Benchmarking of Pasture for Life farms

Alistair McVittie
Introduction

- Reporting on 56 farms that contributed to the PG Tool data collection
- Initial analysis of farm economic data to inform benchmarking analysis
- Comparison within PFLA sample
- Comparison against FBS sample
Farm types and systems

- Beef suckler
- Beef finisher
- Dairy
- Sheep

- Certified organic
- Under organic conversion
- Largely organic principles e.g. LEAF
- Non-organic
**Farm characteristics**

**Rainfall and altitude**

- **X-axis**: Annual rainfall (mm)
- **Y-axis**: Farm altitude (m)

**Total UAA and farm altitude**

- **X-axis**: Utilised agricultural area (ha)
- **Y-axis**: Farm altitude (m)
PFLA membership and certification

PFLA membership vs certification

- Less than 1 year
- 1 to 2 years
- 3 to 5 years
- 6 to 7 years
- 8 years or more

Years organic

- Less than 5 years
- 6 to 10 years
- 11 to 15 years
- 16 to 20 years
- 21 years or more

- PFLA membership
- PfL production
Beef suckler

- 38 farms have a beef suckler enterprise
  - 1 has no output recorded in PG Tool
- 30 have other enterprises (sheep, arable, pigs)
- Farm size (forage area)
  - Mean: 163 ha
  - Range: 18 to 965 ha
- Livestock units range: 9 to 337
- Gross margin range: 0 to 3852 £/cow
Beef suckler– gross margin

Beef - Gross margin (£/cow)

- All: £965, £879
- Bottom third by GM: £464, £461
- Mid third by GM: £880, £819
- Top third by GM: £1556, £1372
- FBS lowland suckler all: £241
- FBS lowland suckler top: £470
- FBS upland suckler all: £221
- FBS upland suckler top: £422

- Gross margin
- Gross margin less marketing/processing
Beef suckler – output and variable costs

Beef - Output and variable costs (£/cow)

<table>
<thead>
<tr>
<th>Category</th>
<th>Output/cow</th>
<th>Variable costs/cow</th>
</tr>
</thead>
<tbody>
<tr>
<td>All</td>
<td>1158</td>
<td></td>
</tr>
<tr>
<td>Bottom third by GM</td>
<td>718</td>
<td>254</td>
</tr>
<tr>
<td>Mid third by GM</td>
<td>1058</td>
<td>177</td>
</tr>
<tr>
<td>Top third by GM</td>
<td>1706</td>
<td>150</td>
</tr>
<tr>
<td>FBS lowland suckler all</td>
<td>456</td>
<td>216</td>
</tr>
<tr>
<td>FBS lowland suckler top</td>
<td>655</td>
<td>185</td>
</tr>
<tr>
<td>FBS upland suckler all</td>
<td>435</td>
<td>214</td>
</tr>
<tr>
<td>FBS upland suckler top</td>
<td>565</td>
<td>143</td>
</tr>
</tbody>
</table>

Legend: Output/cow, Variable costs/cow
Beef suckler – farm size and livestock numbers

Beef - Forage area (ha) and number of cows

<table>
<thead>
<tr>
<th>Size (area of forage)</th>
<th>Herd size (cows)</th>
</tr>
</thead>
<tbody>
<tr>
<td>All</td>
<td>163 51</td>
</tr>
<tr>
<td>Bottom third by GM</td>
<td>231 51</td>
</tr>
<tr>
<td>Mid third by GM</td>
<td>124 58</td>
</tr>
<tr>
<td>Top third by GM</td>
<td>133 43</td>
</tr>
<tr>
<td>FBS lowland suckler all</td>
<td>32 36</td>
</tr>
<tr>
<td>FBS lowland suckler top</td>
<td>32 34</td>
</tr>
<tr>
<td>FBS upland suckler all</td>
<td>57 41</td>
</tr>
<tr>
<td>FBS upland suckler top</td>
<td>61 39</td>
</tr>
</tbody>
</table>

GM: General Manager
FBS: Farm Business Scheme
Sheep

- 24 farms
  - 23 have other enterprises – mostly beef suckler
- Farm size (forage area)
  - Mean: 194 ha
  - Range: 19 to 965 ha
- Livestock units range: 1 to 1103
- Gross margin range: 8 to 184 £/ewe
## Sheep – gross margin

