Aberdeenshire Arable Monitor Farm

George and Andrew Booth
Savock Farm
Foveran
Aberdeenshire
AB41 6BA

First Meeting Report – 17th May 2011

Next Meeting: Tues 12th July 2011

Facilitators: Jim Booth    Tel 01651-843607    jim.booth@saos.coop
              Peter Cook    Tel 07774 160246    cooknewton@btopenworld.com

The Aberdeenshire Arable Monitor Farm Programme is an HGCA project supported by the Scottish Government SRDP Skills Development Scheme.
INTRODUCTION
A good turnout of around 55 farmers, members of the trade, and others from the agricultural sector attended the inaugural meeting held at Savock Farm.

The aim of this first meeting was as follows:
• Introduction to the Monitor Farm programme
• Meet George & Andrew Booth, get to know their business
• Fly cup and a news at Foveran Hall
• Market outlook (Ian Keith, Frontier)
• Financial overview of Savock Fm
• Group feedback on strengths and weaknesses of the business, opportunities and topics/trials for the project

THE MONITOR FARM PROGRAMME
Aim: To improve the performance & profitability of the host Monitor Farm and other farms in the region.

How Achieved?
• Everyone works together to improve the profitability of the selected Monitor Farm. By doing so everyone learns lessons to apply to their own businesses. The lessons are promoted more widely through press articles, open days, HGCA material and the placement of all the information on the web.
• The group analyses the current position of the business to identify weaknesses and opportunities. The farmer tries changes, simple trials are set up, specialists are brought in, visits to other farms or companies are arranged, and performance is monitored and recorded.
• Identifying best practice on real farms
• The approach is very practical – looking at real problems and trying out solutions in the field.

Structure:
• A “Community Group” is formed (this is basically everyone who attends the meetings and signs up for the programme). This is the group which works with the Monitor Farmer and the facilitators.
• A smaller “Management Group” of 6 or so people sit down twice per year with the Monitor Farmer to set the details of the programme and to discuss progress. A chairman is elected from the Management Group.
• The facilitators (Jim Booth and Peter Cook) do all the arrangement and organisation of meetings, specialists, trials, etc and write a report for all members after each meeting.
• There are 6 meetings per year and 2 open days (promoted to the wider Scottish farming community) over the 3 years of the programme.

FARM DESCRIPTION
The Monitor Farmer, Andrew, welcomed everyone on behalf of himself and his father George. He then described the farm business and its development. A full description of the farm is available in Appendix 1.
Summary of key point:
The Booths farm a total of 345ha (852 ac) across 4 blocks. Although both operate separate businesses, effectively the land is farmed as one.

<table>
<thead>
<tr>
<th>Area (ha)</th>
<th>Farms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Owned</td>
<td>282.4 Savock, Ardgill &amp; Westfield</td>
</tr>
<tr>
<td>Full Tenancy</td>
<td>36.8 Bucksburn Fm (12m away)</td>
</tr>
<tr>
<td>Short term tenancy</td>
<td>25.7 Mundurno (8m away)</td>
</tr>
<tr>
<td></td>
<td>345ha (852 ac)</td>
</tr>
</tbody>
</table>

Cropping 2011

<table>
<thead>
<tr>
<th>Crops</th>
<th>Area (ha)</th>
<th>Varieties</th>
<th>Av 3-yr yield (t/ha)</th>
</tr>
</thead>
<tbody>
<tr>
<td>W OSR</td>
<td>43.5</td>
<td>Cracker</td>
<td>3.2</td>
</tr>
<tr>
<td>W Barley</td>
<td>60.3</td>
<td>Retriever &amp; Sequal</td>
<td>7.7</td>
</tr>
<tr>
<td>W Wheat</td>
<td>63.0</td>
<td>Alchemy &amp; Viscount</td>
<td>8.0</td>
</tr>
<tr>
<td>W Oats</td>
<td>39.4</td>
<td>Dalgouise</td>
<td>6.6</td>
</tr>
<tr>
<td>Sp Barley</td>
<td>23.3</td>
<td>Belgravia</td>
<td>5.8</td>
</tr>
<tr>
<td>Sp Oats</td>
<td>48.7</td>
<td>Firth</td>
<td>5.3</td>
</tr>
<tr>
<td>Grass</td>
<td>48.7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fallow</td>
<td>9.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trees</td>
<td>4.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>340.6</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Rotations
The farm operates a number of rotations depending on the land & situation. The land at Bucksburn and Mundurno tends to be in a simple spring crop rotation. Oats are grown due to the pH levels on temporary rented land.

