



BEEF AND SHEEP BRP MANUAL 2

Better Returns Programme

Improved costings for Better Returns



EBLEX Better Returns Programme is grateful to all those who have commented and contributed to this production.

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All too often farmers are urged to produce animals that meet the needs of the market at the right time for the best prices. However, getting the best price of the season does not mean you have achieved the best profit, nor necessarily made the best use of the resources at your disposal.

To understand how to get better returns, you have to understand the basics of the physical and financial performance of your business. That is what this booklet is all about. In understanding your business better, not only can you identify potential savings, but you are more likely to gain better returns from any changes you make to your farm enterprise.

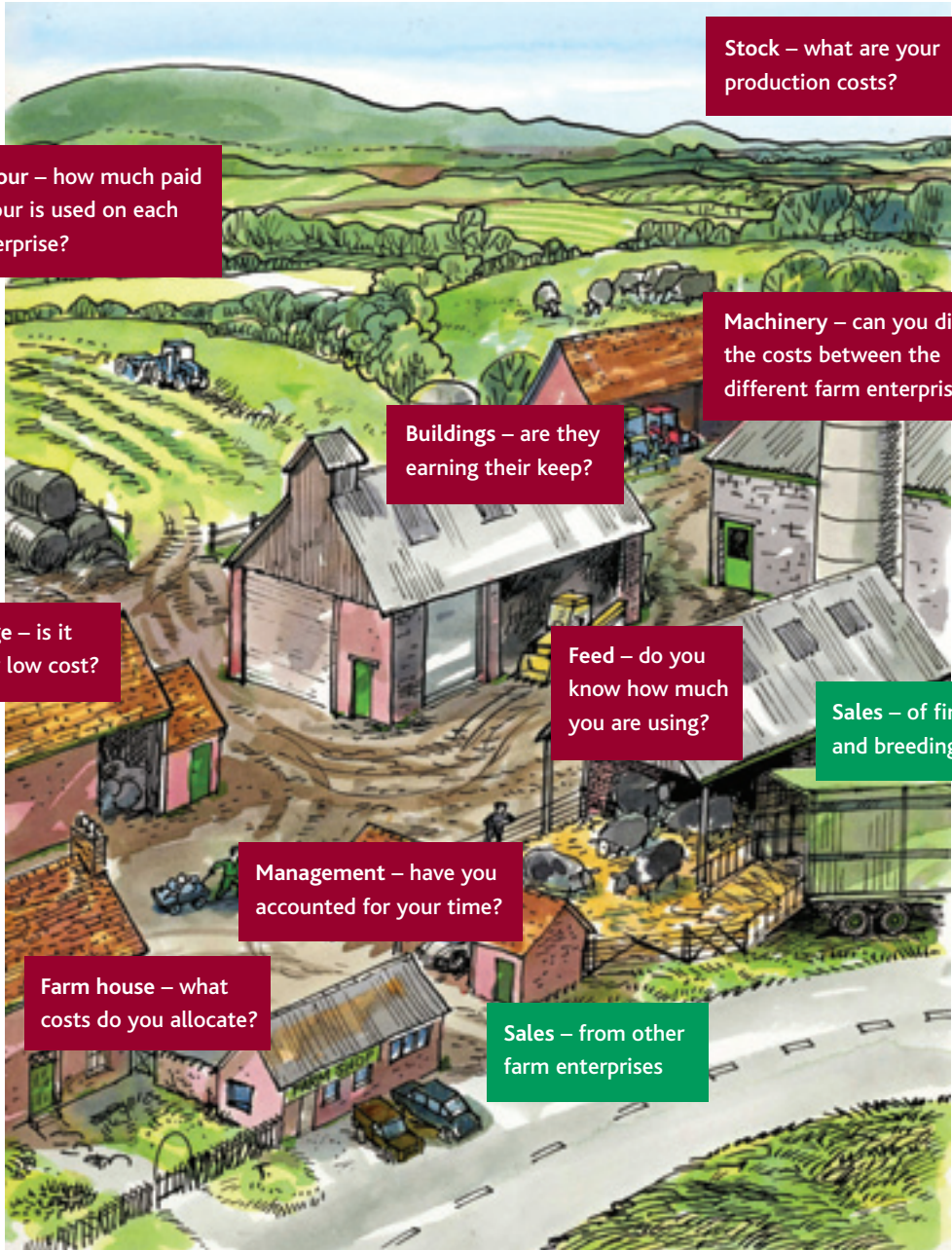
You do not need to be a financial expert to significantly improve your returns. What helps, however, is to understand the key information you need and how to interpret what you gather.

