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## **Buchan Monitor Farm**

Messrs Patrick Dickson  
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Report on meeting held 16 July 2009

Provisional date of next meeting: October 2009

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## TOP TIPS FROM MEETING

**Tear a handful of grass from the base of an old sward. The productive ryegrasses have red bases, the poorer grasses white. If more than 50% have white bases its time to reseed as the poorer grasses will be much less productive and give poorer cattle and sheep performance. See the QMS video on grassland management.**

### **Meeting Agenda:**

1. Update from Monitor Farmer
2. Poor performance of grazing heifers
3. Crop Update
4. Lamb finishing
5. Colin Clark, Thomastown update
6. 2008/09 finishing bull results and system overview by Ian Pritchard, SAC Beef and Sheep Specialist and Health Schemes manager.

### **1. Update since last meeting.**

41 acres first cut silage chopped on 12 June (including chickory mix) in very good conditions. No bree. 2,300 gallons pig slurry (residue from Turriff biogas plant) on to aftermaths then 50kg/acre (one bag) straight N on 11 July.

Ewes clipped (this years wool cheque £232!).

Deaths; two ewes and two lambs.

Lambs all vaccinated with Ovivac-P and Bluetongue vaccine and treated with Click for strike.

13 lambs away fat 8 July (see results later)

Calf creep feeding doesn't start until August.

Spraying season finished with wheat head spray on 30 June.

Most of bulling heifers taken away from bulls on 22 June onto silage aftermaths. Rest away 13 July. Seem to be very few cows still bulling (bulls went in 20 May).

### **2. Finishing Heifers at grass; disappointing growth rates in past.**

The group walked along to the brae parks (17 acres) at Birkenhills where the heifers graze. Also some cull cows with calves and latest born lambs and ewes in the group. The very growthy season has meant the grass has got past the stock in places and is a bit stemmy. Ryegrasses predominate visually, but there is little clover.

Before turnout the concentrate level in the heifers ration had been reduced to zero to maximise compensatory growth when put to grass.

Soil samples have been done (2 fields); P, K, Mg all Moderate status, pH 5.7 and 4.9 (low). Comment that low pH of one park will not encourage clover.

Fresh grass analysis; All trace elements OK except copper (6.56 mg/kgDM in grass sample while cattle needs are 12 – 15 mg/kgDM) and zinc is marginal(32.8mg versus standard requirement of 40mg). But, these levels not likely to produce very poor performance. Note that copper levels in herbage and blood are only an indication of status – it needs a liver test to get truly accurate copper status figures.

Faecal egg counts have been done; worms low, no fluke.

Lamb bloods show no copper, cobalt, selenium problem.

No apparent site, metabolic or management problems. Other reasons?

The group discussion centred around the age and quality of the sward. The grass has been down for over 30 years. Members discussed burning off with roundup, then slot seeding ryegrass and clover. This would avoid having to plough this steep land. To illustrate the benefit of new grass, one group member described slot seeding into sand near the Loch of Strathbeg where the RSPB staff recorded that the improved grass tripled the number of geese grazing days compared to the old sward!

**Tip;** to see how much of the grass is ryegrass, rip out a handful from the base of the sward. The red bases are ryegrass, the white ends probably not. More than 50% white means its time to reseed. See the QMS DVD on grassland management. Some experts expect a third of a sward to be weed species by 6 years of age, so a 30 year sward is likely to have a lot of unproductive species of lower nutritional value.

**Recommendation;** slot seeding or traditional reseeding of the brae parks with early, intermediate and late ryegrasses, including high sugar varieties plus clover. Alternatively use for cows and calves, not finishing heifers.

### 3. Crop Update

Oilseed Rape – swath or direct cut?:

- Big movement toward dessication and direct cutting. Compared to swathing the crop is standing up and dries better – can get harvesting faster in a catchy season. Fear is that standing crop could get stripped by torrential rain, but this may depend on the type of dessiccant used. Most felt that it takes a lot of severe weather to make roundup dessicated crop shake and lose seed. Concern this year over mixed ageing of rape crops.
- **Recommendation;** dessicate.

Wheat

- Some aphids – should it be sprayed? Not until more than two thirds of the heads are affected.
- Use of wheat for crimping – are there suitable early varieties? Two early varieties are Grafton and Cordial (about a week earlier than others), but not done well in Scottish conditions. If want early wheat then sow early e.g. first few days of September. Not earlier as crop is too proud and disease prone pre-winter. Advantage of lower seed rate if sow early.

