

PASTURE FOR LIFE

Understand, Explore and Improve Your Margins

Profit from Pasture Workbook

Produced by Jonty Brunyee and Russ Carrington for Pasture for Life. Funded by the Farming in Protected Landscapes programme.

Table of Contents

PART 1
Introduction

1.1 Setting the Scene 3

1.2 This Workbook 4

PART 2
Understanding Your Margins

2.1 The Role of Livestock in Our Farming Systems 5

2.2 Is Livestock Farming Profitable? 7

2.3 Finding Your Figures 9

2.4 Enterprise Gross Margins 12

2.5 Calculating Forage Costs 20

2.6 Enterprise Net Margins 23

2.7 Understanding Depreciation 28

PART 3
Explore Your Margins

3.1 Benchmarking 29

3.2 Sensitivity Analysis 36

PART 4
Improve Your Margins

4.1 Context 38

4.2 Where to Start Making Improvements 40

4.3 Getting a Grip on Costs — Before Plotting Improvements 41

4.4 So Where to Focus? 41

4.5 Margin Improvement Actions 42

4.6 Tweaking vs Game Changing 43

4.7 Concluding Thoughts 44

PART 5
Further Resources 45

Front Cover Photography

Megs Farm

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1 Introduction



TMC Butchers

1.1 Setting the Scene

Farming is changing. We are asked to produce nutritious food and energy for the nation in harmony with nature. We must protect our soils, sequester carbon, hold flood water and enhance wildlife habitat. We are encouraged to work at landscape scale and to diversify our businesses. Direct financial support is coming to an end to be replaced by payments for the delivery of environmental outcomes. The weather is also becoming more unpredictable. The challenge facing the industry can feel overwhelming.

There are opportunities too. By making positive business decisions, you and your farm can become more resilient, profitable and sustainable.

In the winter of 2025, the Pasture for Life team working with agroecological advisers, Jonty Brunyee and Russ Carrington, organised three unique webinars focused on pasture and profit. These events aimed to help livestock (cattle and sheep) farmers to assess the profitability of their farm and to highlight how to make changes to improve profitability.

Webinar One - Understand Your Margins, looked at:

- Concepts of profit and financial/management accounting
- How to calculate gross margins and net margins
- Example figures and challenges for pasture fed cattle and sheep enterprises

Webinar Two - Explore Your Margins, covered:

- Benchmarking your figures
- Sensitivity analysis
- Group discussion and margin exploration

Webinar 3 - Improve Your Margins, focused on:

- Identifying ways you can improve your margins
- Exploring your real barriers
- The deeper management and personal challenges of making change happen

These webinars can be found **here**.

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Jonty at FarmED



1.2 This Workbook

Take time to read through the workbook, completing the questions and tasks as you go. You can start by making notes in this booklet and then progress to analysing your own figures in your farm management and book keeping systems or spreadsheets.

There's no rush. Try and involve others who are involved in the farm business where you can and have open discussions.

Some questions may be hard to answer but remember there are no right or wrongs. Be as honest as possible.

Follow some of the signposts to additional information and further support.

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2 Understand Your Margins



Grampian Graziers

2.1 The Role of Livestock in our Farming Systems

The role of livestock in our farming systems is complex. Our cattle and sheep provide nutrient-rich food, natural fibres and soil fertility, and are central to the rural economy. They create and manage our grassland habitats and pastoral landscapes, and are a crucial element of rural heritage. They bring joy.

We often choose our breeds and base our management system based on emotion, ethics and tradition, rarely making pure economic decisions. Recognising this, and understanding our context, is an important step.

Livestock are integral to an agroecological farming and food system (see the 13 principles of agroecology, below) contributing to soil health, biodiversity, synergy, diversification, social values and diets, input reduction and recycling. Without livestock we cannot build a sustainable food system.



Fig 1 / The 13 Principles of Agroecology

Within a regenerative farming system, the integration of livestock helps to cycle nutrients, manage weeds and pests, build soil health and provide cropping breaks, as well providing as additional income.

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What role do livestock play in your farming business?

Think about the range of economic, environmental and social benefits of keeping livestock, and your reasons for doing so.

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Is Livestock Farming Profitable?

Ultimately, keeping livestock must be financially viable if our businesses are to thrive. Sadly, making a profit from livestock is not easy.

Defra Farm Business Survey figures for England reveal that the average farm business with grazing livestock (lowland and upland) makes a loss from **agriculture**. They are surviving from BPS **subsidy** (which is falling), **agri-environment grant** income (rising but problematic) and **diversification** (not possible for all). Similarly, mixed farms make a loss from agriculture.

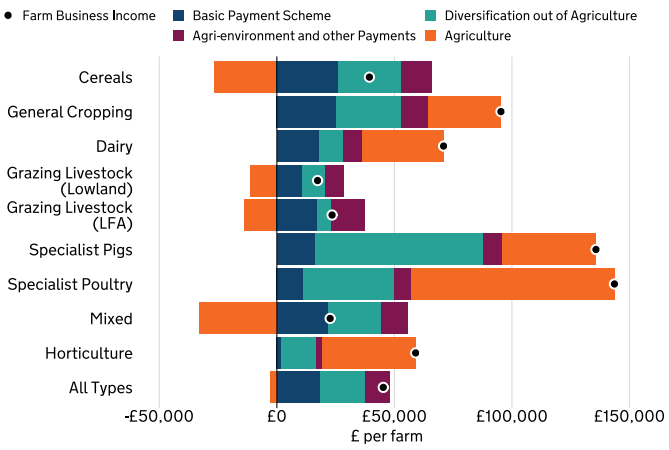


Fig 2 / Cost Centre breakdown for Farm Business Income by farm type, 2023/24 (Defra)

Farm Business Income is financial return before any unpaid labour (farmers and spouses, non principal partners and their spouses and family workers) or financial return on the shareholders capital (if an incorporated business). So, we still have to pay ourselves out of the 'profit' shown here if you are not formally employed by your farm business.

Was 2023/24 just a bad year? It wasn't the best but it was pretty typical when looking at farm business income since 2020/21. 2024/25 might look a bit healthier.