Labour & Contractors
One full time staff - Brian Birnie. Last year employed a combine driver instead of a harvest student, plan to repeat this year
Contractors are used for muck spreading, lime spreading and any other specialised jobs.
In addition, the business also carries out a fair bit of contracting work themselves. The aim is to make better use of machinery, to spread the cost.

Livestock
Finish 250-300 cattle per year, all AA crosses. Purchase yearlings which are kept for 6-12 mths
Need to kill finished animals every fortnight for the Farmshop
Cattle are wintered inside at Savock in two cattle courts plus a dutch barn (hold 200+ hd)
Winter rations are silage plus barley fed through a Keenan wagon in a centre pass.
Also winter some cattle on B&B basis.

Soils and cultivations
A range of soils generally on heavy side with clay – which can be unforgiving
Natural drainage is poor. Need extra power to make good seedbeds, some spring cereals will be power harrowed in front of the one-pass drill.
The grass weed sterile brome is increasingly common in some fields.
Operate 24m tramlines. Seed is a mixture of home-saved and purchased. Utilise an independent agronomist - Ian Dalley. Have started to invest in Precision Farming.

**Grain Drying & Storage**
Grain was dried by a 12t mobile drier before it went up in flames last harvest! Currently have a SRDP Grant application in for 2 x 100t tray driers with stirrers plus 400t of storage.

**Crop Marketing**
All crops are grown for the open market except for a small tonnage saved for own use and seed. Nothing is grown on contract although a percentage of the crops are forward sold. Oats are grown for the premium milling market. Due to the high fertility, no low N malting barley is grown. Instead, spring barley is normally propcorned (last 5-yrs) for the feed market. OSR is marketed through the local co-op - Aberdeen Grain.

**Main challenges for the business – the Booths view:**
- Improving the farm profitability
- What is the optimum grain drying & storage option for the business?
- Controlling production costs, particularly machinery costs
- Crop marketing, coping with market volatility
- Farming heavy land – how best establish crops?
- Adopting new technology (GPS)
- Improving record keeping and business analysis.
- To future proof the business - designing a system for the next 10-yrs.

**CROP MARKET UPDATE - Ian Keith, Frontier**
At most meetings we will have a 10 minute verbal presentation by a member of the trade on the prospects for the grain and oilseeds markets. The aim is to build up our market understanding to help our marketing decisions. On this occasion Ian Keith, from Frontier provided the market overview.

**Key Points from Ian’s talk:**

**Old Crop Market**
- If you have old crop wheat, sell now! Ensus ethanol plant is shutting down for 3 months, so some old crop destined for it may be looking for another home soon.
- Scottish intervention barley (75,000t) is now all sold with the last 5,000t out of Fraserburgh recently. Could be tight supply for a while, especially painful for feed buyers in NE.

**New Crop (harvest 2011) prospects**
Great prospects!
Bullish (pushing up price)
- Weather concerns in USA – wet in north, dry in south
- Russia/Ukraine have delayed/banned exports (but announced end to ban recently)
- Northern continental Europe and SE England been too dry – hits wheat crop especially...
Bearish (pushing down price)
- Investment funds last week moved $10 Billion out of grain markets due to lack of volatility and hence less scope for speculative profits

Scottish Situation
Malting Barley
- OSR and wheat area up, so less SB?
- But lot of SB seed sales – suspect fair bit of grass ploughed up
- Maltsters have low carry over stocks
- Distillers once again building up whisky stocks
- Therefore GOOD PREMIUMS likely
- East Anglia/Norfolk desperate for rain – yields likely 75% to 80% of normal, so less SB from that source

Feed Barley
- Could lock into feed barley price at only £10 to £15 discount to wheat

OSR
- Weather is key. Lot of Polish/German rape went into wet seedbeds, now dry. 25% less yield?
- EU is a net importer of rapeseed (for biodiesel) especially from Canada which has been affected by floods
- Spot price close to £400/t at time of talk

Oats
- Oat millers are looking for old crop like mad (paying over £200/t)
- Have low stock carryover and English crop area is down 15%.
- So good price prospects.

