

The Farm Management Handbook



Farm
Advisory
Service

Sheep



The UK reference
for farm business
management



Part of Scotland's
Rural College (SRUC)

Updated October 2024

Introduction

Markets and price drivers

As of December 1, 2023, Defra census figures recorded the UK sheep flock at 21.2 million head, reflecting a 5.1% decrease from the previous year. This marks the lowest recorded population since 2011. The female breeding flock totalled 13.8 million head, representing a 4.3% decline compared to 2022. As a result of this, the UK lamb production is expected to fall by 3% during 2024.

The European national flock decreased by 2.5% on the year, EU sheep meat production is estimated to fall by 4.9% during 2024. The largest decrease in the European flock in 2022/23 was seen in Spain, followed by Romania, Greece and Portugal. Drivers of this reduction include high input costs, high temperatures in Mediterranean countries and Bluetongue virus. Some countries are resorting to finishing at lighter weights to offload animals in challenging climate conditions.

The UK remains the third largest sheep meat exporter, with over 95% of exports to the EU, competing with continental producers, New Zealand and Australia. To address the seasonality of supply and carcass balance issues, the UK exports whole and half carcasses, predominantly to France, Germany and Spain, and imports legs and loins from New Zealand and Australia. The expected reduction in EU production will support the UK export market but the decline in domestic production will limit export potential.

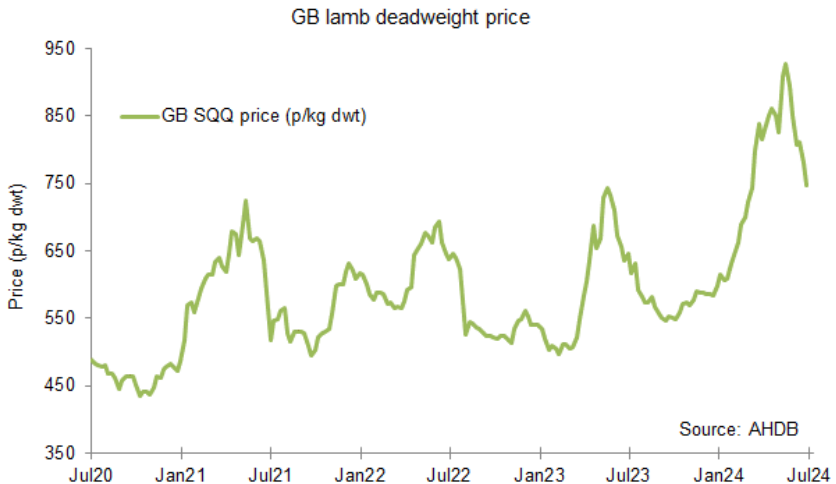
The past year has seen significant changes in the global sheep sector. The free trade agreement between Australia and the UK commenced at the end of May 2023, leading to an increase in the quantity of Australian sheep meat that could potentially be imported to the UK. The Australian flock continues to expand, however closer markets such as China, USA and the Middle East have proven more attractive for Australian producers. The Australian flock has been building, with the last three years consecutively showing record production. However, in 2023, there was a destock due to drought conditions, with the Australian flock now predicted to decrease by 3% to 76.5 million head. In 2023, Australian lamb accounted for over 50% of global sheepmeat exports for the first time, largely at the expense of New Zealand's export market share.

UK domestic consumption of lamb has been declining for decades, but Islamic festivals continue to support demand. Ramadan (predicted 28th February 2025), Eid al-Fitr (predicted 31st March 2025) and Qurbani/Eid al-Adha (predicted 7th June 2025) (dates are subject to the moon phases) will likely benefit hogg price in February/March 2025.

Lamb is a premium product; it is expensive compared with other proteins, such as chicken and pork, and is therefore vulnerable to changes in consumer financial pressures. There is optimism for increasing demand in the future as inflation decreases and wages improve. Domestic

demand for roasts has increased on the year, while processed lamb such as burgers, stewing steak and chops sales have reduced. Stewing steak and chops are the highest value retail cuts.

Producer price is significantly influenced by seasonality of supply as shown in the chart below. Most producers finish their lambs off grass or forage crops, therefore weather influences lamb supply and thus, lamb price. However, there is a trend for increasing lamb price seen year-on-year.



Marketing

Prime lamb sales are typically traded on the spot market, with prices heavily influenced by the timing of sales due to seasonal production patterns. Old season lamb tends to gain value towards the Easter market as supply declines. However, producers face higher costs to either accelerate lamb growth for early markets or delay sales for better prices in early spring. As the season progresses into summer, the market sees an influx of lambs, exceeding domestic demand and increasing reliance on European customers.