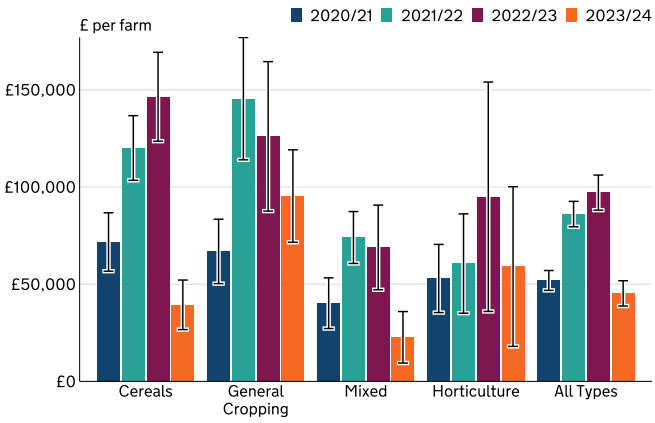


Fig 3 / Average Farm Business Income (£ per farm) for cropping farms by farm type in England, 2020/21 to 2023/24 (Defra)

Importantly, these Defra figures are only averages. This implies that some farms are actually losing more than shown but that some are, conversely, breaking even and making a profit.

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Does your farming business make a profit or loss?

Write down your farm business profit/loss figures for the last three years.

Understanding **which** elements of your farm business are profitable or making a loss is very important.

Are you making money from agriculture?

Is the income from subsidy, agri-environment grants and diversification your profit?

How do you know this?

Can you break your profit down between the 4 cost centres (agriculture, subsidy, agri-environment and diversification)?

If you don't have these figures to hand, what is your gut feeling?

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2.3 Finding your Figures

Finding useful figures for your farm business and making sense of them can be a daunting task. You are not alone!

While most of us will gather data for VAT and annual tax account purposes, few take time to analyse and budget properly.

This highlights the difference between financial and management accounting, and the need for both.

Financial accounting is what we have to do each quarter or year to meet basic financial and tax regulations.

The figures look backwards, and usually lead to:

- Profit & Loss Statement
- Stock valuations
- Depreciation schedule
- Balance sheet
- Annual accounts
- Tax returns (reported to HMRC)

Most farmers will use an accountant to prepare their P&L, balance sheet (if needed), depreciation schedule, annual accounts and tax returns. Land agents often do the stock valuation. We may do the VAT return in house.

Which of the financial accounting outputs are you familiar with?

Do you have them to hand?

Do you understand the key figures?

Get to know these figures and what they mean, and query your accountant if needed!

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Management accounting uses evidence and trends to plan, and to seek opportunities and improvement.

The figures look forward, and usually lead to:

- Enterprise gross margins
- Enterprise net margins
- Whole farm budgets
- Partial budgets
- Cash flow forecasts
- Benchmarking
- Sensitivity analysis
- Ratio analysis
- Business planning and strategy

Some farmers develop annual gross margins for each enterprise and a budget/cashflow. A few undertake benchmarking activity and deep analysis.



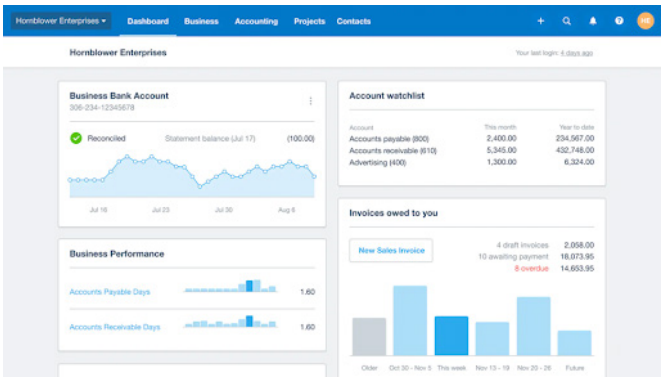
Which of the management accounting activities are you familiar with?

Do you have any to hand?

Do you understand the key figures?

Most of us would benefit from spending more time on management accounting activities.

Good financial and management accounting starts with good records, administrative procedure and book keeping. If we haven't got good raw data in the right place we can't analyse it accurately and make better decisions.




Hill Top Farm, photo by Gail Caddy

Who does your book keeping?

Do you use a suitable software/accounts package?

Do you code all your income and expenditure to your individual farm enterprises?

Could your book keeping procedures be improved?

Maybe seek help with this.

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2.4 Enterprise Gross Margins

Understanding the gross margins for your individual farming enterprises is the first step to improving your profitability.

You can do gross margin analysis on data from previous seasons and do gross margin forecasts looking forward (using what you know from the past plus amended to reflect your plans and market trends).

Are you happy with the following definitions?

Farm enterprise = an identifiable sector of your farm or horticultural business with its own (allocated) outputs (sales/income) and inputs (purchases/costs).

Enterprise gross margin = output (sales/income) minus inputs (variable/direct costs of production).

Output = amount x sale price e.g. tonnes of wheat x sale price per tonne, weaned calves x £/kg liveweight, fat lambs x £/kg deadweight.

Inputs = your **variable costs** or **direct costs** of production. These will vary due to the scale of the enterprise i.e. one sheep needs one bale of hay whereas 100 sheep will need 100 bales of hay.

Typical variable costs in a livestock enterprise include concentrate feed, forage, minerals, vet med and bedding.

Try keeping all your core enterprises separated and simple within your book keeping procedures. For example, you might have a spring lambing enterprise and an autumn lambing enterprise – keep them separate. You may have a suckler cow enterprise and a beef finishing enterprise – don't merge them!

If you merge them how do you know if your two lambing flocks, or your sucker enterprise and the finishing activities are profitable?

A common issue arises when a farm shop/direct selling enterprise gets merged with a sheep or cattle enterprise. Breeding animals are kept, young stock are reared, fat stock is processed, and meat is sold (maybe alongside other products). If the farming and retail elements of the chain are not kept financially separate (and internal sales or transfers of stock are properly recorded) then it becomes harder to analyse figures and to compare with others who may have a different system or route to market to you. It becomes harder to spot problems and improvements.

List all your individual enterprises here



Tullochgorum Farm, photo by Clem Sandison

To start building your gross margins you need good physical data.

Here is example data for a simple 50 hectare Pasture for Life accredited farm, with 100 breeding lowland ewes.

Add your data to this table if you have it (or start your own spreadsheet).

Physical data	#	Your data
Hectares	**50**	
Ewes	100	
Rams	3	
Female replacement rate	20%	
Lambing %	165%	
Rearing %	150%	
Sale weight - live	40kg	
Average price/kg - live	£3.00kg	

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Now compile your output/sales data.

In this example, all 150 lambs were effectively sold (at an average of 40kg @£3.00/kg liveweight). The wool was sold too.

Note that 20 of the 150 lambs were retained and purchased inhouse (called internal sales/transfers) as ewe replacements. A ram was purchased off farm. The cull ewes and rams were sold. This resultant figure is your **replacement cost**.

Calculate the totals for the whole enterprise.

Then, divide the totals by the **number of breeding** females (your units of production) not the number of sheep on the farm.

Alternatively, if you are a rearing or fattening enterprise you should divide totals by the number of youngstock (e.g. ewe lambs) or store animals (e.g. steers 12 – 24 months) in the system (your unit of production)

Divide by your grazing hectarage.