Wheat
- Largest ever Scottish area – could reach 1MT for first time?
- But Ensus temporarily shut down plus other planned ethanol plant badly delayed
- Normal Scottish wheat premium will be squeezed. However, Nov futures is £177/t so still a great price.
- Ian’s feeling on price compared to current futures figure is -£25 to +£50, so positive!

Questions.
What about 2012 crop?
- Futures price is good (£160), especially if no weather problems in 2012 and there is a bigger world crop.
- Fertiliser prices for 2012 out soon so could fix a margin now if wanted.

Barley discount to wheat in 2012?
- Impossible to say. On feed value, should only be £10 to £15.
- Malting prospects still good 2012
- Black sea trade (Russia, Ukraine) is the worry for feed grain prices – they sell to get cash in hand, so tend to undercut us
FINANCIAL OVERVIEW

The group were presented with the individual crop Gross Margins for the 2010 harvest and the whole farm cost structure analysis for the accounting year to 31 May 2010.

Crop Gross Margins for 2010 Harvest

<table>
<thead>
<tr>
<th></th>
<th>46.6ha</th>
<th>51.2ha</th>
<th>54.3ha</th>
<th>31.8ha</th>
<th>40.1ha</th>
<th>40.3ha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yield (t/ha)</td>
<td>5.5</td>
<td>5.1</td>
<td>7.0</td>
<td>7.3</td>
<td>7.2</td>
<td>3.1</td>
</tr>
<tr>
<td>Average Price</td>
<td>£144</td>
<td>£140</td>
<td>£144</td>
<td>£127</td>
<td>£140</td>
<td>£370</td>
</tr>
</tbody>
</table>

OUTPUT

<table>
<thead>
<tr>
<th></th>
<th>Sp Barley</th>
<th>Sp Oats</th>
<th>W Barley</th>
<th>Wheat</th>
<th>W Oats</th>
<th>W OSR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grain</td>
<td>£792</td>
<td>£714</td>
<td>£1,008</td>
<td>£927</td>
<td>£1,008</td>
<td>£1,147</td>
</tr>
<tr>
<td>Straw</td>
<td>123</td>
<td>130</td>
<td>168</td>
<td>105</td>
<td>190</td>
<td></td>
</tr>
<tr>
<td></td>
<td>£915</td>
<td>£844</td>
<td>£1,176</td>
<td>£1,032</td>
<td>£1,198</td>
<td>£1,147</td>
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</table>

VARIABLE COSTS

<table>
<thead>
<tr>
<th></th>
<th>25.7</th>
<th>34.7</th>
<th>38</th>
<th>47.6</th>
<th>21</th>
<th>27.2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seed</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fertiliser</td>
<td>85.7</td>
<td>79</td>
<td>189</td>
<td>213</td>
<td>178</td>
<td>200</td>
</tr>
<tr>
<td>Sprays</td>
<td>81</td>
<td>27</td>
<td>44</td>
<td>77.5</td>
<td>59.4</td>
<td>102</td>
</tr>
<tr>
<td>Contract</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Expenses</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Total Variable Costs</td>
<td>196.4</td>
<td>144.7</td>
<td>237</td>
<td>342.1</td>
<td>262.4</td>
<td>333.2</td>
</tr>
</tbody>
</table>

GROSS MARGIN /ha

<table>
<thead>
<tr>
<th></th>
<th>£719</th>
<th>£699</th>
<th>£939</th>
<th>£690</th>
<th>£936</th>
<th>£814</th>
</tr>
</thead>
<tbody>
<tr>
<td>GM / Ac</td>
<td>£291</td>
<td>£283</td>
<td>£380</td>
<td>£279</td>
<td>£379</td>
<td>£329</td>
</tr>
</tbody>
</table>

Notes
- Straw values: Barley @ £30, wheat @ £25, oats @ £30
- Pig slurry - Sp B 14,000l/ha
- Seed - mix home saved and bought