The auction market typically accounts for 50% of sheep sales across the UK. Like the cattle market, the live auction system provides an important service. It is a mechanism that brings together sheep and customers to establish a transparent price. The most common method to spread risk, when selling at livestock auctions, is to target multiple sales per year. The future price may be influenced by buyer feedback. Similarly, when selling direct to processors, an improved price may be achieved if a large number of in-specification lambs can be delivered at pre-arranged times.

Supermarket specification lamb accounts for most domestic sales, however, a butcher's lamb is also a sizeable market (c. 10%). Over 40% of lamb marketed is out of specification. Exports include the heavy lamb trade to northern European countries, particularly France, which accounts

for approximately 56% of sheep meat exports. Belgium and Luxemburg are particularly important outlets for E and U grade lambs.

Technical performance

Sheep enterprise margins are inevitably sensitive to the sales price. However, there is limited opportunity to influence the overall market and greater potential exists through improving production efficiency within the farmgate. Top performing flocks consistently rear more lambs, sell more finished (if they are on the right land type) and use less purchased inputs. Whilst fixed costs on these top performing farms may be lower, they are also spread over more kilos of lamb sold (higher output).

Subsidies and support

The Scottish Upland Sheep Support Scheme (SUSSS) is a coupled support payment for sheep to provide additional support to producers on LFASS category A land. The payment rate in 2023 was £61.38 per ewe hogg. This is an annual payment; the actual payment rate is determined by the number of hogg applications each year. The full payment is made during the spring/summer following the year when the claim is made. This support has not been included in the 2024/25 budget gross margins due to the specific nature of scheme eligibility. See Rural Aid Schemes, section for more details.

General Reference Data

Sheep feeding

Suggested daily rations (kg fresh matter) for Scottish Blackface ewes (60 kg lwt) during pregnancy using average quality baled silage (DM 300g/kg, ME 10.5MJ/kg DM) and hay (DM 830g/kg, ME 8.3MJ/kg DM). Concentrate feeds requirements over 0.5kg/d should be split between two feeds.

Weeks before lambing	Single-bearing ewes		Twin-bearing ewes	
	<i>Silage</i>	<i>Concentrates</i>	<i>Silage</i>	<i>Concentrates</i>
8	2.8	0	3.2	0
6	2.8	0	3.2	0.25
4	2.7	0.25	2.7	0.4
2	2.6	0.35	2.7	0.4
	<i>Hay</i>	<i>Concentrates</i>	<i>Hay</i>	<i>Concentrates</i>
8	1.1	0	1.1	0.2
6	1	0.25	1	0.35
4	0.9	0.4	0.8	0.55
2	0.85	0.55	0.7	0.85

Suggested daily rations (kg fresh matter) for crossbred ewes (e.g., mule, 75 kg lwt) during pregnancy using average quality baled silage (DM 300 g/kg, ME 10.5 MJ/kg DM) and hay (DM 830 g/kg, ME 8.3 MJ/kg DM).

Weeks before lambing	Single-bearing ewes		Twin-bearing ewes	
	<i>Silage</i>	<i>Concentrates</i>	<i>Silage</i>	<i>Concentrates</i>
Mid-pregnancy	2.8 *	0	3 *	0
8	3.3	0	4	0
6	3.2	0.1	3	0.3
4	3.1	0.25	2.8	0.5
2	3	0.4	2.8	0.75

	<i>Hay</i> <i>Concentrates</i>		<i>Hay</i> <i>Concentrates</i>	
	Mid-pregnancy	1 *	0	1.1 *
8	1.4	0	1.4	0.15
6	1.3	0.2	1.2	0.4
4	1.2	0.4	1.1	0.65
2	1.1	0.6	1	0.95

* restricted amount fed. Requirements in mid-pregnancy can also be met with grazed grass or forage crops such as swedes or fodder beet.

Concentrates based on high quality compound, e.g. ME 12.5 MJ/kg DM and 18% CP (fresh basis). Farmers lambing their flocks from mid-April can meet the pregnant ewe's requirements on well managed grass alone.

Wool

High processing costs and weak consumer demand are negatively affecting wool prices both domestically and globally. In the backdrop of this is the long-term issue of rising production of lower-cost, oil-based synthetic fibres and the availability of cheaper wool from other countries. However, with growing awareness of environmental impacts and the provenance of products, there is an argument for the relevance of UK wool. Most wool is marketed through the British Wool Marketing Board. For more details of wool prices, charges, collection centres and grading depots, please contact the BWMB (www.britishwool.org.uk).