Add your data to this table if you have it (or start your own spreadsheet). You can use a similar table for cattle data if preferred.

Financial data	#	£ (each)	£ total (enterprise)	£ total (per ewe)	£ total (per ha)
Output (sales)					
Lamb value	150	120	18,000	180	360
Wool sales	103	2.50	206	2.06	4.12
Cull ewe sales	18	85	1530	15.30	30.60
Cull ram sales	1	150	150	1.50	3.00
Ewe lamb purcheses	20	120	-2400	-24.00	-48.00
Ram purchases	1	300	-300	-3.00	-6.00
Other	0	0	0	0	0
Total output	-	-	**17,186**	**171.86**	**343,72**

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If you are struggling to find the right data or work out the maths take a look at the Pasture for Profit (Understand, Explore and Improve Your Margins) webinars. We discuss some the issues and methodology in these group sessions. These webinars can be found **here**.

Financial data	#	£ (each)	£ total (enterprise)	£ total (per ewe)	£ total (per ha)
Output (sales)					
Lamb value					
Wool sales					
Cull ewe sales					
Cull ram sales					
Ewe lamb purcheses					
Ram purchases					
Other					
Total output					



Now collate your physical input data and calculate your financial inputs.

Gather as much data and assumption detail as you can to help explain and calculate your figures.

Remember – you are looking for the inputs purchased/used for this enterprise only.

Physical data	#	Your data
Hectares	**50**	
Ewes	100	
Rams	3	
Forage purchased	4 tonnes	
Forage conserved	0	
Forage grazed	50 ha	
Bedding - straw	1 tonne	



Essebeare Farm, photo by Olly Walker

Financial data	#	£ (each)	£ total (enterprise)	£ total (per ewe)	£ total (per ha)
Inputs (Variable Costs)					
Concentrate Feed	0	0	0	0	0
Minerals	10	25	250	2.50	5.00
Forage – purchased	4	90	180	1.80	3.60
Forage – own	50	130	6500	65.00	130
Bedding	1	40	40	0.40	0.80
Vet Med	-	-	800	8.00	16.00
Transport	-	-	250	2.50	5.00
Contract labour	-	-	350	3.50	7.00
Other (ear tags, levies)	-	-	210	2.10	4.20
Total output	**-**	**-**	**8580**	**85.80**	**171.60**

Divide the totals by the number of breeding females and your sheep grazing hectarage

Financial data	#	£ (each)	£ total (enterprise)	£ total (per ewe)	£ total (per ha)
Inputs (Variable Costs)					
Concentrate Feed					
Minerals					
Forage – purchased					
Forage – own					
Bedding					
Vet Med					
Transport					
Contract labour					
Other (ear tags, levies)					
Total output					

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Finally, bring all your figures together.

Output minus inputs = gross margin.

GM summary	£ total (enterprise)	£ total (per ewe)	£ total (per ha)
Total Output (sales)	17,186	171.86	343.72
Total Input (variable costs)	8,580	85.80	171.60
Enterprise Gross Margin	**8,606**	**86.06**	**172.12**

GM summary	£ total (enterprise)	£ total (per ewe)	£ total (per ha)
Total Output (sales)			
Total Input (variable costs)			
Enterprise Gross Margin			

£86 per ewe is a moderate gross margin! It's a good start.

But we haven't paid for our overheads/fixed costs yet...we will need to look at these and the net margins.

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25

Calculating Forage Costs

The forage you feed your cows and sheep, whether it be grazed pasture, temporary leys or conserved hay and silage is never free. We need to cost it and include it in our margin calculations if we are to get a true profit figure.

What did it cost you to grow and manage the grass your livestock are grazing? Remember – be honest with yourself!

These costs typically include:

- Year one establishment costs - seed, fertiliser, sprays and cultivation/drilling/rolling costs (your own or your contractors' rates)
- Annual management costs – topping, harrowing, reseeding, fertiliser and muck spreading costs

An unimproved or semi-improved permanent pasture may have low or no establishment and annual costs.

An improved pasture may have some costs.

A temporary ley or other short-term forage/cover crop will have establishment costs in year one and maybe ongoing annual management costs while it's grass in your rotation e.g. 5 years for a herbal ley.

Establishment costs can be spread out (divided) over the number of years the crop will be in the ground. Add this to the annual management cost to get your forage cost.

Divide your total forage costs by breeding females and hectarage.

What did it cost you to grow and make, or to purchase, the hay or silage your livestock are being fed? Remember – be honest with yourself!

These costs typically include:

- Hay or silage making costs (your own or your contractors' rates)
- The purchase price of any hay or silage you bought in
- Haulage costs

Understanding your basic cost of production is crucial. Use these figure in your gross margin calculations. But have you ever considered your forage opportunity cost?

For example, you make lots of hay and sell some of it to a neighbour or horse livery at a high price – say, £35/bale for a 300kg round bale. If you feed some of this hay to your sheep, shouldn't you cost it in your margin at £35/bale even if the cost of production was just £12/bale? £35/bale is the market rate and you have lost money by feeding it to your livestock. Keep this 'opportunity cost' in mind when considering profitability and options.

If you are an owner occupier and graze your grass with your stock, it means you can't rent it out to someone else. If local grazing land like yours is renting out at, say, £300/ha, that's the opportunity cost to you and your livestock enterprise. This notional rental value should be included as a fixed cost within the net margin calculations.

If you are a tenant or grazier, the rent you pay for your land is a cost you need to include in your profit calculations. Rent would normally be shown as a fixed cost within the net margin calculations.

To repeat... the forage you feed your cows and sheep, whether it be grazed pasture, temporary leys or conserved hay and silage is never free... even if you own the land and don't have any obvious annual costs!

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Below is a simple forage cost calculation for a 4 year herbal ley for our example 50ha farm with 100 ewes.

Note how we have shown the straight cost before any stewardship (SFI/CS) payments for grassland management or grazing. This is the important figure.

If you have grassland options in an SFI or CS agreement then you can start to allocate them to your activities and enterprises. Keep it simple at first and don't double count! Below, the payment for herbal leys (OP4) has been included to show its impact on forage cost (reducing it from £130/ha to just £13/ha). You could add options like hay making and cattle grazing supplements in here too.

If your forage cost was £130/ha and you had 50ha of this forage type, then multiply the figure up. Total forage cost is £6500.

If you kept 100 ewes then your forage cost is £65/ewe.

£65/ewe is a considerable cost. By keeping your forage costs low your gross margin should be much healthier than this.