Savock and Westfield Farm Cost Structure Analysis Year to 31 May 2010

<table>
<thead>
<tr>
<th></th>
<th>% of Output</th>
<th>Target %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Farm Gross Output</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Variable Costs</td>
<td>28</td>
<td>30</td>
</tr>
<tr>
<td>Farm Gross Margin</td>
<td>72</td>
<td>70</td>
</tr>
</tbody>
</table>

<p>| | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Labour</td>
<td>8</td>
<td></td>
<td>30 to 35</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Power</td>
<td>36</td>
<td></td>
<td>for labour and power combined</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overheads</td>
<td>12</td>
<td></td>
<td>5 to 10</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gross Profit</td>
<td>16</td>
<td></td>
<td>30</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note:
- “Variable Costs” are all input costs which vary directly with the size of the enterprise: seed, fertiliser, sprays, purchased feed, vet, crop and livestock sundries.
- “Labour” is all employed labour including casual.
“Power” is fuel, electricity, machinery and vehicle repairs and expenses, depreciation, contractors. Machinery depreciation = 14% of output.
“Overheads” are all sundry fixed costs: insurance, professional fees, telephone, office costs, property repairs, miscellaneous costs.
“Gross Profit” is the margin available to cover rent and interest and a Net Profit to provide for living expenses, tax and new investment or debt reduction.

GROUP FEEDBACK
The attendees were split into groups and asked to report back on crops, buildings and machinery, livestock, opportunities for the business, and topics and potential trials for the programme. This provides a starting point for the design of the programme for the next 3 years.

Group 1: From what you have seen today, what are the strengths and weaknesses of the Booths crop enterprises?

<table>
<thead>
<tr>
<th>Strong points</th>
<th>Weak points</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Able land</td>
<td>• Lack of a real rotation</td>
</tr>
<tr>
<td>• Have muck and access to slurry</td>
<td>• Power hungry cultivations, plus slow and create compaction</td>
</tr>
<tr>
<td>• Spring oats on less fertile land</td>
<td>• Sterile brome problem</td>
</tr>
<tr>
<td>• Well equipped</td>
<td>• Contracting means they are spread thinly</td>
</tr>
<tr>
<td>• Use of labour good</td>
<td>• Management time conflict: shop v. farm</td>
</tr>
<tr>
<td>• Economies of scale (acreage and outside contract)</td>
<td>• Yields</td>
</tr>
<tr>
<td>• Range of crops, spreads risk</td>
<td>• Distances between blocks</td>
</tr>
<tr>
<td>• Good marketing image (link to The Store)</td>
<td>• Lack drying facilities</td>
</tr>
<tr>
<td></td>
<td>• Quality and quantity of storage</td>
</tr>
<tr>
<td></td>
<td>• Poor use of extra kit</td>
</tr>
</tbody>
</table>

Are there any crop enterprise opportunities the Booths should think about?
• Yield potential – could/ should be higher
• Unpriced grain – opportunities in better marketing

Are there any threats on the horizon to which the Booths cropping enterprises would be especially vulnerable?
• Limited market for propcorned grain?
• Weather pattern, especially for heavy land
• Grass weeds
• Lack of storage and marketing options
• Price volatility

Group 2: From what you have seen today, what are the strengths and weaknesses of the Booths machinery, buildings and other infrastructure?
### Strong points  
- Modern kit  
- Plenty harvesting capacity  
- Most land in one block  
- Brian! (farm employee)

### Weak points  
- Lack of drying and storage infrastructure  
- Complex cropping (needs complex storage, but don’t have it)  
- Forced to shift rape at harvest time as no storage  
- Bucksburn farm block is 10 miles away  
- Spring oats v. spring barley  
- High combined labour and power cost as a proportion of output. Is the cost high or is the output too low??

Are there any building/ machinery/ infrastructure opportunities the Booths should think about?  
- Building or securing external storage  
- Precision farming technology  
- Combine drill spring barley  
- Steading development?

Are there any threats on the horizon to which the Booths infrastructure would be especially vulnerable?  
- It’s all about fuel/oil prices! Hence all the costs of machinery systems, drying, haulage, steel.

