



# Aberdeenshire Arable Monitor Farm

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**Report from Meeting – 1<sup>st</sup> May 2012**

**[Crop walking and benchmarking production costs](#)**

**Date of next meeting: Wed 6<sup>th</sup> June, 2012, 1pm.**

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The Aberdeenshire Arable Monitor Farm Programme is an HGCA project supported by the Scottish Government SRDP Skills Development Scheme.

### **TOP TIP FROM MEETING**

Benchmarking figures for the 2011 harvest, showed that production costs were higher than the group expected. As a rule of thumb, overheads were double the variable costs. The highest costs were associated with machinery and power - this is a priority area to be tackled.

Few growers knew their real production costs. There is tremendous value and learning from estimating and benchmarking your production costs.

#### **Meeting Programme:**

- Welcome from Chairman
- Andrew's update
- Growing crop inspection
- Market Outlook – Alyn Bridgeford, Scotgrain Agric.
- Benchmarking results from 2011 harvest

#### **1. Welcome**

Chairman, Peter Chapman, welcomed everyone to the meeting. The project has now completed its first year with community members having a better understanding of the monitor farm and its capabilities.. There were 37 farmers and others from the Community Group present.

#### **2. Andrew's update – what has happened since the last meeting?**

##### **Key points;**

- Reminder, the late sown winter barley didn't get rolled in the back end
- All the spring cereals were established in March in good conditions
- Have 34ha of spring barley down to two varieties Propino and Chronicle
- The Propino is grown for feed although approved for brewing and suitable for malting export. The Chronicle has been added to the Recommended List as a variety with brewing and malting potential – Andrew growing it as part of a merchant's 400t trial.
- Have 53ha of sp oats, variety is Firth. Grown at Bucksburn farm and short-term rented ground.
- Like many folk behind in spraying and top dressing due to the weather.

#### **3. Inspecting the growing crops**

Although the group had inspected a range of crops previously, it was felt these sessions were always a bit rushed. To help make it more effective two agronomist lead this session, Ian Dalley (farm's agronomist) and Iain Learmonth (an independent agronomist). The meeting was split into two sub-groups each of whom reviewed 5 neighbouring crops. The aim was to discuss the agronomy programme, gather views, revise crop growth stages, and disease & weed recognition. Please see separate pdf guide from HGCA on **Cereal growth stages**.

##### **Field 1 Overhill (above road at Savock). Winter Oats**

- Very even crop, quite thick (333 plants/m<sup>2</sup> post winter)
- Variety Balado – very high yielding but low specific weight making milling difficult.
- Lodging is a risk, Balado rated a 9 for standing, stiff straw

- Had muck. Had 2 top dressing on N at 140kg N total.
- Using chlormequat & moddus for straw strengthening (can't use Terpal on oats), timing is critical.
- Had pre-emergence Hurricane for meadow grass – bad in this field. Also bad for cleavers (the most competitive of our broad leaved weeds) so will have to spray.
- Will use Strobilurins to give max chance for grain to fill well to hit milling weight.
- Sterile brome is also a problem here,
- One of the advantages of W Oats the geese don't seem to like it
- The crop was mostly at GS 31.
- Has mildew on lower leaves, 10%
- Group thought yield potential 7.5t + /ha but would depend on how well grains fill out.

#### **Field 2 Croft /Cottage (left hand side on road into Savocho) Spring Barley**

- Sown on the 30th March with Propino
- Previously was sp barley (yielded 5.2t/ha), ploughed late.
- The east side of the field received hen pen (2t/ha) on the stubbles
- This was one of fields which was EMI tested plus also was analysed by Glenside for trace element levels & relationships, particularly the calcium: magnesium ratio
- Crop well braided at GS 11
- Plan to apply N up to 125kg N less contribution from henpen (25kg N)
- This field also had 3 plots sown using the Horsch Pronto drill at 3 seed rates; 175kg/ha, 200kg/ha (normal) and 250kg/ha.
- No plant counts done at this moment in time.