	Year 1 (per ha)	Year 2 (per ha)	Year 3 (per ha)	Year 4 (per ha)	Year 4 (per ha)	
Seed (organic)	284	0	0	0	**£284**	3 2.5kg/ha = £284
Fertiliser & Sprays	0	0	0	0	**£20**	Not needed. Organic.
Establishment	206	0	0	0	**£206**	Plough, cultivate, drill, roll, roll
Management	0	30	0	0	**£30**	Topping in year one to help tiller
Total	490	30	0	0	**£520**	
Annual Forage Cost	-	-	-	-	**£130**	**£520 spread over 4 years**
Stewardship income					£117	OP4 Organic Multispecies Ley
Annual Forage Cost (with SFI/CS)					£13	GS4 = £382/ha! so a forage cost of + £252 if conventional!

Different fields and grassland types will need their own calculations.

Have a go at calculating your forage costs using tables like this.

If you are struggling to find the right data or work out the maths take a look at the Pasture for Profit (Understand, Explore and Improve YourMargins) webinars. We discuss some the issues and methodology in these group sessions. These webinars can be found **here**.

	Year 1 (per ha)	**Year 2** (per ha)	**Year 3** (per ha)	**Year 4** (per ha)	**Year 4** (per ha)	
Seed (organic)						
Fertiliser & Sprays						
Establishment						
Management						
Total						
Annual Forage Cost						
Stewardship income						
Annual Forage Cost (with SFI/CS)						

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26

Enterprise Net Margins

Understanding the net margin for your whole farming business is the next step to improving your profitability. Net margin is effectively your profit figure.

Profit can be used to pay yourself and other partners (drawings or dividends), to pay tax (if due) and to save or reinvest.

Calculating more accurate net margins for individual farming enterprises is even more useful if you have the data and capacity to work them out.

You can do net margin analysis on data from previous seasons and do net margin forecasts looking forward.

Are you happy with the following definitions?

Whole farm net margin = total gross margin minus fixed/direct costs.

Enterprise net margin = enterprise gross margin minus enterprise fixed/direct costs.

Fixed costs = your overheads or indirect costs. They don't really change with scale of enterprise (but they can vary). They have to be paid even if you scaled an enterprise back. They are harder to allocate to individual enterprises than variable costs. Typical fixed costs include rent, maintenance, employed labour, contract labour, power/fuel, water, insurance, deprecation and finance costs (e.g. bank fees and interest).

Here are some example fixed costs for our 50 hectare Pasture for Life accredited farm, with 100 ewes.

Fixed costs	£ total (enterprise)	£ total (per ewe)	£ total (per ha)
Rent - £250/ha (even if we own the land...opportunity cost)	12,500	125.00	250
Employed labour – lambing cover	1500	15.00	30.00
Contract labour – mostly covered in forage cost. Just hedge cutting costs here.	275	2.75	3.50
Water (total minus 50% for household use)	300	3.00	6.00
Power – fuel for ATV and tractor	400	4.00	8.00
Telephone and communication – mobile, website, internet, postage etc.	290	2.90	5.80
Repairs and maintenance - machinery, buildings and infrastructure	1000	10.00	20.00
Depreciation – 1000m @ £10/m £10000 of fencing spread over 5 years	2000	20.00	40.00
Insurance	750	7.50	15.00
Finance costs – bank fees, interest and charges	180	1.80	3.60
Other – subscriptions, memberships, assurance etc.	120	1.20	2.40
Total Fixed Costs	**19,315**	**193.15**	**384.30**

By subtracting these fixed costs from our gross margin we get our net margin. In this case there is only one enterprise on the farm so the enterprise net margin is equivalent to a whole farm net margin.

This farm is making a loss when all costs are considered before any additional income from BPS, agri-environment grants or diversification is added in. This corresponds to the Defra figures discussed earlier.

Net Margin Summary	£ total (enterprise)	£ total (per ewe)	£ total (per ha)
Total Output (sales)	17,186	171.86	343.72
Total Input (variable costs)	8,580	85.80	171.60
Enterprise Gross Margin	**8,606**	**86.06**	**172.12**
Fixed Costs	19,315	193.15	384.30
Enterprise Net Margin	**-10,709**	**-107.90**	**-212.18**

