yes sure, more than enough! Let's start talking about droughts. I have seen**
25 **that you mentioned that you remember the 1976 drought as a high impact**
26 **one...**

27 G: Well I know about it, but wasn't very old at that moment...I can remember it as a
28 boy.

29 **I: Yes, I know...but as your family was in the business, you remember it was**
30 **quite hard...**

31 G: Yes

32 **I: For the rest of droughts that you remember when you were working here as**
33 **a farmer or farm manager, what do you remember about duration, timing,**
34 **impacts, management actions that you did at that time, the memories...?**

35 G: Memories...the effects they had on a wide range of crops...It wasn't just... I
36 mean, obviously potatoes, we concentrate our irrigation on potatoes because they
37 are the highest value crop that we have got, so we have to look after them, because
38 they cost more to grow and produce than anything else...But in a dry year,

39 like...2009-2010 was a really dry year from memory. In a really dry year, then we try
40 to irrigate everything: cereals, sugar beet, beans, peas...the whole lot, because all
41 need water. But when it is really dry, we don't have that much licences to go around
42 every single crop. It is a matter of what you can do, and we tend to concentrate on
43 high value crops like potatoes, and then any other things coming after that. So it
44 would be peas and beans, after that sugar beet and last of all would be cereals. So
45 you rank them in order of importance.

46 **I: Priorities. OK...**

47 G: Financial, driving by financial really...

48 **I: Did this drought in 2010-2012 impact the livestock business?**

49 G: No. Well, I say no...and the reason I say no is because the cattle is all housed
50 inside. So that means that they are on mains water, and mains supply didn't get
51 affected. So we were not affected by that on the cattle front. The sheep, OK it might
52 affect the grass. But most of our grass is on water meadows, which are fairly wet
53 areas, and I didn't notice a huge drop in production of grass to be honest with you.
54 So I don't...and water we can get out of the broad areas, the rivers to let them drink.
55 So to be honest it didn't affect the livestock at all.

56 **I: I am interested in knowing a little bit more about how section 57 has**
57 **affected your business. You got some restrictions in the past, so I want to**
58 **know if you get all the information from the EA, if you know who is the**
59 **decision process, the triggers...if the information that they provide you is**
60 **enough for you to understand how they decide and these things...**

61 G: I do understand it, although I don't get much information. Most of my information
62 comes from local abstractor group. I do read the EA website, I do get emails from
63 the EA, and I do understand the river levels and how the Q95 levels...and when you
64 get below Q95 then you have to think about S57. But I haven't actually ever had a
65 S57, so I can't really answer much about what the impact has been on our business
66 by S57 because we never had one. My licences do not abstract out of the river, they
67 are well points and deep bores so it is coming out of the chalk. So it is groundwater
68 but it is deep groundwater rather than surface water. So I have never been affected
69 by S57 that tends to affect the river and people abstracting surface water.

70 **I: Now, when there is a drought and you have these contracts with**
71 **supermarkets or processors, and you don't get the agreed production or**
72 **quality, is there any room for negotiation? And how do you thin drought in the**
73 **fields affects the rest of the food supply chain?**

74 G: I have very long-term relationships with most of my processors and packagers
75 and the contracts I have are long-term contracts...And they are not stupid, they
76 know if there is a drought situation the quality might not be quite so good and there
77 might not be quite so much yield. And I haven't been yet, touch wood, held to task
78 on not performing or not providing the tonnage because of the dry year and the lack
79 of yield...They haven't come back to me and say: do you need to go out of the
80 market and buy to fill the contract...That has actually never happened to me

81 because I have got long-term relationships with suppliers and processors. And they
82 haven't come knock my door, and it is about how you talk to people, how you get
83 on with people and the relationships you build. So much of it is your contact and
84 your personality and how you get on with people...

85 So how has affected the industry the last drought? It is...it is sort of cyclical
86 because it goes up and down, I mean you get a dry year, there are not so many
87 potatoes so prices go up. Then you get a good growing year like last year, it was
88 one of the best years we ever had for potatoes, we all had good yields and good
89 quality. So what's happened? The prices went down. So it is all seasonal...it goes
90 up and down...it is the volatility. That is the difficult thing.

91 In the dry year I wasn't meant to fill my contracts. This year I have not being asked
92 to sell my potatoes on the open market, my contracts just take them all. So it is
93 about that personality...So if they have forced me to go to the open market and buy
94 the year when I was short, this year that I have surplus I may have tried to do
95 something different and let them down. So it is being fair from both sides...

