

1 **INTERVIEW TRANSCRIPT**

2 INTERVIEWERS: Dolores Rey (Cranfield University)

3 DATE: 20TH FEB 2015

4 FARM LOCATION: UKH12 (Suffolk)

5 ***Interviewers (I)***

6 *Grower (G)*

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8 **I: In the online survey you gave us some details about your farm size, the**
9 **crops you grow...but can you tell me a little bit more about your story in the**
10 **farming business? For how long have you been here, the crops that you've**
11 **grown...?**

12 G: I used to manage the Estate surrounding this cottage. I managed it for 35 years
13 until I retired. Over the years we built up the irrigation and irrigation crops. Initially
14 we just grew potatoes, and then we started growing carrots, more potatoes, and
15 then in the 1990s we started growing onions. And since I retired the Estate grows
16 maize for energy and other vegetables crops.

17 **I: I have seen in the online survey that you remember the 1976 drought as**
18 **being very high impact. I know it was a long time ago, but if you remember**
19 **anything about that drought, the problems that you had...**

20 G: In 1976...Yes, fortunately there were no restriction on the water we could take at
21 that time, S57 did not apply. None of our water resources actually run out of water
22 physically. So the limiting thing was the machines we had to apply water really at
23 that time. And we were growing potatoes, and we managed to irrigate them all and
24 we made a considerable profit that year because we could irrigate potatoes and
25 there was a shortage of potatoes in the country. Of course, there were other things
26 that really did suffer at that time, because we couldn't irrigate was cereals, sugar
27 beet, grass. We had sheep at that time...

28 **I: If you retired in 2002, maybe you can tell me something about drought**
29 **events that happen later on like 2003, 2004-2006...**

30 G: The one that I remember the most is the 1996-1997 when our WAG started.
31 That was a 2 years drought, with a dry winter in between, so the reservoirs and
32 rivers etc. did not recharge over the winter. I think the most significant thing about it
33 was that was the first time the EA started to apply S57 to restrict agriculture or spray
34 irrigation for environmental reasons...So that was the thing I remember most about
35 it. I don't remember that we had too much...We, as a group, agreed with the EA to
36 try and restrict our abstraction to 50% of our licence requirements. But that was only
37 a few of us, although we speak for abstractors in the area, we really speak for
38 ourselves. At the end of the day, of the drought that kept going, whether the
39 abstractors were kept to the...I don't know. Fortunately, the EA drought manager at

40 that time later on the year said: you achieved your objective, your abstractors are
41 going to be restricted 50% of licence over the area. That was cause it rain later in
42 the year so we didn't have to irrigate

43 **I: Talking about S57, I would like to know what kind of information you get**
44 **from the EA when they are going to apply restrictions, which are the triggers,**
45 **if you think the process is transparent enough or you don't really know what**
46 **is behind their decisions...**

47 G: The EA is much more now aware that farmers need to know in advance when is
48 going to happen. Because obviously the investment in growing irrigated crops now
49 is so great, that if water is not going to be available then there is a fair chance that
50 those farmers will not irrigate those crops. They will either grow cereals that are less
51 prone to drought or less expensive to grow, etc. So I think the EA very much
52 realizes and they are going to give farmers as much notice as they can. This is why
53 in February there is always an irrigation forecast given by the regional office, a
54 probably earlier than that. Probably push farmers to look at weather conditions,
55 water resources...they can tell if you have a dry winter and rivers aren't flowing and
56 reservoirs are not filling in...they will have an idea themselves. And equally when
57 the crunch does come and if the water isn't there the EA will do the most within the
58 law and the rules they have to try and share out the water, do it as less painlessly
59 as possible, restricting abstractions so many days...So yes, it is done through a
60 corporation, but at the end of the day, of course they do have the option to stop
61 spray irrigation.

62 **I: And how do you feel about being agriculture the one that is affected when**
63 **there is a drought, and not other sectors like water supply, the**
64 **environment...?**

65 G: I think the general feeling is, when drought conditions start having their effect,
66 everyone should bear the burden equally. The environment is known, we had a
67 drought in 2007... the environment is used to droughts, it recovers although it may
68 suffers in the meantime. So we think that yes...at the present the environmental
69 standards for water don't take into account drought conditions and we feel that the
70 burden of drought should be borne equally across the board. I know that public
71 water supply is going to have priority over agriculture certainly but again, I think they
72 need to bear some of the burden somewhere along the line as well.