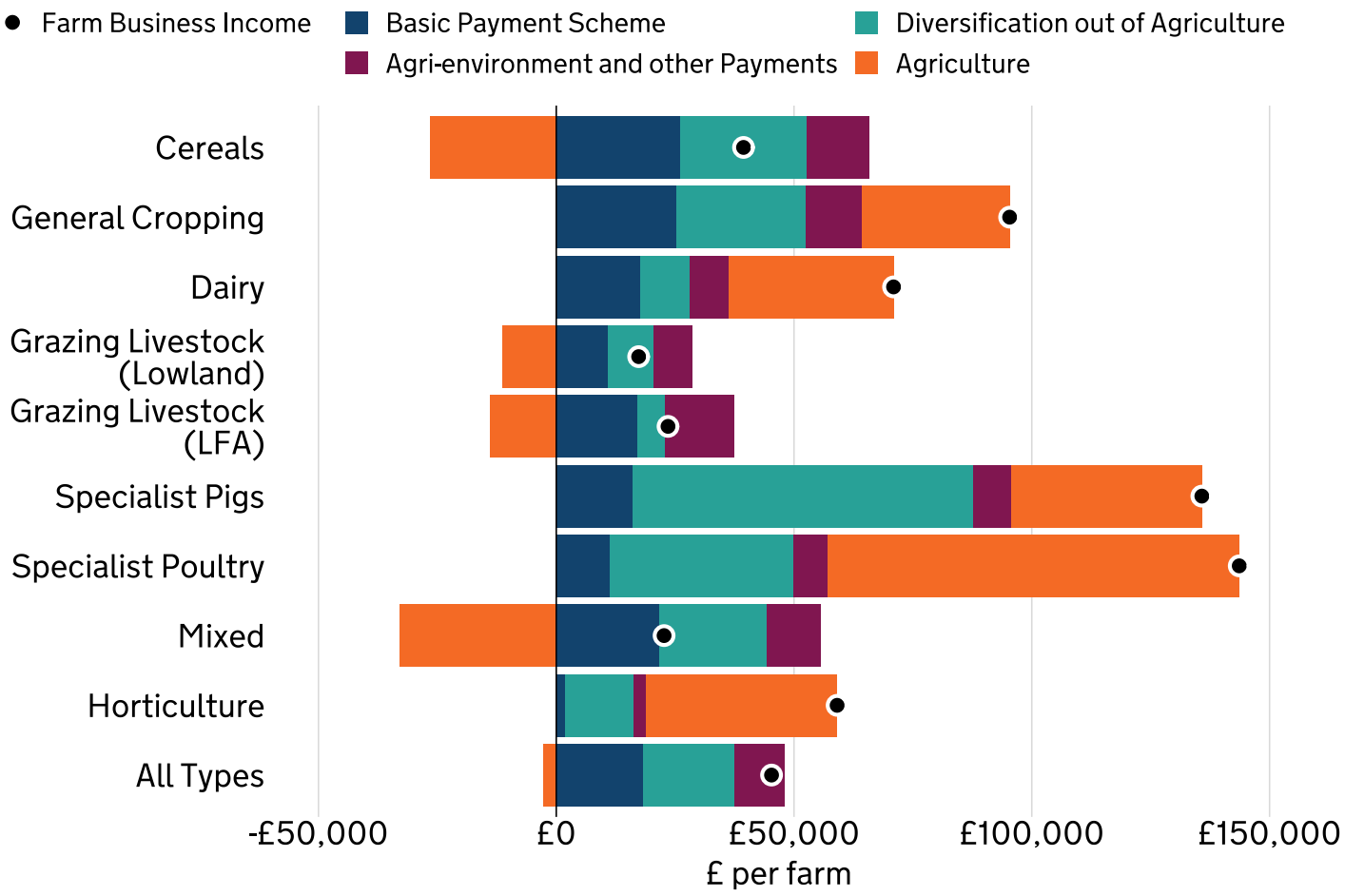


Fig 4 / Cost Centre breakdown for Farm Business Income by farm type, 2023/24 (Defra)

Below, is a simple example of a whole farm net margin calculation for a business with three individual enterprises, plus some Countryside Stewardship income and costs, and a set of fixed costs. This brings all the figures together.



Waterhay Farm, photo by Andy Rumming

	Enterprise 1	Enterprise 2	Enterprise 3	Enterprise 4	Notes
Output	100,000	200,000	250,000	550,000	
Variable costs	50,000	100,000	50,000	200,000	
Gross margin from production	**50,000**	**100,000**	**200,000**	**350,000**	
Other income				25,000	e.g. BPS/CS income
Other variable costs				5000	e.g. CS costs
Whole farm gross margin				**370,000**	
Fixed costs (before rent)				200,000	
Whole farm net margin (before rent)				**170,000**	
Rent				100,000	Notional rent if owned
Whole farm net margin (after rent)				70,000	

A whole farm net margin is a useful indicator of profitability. But it doesn't help us assess enterprise profitability.

By allocating fixed costs to our enterprises we can get a more accurate set of figures and make better decisions. By their very nature, fixed costs are hard to allocate but this can be done in a number of ways.

Allocate based on resource usage:

If an enterprise uses a specific amount of land, labour, or equipment, allocate the corresponding portion of the fixed cost to that enterprise.

For example, if your sheep graze 40% of the farm's land or they make up 40% of the livestock units/ grazing weight, allocate 40% of the rent to the sheep enterprise.

If a dairy enterprise requires 30% of the total labour hours, allocate 30% of the labour-related fixed costs (salaries, insurance) to that enterprise.

If a specific piece of equipment is primarily used cattle grazing e.g. your ATV and bale unroller, allocate the depreciation and maintenance costs of that equipment to the grazing enterprise.

Allocate based on variable costs:

Allocate a percentage of fixed costs based on the proportion of each enterprise's variable costs to the total variable costs.

For example, if one enterprise's variable costs are 25% of the total variable costs, allocate 25% of the fixed costs to that enterprise.

Allocate based on sales or gross margin:

If an enterprise generates a significant portion of the farm's sales or gross margin, allocate a larger portion of the fixed costs to that enterprise.

For example, if one enterprise's sales or gross margin are 50% of the total sales or gross margin, allocate 50% of the fixed costs to that enterprise.

Use a combination of methods:

Employ a combination of methods to ensure a more accurate allocation.

Other considerations:

- Be thorough and fair but don't over stress... estimates are a good start.
- Make a note of how you allocated your fixed costs so they make sense next time.
- Ensure all fixed are included somewhere, and not in twice – it's easy to miss some.
- Direct selling should have its own enterprise margin with outputs (sales), variable costs (including the internal transfer of stock/ meat) and fixed costs (abattoir costs, haulage, marketing, labour, power (the electricity for your chillers) and delivery etc)
- Split general overheads that are troublesome. Divide them evenly across all enterprises or separate them out completely into their own 'other' cost centre.
- Review and adjust - regularly review the allocation methods and adjust them as needed to ensure accuracy.



Below is an example of enterprise net margins for a cattle and sheep farm. Fixed costs have been allocated by resource use including livestock unit share (66% cows - 33% sheep) where practical.

Note how this farmer also recorded their own labour input. They then divided each enterprise net margin by the number of days spent working on the enterprise to show net margin per labour day... which is very revealing!

		Cattle £	Sheep £	
Income	Prime Meat Sales	26400	7200	Direct sales of all males and 50% females (shop/boxes)
	Retained Replacement Value	3000	1500	Value of 50% females (sold or retained)
	Cull Sales	1600	1324	Replacement rates of 10% and 20%
	Other	0	320	Wool etc
	Total Income	**31000**	**10024**	
Variable Costs	Forage Costs	1547	762	Cost of herbal leys and grass management etc.
	Hay/Silage Costs	1800	36	100 round bales for cows and 2 for sheep at £18/each (contractor charge for making)
	Concentrate Feed	0	0	
	Minerals	0	0	
	Vet Med	540	325	Scanning, castration, worming etc
	Levies & Fees	970	360	Breed societies, PfL, Organic etc
	Abattoir	8250	1800	
	Water	670	210	Allocated
	Bedding	60	20	Two big bales of straw a year. Market purchase price or internal costs
	Transport	360	0	Cattle haulage
	Misc	167	55	Ear tags, registration fees etc
	Total Variable Costs	**14364**	**3568**	
	Gross Margin (Total)	16636	6456	
	Gross Margin (Ha)	783	506	Moderate!
Fixed Costs	Rent	7000	3000	50% contribution to the total farm rent
	Insurance	300	150	
	Fuel	980	250	
	Depreciation	1800	600	Contribution towards fencing, equipment, motor etc.
	Marketing Costs	1500	600	Contribution towards farm shop costs, elec, advertising etc.
	Other	800	200	There's always something!
	Total Fixed Costs	**12380**	**4800**	
	All Enterprise Costs	**26744**	**8368**	
	Net Margin (Total)	**4256**	**1656**	Before own labour and Countryside Stewardship
	Net Margin (Ha)	**107**	**84**	
	Net Margin (Days)	**77**	**39**	Return on labour input

27

Understanding Depreciation

Using depreciation in our net margin calculation helps to smooth out the years we spend money on large capital items such as a new tractor or fencing. It spreads the costs of purchasing an asset over its lifetime.

There are various methods of calculating depreciation including straight line (simple), reducing balance (more realistic) and market value (more complex).