96 **I: Yes, it is good for both sides to have good relationships**

97 G: yes, it is.

98 **I: Talking about drought management in the fields, there are different things**
99 **that you can do in order to cope with droughts. I want to know, among all the**
100 **strategies that you can apply, how do you decide which one to apply? Maybe**
101 **when the drought is starting you do something, and then when the problem is**
102 **getting bigger you do other thing...how is this decision process?**

103 G: The decision process for me on potatoes in particular...I have already told you
104 how I rank my crops in order of financial gains. So I have potatoes first, followed by
105 peas and beans, and followed by sugar beet and followed by cereals. So this is the
106 first thing.

107 If you break that down and look at just potatoes, I then break it down by crop type
108 and variety. So my most valuable potatoes are the little tiny salad potatoes that we
109 lift early. So those will get the priority of water over some chipping potatoes that all
110 will be going to a processor for chips, which is more of a general thing, more of a
111 ware crop, latter in the season. So I prioritize based on what market are they going
112 for and what variety they are. Some varieties are more drought-resistant than
113 others, so you look at the variety and say: Well, this is a maris piper, that will need a
114 bit more water and that is a pentland dell, probably will be OK without some...So
115 you rank them by varieties and knowledge about how different varieties perform.

116 What else can I say on that...Most of my guys and what we do anyway is to move
117 much more to irrigate with booms, which put the water down in a gentle form on the
118 crop over a wide area rather than the rain gun, because where we are, close to the
119 coast, we have quite a lot of wind effect, so we have got these booms that are much
120 more efficient. We tend to run our machines at night, so again, so when there is less
121 evapotranspiration so the water is used better by the plant. We irrigate at night, not
122 during the day...

123 **I: And do you have enough time during night to irrigate your crops?**

124 G: Most of my fields, I can set the irrigation machine going at 7 o'clock at night and
125 it run through the night and be done hopefully by 7 in the morning. So we can do
126 night irrigation, no problem

127 **I: Would you consider that after being affected by droughts over the years,**
128 **that your attitude towards this risk or the way of thinking about it have**
129 **changed over time?**

130 G: To droughts? I think...it has developed over time, my decision process has
131 evolved over time from having the experience, particularly after the 2010 drought, it
132 has developed much more after that. Because I cannot remember the 1976 one...

133 **I: Yes, I know, but I have to ask...just in case. What would do if you know for**
134 **sure, or you know that is very likely that water scarcity and droughts will**
135 **become more frequent in the future? What kind of strategies would you**
136 **apply? Like a reservoir, water trading...**

137 G: This is quite interesting actually...I have thought about a reservoir quite a lot, but
138 a reservoir is a big investment, and I cannot get yet capital allowance from the
139 government to allow me to do it. Plus the fact, the reservoir will take out an area of
140 land, and actually I want the area of land to grow the crops on, so... I don't want to
141 lose it to put water on. What is the sense in that?

142 What I have just done, which is quite interesting really, is last year I wanted to
143 change my irrigation system here in the farm, which is a well point system, which
144 are lots of little bores in the land that are linked together...you know what a well
145 point system is? And it became redundant and wasn't functioning and we weren't
146 using it that much last year and the year before. So I drilled a deep bore, and and
147 transfer my licence from one to the other. I wasn't naïve enough to think that the EA
148 will just understand and say that is fine. I thought there might be some hoops to
149 jump through. But I was very pleased when I few weeks ago, the licences came
150 back from the EA granting me my deep bore licence transferred, so exactly the
151 same amount of water on the licence, cause I wasn't asking for more, so I have
152 exactly the same amount of water transferred the licence to use it from the deep
153 bore so it is coming out of the chalk. And my well point licence was a licence of
154 right, in other words a permanent licence, and I still got that. They sent me the
155 licence back with the permanent licence, licence of right, with the variation to get the
156 abstraction out of the deep bore to 2030. So I have until 2030, that is quite a long
157 way ahead 2030, so I don't have to worry for a few years, so I am quite pleased
158 about 2030. And then in 2030 I will have to justify my need, make sure that I am not
159 doing any damage to the environment and all those things that you normally have
160 when you have a time-limited licence. But it doesn't affect my well points, those are
161 still there in the background or the permanent licence. So I am very pleased really...

162 **I: Yes, you are in a very good position**

163 G: And I haven't got the reservoir, so that is good

164 **I: When there is a drought, how do you think the government, the EA, the**
165 **WAG, NFU help you? Are you happy with their management and the help you**
166 **receive from them?**

167 G: You have to remember the EA is part of the Government, and the government
168 will always make sure that water is available for householders and water
169 companies. So the tab is never gonna run dry, because otherwise there is going to
170 be riots. So the thing that will always lose out will be agriculture.