<table>
<thead>
<tr>
<th></th>
<th>Gross margin</th>
<th>Gross margin less marketing/processing</th>
</tr>
</thead>
<tbody>
<tr>
<td>All</td>
<td>85</td>
<td>75</td>
</tr>
<tr>
<td>Bottom third by GM</td>
<td>33</td>
<td>27</td>
</tr>
<tr>
<td>Mid third by GM</td>
<td>89</td>
<td>86</td>
</tr>
<tr>
<td>Top third by GM</td>
<td>132</td>
<td>113</td>
</tr>
<tr>
<td>FBS lowland ewes all</td>
<td>58</td>
<td>21</td>
</tr>
<tr>
<td>FBS lowland ewes top</td>
<td>93</td>
<td>78</td>
</tr>
<tr>
<td>FBS LFA ewes all</td>
<td>78</td>
<td>60</td>
</tr>
<tr>
<td>FBS LFA ewes top</td>
<td>60</td>
<td>92</td>
</tr>
</tbody>
</table>
Sheep – output and variable costs

Sheep - Output and variable costs

<table>
<thead>
<tr>
<th>Category</th>
<th>Output/ewe</th>
<th>Variable costs/ewe</th>
</tr>
</thead>
<tbody>
<tr>
<td>All</td>
<td>98</td>
<td>14</td>
</tr>
<tr>
<td>Bottom third by GM</td>
<td>50</td>
<td>17</td>
</tr>
<tr>
<td>Mid third by GM</td>
<td>100</td>
<td>11</td>
</tr>
<tr>
<td>Top third GM</td>
<td>144</td>
<td>12</td>
</tr>
<tr>
<td>FBS lowland ewes all</td>
<td>112</td>
<td>53</td>
</tr>
<tr>
<td>FBS lowland ewes top</td>
<td>146</td>
<td>53</td>
</tr>
<tr>
<td>FBS LFA ewes all</td>
<td>131</td>
<td>63</td>
</tr>
<tr>
<td>FBS LFA ewes top</td>
<td>131</td>
<td>54</td>
</tr>
<tr>
<td>FBS organic lowland ewes all</td>
<td>97</td>
<td>37</td>
</tr>
<tr>
<td>FBS organic lowland ewes top</td>
<td>126</td>
<td>34</td>
</tr>
</tbody>
</table>

**Legend:**
- **Output/ewe**
- **Variable costs/ewe**

**Note:**
- GM: Grit Marketing
- FBS: Farm Business Survey
- LFA: Low Agricultural Productivity
## Sheep – farm size and livestock numbers

<table>
<thead>
<tr>
<th>Category</th>
<th>All</th>
<th>Bottom third by GM</th>
<th>Mid third by GM</th>
<th>Top third by GM</th>
<th>FBS lowland ewes all</th>
<th>FBS lowland ewes top</th>
<th>FBS LFA ewes all</th>
<th>FBS LFA ewes top</th>
<th>FBS organic lowland ewes all</th>
<th>FBS organic lowland ewes top</th>
</tr>
</thead>
<tbody>
<tr>
<td>Farm size (ha)</td>
<td>194</td>
<td>114</td>
<td>142</td>
<td>349</td>
<td>267</td>
<td>91</td>
<td>52</td>
<td>290</td>
<td>280</td>
<td>147</td>
</tr>
<tr>
<td>Livestock numbers (PfL ewes, FBS ewes &amp; shearlings)</td>
<td>114</td>
<td>39</td>
<td>142</td>
<td>37</td>
<td>42</td>
<td>49</td>
<td>307</td>
<td>36</td>
<td>35</td>
<td>173</td>
</tr>
</tbody>
</table>

- **Size (forage area)**
- **Sheep LUs**

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**Sheep - Farm size (ha) and livestock numbers (PfL ewes, FBS ewes & shearlings)**

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**SRUC**
Dairy

- 4 dairy farms
  - 3 also have beef finishing, 1 has beef suckler
- Farm size (forage area)
  - Mean: 72 ha
  - Range: 38 to 137 ha
- Livestock units range: 54 to 598
- Gross margin range: 137 to 2627 £/cow
Dairy – gross margin