The aim of any producer seeking better returns is to get to a position where you understand what it is costing to produce an animal – not just feed or stock costs, but also labour, machinery, etc. Then you can look for ways to cut your costs and so boost your returns.



John Cross
Chairman
EBLEX Ltd

Sales and costs



Stock – what are your production costs?

Labour – how much paid labour is used on each enterprise?

Machinery – can you divide the costs between the different farm enterprises?

Buildings – are they earning their keep?

Forage – is it really low cost?

Feed – do you know how much you are using?

Sales – of finished and breeding stock

Management – have you accounted for your time?

Farm house – what costs do you allocate?

Sales – from other farm enterprises

To calculate the true cost of your enterprise, consider all the bills that have to be paid from your returns (eg, mobile phone bill)

How does your income break down?

A range of sales make up the income of most farms. It is important to separate enterprises, for example a mixed farm may have a sheep breeding flock enterprise, a store cattle buying enterprise and a haylage enterprise. The income and costs need to be calculated for each enterprise.

Variable costs are directly related to the chosen enterprise, and will vary with livestock numbers.

Fixed costs are related to general farm costs, with a proportion being attributed to each enterprise on the farm, and may not vary with livestock numbers.

How your costs break down

Variable costs

Concentrate costs – include calf colostrum, blocks, minerals and liquid feeds. Don't forget to include home-grown grain, which should be calculated at its potential sales value, or growing cost, whichever is greater.

Forage costs – include costs for hay, silage, straw for feeding and roots.

Veterinary costs – this includes veterinary services, inspections, medicines and wormers.

Bedding – include the invoice value of all bedding, straw and shaving purchases. Home-grown straw should be calculated at its potential sales value.

Miscellaneous – includes items such as tags, sundry equipment, assurance schemes and breed society fees.

Fixed costs

Paid labour – full- and part-time, casual and self-employed. Take account of direct payments as well as PAYE, National Insurance, pensions and any other benefits, such as vehicle

allowances. (Don't forget family labour, which is easily overlooked. You should know how much time you and members of your family spend working on the farm. It should equate to the cost of employing a person to do a similar job).

Power and machinery costs – include all machinery repairs, tools and electricity, plus vehicle road tax, MoT and insurance costs.

Lease payments should be included in other relevant categories if you lease other items.

Contractor charges – Major contractor costs, eg silage. Some specific enterprise tasks, such as shearing and scanning, are sometimes allocated to variable costs.

Administration – includes secretarial costs, professional fees and general insurance.

Property charges – includes council tax, (including that paid on behalf of employees). Include the costs of repairs and maintenance as well as water and rent on buildings and property. Plus rent on employee accommodation.

Land resource costs – rented land charges.

Machinery depreciation and fixtures – buildings, machinery and fixed equipment.



Capturing your information

It does not need an accounting qualification or a computer whizz kid to gather some useful information and put it to work.

Capturing the physical information

A well-organised notebook in the pocket or truck cab is the start of the process. The *Herd notebook** is an ideal tool to capture your information throughout the working day. This allows you to gather everything from calves born to medicines administered; from animals sold to quantities of bedding used each day.

Tip: Chalk up each time you put a bale(s) in to bed a pen of cattle or sheep. Over time this will help calculate the bedding costs for that particular pen.

- Herd/flock numbers**
- Calves/lambs born**
- Grazing days/field**
- Silage/hay quantities used**
- Bedding used**



**Available from EBLEX.
See back cover.*

Gathering financial information

You don't need an accountant to get your basic information, you just need to be sufficiently organised to capture it in a useful way as bills are received and payments arrive.

Tip: On mixed farms, consider asking your vet to invoice separately for beef and sheep work. Their computer may be able to supply an annual summary for each enterprise.

- Sales achieved**
- Feed bills**
- Vets bills**
- Machinery costs**
- Fuel**
- Rents**
- Finance charges**



You are constantly recording information for Defra, assurance schemes and others. Why not make the information work for you?

Processing the raw data

Once you have collected the information and separated it into enterprises, the next step is to gather it into a similar style to that used for industry data. This enables you to compare your performance against industry standards.