Hard Hill

PHYSICAL DATA

Breeds	Blackface, South Country & Lairg type Cheviot		
	Lambs reared (%)		
	70%	85%	100%
Ewe hoggs wintered	Away	Away	Away
Lamb crops per ewe (avg)	4	4	4
Ram flock life (seasons)	3	3	3
	/100 ewes tupped		
Rams (no.)	3	3	3
Lamb numbers:			
marked	73	88	103
sold/retained	70	85	100
sold: finished lambs	0	0	0
store lambs	44	59	74
flock replacement	26	26	26
Ewe numbers:			
draft/cast	14	15	16
mortalities	12	11	10
Wool sales (kg)	160	160	160
Concentrate feeding (kg)	1,800	1,900	2,000
Hay reserve (/annum) (kg)	2,000	2,000	2,000

Basis of data:

1. Lambs are assumed sold at or by the autumn sales 2024 (estimated price).
2. Lambing percentage reflects the range of performance found; lamb mortality may be greater depending on the location.
3. Mortality in ewe hoggs is assumed to be 3%.
4. Ewe concentrate feeding – 18% CP, ideally a balanced compound with feeding of ewes selected on the basis of scanning results. Assumes self-feed blocks are used on less accessible hills although expensive per unit of energy, ME range 8.5 to 12 MJ/kg DM, total block intake can range from 25-100 blocks/100 ewes.
5. Higher performance can result from better winter nutrition and provision of improved summer grazing for selected ewes, particularly those nursing twins.
6. Grazing is not charged.
7. Hay bought in.
8. Reflects hill farms based in north and west of Scotland.

Hard Hill

GROSS MARGIN DATA

			Lambs reared (%)		
			70%	85%	100%
OUTPUT			£/100 ewes tupped		
Store Lambs	44 @	£57	2,508	-	-
	59 @	£57	-	3,363	-
	74 @	£57	-	-	4,218
Draft/cast ewes:	14 @	£85	1,190	-	-
	15 @	£85	-	1,275	-
	16 @	£85	-	-	1,360
Wool sales 160kg @ £0.18/kg			29	29	29
			3,727	4,667	5,607
Less:	ram replacement (net)		500	500	500
			<u>3,227</u>	<u>4,167</u>	<u>5,107</u>
VARIABLE COSTS					
Sheep feed @ £370/t			666	703	740
Away wintering ewe hogs at £25/head (inc. haulage)			650	650	650
Vet, medicines & dips			532	542	552
Commission, levies, haulage, shearing, scanning & tags			674	783	892
			<u>2,522</u>	<u>2,678</u>	<u>2,834</u>
Gross margin before forage			<u>705</u>	<u>1,489</u>	<u>2,273</u>
Forage variable costs: hay @ £105/tonne			210	210	210
Total Variable Costs			<u>2,732</u>	<u>2,888</u>	<u>3,044</u>
GROSS MARGIN			<u>495</u>	<u>1,279</u>	<u>2,063</u>

Sensitivity-Change ±	Change in Gross Margin/100 ewes (£)		
£10/hd in all lamb sales	440	590	740
£10/hd in draft ewe price	140	150	160
£50/tonne in concentrate price	90	95	100
3% in lambing rearing rate	75	101	127

Moderate Hill

PHYSICAL DATA

Breeds	Blackface, South Country & Lairg type Cheviot		
	Lambs reared (%)		
	80%	90%	100%
Ewe hoggs wintered	Away	Away	Away
Lamb crops per ewe (avg)	4	4	4
Ram flock life (seasons)	3	3	3
	/100 ewes tupped		
Rams (no.)	3	3	3
Lamb numbers:			
marked	83	93	103
sold/retained	80	90	100
sold: finished lambs	0	10	15
store lambs	54	54	59
flock replacement	26	26	26
Ewe numbers:			
draft/cast	14	14	16
mortalities	12	12	10
Wool sales (kg)	160	160	160
Concentrate feeding (kg)	1,800	1,900	2,000
Hay reserve (/annum) (kg)	3,000	3,000	3,000

Basis of data:

1. Lambs are assumed sold at or by the autumn sales 2024 (estimated price).
2. Lambing percentage reflects the range of performance found.
3. Mortality in ewe hoggs is assumed to be 3%.
4. Ewe concentrate feeding – 18% CP, ideally a balanced compound with feeding of ewes selected on the basis of scanning results. Assumes self-feed blocks are used on less accessible hills although expensive per unit of energy, ME range 8.5 to 12 MJ/kg DM, total block intake can range from 25-100 blocks/100 ewes.
5. Higher performance can result from better winter nutrition and provision of improved summer grazing for selected ewes, particularly those nursing twins.
6. Grazing is not charged.
7. Reflects hill farms based in Central Scotland