73 **I: Your production is mainly for processors and supermarkets, am I right?**

74 G: Irrigation production yes, yes

75 **I: When there is a drought, did you have the chance to negotiate with them,**
76 **did you have room for it or you had problems?**

77 G: I have to say I am not an expert on that because most of the marketing in this
78 part of the world is now done...I didn't experience any problem myself in the drought
79 of 1996-1997 because we had sufficient water to irrigate our crops. Most of the
80 marketing...lot of the marketing is done by a particular buying group or marketing

81 group. I think they market for about something like 7-8 thousand hectares. And
82 farmers leave that kind of negotiation...

83 **I: So is this like a cooperative? So you put your production together and then**
84 **you have more power to negotiate?**

85 G: Correct, that is the idea

86 **I: Do you think when there is a drought supermarkets are also affected by that**
87 **also, or they just say: OK, if you don't produce enough I am going to buy**
88 **potatoes from another country...?**

89 G: Oh, they will cover that back. So supermarkets do go to quite a great detail to
90 make sure that their supplies are covered, and/or if they don't do it, the people that
91 supply them have to make sure that they can guarantee their supply from
92 somewhere else to keep the contract with the supermarket. So a lot of work goes
93 into that.

94 **I: Yes, so they know how to manage that. Now, talking about droughts**
95 **management strategies applied on the fields, you mentioned that you, for**
96 **example, sometimes reduce the irrigated area to meet full water requirements,**
97 **or irrigate at night...I want to know how is the decision process when the**
98 **season is starting and it could be a dry year, so you start thinking: Ok, I**
99 **should do this or that...and then if the problem is getting bigger you make**
100 **other decisions...So how is this decision process? Maybe it is a very difficult**
101 **question...**

102 G: Basically farmers more and more set out their storage you might say to face any
103 eventuality. One eventuality is of course that is going to be a dry summer and you
104 may have to irrigate all summer. So they will see in advance and ensure if he has
105 enough water to irrigate each crop to the fullest extent, to ensure that he has either
106 quality and the quantity. Also, if he is a proper farmer he will ensure that he has the
107 equipment to put it on as well, which is another essential part. If you ensure that you
108 have the water but you don't have the right equipment to put it on that could be
109 another problem. And it has been a problem I would suggest. Probably I think
110 irrigators have realized it within the 10 years and most of them now have the
111 capacity to put on the water where is needed when required. The things they would
112 consider, some farmers will consider... they would look at the vegetables, their most
113 intensive cropping and greatest return. They will look at those crops initially and give
114 them the priority of water. Some farms have enough water to irrigate cereals, sugar
115 beet, and perhaps maize for biofuels. Those will be the decisions they would then
116 make, as to whether if there is a dry period, I know one farm that has enough water
117 and always irrigate their barley in May-June. If it is dry at that time, last year we had
118 a very wet May and they probably didn't need to do it. But normally May is dry so
119 they will take that into account in their water budget. So the trouble with cereals is it
120 is a bit early in the season to irrigate them, and you don't know what is gonna
121 happen at the other end of the season. But if there is enough water in the budget,
122 you will probably irrigate them. Later in the season, you can make the decision
123 whether to irrigate your sugar beet or not, because sugar beet won't respond to

124 water. But the only thing you must not do with sugar beet is actually let them suffer
125 from drought for too long, because if you wait for too long the shells will break down
126 and you get secondary infection. And if you get it, your sugar factor will be rejected.
127 So you need enough water for that, but how much water you put on that or your
128 maize can then relate to how much water you think you have, what the summer is
129 like, how much you need for your priority crops....So there are certain crops that are
130 more flexible, not so dependent on water than others...So you have to think around
131 that...Does it make sense?

132 **I: Yes, so it is a thing of priorities depending on the crops and the financial**
133 **benefits**

134 G: That is right

135 **I: After being affected by several droughts in the past, would you say your**
136 **perception of drought risks has evolved or has changed over time? If you are**
137 **more aware of this risk, or if after being affected by several droughts you**
138 **think: OK, I should do this...**

139 G: I think farmers are becoming more and more, the entrepreneur farmers, are
140 becoming more aware of the necessity for water. Although the present climate, the
141 present weather we are having does not...undoubtedly I think lot of them are aware
142 that drought periods will come and will come in the future, and really ought to be
143 doing something to...A farmer worst scenarios is not drought in the first year
144 because farmers usually farmers have water to face drought in the first year from
145 the previous year. If you have a dry summer they probably got...their worst scenario
146 is if they have a dry winter and then a following dry summer. So the worst scenario
147 is a continuing drought. I think farmers are beginning to realize, they are not many,
148 but I know of a few that have strategic reservoirs for long-term drought. One
149 particular reservoir hasn't been use in 10 years, but it is waiting there for the day
150 when it is needed. We don't have much of this in this area and I think...and
151 agriculture in general, but I think that with climate change coming, government and
152 farmers have to think about it. Unfortunately, reservoirs and long-term storage is
153 really expensive. It doesn't give you an immediate return, so is the funding of this
154 sort of thing which is difficult.