#### 4. Lamb Finishing; Target is more lambs off grass.

13 fat lambs sold 8 July

|                     |                                       |
|---------------------|---------------------------------------|
| Average value       | £62.08                                |
| Average liveweight  | 41.15 kg                              |
| Heaviest            | 48.2 kg (well over 400g per day lwg?) |
| Lightest            | 38.3 kg                               |
| Average killing out | 51%                                   |
| Grading             | 38% U, 62% R                          |

Note the massive growth rate of the heaviest lamb. Shows the potential of the best animals, and the potential of sheep to produce meat from grass. To get the same growth rate in relation to birth weight, a calf would need to do 5kg lwg per day!

Faecal worm egg counts done, result = LOW worm burden and no fluke. Clear benefit of clean grazing system! Recommend do FEC later (August/September) when any worms may have built up.

#### Weaning decisions? Should we wean earlier?

- Arguments for weaning now are that it would leave more grass at Camalynes for cows in the backend and get on top of the red clover/chickory planned for lamb finishing, which if not grazed now would need to be cut for a second crop of silage.
- Arguments against weaning now are that there is plenty grass (usually wean early when short of grass to get ewes away and leave grass for finishing lambs), and it will check the lambs at a time when they are clearly growing well.
- **Recommendation;** take another draw of finished lambs before weaning.
- Other options; wean the hoggs now so that they get a chance to recover condition, possibly wean just small lambs which have no chance of finishing while on their mothers (but lots of disruption and extra work).

#### Red Clover/ Chickory mix

- Red clover getting dominant in second year and chickory less dense. Can expect 3 year life.
- First cut was mixed in the pit with grass silage. Second cut will be baled.
- Group members experience of red clover silage is that it doesn't need an additive even if 90% clover, but essential it gets a good wilt.
- Members have successfully fed bale clover to indoor finishing lambs. Ewes OK to get red clover silage only well away from breeding period due to high oestrogen content which will affect breeding performance.
- Red clover aftermath best targeted at lambs which need around 6 weeks to get to finishing weight and condition.
- Red clover grows from a crown at soil level so do not overgraze as this will kill it out – very opposite of white clover with its resilient stolons which can be grazed very short (and in fact needs to be grazed short over winter so that the light receptors in the stolons can react and stimulate growth).

#### 5. Thomastown Update

See Colin Clarks update handout at Appendix 1.

#### Additional points;

- Started crimping WB 4 July this year. First fields gave tremendous yields, but later fields poorer.
- 5,00t of muck – want to use this much more effectively. Will muck fields every 2 years rather than every 4 or 5.
- Poorer crop margins expected. Pearl sold brewing last year. Unlikely this year, no contracts issued. Considering reintroducing wheat for crimping. Where introduce it in the rotation – group advise after one year of white crop.
- 2009 cattle finishing results to date (826 head finished, will be around 1,400 by year end) show gross output of £2.40 per beast per day and costs, including allocated overheads, of just over £2.00 per day.
- Yeast introduced to diets this year – observed more grain going through undigested into dung, but since introducing yeast to improve oxidation this problem has disappeared.
- New earth walled pits been a great success. Chopped 140 acres into the pits in 8 hours (needed 3 tractors consolidating).
- Lambs made £29 per head gain in value last year. Reckon need £15 per head to cover costs simply as grass managers.
- The clover and ryegrass sown after crimping harvest (mid July) last year was a complete failure. Used 2 sowing methods. Unsure why unsuccessful. This year will sow 50 - 100 acres stubble turnips. Group recommend broadcast and roll. Important to get it sown fast and early and to get moisture.
- Current RSS ending soon, considering SRDP options. Group pessimistic – budget for environmental schemes small since large number of applications in Feb 09.
- Big question for Colin; what will he do given rise in store prices and likely squeeze on margins? Feels buying and selling are key areas. Has shifted to buying cheaper cattle and is looking at finishing grades. Been increase in number of O grades and seems to be abattoir variation. Has had QMS grader evaluation, but would like independent second opinion.