Moderate Hill

GROSS MARGIN DATA

OUTPUT	Lambs reared (%)		
	80%	90%	100%
Finished lambs: 10 @ £80	-	800	-
15 @ £80	-	-	1,200
Store lambs: 54 @ £57	3,078	3,078	-
59 @ £57	-	-	3,363
Draft/cast ewes: 14 @ £93	1,302	1,302	-
16 @ £93	-	-	1,488
Wool sales 160kg @ £0.18/kg	29	29	29
	4,409	5,209	6,080
Less: ram replacement (net)	500	500	500
	<u>3,909</u>	<u>4,709</u>	<u>5,580</u>
VARIABLE COSTS			
Sheep feed @ £370/t	666	703	740
Away wintering ewe hoggs at £25/head (inc. haulage)	650	650	650
Vet, medicines & dips	532	542	552
Commission, levies, haulage, shearing, scanning & tags	746	839	935
	<u>2,594</u>	<u>2,734</u>	<u>2,877</u>
Gross margin before forage	<u>1,315</u>	<u>1,975</u>	<u>2,703</u>
Forage variable costs:			
0.6 ha hay @ £338/ha	203	203	203
Total Variable Costs	<u>2,797</u>	<u>2,937</u>	<u>3,080</u>
GROSS MARGIN	<u>1,112</u>	<u>1,772</u>	<u>2,500</u>

Sensitivity-Change ±	Change in Gross Margin/100 ewes (£)		
£10/hd in all lamb sales	540	640	665
£10/hd in draft ewe price	140	140	160
£50/tonne in concentrate price	90	95	100
3% in lambing rearing rate	92	116	137

Improved Hill

PHYSICAL DATA

Breeds Hill breeds inc Blackface hill type, NCC

Lambing period Assumed to commence 2nd week April

	Lambs reared (%)		
	110%	120%	130%
Ewe hoggs wintered	Home	Home	Home
Lamb crops per ewe	4	4	4
Ram flock life (seasons)	3	3	3
	/100 ewes tupped		
Rams (no.)	3	3	3
Lamb numbers:			
marked	113	123	133
sold/retained	110	120	130
sold: ewe lambs	10	20	30
finished lambs	10	20	30
store lambs	62	52	42
flock replacement	28	28	28
Ewe numbers:			
draft/cast	14	15	16
mortalities	10	9	8
Ewe hoggs purchased	0	0	0
Wool sales (kg)	250	250	250
Concentrate feeding (kg)	1,800	1,900	2,000
Silage (ha)	2	2	2
Hay reserve (/annum) (kg)	0	0	0
Bedding straw - 6wk period (kg/day)	80	80	80
Improved permanent pasture assumed (ha)	7.0	7.0	7.0

Basis of data:

1. Estimate of stock prices autumn/early winter 2024.
2. Ewes are first tupped as gimmers.
3. Ewe concentrate feeding – ideally a balanced compound 18% CP.
4. Approximately 14 ewes/hectare on improved pasture (125kg N/ha, see Grassland-Grazing section) assumed alongside hill grazing (not costed) and silage aftermath (70kg N/ha, one cut, see Grassland Silage and Aftermath).
5. Straw bedding based on 80 kg/day for 100 ewes housed over a 6-week lambing period.
6. Silage yield and quality 6t DM/ha; ME 10.5 MJ/kg DM.

Improved Hill

GROSS MARGIN DATA

			Lambs reared (%)		
			110%	120%	130%
			£/100 ewes tuppied		
OUTPUT					
Ewe lambs:	10 @	£90	900	-	-
	20 @	£90	-	1,800	-
	30 @	£90	-	-	2,700
Finished lambs:	10 @	£108 (36kg lwt)	1,080	-	-
	20 @	£108	-	2,160	-
	30 @	£108	-	-	3,240
Store lambs:	62 @	£80	4,960	-	-
	52 @	£80	-	4,160	-
	42 @	£80	-	-	3,360
Draft/cast ewes:	14 @	£85	1,190	1,190	1,190
Wool sales 250kg @ £0.18/kg			45	45	45
			<u>8,175</u>	<u>9,355</u>	<u>10,535</u>
Less:	ram replacement (net)		500	500	500
			<u>7,675</u>	<u>8,855</u>	<u>10,035</u>
VARIABLE COSTS					
Sheep feed @ £350/t			630	665	700
Vet, medicines & dips			678	688	698
Bedding straw @ £125/t (bought-in)			420	420	420
Commission, levies, haulage, shearing, scanning & tags			1,038	1,150	1,262
			<u>2,766</u>	<u>2,923</u>	<u>3,080</u>
Gross margin before forage			<u>4,909</u>	<u>5,932</u>	<u>6,955</u>
Forage variable costs:					
2 ha silage @ £207/ha			414	414	414
improved permanent pasture @ £177/ha			1,239	1,239	1,239
			<u>1,653</u>	<u>1,653</u>	<u>1,653</u>
Total Variable Costs			<u>4,419</u>	<u>4,576</u>	<u>4,733</u>
GROSS MARGIN			<u>3,256</u>	<u>4,279</u>	<u>5,302</u>
GROSS MARGIN per forage ha			362	475	589
Sensitivity-Change ±			Change in Gross Margin/100 ewes (£)		
10 p/kg lwt in finished lamb price			35	69	104
£5/hd in all lamb sales			410	460	510
£5/hd in cast ewe price			70	70	70
10% lamb rearing rate			694	812	930