	Example raw data	My data
Outputs		
Store animal sales	£7,887	
Finished animal sales	£11,836	
Cull sales	£1,998	
Variable costs		
Concentrates	£1,659	
Forage	£2,867	
Veterinary	£1,651	
Bedding	£1,726	
Fixed costs		
Paid labour	£5,509	
Power+machinery repairs	£4,343	
Contractor charges	£780	
Administration	£1,886	
Property charges	£2,081	
Land resource cost	£2,441	
Depreciation – machinery and fixtures	£2,975	

With this data, further analysis can be made, for instance dividing by number of animals or kilograms sold to provide costs of production.

Tips for success – add data as you collect it. Data can be gathered on paper, or using a computer spreadsheet.



The levels of costings

Choose a level of costings that suits you and the needs of your business.

EBLEX has several resources available to help producers improve knowledge of their business. You can start with the most basic – Snapshot Bronze – and then progress to more advanced stages as you get more proficient at information collection and processing. These are electronic tools available from EBLEX either from www.eblex.org.uk or on a CD-Rom, contact 0870 241 8829.

Level 1 – Snapshot Bronze

This gives you an immediate picture of the physical performance of your enterprise and compares it with industry averages.

All you need to undertake Snapshot Bronze is basic information about your farm, eg livestock numbers, calves/lambs born, animals sold, and so on.

Most of this information is probably in your head, or in your diary. Snapshot Bronze brings it all together in a useful form.

Snapshot Bronze uses a simple traffic-light system which highlights areas of your business:



Highlights areas where there is room for improvement

Shows the areas that are 'OK'

Shows where you are doing well

Level 2 – Snapshot Silver

This intermediate level takes account of the variable costs of your enterprise (eg, feed, fertiliser, bedding, etc) to produce a gross margin figure.

If you want to take the concept a bit further, it will also produce a margin for labour.

As with Snapshot Bronze, your results are comparable with industry gross margin data to highlight the areas of financial performance where you are doing well and where there is room for improvement.

Level 3 – Snapshot Gold

This is the complete costings package giving you your net margins for the overall business.

Snapshot Gold, unlike Bronze or Silver, includes fixed costs and gives you a fuller picture of the performance of your enterprise.

As with other Snapshots you can benchmark your performance against other businesses.

Snapshot What if?

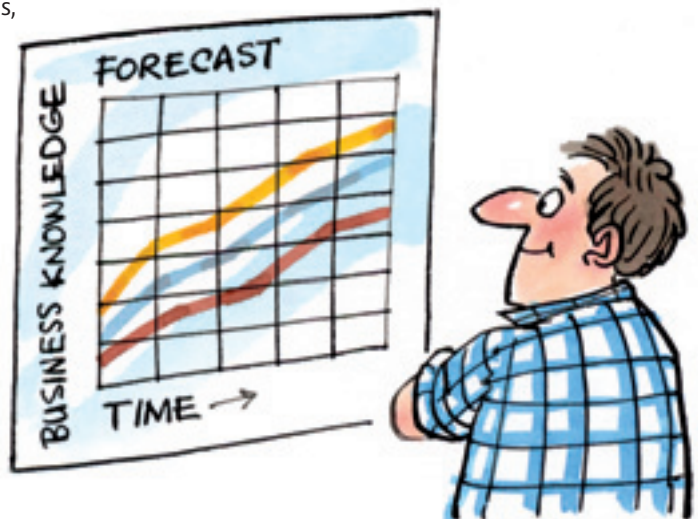
This electronic tool can be used at any level of costings. It gives you an idea of how any changes to your enterprise (eg cost of feed or improved fertility) could impact on the overall performance of your business.
www.eblex.org.uk/whatif



Decide where you want to start to make your records work for you.

Snapshot Bronze, Silver and Gold are electronic tools, or computer programs, available from EBLEX either through www.eblex.org.uk or ring 0870 241 8829.

What if? is available online at www.eblex.org.uk/whatif



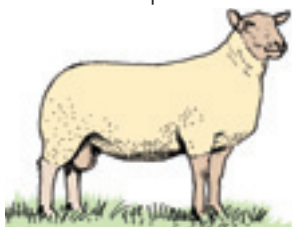
Level 1 – Snapshot Bronze

Snapshot Bronze will help you understand the physical performance of your enterprise.