#### **Field 3 Big Park West. (right hand side on road into Savocho) WinterBarley**

- Variety Retriever, sown on 30 Sept 2011
- Previous crop was wheat
- Post winter pop 210 plants /m<sup>2</sup> and 2.65 tillers
- Had herbicide sprays
- Crop very variable in terms of growth stage, mostly GS 32
- Expect flag leaf out over next 2-weeks
- Had T0 spray early April
- Has mildew & rust
- This was one of fields which was EMI tested
- Group thought yield potential 7.5t/ha

#### **Field 4 Big Park East. Winter Wheat. (Compost trial site)**

- Three year compost trial. Three treatments, each on 6 ha plots: green compost, food compost and untreated control. N applications will be equalised over the 3 plots.
- Will measure yields, structure, soil micro-organisms, organic matter, fertility, heavy metals, etc across the 3 treatments.
- Previous crop was OSR – straw chopped.
- 18ha field, however, a third of the crop (bottom of field very heavy and wet) is very poor due to poor soil structure, wet areas, geese feeding, & meadow grass weeds

- How should Andrew treat these thin poor areas? Consensus was not to apply the final top dressing, better to save the money. These areas will struggle to do much more than 5t/ha
- Normally apply 200kg N on wheat split over 3 dressings. Had 69kgN (11<sup>th</sup> April) due to get another 77kg N asap.
- Had herbicide spray on 10<sup>th</sup> April plus some chlormequat and Mn
- Weeds incl cleavers, ivy leaved speedwell, annual meadow grass (wet areas v. bad)
- Currently at GS 30
- Had first fungicide. Crop a bit scorched. Disease – previously had high mildew, low septoria, now reversed.
- Normally apply 4 fungicide sprays on wheat

#### **Field 5 Long Field (OSR)**

- Variety Cracker, sown on 22 Aug 2011
- Previous crop was w barley (yielded 8.15t/ha)
- Post winter pop 50 plants /m<sup>2</sup>
- Lot of stem cracking probably due to variation in temps. Concern opening for sclerotinia.
- Bit of light leaf spot (LLS) present (Cracker score 8 for LLS resistance)
- This field is bad with sterile broom.
- Crop has now commenced flowering
- Crop looks well and good yield potential
- Normally apply 190kg N on OSR split over 2 dressings. Had 185 kg N
- Should Andrew apply 1 or 2 sprays for sclerotinia? A full flowering spray costs £30 - £40/ha, however, it is still worth a 2 spray programme given the current high OSR price.
- Plan to spray for sclerotinia now with the farm sprayer, then 4-wks later with a high clearance sprayer.

#### **4. Market Prospects – Alyn Bridgeford, Scotgrain**

##### **Summary of key points from Alyn's talk**

- Research into the supply and demand estimates from around the world are crucial and have a major bearing on market prices. That said, the accuracy of the data is limited, containing lots of margin for errors.
- The old crop market is now over. The export boats are complete. Barley was making £160/t ex-farm. Now only the local feed market for pigs and poultry diets.
- Maltsters at peak operating capacity, working 24/7 and still can't satisfy demand from distillers. Need additional malting capacity but that will be unchanged for at least 2-years
- Concerto is easily no.1 malting variety however, risky if too dominant. Shuffle & Moonshine still under trial.
- English wheat crops looking good. Scotland will be short of wheat due to lower autumn plantings.
- The new Vivergo bioethanol plant at Hull is currently being commissioned. At full capacity will take 1.2MT wheat.
- With the growing domestic demand for wheat, expect to see ex-farm prices in Scotland trading at a premium above future prices (+ £5/t) as opposed to being discounted.

- China active in the market, buying maize, which will influence wheat prices.
- Table 1 below shows the Nov wheat future price for this time of year (May) over the last 7-years. Historically the current futures price is above the average (£118/t)
- The OSR harvest price is £370/t plus oil bonus. At this high ex farm price and with the cost of transport to store + handling adding £7/t plus monthly costs of £3/t, does storage make sense?

**Table 1: Nov wheat future prices at May for the last 7-years.**

Year	2006	2007	2008	2009	2010	2011	2012
Nov price	£67	£92	£132	£120	£98	£165	£154

**Table 2: Current ex-farm prices for harvest 2012**

	At 1 <sup>st</sup> May	At 8th May
Feed Barley	£140	£136
Malting Barley	£150-180	£150-180
Feed Wheat	£152	£148
OSR	£370	£350

\*Shows the market volatility!