Draft Blackface Ewes

PHYSICAL DATA

Breeds	Draft Blackface to a terminal or crossing sire		
Lambing period	Commencing mid-March		
	Lambs reared (%)		
	130%	140%	150%
Ewe flock life (seasons)	1.5	1.5	1.5
Ram flock life (seasons)	3	3	3
	/100 ewes tupped		
Rams (no.)	2.5	2.5	2.5
Lamb numbers:			
marked	133	143	153
sold/retained	130	140	150
sold:			
store	13	14	15
finished	52	56	60
breeding	65	70	75
Ewe numbers:			
sales	64	64	64
mortalities	3	3	3
purchased	67	67	67
Wool sales (kg)	250	250	250
Concentrate use:			
Ewe concentrate: ME 12.5 MJ/kg, 18% CP (kg)	3,000	3000	3,000
Forage: hay - 12,600 kg and aftermath grazing (ha)	2.5	2.5	2.5
grazing (ha)	7.0	7.0	7.0
Total forage (ha)	<u>9.5</u>	<u>9.5</u>	<u>9.5</u>
Bedding straw (kg/day)	80	80	80

Basis of data:

1. This enterprise often supplies ewe lambs for a crossbred flock enterprise on farm, therefore all ewe lambs might be kept. Estimated breeding stock prices, autumn, help determine the value of this.
2. Estimate of finished and store lamb prices, summer and autumn 2024.
3. Silage yield and quality 6 t DM/ha; ME 10.5 MJ/kg DM.
4. Liveweight of lambs at sale: 36 kg, 32 kg store or sold as ewe lambs for breeding.
5. Straw bedding based on 80 kg/day for 100 ewes housed over a 6-week lambing period.
6. Approximately 14 ewes/hectare on improved pasture (125kg N/ha, see Grassland-Grazing section) assumed alongside hill grazing (not costed) and silage aftermath (70kg N/ha, one cut, see Grassland Silage and Aftermath).

Draft Blackface Ewes

GROSS MARGIN DATA

OUTPUT	Lambs reared (%)		
	130%	140%	150%
	£/100 ewes tupp'd		
Ewe lambs: 65 @ £139	9,035	-	-
70 @ £139	-	9,730	-
75 @ £139	-	-	10,425
Finished lambs: 13 @ £108 (36 kg lwt)	1,404	-	-
14 @ £108 (36 kg lwt)	-	1,512	-
15 @ £108 (36 kg lwt)	-	-	1,620
Store lambs: 52 @ £80	4,160	-	-
56 @ £80	-	4,480	-
60 @ £80	-	-	4,800
Cast ewes: 64 @ £85	5,440	5,440	5,440
Wool sales 250kg @ £0.18/kg	45	45	45
	<u>20,084</u>	<u>21,207</u>	<u>22,330</u>
Less: ewes purchased - 67 @ £93	6,231	6,231	6,231
ram replacement (net)	625	625	625
	<u>13,228</u>	<u>14,351</u>	<u>15,474</u>
VARIABLE COSTS			
Ewe concentrate @ £350/t	1,050	1,050	1,050
Vet, medicines & dips	721	731	740
Bedding straw @ £125/t (bought-in)	420	420	420
Commission, levies, haulage, shearing, scanning & tags	1,838	1,918	2,000
	<u>4,029</u>	<u>4,119</u>	<u>4,210</u>
Gross margin before forage	<u>9,199</u>	<u>10,232</u>	<u>11,264</u>
Forage variable costs:			
silage @ £207/ha	518	518	518
grazing @ £177/ha	1,239	1,239	1,239
Total Variable Costs	<u>5,786</u>	<u>5,876</u>	<u>5,967</u>
GROSS MARGIN	<u>7,442</u>	<u>8,475</u>	<u>9,507</u>
GROSS MARGIN per forage ha	783	892	1,001

Sensitivity-Change ±

Change in Gross Margin/100 ewes (£)

£5/hd in store lamb price	260	280	300
£5/hd in breeding stock value	325	350	375
£5/hd in cast ewe price	320	320	320
£5/hd in ewe purchase price	335	335	335
10% lamb rearing rate	1,460	1,572	1,685