AHDB recommends calculating your deprecation using the straight line method i.e. spreading the cost of an asset's original value equally over 10 years (machinery and equipment) and 20 years (buildings).

For example, you buy a tractor for £20,000.

Depreciated over 10 years it costs you £2000 a year. This is a fixed cost.

If you borrowed money to pay for the tractor, the interest you pay shows up as a finance cost in your net margin. The loan in and capital repayment amounts out, do not. In your cashflow all payments in and out are shown.

Your accountants should have a detailed asset register and depreciation schedule for your business showing assets being purchased and their current value and depreciation. The depreciation for the year will be shown in your Profit and Loss Statement. When submitting tax accounts your asset purchases may be handled in different way to optimise your capital allowances and reliefs, so beware of using these figures when budgeting.



Macknade Food Hall

3 Explore Your Margins

3.1 Benchmarking

Benchmarking is the process of identifying, learning from and adapting good practices and processes to help improve performance. It helps you to look for significant impacts and change.

When you have some gross and net margins for your enterprises you can start benchmarking. This can be done informally (comparing your own margins from year to year, or comparing your figures with a neighbour's) or more formally (by engaging with a local benchmarking group or farm business survey/programme).

A great resource and benchmarking programme is the AHDBs' Farmbench programme.

Below are the Farmbench figures for a suckler cow enterprises in 2022/23, split into the top 25%, middle 50% and bottom 25% of producers.

Suckler Herd Margins - 2022/2023 (Calving 2023)		Top 25%	Middle 50%	Bottom 25%
KPIs	Cost of production per calf (£/kg)	3.77	2.19	5.81
	200 day weaned calf weight per kg of cow bulled (%)	34.03	39.05	32.69
	Age at first calving (months)	27	25	30
Enterprise detail	Number of cows/heifers put to bull	82	128	40
	Total forage area allocated to enterprise (ha)	77	120	55
	Number of weeks housed (weeks)	21	15	18

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Suckler Herd Margins - 2022/2023 (Calving 2023)		Top 25%	Middle 50%	Bottom 25%
Technical performance	Cow to bull ratio	29	30	24
	Cows/heifers scanned in-calf (%)	90	93	92
	Calves died from birth to weaning per 100 cows/heifers put to bull (%)	2.1	2.4	1.06
	Calves reared per 100 cows/heifers put to bull (%)	84.6	89.17	88.12
	Daily liveweight gain for weaned calves (kg/day)	1.07	1.14	1.06
	Weight produced per forage hectare (kg/ha)	191	215	134
	Non-forage feed fed DM (kg/hd)	177	55	155
	Harvested forage fed DM (kg/hd)	1,100	907	1,222
	Creep feed fed (kg/hd)	72	25	0
Income (£/cow put to the bull)	**Value of weaned calves**	**763**	**658**	**606**
Variable costs (£/cow put to the bull)	Vet and medicine	36.36	40.17	47.63
	Bedding	24.76	59.09	49.56
Total variable costs excluding feed		**113.37**	**141.66**	**156.45**
	Purchased feed including minerals	21.69	57.06	35.28

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Suckler Herd Margins - 2022/2023 (Calving 2023)		Top 25%	Middle 50%	Bottom 25%
	Purchased forage	2.9	31.89	15.98
	Homegrown forage variable costs	38.68	91.59	67.31
	Total feed and forage costs	67.96	189.37	131.41
Total variable costs including feed		**244.6**	**511.57**	**406.43**
Gross margin (£/cow put to the bull)		**518.4**	**146.43**	**199.57**
Overhead costs (£/cow put to the bull)	Total labour	127.77	198.52	488.23
	Total administration costs	38.54	45.14	74.73
	Total machinery and equipment	98.74	186.04	296.18
	Total property and energy costs	31.66	64.61	105.87
Total overheads (fixed costs)		**430.27**	**637.35**	**1261.87**
Full economic cost of production (£/cow put to the bull)		**611.60**	**968.39**	**1,549.74**
Full economic net margin (£/cow put to the bull)		**151.05**	**-310.88**	**-943.97**

Note how only the top 25% of producers make a net margin from their suckler cows.

Looking at the physical and financial data above, what key differences can you spot between the top 25%, middle 50% and bottom 25% of producers?

How do you think your figures compare to these Farmbench averages?

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Let's look at the top 25% versus the middle 50%. Where are the significant differences?

Suckler Herd Margins - 2022/2023 (Calving 2023)		Top 25%	Middle 50%	Diff	% Diff
KPIs	Cost of production per calf (£/kg)	3.77	2.19	-1.58	-42
	200 day weaned calf weight per kg of cow bulled (%)	34.03	39.05	5.02	15
	Age at first calving (months)	27	25	-2	-7
Enterprise detail	Number of cows/heifers put to bull	82	128	46	56
	Total forage area allocated to enterprise (ha)	77	120	43	56
	Number of weeks housed (weeks)	21	15	-6	-29
Technical performance	Cow to bull ratio	29	30	1	3
	Cows/heifers scanned in-calf (%)	90	93	3	3
	Calves died from birth to weaning per 100 cows/heifers put to bull (%)	2.1	2.4	0.3	14
	Calves reared per 100 cows/heifers put to bull (%)	84.6	89.17	4.57	5
	Daily liveweight gain for weaned calves (kg/day)	1.07	1.14	0.07	7
	Weight produced per forage hectare (kg/ha)	191	215	24	13
	Non-forage feed fed DM (kg/hd)	177	55	-122	-69
	Harvested forage fed DM (kg/hd)	1,100	907	-193	-18
	Creep feed fed (kg/hd)	72	25	-47	-65

The figures highlighted in red show where the big gains are.

Any useful points to note here?

Suckler Herd Margins - 2022/2023 (Calving 2023)		Top 25%	Middle 50%	Diff	% Diff
Income (£/cow put to the bull)	**Value of weaned calves**	**763**	**658**	**105**	**16**
Variable costs (£/cow put to the bull)	Vet and medicine	36.36	40.17	-3.81	-9
	Bedding	24.76	59.09	-34.33	-58
Total variable costs excluding feed		**113.37**	**141.66**	**-28.29**	**-20**
	Purchased feed including minerals	21.69	57.06	-35.37	-62
	Purchased forage	2.9	31.89	-28.99	-91
	Homegrown forage variable costs	38.68	91.59	-52.91	-58
	Total feed and forage costs	67.96	189.37	-121.41	-64

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Suckler Herd Margins - 2022/2023 (Calving 2023)		Top 25%	Middle 50%	Diff	% Diff
Total variable costs including feed		**244.6**	**511.57**	**-266.97**	**-52**
Gross margin (£/cow put to the bull)		**518.4**	**146.43**	**371.97**	**254**
Overhead costs (£/cow put to the bull)	Total labour	127.77	198.52	- 70.75	-36
	Total administration costs	38.54	45.14	-6.6	-15
	Total machinery and equipment	98.74	186.04	-87.3	-47
	Total property and energy costs	31.66	64.61	-32.95	-51
Total overheads (fixed costs)		**430.27**	**637.35**	**-207.08**	**-32**
Full economic cost of production (£/cow put to the bull)		**611.60**	**968.39**	**-356.79**	**-37**
Full economic net margin (£/cow put to the bull)		**151.05**	**-310.88**	**461.93**	**-149**

Any useful points to note here?