## **6. Finishing Overview including Monitor Farm Bull Results (Ian Pritchard, SAC)**

### **Key points;**

- System Target = 1 kg deadweight gain per day over lifetime of the beast.
- Example from one farm; cattle finishing at 344kg deadweight at 11 months of age = 1.70kg liveweight gain per day = 1 kg deadweight gain per day. How did he achieve this? Used high 400 day weight EBV sires.
- Want to work on the golden triangle; Breeding, Feeding, Management. Need all 3 to achieve our 1 kg dwt gain per day target.
- Silage is part of the bull finishing system at Acrestrype. Silage quality key to earlier finishing, but there is a pivot point as increase concentrates fed where it is safer and more cost effective to switch entirely from silage to all cereal. When concentrates are 65 to 70% of the ration DM, silage is not the best supplementary forage – would be better to switch to a long forage like straw to get the scratch factor required. Will give better growth rates.
- Key principle of cattle finishing is the cost of maintenance. As cattle get bigger they need to eat more just to stand still. More of each kg of gain is fat and needs more kgs of feed to produce it. Fat requires 4x more energy to produce it than the same quantity of lean meat.
- NE is the only area of UK where 4H grade cattle are not penalised. Relates to market demand (may be a need for more marbling for top quality beef and

abattoir capacity can only be filled by taking any cattle, even overfat). But need to think carefully about cost of producing 4H carcasses.

- Big issue of Bulls v. Steers. Ignoring any market drivers, bulls give much better performance e.g. results from Pitlochrie Beef Event;

|                         | <b>Bulls</b>    | <b>Steers</b> |
|-------------------------|-----------------|---------------|
| Daily dwt gain          | 0.86            | 0.70          |
| % leaner than 4L        | 82%             | 12%           |
| Better than R grade     | 92%             | 46%           |
| Growth rate over steers | +23%            |               |
| Days to slaughter       | 90 days earlier |               |

- Dicksons achieve good bull daily deadweight gain of 0.80kg per day. Luings have done well for what is viewed as a maternal breed. Bulls from heifers are top performers, hopefully showing benefit of selection system used.

#### **Bull results winter 2008/09**

|                                                   | <b>Charolais by AI (1)</b> | <b>Simm by AI (4)</b> | <b>Simm (14)</b> | <b>Luing (14)</b> |
|---------------------------------------------------|----------------------------|-----------------------|------------------|-------------------|
| Performance to Weaning (kg daily liveweight gain) |                            | 1.45                  | 1.46             | 1.37              |
| Lifetime performance (kg daily deadweight gain)   | 0.894                      | 0.797                 | 0.798            | 0.773             |
| Age at slaughter (days)                           | 458                        | 450                   | 410              | 432               |
| Average deadweight (kg)                           | 409                        | 358                   | 327              | 333               |
| Average KO %                                      | 63                         | 59                    | 58               | 57                |
| % U grade                                         | -                          | 50%                   | 14%              | 7%                |
| Net Price (£)                                     | 1,092                      | 1,006                 | 901              | 921               |

#### **Barley and Concentrate Pellets Usage Winter 2008/09**

|                          | <b>Barley</b>                          | <b>Protein Pellets</b>               |
|--------------------------|----------------------------------------|--------------------------------------|
| 33 Finishing Bulls       | 34.1 tonnes total<br>1,033 kg per head | 7.42 tonnes total<br>225 kg per head |
| 41 Overwintering Heifers | 13.72 tonnes total<br>335 kg per head  | 3.3 tonnes total<br>80 kg per head   |

- Ian's draft margin for finishing at Acrestrype shows that with a £640 store value, the finishers are losing around £15 per head. Calves gain around 1.42 kg per head liveweight to weaning and 1.27 kg overall which suggests finishing daily liveweight gain from weaning to sale of 1.11 kg. Is finishing a weak point?
- Questions; Should the Dicksons concentrate on producing stores and breeding heifers? Perhaps push up cow numbers? Is this a short term phenomenon given current very high store prices on the back of a shortage of cattle? With improving cow selection and higher EBV bulls could the finishing loss be turned into a good margin?

## Appendix 1. Thomastown Update Handout

### Overview:

1,000ac arable, loam soil over rotten rock therefore well drained. Averaging 100-250ft and grade 3.1, due to historical weather. History of stock therefore soils very high in organic matter and the land is good for P&K, lime hungry and copper deficient. There are 2 full time men and one part time.

### Cereals:

750-800ac barley, 150-200ac grass & 35 ac steward ship/woodland

#### 2007 , 2008 harvest

|             | 2007<br>ac | 2008<br>ac | 2009<br>ac | t/ac          | 07  | 08  | 09  |                                       |
|-------------|------------|------------|------------|---------------|-----|-----|-----|---------------------------------------|
| Crimping    | 185        | 206        | 120        | Camion        | 4.9 | 5.1 | 4.9 | 60-70% D/M<br>4 <sup>th</sup> of July |
| Crimping    | 30         | 105        | 130        | Saffron       | 5.1 | 4.8 |     | 60-70% D/M<br>July cut                |
| Brewing (?) | 148        | 248        | 205        | Pearl (crimp) | 3.3 | 3.4 | 5.1 | -1.9 Nit<br>10 <sup>th</sup> of July  |
| Malting     | 238        | 232        | 247        | Optic         | 2.4 | 2.3 |     | 1.4-1.9 Nit<br>Aug/Sept               |
| Malting     | 84         |            |            | Oxbridge      | 2.8 |     |     | V poor grains<br>Sept                 |
| Crimping SB | 44         |            | 72         | Wagon         | 2.9 |     |     | (Riviera in 07)                       |