Crossbred Ewes

PHYSICAL DATA

Breeds	Large crossbred (75-85kg) e.g. Scotch Mule, Mule-cross		
Breed of ram	Terminal Sire		
Lambing period	Commencing early April		
	Lambs reared (%)		
Lambing period	140%	160%	180%
Lamb crops per ewe (avg)	4.5	4.5	4.5
Ram flock life (seasons)	3	3	3
	/100 ewes tupped		
Rams (no.)	2.5	2.5	2.5
Lamb numbers:			
marked	142	162	182
sold/retained	140	160	180
sold: finished lambs	120	140	160
store lambs	20	20	20
Ewe numbers:			
culls	17	17	17
mortalities	5	5	5
gimmers purchased	25	25	25
Wool sales - ewes, rams & hoggs (kg)	270	270	270
Ewe concentrate: ME 12.5 MJ/kg DM, 18% CP (kg)	4,500	4,500	4,500
Forage: improved grazing (ha)	7.0	7.0	7.0
silage (ha)	2	2	2
Total forage (ha)	<u>9</u>	<u>9</u>	<u>9</u>
Bedding straw (kg/day)	80	80	80

Basis of data:

1. Estimates of gimmer, finished and store lamb and cast ewe prices, autumn 2024. Finished lambs at 42 kg, store 34 kg.
2. Bedding straw based on 80 kg/day for 100 ewes housed over a 6-week lambing period. This can be deducted if no housing required.
3. Modern rams are capable of running at 80/100:1 in lowland flocks, stocked tightly.
4. Approximately 14 ewes/hectare on improved pasture (125kg N/ha, see Grassland-Grazing section) assumed alongside hill grazing (not costed) and silage aftermath (70kg N/ha, one cut, see Grassland Silage and Aftermath)
5. Silage yield and quality 6 t DM/ha; ME 10.5 MJ/kg DM.
6. Concentrate feeding will vary; systems with higher silage quality and better pasture utilisation will use less concentrates.

Crossbred Ewes

GROSS MARGIN DATA

OUTPUT

	Lambs reared (%)		
	140%	160%	180%
	£/100 ewes tupped		
Finished lambs: 120 @ £126 (42kg lwt)	15,120	-	-
140 @ £126	-	17,640	-
160 @ £126	-	-	20,160
Store lambs: 20 @ £85	1,700	-	-
20 @ £85	-	1,700	-
20 @ £85	-	-	1,700
Cast ewes: 17 @ £93	1,581	1,581	1,581
Wool sales 270kg @ £0.3/kg	81	81	81
	<u>18,482</u>	<u>21,002</u>	<u>23,522</u>
Less: gimmers purchased - 25 @ £200	5,000	5,000	5,000
ram replacement (net)	625	625	625
	<u>12,857</u>	<u>15,377</u>	<u>17,897</u>
VARIABLE COSTS			
Ewe concentrate @ £350/t	1,575	1,575	1,575
Vet, medicines & dips	810	820	830
Bedding straw @ £125/t (bought-in)	420	420	420
Commission, levies, haulage, shearing, scanning & tags	1,788	1,991	2,194
	<u>4,593</u>	<u>4,806</u>	<u>5,019</u>
Gross margin before forage	<u>8,264</u>	<u>10,571</u>	<u>12,878</u>
Forage variable costs:			
silage @ £207/ha	414	414	414
grazing @ £177/ha	1,239	1,239	1,239
Total Variable Costs	<u>6,246</u>	<u>6,459</u>	<u>6,672</u>
GROSS MARGIN	<u>6,611</u>	<u>8,918</u>	<u>11,225</u>
GROSS MARGIN per forage ha	735	991	1,247

Sensitivity-Change ±

Change in Gross Margin/100 ewes (£)

£5/hd in all lamb sales	700	800	900
£5/hd in cast ewe price	85	85	85
£5/hd in gimmer price	125	125	125
10% lamb rearing rate	1,682	1,934	2,186
30% change in stocking rate	372	372	372

Pure Maternal Flock

PHYSICAL DATA

Breeds Mid-sized (60-70kg) e.g. Lleyn, Romney, Aberfield, Easycare
 Lambing period March-April

	Lambs reared (%)		
	140%	160%	180%
Lamb crops per ewe	4.5	4.5	4.5
Ram flock life (seasons)	3	3	3
	/100 ewes tupped		
Rams (no.)	2.5	2.5	2.5
Lamb numbers:			
marked	142	162	182
sold/retained	140	160	180
sales:			
ewe lambs	25	35	45
finished lambs	74	82	90
store lambs	16	18	20
flock replacements	25	25	25
Ewe numbers:			
culls	18	18	18
mortalities	4	4	4
gimmers purchased	-	-	-
Wool sales (kg)	270	270	270
Ewe concentrate: ME 12.5 MJ/kg, 18%CP (kg)	1,700	1,700	1,700
Forage: grazing (ha)	7.0	7.0	7.0
silage (ha)	2.0	2.0	2.0
Total forage (ha)	9	9	9
Bedding straw (kg/day)	80	80	80