32

Sensitivity Analysis

Sensitivity analysis is a simple tabular way of looking at the impact on your gross or net margins if (when) one or two of your key production figures change. For example, what happens to your bottom line if you have a poor lambing? What will happen if prices at market rise? Where is my breakeven?

You should always do a sensitivity analysis when you draw up enterprise margins and budgets.

Useful comparisons include:

- Lambing and calving percentages +/- 5%
- Concentrate feed price +/- £25/t
- Fertiliser +/- £25/t
- Interest rates +/- 2%
- Fuel +/- 10 ppl
- Grain yield +/- 2 t/ha
- Milk price +/- 5 ppl
- Cull cow/calf price +/- £25/head
- Beef or lamb price +/- £0.50/kg deadweight

Here is the start of a sensitivity analysis for a crop of barley showing yield multiplied by price. At 8 tonnes per hectare and £140/tonne, an output of £1120/ha is expected.

OUTPUT	PRICE £/t				
YIELD t/ha	110	120	130	140	150
4	440	480	520	560	600
5	550	600	650	700	750
6	660	720	780	840	900
7	770	840	910	980	1050
8	880	960	1040	1120	1200
9	990	1080	1170	1260	1350
10	1100	1200	1300	1400	1500

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If we know our variable costs are £475/ha we can work out the sensitivity of our gross margin.

Furthermore, if you knew our fixed costs were £400/ha we could work out what yield and price we need to make a profit.

Gross Margin	PRICE £/t				
YIELD t/ha	110	120	130	140	150
4	-35	5	45	85	125
5	75	125	175	225	275
6	185	245	305	365	425
7	295	365	435	505	575
8	405	485	565	645	725
9	515	605	695	785	875
10	625	725	825	925	1025

Have a go at calculating a sensitivity analysis for one of your enterprises.

Any useful points to note here?

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4 Improve Your Margins



Grampian Graziers

In this section we'll look at the ways you can improve your margins, firstly with practical measures, but then delve deeper into other possible barriers to progress that might involve management arrangements or personal skills and focus.

We'll keep things simple here – it is easy to get bogged down in forecasting with enough certainty and trying to make sense of all the information you have available. This is especially the case in agriculture when there are so many financial factors to keep abreast of, and business activities spanning multiple years, and which can be tightly woven with lifestyle and living expenses. We've talked about other people that can help you navigate your finances but also remember to flick back a few pages or check out the recorded webinars if you need a reminder on how to find or understand a particular aspect.

4.1 Context

When reviewing your figures and thinking about making changes, it's important to keep in mind your context.

Our context is the situation surrounding our business, or the set of circumstances that provide the foundation or starting point for the way we do things. The origin of the word comes from the Latin contextus, which means a "joining together" or "to join by weaving". We could think of our businesses as a piece of fabric, with lots of unique threads woven together to form a pattern or structure.

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What is your context?

Your context might have a large influence on what you can and cannot do, or even what you may or may not want to do. But bear in mind, it shouldn't be an excuse not to do something - it might also mean you are well positioned to pursue opportunities and make changes.

Your context is also something that isn't set in stone, and should be reviewed regularly, particularly if the people in the business are changing.

It is also relevant when it comes to financial benchmarking because your context can help explain differences in performance indicators when comparing with your peers – and this is often where ideas for improvement can lie.


Image by Clem Sandison

4.2 Where to Start Making Improvements

WIt is easy to track the price we are paid for the things we produce – it is usually just one figure or unit to follow. In the case of livestock farming, we might do this by looking at market reports, or weekly newsletters that give prices paid or achieved in the previous period. However, keeping track of our costs is much more difficult because there are many more of them to follow and no one but yourself can provide a weekly summary.

In a typical livestock farming business, here are just some of the financial parameters to keep an eye on – see how many more there are:

Sales	Variable Costs	Fixed Costs
Price per kilo	Feed	Labour
	Bedding	Insurance
	Vet & Med	Fuel
	Minerals	Subscriptions
	Replacements	Rent
	Lime	Software and IT
	Reseeding	Finance charges
	Contractors	Utilities
	Transport	Repairs
		Consultants
		Materials
		Equipment hire
		Vermin control
		Security
		Depreciation

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43 Getting a Grip on Costs – Before Plotting Improvements

Depending on what accounting system you use, you may already be able to pull together a summary of your costs quite easily. If you can, it is worth making sure that where relevant, costs are correctly attributed so that you can easily pull out information that provides a true reflection of the financial situation for each enterprise or the business as a whole.

If you are not yet able to quickly pull together a summary of your costs, then this could be a useful area of focus – and something you can work on with your accountant and or bookkeeper, or other trusted advisor. Getting a different perspective or person to help can be invaluable, for example to help align your financial categories with industry standards.

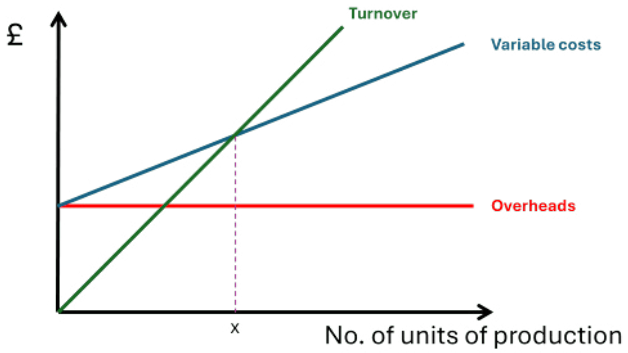
As mentioned earlier, being able to easily understand your costs, and therefore margins, is vital for making the right decisions. Often, the realisation of financial figures in any business leads to taking a new perspective: with accurate information you can then make more realistic projections for the future and properly consider the outcomes of making any changes.

44 So Where to Focus?

We've discussed lots of parameters so far but in fact, there are only 3 things to focus on to improve your margins:

1. Reduce overheads	What can you do without?
	What can you renegotiate?
2. Improve gross margin per unit of production	How can you increase sold price?
	How can you reduce variable costs?
3. Increase turnover with existing overheads	How can you increase units sold?
	What other unit types could you sell?