Snapshot Bronze – raw data for suckler herd

Snapshot	My data
Breed of cow... % Continental Cross	
Breed of bull... % Continental	
Suckler cows (number)	
Bulls (number)	
Barren cows (number)	
Cow deaths	
Heifer replacements purchased (number)	
Heifer replacements (£/head)	
Own heifers transferred in	
Calves	
Live calves born	
Calves purchased (number)	
Calves weaned (number)	
Weaning age (months)	
Weaning weight (kg)	
Calf sales	
Number sold	
Age at sale (months)	
Sales weight (kg)	
Sales value (£/hd)	
Labour	
Family (FTE)*	
Employed (FTE)	

* Full-time equivalent labour



The same principles apply for sheep – rams, ewes and lambs – as for cattle

Your basic herd details, gathered from desk diary, herd/flock notebook, etc can be assembled in order.



Available from EBLEX.
See back cover.

Calculating what the data means

Information can be collected based on a production year or financial year. Snapshot Bronze asks for data from a production year. Define what period of time you are looking at.

Calculated data	Formula	My data
Cow mortality %	$\frac{\text{No of cow deaths}}{\text{No of cows}} \times 100$	
Replacement rate %	$\frac{(\text{Heifers transferred} + \text{purchased})}{\text{No of cows}} \times 100$	
Cows per bull	$\frac{\text{No of cows}}{\text{No of bulls}} \times 100$	
Barren cow %	$\frac{\text{No of barren cows}}{\text{No of cows}} \times 100$	
Calves born/100 cows (served)	$\frac{\text{No of live calves born}}{\text{No of cows}} \times 100$	
Calves weaned/100 cows (served)	$\frac{\text{No of weaned calves}}{\text{No of cows}} \times 100$	
% mortality – birth-weaning	$\frac{\text{No of live calves born} - \text{no of weaned calves}}{\text{No of cows}} \times 100$	
Liveweight gain – birth-weaning (kg/day)	$\frac{\text{Weaning weight} - \text{birth weight}^\dagger}{(\text{Age at weaning (mths)} \times 30)}$	
Liveweight gain – birth-sale (kg/day)	$\frac{\text{Sale weight} - \text{birth weight}^\dagger}{(\text{Age at sale (mths)} \times 30)}$	
Calf sales price (£/kg live weight)	$\frac{\text{Sale value}}{\text{Sale weight}}$	
% own replacements	$\frac{\text{Transferred heifers}}{(\text{transferred} + \text{purchased heifers})} \times 100$	
*FTE – paid and family labour/100 cows	$\frac{\text{Total FTEs}}{\text{No of cows}} \times 100$	

[†]Assume 35–40 kg if not

Comparing the calculations

Once your raw data has been calculated comparisons can be made with industry standards. The table below displays benchmarks that were produced by a recent project that asked 7,500 producers to complete Snapshot Bronze.



	Bottom third	Average	Top third
Cow mortality (%)	3.0%	0.9%	0.0%
Replacement rate (includes own and bought-in)	20.0%	13.3%	7.7%
Cows per bull	20	27	36
Barren cows	6.7%	3.4%	0.0%
Calves born/100 cows (served)	91.3	96	100
Calves weaned/100 cows (served)	90.	95.7	100
% Mortality – birth-weaning	3.4%	0.5%	0.0%
Liveweight gain – birth-weaning (kg/day)	0.96	1.04	1.14
Liveweight gain – birth-sale (kg/day)	0.88	1.03	1.12
Calf sales price (£/kg – live weight)	£1.10	£1.12	£1.25
*Full-time equivalent labour (paid & family) /100 cows	3.75	2.17	1.18

Level 2 – Snapshot Silver

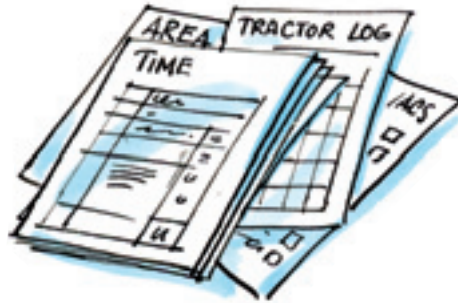
This intermediate level of costings takes your understanding of your business to the gross margin level. It does not equate directly to profit.

Gross margin = value of output (after valuation of stock still on the farm at the end of the accounting period) *minus* variable costs.

Variable costs are specific to the enterprise and are likely to vary according to scale of operation.