Basis of data:

1. Estimate of ewe lamb, finished and store lamb prices, cast ewe prices, summer and autumn 2024.
2. Finished lambs liveweight at sale, 38 kg, store lambs 32 kg.
3. Bedding straw based on 80 kg/day housed over a 6-week period. This can be deducted if no housing required.
4. Modern rams can run at 80/100:1 in lowland flocks, stocked tightly.
5. Approximately 14 ewes/hectare on improved pasture (125kg N/ha, see Grassland-Grazing section) assumed alongside hill grazing (not costed) and silage aftermath (70kg N/ha, one cut, see Grassland Silage and Aftermath).
6. Silage yield and quality 6 t DM/ha; ME 10.5 MJ/kg DM.
7. Concentrate feeding will vary; systems with higher silage quality and better pasture utilisation will use less concentrates.

Pure Maternal Flock

GROSS MARGIN DATA

OUTPUT	Lambs reared (%)		
	140%	160%	180%
	£/100 ewes tupped		
Ewe lambs: 25 @ £139	3,475	-	-
35 @ £139	-	4,865	-
45 @ £139	-	-	6,255
Finished lambs: 74 @ £114 (38kg lwt)	8,436	-	-
82 @ £114	-	9,348	-
90 @ £114	-	-	10,260
Store lambs: 16 @ £80	1,280	-	-
18 @ £80	-	1,440	-
20 @ £80	-	-	1,600
Draft/cast ewes: 18 @ £93	1,674	1,674	1,674
Wool sales 270kg @ £0.3/kg	81	81	81
(add £290/100 ewes for Romney wool)	14,946	17,408	19,870
Less: ram replacement (net)	625	625	625
	<u>14,321</u>	<u>16,783</u>	<u>19,245</u>
VARIABLE COSTS			
Barley, protein & minerals @ £350/t	595	595	595
Vet, medicines & dips	913	924	935
Bedding straw @ £125/t (bought-in)	420	420	420
Commission, levies, haulage, shearing, scanning & tags	1,458	1,639	1,821
	<u>3,386</u>	<u>3,578</u>	<u>3,771</u>
Gross margin before forage	<u>10,935</u>	<u>13,205</u>	<u>15,474</u>
Forage variable costs:			
silage @ £207/ha	414	414	414
grazing @ £177/ha	1,239	1,239	1,239
	<u>1,653</u>	<u>1,653</u>	<u>1,653</u>
Total Variable Costs	<u>5,039</u>	<u>5,231</u>	<u>5,424</u>
GROSS MARGIN	<u>9,282</u>	<u>11,552</u>	<u>13,821</u>
GROSS MARGIN per forage ha	1,031	1,284	1,536

Sensitivity-Change ±

Change in Gross Margin/100 ewes (£)

£5/hd in all lamb sales	575	675	775
£5/hd in cast ewe price	90	90	90
10% lamb rearing rate	1319	1565	1812
30% change in stocking rate	372	372	372

Early Finished Lamb Production

PHYSICAL DATA

Breeds	Suffolk/Continental cross ewe to terminal sire		
Lambing period	Mid-December to end January		
	Lambs reared (%)		
	140%	160%	180%
Lamb crops per ewe (avg)	5	5	5
Ram flock life (seasons)	3	3	3
	/100 ewes tupped		
Rams (no.)	2.5	2.5	2.5
Lamb numbers:			
marked	143	163	183
sold finished	140	160	180
Lamb liveweight at slaughter (kg)	40	40	40
Lamb deadweight at slaughter (kg)	19	19	19
Ewe numbers:			
culls	18	18	18
mortalities	4	4	4
gimmers purchased	26	26	26
Wool sales - ewes, rams & hogs (kg)	270	270	270
Concentrate use:			
ewe concentrate: ME 12.5 MJ/kg, 18% CP (kg)	5,000	6,000	7,000
lamb concentrate (kg)	4,000	5,000	6,000
Total concentrate (kg)	<u>9,000</u>	<u>11,000</u>	<u>13,000</u>
Forage: silage (ha)	2.4	2.4	2.4
grazing (ha)	5.6	5.6	5.6
Total forage (ha)	<u>8.0</u>	<u>8.0</u>	<u>8.0</u>
Bedding straw (kg/day)	80	80	80

Basis of data:

1. Breeding stock prices, autumn 2024.
2. Finished lamb prices, May-June average.
3. Bedding straw based on 80 kg/day for 100 ewes housed over a 12-week housing period.
4. Modern rams are capable of running at 80/100:1 in lowland flocks, stocked tightly.
5. Ewes housed over winter. Lambs creep fed at grass
6. Approximately 18 ewes/hectare on improved pasture (125kg N/ha, see Grassland-Grazing section) assumed alongside silage aftermath (70kg N/ha, one cut, see Grassland Silage and Aftermath).