Consider this simple chart, which shows your different costs and income, and defines your break-even point – either side of which you make a profit or a loss:



Any enterprise or whole business can be plotted onto this chart, with 'x' being the level of production needed to cover all costs.

Consider then taking each of the 3 actions above and see how it moves the lines and changes the profitability (or loss) in each case.

Perhaps you can draw the same chart for one of your farming enterprises and put some numbers to it? What level of production do you need to break even? And where are you now?



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45

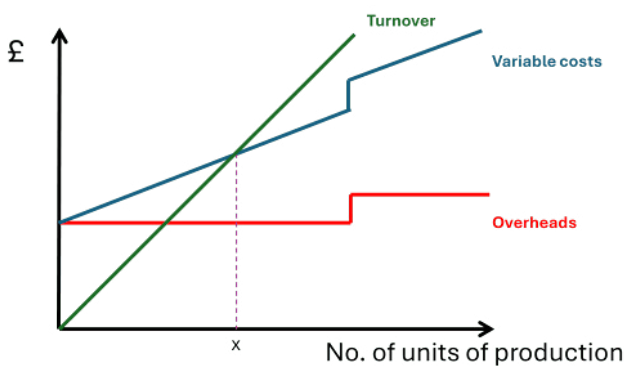
Margin Improvement Actions

These are some of the things you might do to try and improve your margins in a livestock enterprise:

- Renegotiate some costs by shopping around
- Join a buying group to reduce some costs
- Sell or replace costly equipment or machinery – particularly if you don't need it anymore
- Cull troublesome animals
- Increase breeding efficiencies, without increasing costs
- Graze differently to grow more forage in your fields
- Graze for longer to reduce your housing period
- Sweat your assets harder
- Achieve a premium by gaining an accreditation or quality standard
- Increase output to spread costs over a greater level of production
- Sell other products with greater margins
- Etc.

Beware the increased turnover trap!

Improving your gross margin without increasing costs is tricky. A common trap is to increase turnover or output but then incur more costs. Consider the example below:



At some point additional turnover incurs additional overheads, and this can lead to reduced profit. Instead, it is more important to find the optimal turnover or sweet spot for your existing cost base, and your context. That's not to say you shouldn't expand but be sure to consider extra costs if you do.

You might also look to increase turnover with some form of diversification but again be careful it doesn't become a distraction and increase overheads without improving gross margins for the whole business also. A good example is deciding to sell meat or milk direct to the public for a perceived premium – doing so can mean extra investment in equipment, materials and time – and soon eat away at any gross margin improvements. If you do diversify be sure to find out what level of output you need to achieve to actually result in increased profit.

Is it all about margins?

Economic margins help us see if an enterprise or business is viable, but this doesn't necessarily mean you can afford or finance it – cash flow is also an essential consideration

The long-term value of a business's balance sheet may also be relevant to the bigger financial picture – there may be various reasons to build value within the business rather than generate cash profits, such as in preparation for retirement or anticipated expenditure.

Sometimes considering single enterprises alone doesn't work, i.e. they are not profitable, so the wider ecosystem of enterprises has to be considered to get a clearer picture, e.g. grazing livestock enterprises and SFI or Countryside Stewardship working together – one cannot survive without the other but together they make a profit. Refer back to page 20 for guidance on this.

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46

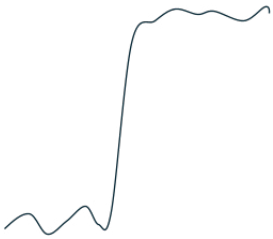
Tweaking vs Game Changing

We can keep tweaking the margins in our businesses by making the kinds of improvements we discussed above. Arguably we need to do this all of the time just to keep pace with inflation. But where will we all ultimately end up? Will it be a race to the bottom with squeezed pricing and tiny margins for everyone in the supply chain? Might tweaking be futile if underlying profitability is not there?

Consider 2 approaches for financial improvement:



Tweaking: Small annual improvements leading to gradual increases over time



Game changing: Making a fundamental shift leading to quick improvements

How might you change the game?

It can be hard to really think big and think outside the box, but here are some of the actions you might take as a result:

- Develop a new business model
- Create different products or services
- Reduce output to increase profit (sometimes controversial!)
- Remove some costs altogether
- Change or eliminate some of the business's needs
- Engage new customers
- Form a partnership arrangement to share costs or combine assets

One example could be that you decide to work with your neighbour to share the cost of key overheads like equipment or labour – one stockperson working across 2 interlinked farms.

How to get radical, different results?

To get different results, you will need to take different actions.

To take different actions, you will need to make different decisions.

To make different decisions, you will need to think differently.

To think differently, you will need to shift your mindset.

Not many human beings are ready to sign up for mindset shift voluntarily. It usually ends up happening out of necessity instead, or as a result of exposure to some new thinking at the right time.

How could you get new thinking into your life and business? Here are some ideas:

- Engage in new networks that are practising or advocating different methods
- Attend events, courses or workshops that introduce you to new skills or knowledge
- Speak with practitioners who have overcome similar challenges to find out what they have learnt and how they have developed their abilities
- Engage with benchmarking initiatives that offer some interpretation to help explain differences amongst a peer group
- Read books that challenge you, e.g. 'Black Box Thinking' by Matthew Syed
- Bring new people into your business to help discuss decisions, such as a coach or mentor, or non-executive director.

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4.7 Concluding Thoughts



Oakwood Mill Farm, photo by Clem Sandison

Farming profitably and sustainably is a challenge. To succeed you need the skills and mindset to build diversity, resilience and efficient practice into your business, seeking lower costs and higher returns. Agroecological farmers, who farm with nature, are well placed to do this.

Understanding your margins and being honest with your figures is crucial. Only then can we assess and improve. This takes time to do and you may need help, but if you invest in management accounting you will see the rewards

5 Further Resources

Nix Farm Management Pocketbook: https://theandersonscentre.co.uk/shop/

ABC Budgeting & Costings Books: https://theandersonscentre.co.uk/shop/

Pasture for Life – It Can Be Done:

https://www.pastureforlife.org/media/2016/01/pfl-it-can-be-done-jan2016.pdf

AHDB Farmbench: https://ahdb.org.uk/farmbench

AHDB: https://ahdb.org.uk/business-planning/writing-a-business-plan/financials

Farm Business Survey Benchmarking: https://www.farmbusinesssurvey.co.uk/



Romshed Farm

This resource is funded by the Farming in Protected Landscapes programme

Department for Environment Food & Rural Affairs

Malvern Hills National Landscape

Shropshire Hills National Landscape

Dyffryn Gwy Tirwedd Cenedlaethol Wye Valley National Landscape

Dorset National Landscape

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