171 Am I happy with how everybody performed? In general yes. I think the NFU did a
172 superb job, and also my local WAG did a super job. The UKIA, I am not so sure. I
173 am part of it now, but I think the UKIA should be the umbrella organization for all the
174 WAG. At the moment, there are a lot of WAG, but they are doing something
175 different and look after their area. I think the UKIA should be an umbrella body for all
176 the WAG and in the future that is what I would like to see, the WAG all become
177 under one. Because then, you can have a much better line of communication to
178 everybody rather than fragmenting it. Because at the moment is NFU, UKIA, WAG,
179 farmer...you know? There are a lot of people in there...

180 **I: And in that way you can have more power as a...**

181 G: yes, bigger organization

182 **I: Yes, interesting...One of the things that you mentioned in the online survey**
183 **when talking about the key things that should be improved to do a better**
184 **management of droughts in the UK, you say removal of S57 and giving**
185 **farmers a central role in water management. Can you talk a little bit more**
186 **about that? And can you think about any other key issue that should be**
187 **improved?**

188 G: I think as modern telecommunications and broadbands, and iphones...My life is
189 on here (iphone). If I lose it...I mean, I don't lose it, it is always with me. It is like that
190 close to me, if I don't have it on me, I feel lost. It used to be with girls, if you haven't
191 got your purse, you will feel lost. If a man hasn't got his wallet, he will feel lost...But
192 now is this. Because I can pay with this, I can email with this, I can photograph with
193 this...It is everything! It is my life, I live by this. It is my calendar, my diary,
194 everything. So in the future what it could be very useful is to have a website or an
195 app about drought so you can see in your local area how the weather conditions
196 would affect...because I have a link to Met Office, so you can see the weather
197 forecasts for 10mm of rain next week or not, and how that affects with the droughts,
198 the evapotranspiration, and how much sunlight....I think an app on a drought could
199 be quite an useful thing, because the way technology goes, more and more farmers
200 are using iphones, and these things...

201 **I: Yes, I have seen some apps to manage pumps for irrigation. So that is the**
202 **future...And any other thing, something that could be improved related to**
203 **legislation, management, or priorities in the water use...?**

204 G: The priorities...I think we need to change governments' attitude and indeed
205 consumers' attitude to the value of food, and water for food. Because consumers

206 take the value of water coming out of the tap for granted. They turn the tap to have
207 water for the kettle to boil a cup of tea, is there. They turn the tap to have a
208 bathroom or a shower and it is there. But they don't see the same as for the
209 potatoes or the carrots or the parsnips or...actually there is water needed for these
210 items they want to eat. So water for food needs to have...people need to
211 understand, and specially the Government. The Government needs to understand
212 that food is critical to food production, and also the wealth of the country. Agriculture
213 is probably one of the biggest industries in this country, and there is quite a lot of
214 people employed in agriculture, and we are producing food that we actually do
215 export as well. And the government needs to wake up, actually it is an industry that
216 is expanding and not shrinking...and it is one of the only industries left in the
217 country. We used to have steel industry, we used to have a boat building
218 industry...but they are all gone and agriculture is still there.

219 **I: Yes, good point...In your opinion, what can be learnt from previous**
220 **droughts here in the UK?**

221 G: lessons learnt...I think the important thing is to start early enough, getting
222 information out to people. And it is not in the year of the drought but the year before.
223 Because drought is not something that happens overnight. You have to look at the
224 year before, what was the rainfall the year before, what were the aquifer levels like,
225 the groundwater levels, the river levels...You know, you should look early enough.
226 Not just in the time of the drought, you know...what happens if next year it is a really
227 dry summer because we haven't had much rain this year. So you need to be looking
228 ahead far enough.

229 **I: And you normally do that when running your business? Like looking ahead**
230 **and say, Ok next year is going to be dry so I am going to do this or that...**

231 G: Well, as a farmer, we sort of run with the weather all the time. You cannot predict
232 what the weather is gonna do because you just don't know. So we are used to that
233 type of volatility. But I do pick up information from the EA, the WAG...when they say
234 that there is a dry year. I mean I know that last year for example it was one of the
235 warmest years on record. We didn't have very many cold days or wet days, so it
236 was a quite dry year last year. We had a wet August and it was the only month that
237 we had a wet time, and it is a sunny month in this country. Well, that is why we had
238 such a good growing last year, because the conditions were warm and we had
239 irrigation. But next year it can be completely different...So I think about it, and it is in
240 the back of my mind but I just...

241 **I: Yes, you don't have enough information...OK, would you like to add**
242 **something before finishing the interview?**

243 G: No, I think you covered it very well.