**Group 3:** From what you have seen today, what are the strengths and weaknesses of the Booths livestock enterprise?  

### Strong points  
- Premium market outlet  
- Reputation  
- Low cost?  
- Some fields better suit grass  
- Utilise grain seconds  
- Straw into muck into soil structure

### Weak points  
- Forage diet/ extensive = required by market but = higher cost  
- Steady supply pattern ties the system and is tough to manage  
- Reputation for food quality versus potential use of composted food waste on land?

Are there any opportunities on the livestock side the Booths should think about?  
- Free range eggs? Shop outlet/ use homegrown grain/ high value dung

Are there any threats on the horizon to which the Booths cattle and sheep enterprises would be especially vulnerable?  
- Image issues v. composted food waste  
- On line marketing of beef
Group 4: Based on what you have seen today, and given a completely free hand, how would you alter and improve the business?

<table>
<thead>
<tr>
<th>Suggested Change</th>
<th>Why?</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Don’t crop the headlands</td>
<td>• Heavy land and big machines means headlands always perform badly</td>
</tr>
<tr>
<td>• Introduce a fallow in the rotation</td>
<td>• Fallow aids timeliness of next crop, allows structure to recover and could free up time for more contract</td>
</tr>
<tr>
<td>• Min till for OSR</td>
<td>• Cultivations on this heavy land are expensive. Rape could be established more simply and give an opportunity to subsoil at same time</td>
</tr>
<tr>
<td>• Collaborate with neighbours</td>
<td>• Collaboration means cost saving?</td>
</tr>
<tr>
<td>• Use grain coop</td>
<td>• Grain coop equals reduced capital expenditure on buildings, driers. Also less labour/management time</td>
</tr>
<tr>
<td>• Keep the straw and chop it/incorporate</td>
<td>• Straw incorporation would help structure of heavy soils and return some P and K</td>
</tr>
<tr>
<td>• Renewables? Wind or Hydro.</td>
<td>• Renewable form of power at simplest would generate power for shop and drier, add to Store image.</td>
</tr>
</tbody>
</table>

Group 5: What topics would you like covered in the Monitor Farm meetings?

- Grain marketing strategies
- Min till
- Wider business issues e.g. succession
- Product versus market – premium markets, customers needs
- Drainage
- Soil life/structure
- Compost – benefit v. cost, how to use it best
- Methods of drying – tray, mobile, continuous
- Establishment methods, especially to minimise compaction

What field scale trials and practical tests and demonstrations do you feel would be useful?

Note that we would like to get any trials organised before autumn sowing starts.

- Min till
- N v. Urea
- GPS mapping and precision systems – HOW, WHAT, COST V. BENEFIT
- P & K including combine drilling
- Timeliness in the whole system e.g. use of hybrid barley
- Use of compost
OTHER PROJECT BUSINESS

Arable Business Groups
In addition to the Monitor Farm, the project will also establish an Arable Business Group (ABG). The aim of the ABG is to form a small closed group of progressive growers (10-14 members) with a clear focus on the business /marketing. Benchmarking will form a key part of the ABG’s with members expected to share production costs, gross margins, yields, prices, etc. to look for improvements. Use will be made of HGCA’s ‘CropBench’ to provide the standard benchmarking tool. The ABG will meet 3 times per year and receive professional support.

Anyone wishing to find out more about the Arable Business Group please contact Jim Booth 01651 - 843607.

Management Committee
Remember this is a farmer led and owned project. With that in mind, we aim to establish a small Management Committee to represent the Community Group.
The Management Committee’s role includes:

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

ADDENDUM
At the meeting the Community Group were invited to nominate members to represent them on the Management Group. The following people were duly elected:

<table>
<thead>
<tr>
<th>NAME</th>
<th>MOBILE NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peter Chapman Jnr - Chairman</td>
<td>07711 347735</td>
</tr>
<tr>
<td>Bryan Chalmers</td>
<td>07801 296811</td>
</tr>
<tr>
<td>Stuart Davidson</td>
<td>07885 232401</td>
</tr>
<tr>
<td>Robert Drysdale</td>
<td>07753 929248</td>
</tr>
<tr>
<td>Phil Smith</td>
<td>07900 991196</td>
</tr>
<tr>
<td>Willie Willox</td>
<td>07778 110937</td>
</tr>
<tr>
<td>Andrew Booth</td>
<td>07970 767071</td>
</tr>
</tbody>
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