## 5 Benchmarking results from the 2011 harvest – Group Exercise

The benchmarking results for the 2011 harvest were distributed and discussed – see appendix 1. It shows the monitor farm's figs compared with the means from two benchmarking groups (Aberdeen and Inverness). The figures were prepared using HGCA's CropBench programme to ensure a standard approach.

The meeting was split into 4 sub-groups to discuss the benchmarking figures and identify any learning for Andrew.

### Sp Barley Group

- The figs emphasize the importance of yield and sale price for profitability

#### Suggestions

- Should Savock be using higher N rates?
- Consider combine drilling fert for sp cereals
- The Belgravia didn't make malting spec so went for feed
- How can marketing be improved?
- Consider high N malting varieties – premium & yield

### W. Barley Group

- Savock's yield was lower but higher sale price
- Savock's overheads were lower
- \*Check Savock's spray costs?

#### Suggestions

- Sowing date critical, should Brian concentrate on work at home rather than contracting?
- Acknowledge farming difficult land
- Should Andrew increase the WB area?

### **Wheat Group**

- Savock's yield disappointing, too low
- Good establishment is critical
- Variable costs are low

#### Suggestions

- Focus should be on improving yields
- Effective area reduced through wet, poor areas
- Need to resolve soil structure /compactions problems – drainage, subsoiling,
- Maybe consider grass in rotation for poorest fields
- Sowing date is critical – aim to establish earlier

### **OSR Group**

- In general, OSR was the most profitable crop.
- Savock's yield lower than average, however lower growing costs
- Lower overheads than others

#### Suggestions

- Challenge is to improve yields, - are there better varieties?
- Look at drainage – improve the productive area
- Higher fert rates?

## **6 Other Project Business**

### **Management Group**

With the completion of the first year of the project, we are now looking for volunteers or nominations to serve on the Management Group. Remember this is a farmer led and owned project so the Management Group has a key role to play, namely:

- to advise facilitators and the Monitor Farmers on any aspects of the project
- provide feedback on the project
- provide an independent point of contact for Community Group members
- and generally to represent the Community Group

Please forward nominations to either Jim or Peter by the end of May.

### **Date of future meetings**

#### **Wed 6<sup>th</sup> June, 1pm – Visit to Knockothie Farms, Ellon (courtesy of Stuart Davidson)**

- Lots to see at Knockothie, 2,600 acres of combinable crops, doing lots of innovative things, farming heavy land, plus the challenge of managing a large farm.

#### **Thurs 12<sup>th</sup> July, 4pm - Savock Farms, Foveran. (Andrew & George Booth)**

- The main topic for this meeting will be a review of soil management and cultivation practices.
- Plan to follow the meeting with a BBQ