Dairy - Gross margin (£/cow)

<table>
<thead>
<tr>
<th>Category</th>
<th>GM 1</th>
<th>GM 2</th>
<th>GM 3</th>
<th>GM 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>All</td>
<td>1,141</td>
<td>1,066</td>
<td>1,289</td>
<td>1,599</td>
</tr>
<tr>
<td>Bottom two by GM</td>
<td>392</td>
<td>392</td>
<td>1,740</td>
<td>1,890</td>
</tr>
<tr>
<td>Top two by GM</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FBS lowland all</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FBS lowland top</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FBS upland all</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FBS upland top</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FBS organic all</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

GM = Gross Margin
### Dairy – output and variable costs

#### Dairy - Output and variable costs (£/head)

<table>
<thead>
<tr>
<th>Category</th>
<th>Output/cow</th>
<th>Variable costs/cow</th>
</tr>
</thead>
<tbody>
<tr>
<td>All</td>
<td>1548</td>
<td>407</td>
</tr>
<tr>
<td>Bottom two by GM</td>
<td>636</td>
<td>244</td>
</tr>
<tr>
<td>Top two by GM</td>
<td>2,460</td>
<td>569</td>
</tr>
<tr>
<td>FBS lowland all</td>
<td>2,285</td>
<td>996</td>
</tr>
<tr>
<td>FBS lowland top</td>
<td>2,716</td>
<td>1,117</td>
</tr>
<tr>
<td>FBS upland all</td>
<td>1,974</td>
<td>839</td>
</tr>
<tr>
<td>FBS upland top</td>
<td>2,358</td>
<td>857</td>
</tr>
<tr>
<td>FBS organic all</td>
<td>2,287</td>
<td>901</td>
</tr>
</tbody>
</table>
Dairy – farm size and livestock numbers

Dairy - Farm size (ha) and livestock units

- All: 72 (Size) 176 (Dairy LUs)
- Bottom two by GM: 57 (Size) 67 (Dairy LUs)
- Top two by GM: 87 (Size) 285 (Dairy LUs)
- FBS lowland all: 94 (Size) 195 (Dairy LUs)
- FBS lowland top: 112 (Size) 244 (Dairy LUs)
- FBS upland all: 94 (Size) 170 (Dairy LUs)
- FBS upland top: 86 (Size) 177 (Dairy LUs)
- FBS organic all: 103 (Size) 139 (Dairy LUs)

Size (area of forage)  Dairy LUs
Beef finisher

- 9 beef finishers
- Farm size (forage area)
  - Mean: 103 ha
  - Range: 20 to 444 ha
- Livestock units range: 3 to 495
- Gross margin range: 79 to 701 £/head
Beef finishing – gross margin

Beef finishing - Gross margin (£/head)

- All
- Bottom third by GM
- Mid third by GM
- Top third by GM
- FBS finishing from suckler all
- FBS finishing from suckler top
- FBS finishing from dairy all
- FBS finishing from dairy top

Gross margin
Gross margin less marketing/processing
Beef finishing – output and variable costs

Beef finishing - Output and variable costs (£)

- All: 458
- Bottom third by GM: 185
- Mid third by GM: 479
- Top third by GM: 712
- FBS finishing from suckler all: 548
- FBS finishing from suckler top: 309
- FBS finishing from dairy all: 494
- FBS finishing from dairy top: 601
Beef finishing – farm size and livestock numbers

Beef finishing - Farm size (ha) and livestock units

- **All**: 103 102
- **Bottom third by GM**: 176 41
- **Mid third by GM**: 40 40
- **Top third by GM**: 93 224
- **FBS finishing from suckler all**: 40 80
- **FBS finishing from suckler top**: 48 80
- **FBS finishing from dairy all**: 47 131
- **FBS finishing from dairy top**: 48 123

[Size (forage area)] [Beef LUs]
Next steps

- Net margin analysis – difficult due to lack of enterprise level fixed costs
- Apportionment of forage area across livestock enterprises
- Comparison with industry wide benchmarks (e.g. AHDB, FBS)
- Interactions with environmental data – PG Tool, field sampling
Acknowledgements

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  https://www.foodsecurity.ac.uk/