- Straw is all baled as part of 5000t of muck and reincorporated.
- No unusual disease or pervading weed issues. Cleavers in fence lines.
- We will reintroduce WHEAT in 2009 but may crimp it.

| Barley costs acre est 2009                       |       | Crimp       | (Brewing)<br>Winter | Spring      |
|--------------------------------------------------|-------|-------------|---------------------|-------------|
| Establish (plough £23,sow £22, rollx2 £10 +)     |       | £58         | £58                 | £58         |
| Fert ( N £230,Comp £330t =27pkg)                 | 220kg | £60         | 230kg £62           | 155kg £42   |
| Chemicals                                        |       | £52         | £56                 | £40         |
| Application cost (£2 ac fert & spray)            |       | £12         | £12                 | £ 8         |
| Seed (175kg HA, home saved)                      |       | £18         | £18                 | £18         |
| Harvest costs                                    |       | £47         | £42                 | £38         |
| Crimp/Drying                                     |       | £30         | £ 7                 | £ 7         |
| <b>Total est costs</b>                           |       | <b>£280</b> | <b>£255</b>         | <b>£204</b> |
| Est return per tonne                             |       | £60         | £100                | £125        |
| 2009 Gross sales est per ac                      |       | nc          | £330                | £300        |
| 2008 Gross sales per acre<br>(2008 1/3 non malt) | 4.9t  | £294        | 3.3t £379           | 2.4t £324   |
| <b>Margin before overheads 09</b>                |       | NA          | <b>£75</b>          | <b>£96</b>  |

\*Straw is assumed to be cost neutral as its costed in livestock.

\*\*Machinery and labour based on ring prices less ap

10% to take into account lower depreciation etc

## Cattle finishing policy

- Bought in steers 15-22 months old target intake weight 530-600kg+
- Finish period 60-120 days, target LWG 1.4-1.6 kg.
- Greatly reduced numbers out to grass, not conducive with finishing system.
- On arrival; worm, fluke and Bovilis IBR – preventative rather than treat.

### Gross Margin analysis

|                      | 2005  | 2006  | 2007  | 2008  | 2009  |
|----------------------|-------|-------|-------|-------|-------|
| <b>Cattle No</b>     | 1,034 | 1,365 | 1,346 | 1,100 | 826   |
| <b>GM per head</b>   | £148  | £165  | £152  | £259  | £220  |
| <b>Days on farm</b>  | 110   | 98    | 96    | 102   | 92    |
| <b>Gross per day</b> | £1.34 | £1.68 | £1.58 | £2.54 | £2.40 |

### Feed Costs

|                          |         | t/ac | £/t  | Kg/day | p/day |
|--------------------------|---------|------|------|--------|-------|
| <b>Crimp</b>             | £294/ac | 4.9  | £60  | 12     | 72    |
| <b>Silage</b>            | £185/ac | 17   | £11  | 13     | 14    |
| <b>Protein, liquid</b>   |         |      | £48  | 2      | 9     |
| <b>Straw inc bedding</b> | £6/bale |      |      | 1      | 22    |
| <b>Minerals</b>          |         |      | £290 | 80g    | 2     |
| <b>Yeast</b>             |         |      |      |        | 5     |

**Total direct costs**                    **£1.24 /day**

**Overheads**                                **£0.80 /day**

### Issues arising 2008-09

- Silage – 1<sup>st</sup> cut very high quality but wet. 24% DM
- Stores and fat rise rapidly in 08 peaking November.
- Stores bought Dec-March leave less margin.
- Lambs largely due to € movements do well ,avg purchase £39, sell £68.
- Grain better sold at harvest , stored 500t both SB & WB sell Spring £90-100
- Broadcast clover and rye grass complete failure!

### Questions 2009

- Grain crops 2009 looks very marginal. Will Pearl go for brewing?
- Cattle & Lambs , will shortage of breeding stock severely squeeze margins?
- Cattle grading late 08 disappointing slides to 5-6% O's. Abattoir variation?
- Indirect income – should we apply for new environmental schemes?
- Whole crop, is it worth while for finishing stock?
- Muck and fertiliser, do we underestimate muck value? Inorganic fert, why?