155 **I: Now, I would like to know more about the help that you receive when there**
156 **is a drought from the EA, UKIA, NFU, WAG, ...? Were you happy with it?**

157 G: In 1996-1997 we were about the first WAG when, as I said, EA was trying to
158 impose S57 restrictions upon us, we were the first ones to realize in response to this
159 how important water was and the need to have the profile improved, the general
160 profile of irrigated agriculture needed something down to improve it. And I think we
161 largely achieved that objective quite considerably. We know how to negotiate much
162 better with the EA, they understand our requirements and face them.

163 The NFU now has a water specialist in the last 5-6 years. When the drought of 1997
164 came they have very little resource management. In general irrigated water profile
165 has gone up quite considerably. The UKIA was started...oh, previous to that

166 actually...I am thinking about the 70s or 80s...The image of irrigated water has
167 improved 100% in the last 15 years

168 **I: You mentioned in the online survey that some things that could be**
169 **improved for better water management here in the UK are: the encouragement**
170 **of water trading, improve information and forecast, giving farmers a central**
171 **role in water management...Is there anything that you think: this should be**
172 **improved in order to better manage droughts in the future?**

173 G: Well, I think you can do all the forecasting that you like... Forecasting helps to
174 manage droughts, certainly for farming forecast then you probably don't grow crops.
175 But if the country and the world needs...then government needs to have a water
176 strategy in place to have some strategic reservoirs, strategic...There is plenty of
177 water about, in this area we pump as much into the sea for drainage as we use for
178 irrigation. So if we store some of that...I think the government needs a policy for
179 water for food in the future, looking at all aspects of where our food is coming
180 from...We went yesterday to a talk by a lady from Anglian Water that has been to
181 Australia and the thing she said is: you need to get your allocation of water for
182 drought periods in place before it happens

183 **I: Yes, in places like Australia or Spain they now more about drought because**
184 **they really suffer from it...What lessons can be learnt from previous drought**
185 **in the UK? What kind of things worked well or what things shouldn't be done**
186 **again?**

187 G: I think advance warning is certainly...advance warning and...I think the thing
188 that could help very much is what EA has the hands tight over is actually sharing
189 how much water is available. Because the present licencing system, if users A, B an
190 C are not using their water, it is very difficult for user D to use the water that they are
191 not using. And yes, that is it. In times of drought there is not enough flexibility to
192 share out what water is available and make use of it. Whereas if there is a river and
193 A, B, C are not using their water and D can't take it, it still goes down to the sea and
194 it is not used.

195 **I: So a better understanding of who use the water, for what and what is the**
196 **total availability**

197 G: Right, we need the ability to make quick transfer decisions of sharing water,
198 transferring allocations, etc. It is so inflexible at the present that those type of
199 movements, and making the best use of what is there can't happen. Regulation
200 needs...

201 **I: So this review of licences that is going to happen in a few years is going in**
202 **that direction maybe?**

203 G: I would like to think it is going to happen. We have tried it here recently with the
204 EA in the last year, we got together and put through a proposal to them for a quick
205 transfer of licence and we certainly realized that the present regulations are so
206 complex and tied-up that it can't happen because at the present abstractors A,B and
207 C they have a licence, they have a right to water and the EA can't let abstractor D

208 have that water because the EA has a duty to protect there are rights in case they
209 are needed. Whereas there is no method of abstractor D going to A, B and C and
210 say: Ok, you don't need your water this year, can I buy it? But the regulation is so
211 complicated that that sort of thing cannot happen.

212 **I: Yes, in Spain we have water markets and some farmers are not confident**
213 **about selling their water because they think it is a sign that they not really**
214 **need the whole allocation so at the end the Ministry of Environment is gonna**
215 **come and say: OK, so you don't really need all your water, we are going to cut**
216 **your allocation... I don't know if this is an issue here**

217 G: Yes, I see where you are coming from there. That tends to happen to a certain
218 extent in this country with time-limited licences you have to prove the need for it,
219 certainly. So I see you are coming from

220 **I: Is there anything else you want to talk about before finishing the interview?**

221 G: I don't think so, other than to say that I don't think this country is well-prepared
222 for droughts at this point in time

223