Variable costs include:

- bought-in feed
- bought-in forage
- fertiliser
- bedding
- vet and medicine costs



Capturing the data

Area used for enterprise (grazing and forage)	Ha		
Sales/purchases	Quantity	Unit price	Total
Lambs bought, eg cade lambs			£
Lambs sold – finished			£
Lambs sold – stores			£
Lambs sold – breeding			£
Lambs retained for breeding			£
Breeding replacements purchased			£
Wool			£
Inputs	Quantity	Unit price	Total
Ewe concentrates			£
Lamb concentrates			£
Bales of hay/silage used			£
Fertiliser used on hay/silage fields			£
Wormers used			£
Vaccines used			£
Other medicines used			£
Bales of straw/shavings used			£

It is important to break down the sales and inputs to allow the financial performances to be calculated.

Financial performance for lowland breeding flocks 2006/07 (£/ewe)

	Bottom third	Average	Top third
Number in sample	20	60	20
Average flock size (head)	408	435	385
OUTPUT	£/EWE		
Lamb output after valuation changes	44.44	56.59	72.77
Wool	1.19	1.21	1.32
Total output	45.63	57.81	74.08
VARIABLE AND REPLACEMENT COSTS			
Replacement costs	9.29	7.83	8.14
Variable costs			
<i>Total concentrates</i>	5.48	6.92	8.98
<i>Other feeds</i>	1.3	0.8	0.49
<i>Forage</i>	4.94	3.61	2.83
Total feed and forage	11.72	11.34	12.3
Veterinary	5.49	4.92	4.95
Bedding	0.33	0.66	1.37
Other costs	2.6	3.33	3.92
Total variable and replacement costs	29.43	28.08	30.67
Gross margin	16.2	29.73	43.41

Gross margins differ each year as prices and costs fluctuate. How gross margins are calculated can vary, so check before making comparisons. Comparisons can be made for the whole enterprise, or on an individual cow or ewe basis.



Level 3 – Snapshot Gold

This advanced level of costings takes account of fixed costs to produce a net margin, which can equate more closely to the bottom line of the enterprise or the whole business.

Net margin = output *minus* both variable and fixed costs

This represents the return to the enterprise before taking account of the value of family labour, or imputed rental of owner-occupied land.

Fixed costs include costs which remain fairly static, eg rent, property tax, insurance.

Calculating a net margin means the overheads have to be allocated to each enterprise, eg arable, sheep, beef, etc.

Livestock units (ie one cow/sheep = one unit) are a useful way of allocating fixed costs. For instance, if 20% of your livestock units are finishing cattle, then 20% of your total machinery repair costs should be allocated to that enterprise.

The next step on from Snapshot Gold and the 'net margin' level is to calculate non-cash costs these include some easily overlooked factors, eg unpaid family labour, rental equivalent for owner-occupied land, and interest on working capital. Failure to take account of these items will make it difficult to compare your net margins against industry standards. Non-cash costs are reported in Business Pointers.

From recent survey and analysis work family labour should be costed at £11.18/hr; rental values need to be assessed according to the local market; while working capital should be valued at 5% interest (p.a.).



Financial performance on a Less Favoured Area suckler herd 2006/07 (£/cow)

	Bottom third	Average	Top third
Number in sample	19	55	19
Average herd size (head)	60	69	85
OUTPUT	£/COW		
Calf output after valuation changes	337.8	350.54	382.16
VARIABLE AND REPLACEMENT COSTS			
Replacement costs	38.55	47.2	53.14
Variable costs			
<i>Total concentrates</i>	24.53	20.07	21.69
<i>Other feeds</i>	24.67	18.07	19.43
<i>Forage</i>	28.86	34.2	33.15
Total feed and forage	78.06	72.33	74.27
Veterinary	16.96	19.63	22.4
Bedding	20.15	15.41	12.07
Other costs	4.90	6.47	6.21
Total variable and replacement costs	158.62	161.03	169.09
Gross margin	179.18	189.51	213.07
FIXED COSTS			
Paid labour	100.18	59.99	39.46
Power and machinery repairs	99.45	71.06	56.29
Contractor charges	22.81	32.04	34.63
Administration	40.29	36.33	31.34
Property charges	41.92	31.80	24.95
Land resource costs (eg land rent)	55.05	53.37	46.73
Machinery depreciation and fixtures	74.83	56.34	47.29
Total fixed costs excluding non-cash costs	434.52	340.94	280.69
Net margin excluding non-cash costs	-255.34	-151.43	-67.62
NON-CASH COSTS			
Unpaid family labour	144.31	137.93	122.98
Rental value of owned land	11.9	25.92	38.47
Interest on working capital	44.83	42.55	41.24
Total non-cash costs	201.04	206.4	202.69
Total costs	794.18	708.37	652.47
Net margin including non-cash cost	-456.38	-357.83	-270.31

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