## Appendix 1

### Benchmarking Results 2011 Harvest

	<u>Sp Barley</u>			<u>W Barley</u>	
	Savoch	ABDN	Invrnss	Savoch	ABDN
<b>£ per Ha</b>					
Yield (T/ha)	5.8	6.4	6.7	7.7	8.4
Av Price	£147	£172	£196	£150	£146
Crop Sales	853	1,114	1,306	1,155	1,226
Straw Value	75	72	87	66	70
<b>Total Output</b>	<b>£928</b>	<b>1,186</b>	<b>£1,393</b>	<b>1,221</b>	<b>1,296</b>
<b>Variable Costs</b>					
Seeds	71	63	60	66	71
Fertilisers	32	164	194	180	200
Sprays	84	82	80	118	110
Sundries	5	7	5	5	7
<b>Total VC</b>	<b>£192</b>	<b>£315</b>	<b>£339</b>	<b>369</b>	<b>388</b>
<b>Gross Margin</b>	<b>£735</b>	<b>£871</b>	<b>£1,055</b>	<b>£852</b>	<b>£908</b>
<b>Overheads</b>					
Labour	113	139	131	126	165
Machinery	277	304	406	308	353
Property	12	34	94	12	33
Admin	47	49	47	47	45
Rent	150	150	150	150	150
Finance	60	75	62	60	73
<b>Total Overheads</b>	<b>659</b>	<b>752</b>	<b>890</b>	<b>703</b>	<b>819</b>
<b>Total Costs</b>	<b>£851</b>	<b>£1,067</b>	<b>£1,229</b>	<b>£1,072</b>	<b>£1,207</b>
<b>Profit Margin</b>	<b>£76</b>	<b>£119</b>	<b>£164</b>	<b>£149</b>	<b>£89</b>
<b>£ per Tonne</b>					
Seeds	14	10	9	9	8
Fertilisers	6	26	30	23	22
Sprays	16	13	12	1	12
Sundries	1	1	1	1	1
<b>Total Variable Costs</b>	<b>37</b>	<b>50</b>	<b>52</b>	<b>34</b>	<b>43</b>
Labour	22	20	19	16	17
Machinery	54	43	61	40	37
Property	2	5	14	2	4
Admin	9	7	7	6	5
Rent	26	23	22	19	18
Finance	10	10	9	8	8
<b>Total Overheads</b>	<b>123</b>	<b>109</b>	<b>133</b>	<b>91</b>	<b>89</b>
<b>Production Cost</b>	<b>£160</b>	<b>£159</b>	<b>£186</b>	<b>£125</b>	<b>£132</b>

	<u>Wheat</u>			<u>OSR</u>		
	Savoch	ABDN	Invrnss	Savoch	ABDN	Invrnss
<b>£ per Ha</b>						
Yield (T/ha)	7.3	9.0	8.7	3.5	4.2	4.3
Av Price	£146	£151	£162	£390	£383	£366
Crop Sales	1,066	1,363	1,401	1,365	1,597	1,577
Straw Value	60	49	97	0	0	0
<b>Total Output</b>	<b>1,126</b>	<b>1,413</b>	<b>1,497</b>	<b>1,365</b>	<b>1,597</b>	<b>1,577</b>
<b>Variable Costs</b>						
Seeds	75	68	63	54	67	48
Fertilisers	192	229	282	135	207	237
Sprays	121	149	153	145	117	123
Sundries	5	7	6	5	8	3
<b>Total VC</b>	<b>393</b>	<b>454</b>	<b>504</b>	<b>339</b>	<b>399</b>	<b>411</b>
<b>Gross Margin</b>	<b>£733</b>	<b>£959</b>	<b>£993</b>	<b>£1,026</b>	<b>£1,198</b>	<b>£1,235</b>
<b>Overheads</b>						
Labour	126	164	168	94	145	188
Machinery	308	354	287	231	307	374
Property	12	33	104	12	33	99
Admin	47	45	17	47	44	43
Rent	150	150	150	150	150	150
Finance	60	77	70	60	77	75
<b>Total Overheads</b>	<b>703</b>	<b>823</b>	<b>796</b>	<b>594</b>	<b>757</b>	<b>929</b>
<b>Total Costs</b>	<b>£1,096</b>	<b>£1,277</b>	<b>£1,300</b>	<b>£933</b>	<b>£1,156</b>	<b>£1,340</b>
<b>Profit Margin</b>	<b>£30</b>	<b>£135</b>	<b>£197</b>	<b>£432</b>	<b>£441</b>	<b>£237</b>
<b>£ per Tonne</b>						
Seeds	10	8	7	16	15	11
Fertilisers	26	23	33	39	42	55
Sprays	17	15	18	42	26	29
Sundries	1	1	1	1	2	1
<b>Total Variable Costs</b>	<b>54</b>	<b>47</b>	<b>59</b>	<b>98</b>	<b>84</b>	<b>96</b>
Labour	17	16	18	27	32	44
Machinery	42	35	50	66	67	87
Property	2	3	12	4	7	23
Admin	6	4	2	13	9	10
Rent	21	17	17	43	36	35
Finance	8	8	8	17	17	22
<b>Total Overheads</b>	<b>96</b>	<b>84</b>	<b>108</b>	<b>169</b>	<b>167</b>	<b>221</b>
<b>Production Cost</b>	<b>£150</b>	<b>£130</b>	<b>£166</b>	<b>£267</b>	<b>£252</b>	<b>£317</b>