Early Finished Lamb Production

GROSS MARGIN DATA

	Lambs reared (%)		
	140%	160%	180%
OUTPUT	£/100 ewes tupped		
Finished lambs 140 @ £152 (40 kg lwt)	21,280	-	-
160 @ £152	-	24,320	-
180 @ £152	-	-	27,360
Cast ewes: 18 @ £110	1,980	1,980	1,980
Wool sales 270kg @ £0.3/kg	81	81	81
	<u>23,341</u>	<u>26,381</u>	<u>29,421</u>
Less: gimmers purchased - 26 @ £200	5,200	5,200	5,200
ram replacement (net)	625	625	625
	<u>17,516</u>	<u>20,556</u>	<u>23,596</u>
VARIABLE COSTS			
Barley, protein & minerals @ £350/t	1,750	2,100	2,450
Lamb concentrate @ £330/t	1,320	1,650	1,980
Vet, medicines & dips	695	696	698
Bedding straw @ £125/t (home-grown)	840	840	840
Commission, levies, haulage, shearing, scanning & tags	2,019	2,243	2,467
	<u>6,624</u>	<u>7,529</u>	<u>8,435</u>
Gross margin before forage	<u>10,892</u>	<u>13,027</u>	<u>15,161</u>
Forage variable costs:			
silage @ £207/ha	497	497	497
grazing @ £177/ha	991	991	991
Total Variable Costs	<u>8,112</u>	<u>9,017</u>	<u>9,923</u>
GROSS MARGIN	<u>9,404</u>	<u>11,539</u>	<u>13,673</u>
GROSS MARGIN per forage ha	1,176	1,442	1,709
Sensitivity-Change ±	Change in Gross Margin/100 ewes (£)		
10 p/kg lwt in finished lamb price	538	614	691
£5/hd in cast ewe price	90	90	90
£5/hd in gimmer price	130	130	130
£10/tonne concentrate price	90	110	130
10% lamb rearing rate	2,128	2,432	2,736

Low Cost System

PHYSICAL DATA

Breeds	Mid-sized (60-70 kg) Maternal bred ewe		
Lambing period	late April/May		
	Lambs reared (%)		
	140%	150%	160%
Lamb crops per ewe	4.5	4.5	4.5
Ram flock life (seasons)	3	3	3
	/100 ewes tupped		
Rams (no.)	2.0	2.0	2.0
Lamb numbers:			
marked	144	154	164
sold/retained	140	150	160
sales:			
ewe lambs	10	20	30
finished lambs	68	68	68
store lambs	40	40	40
Ewe numbers:			
culls	18	18	18
mortalities	4	4	4
Wool sales (kg)	270	270	270
Concentrate use:			
lamb finishing supplement (kg)	500	500	500
Forage: grazing (ha)	7.0	7.0	7.0
silage aftermath (ha)	1.7	1.7	1.7
Total forage (ha)	<u>8.7</u>	<u>8.7</u>	<u>8.7</u>

Basis of data:

1. Breeding stock price estimates, autumn 2024.
2. Estimate of finished and store lamb prices, autumn 2024.
3. Lambs sold finished October/November, store September/October.
4. Wool shedding breeds can reduce costs further.
5. Liveweight of lambs at sale: 38 kg.
6. Modern rams can run at 80/100:1 in lowland flocks, stocked tightly.
7. Minimal targeted late pregnancy feeding to triplet-bearing ewes, with some feed in reserve for extreme weather. Hoggs should be trained to eat concentrates.
8. Approximately 14 ewes/ha on improved pasture (125kg N/ha, see Grassland-Grazing section) assumed alongside silage aftermath (70kg N/ha, one cut, see Grassland Silage and Aftermath).

Low Cost System

GROSS MARGIN DATA

		Lambs reared (%)		
		140%	150%	160%
		£/100 ewes tugged		
OUTPUT				
Ewe lambs	10 @ £139	1,390	-	-
	20 @ £139	-	2,780	-
	30 @ £139	-	-	4,170
Finished lambs:	68 @ £114 (38kg lwt)	7,752	-	-
	68 @ £114	-	7,752	-
	68 @ £114	-	-	7,752
Store lambs:	40 @ £61	2,440	-	-
	40 @ £61	-	2,440	-
	40 @ £61	-	-	2,440
Draft/cast ewes:	18 @ £130	2,340	2,340	2,340
Wool sales 270kg @ £0.3/kg		-	-	-
		13,922	15,312	16,702
Less: ram replacement (net)		500	500	500
		13,422	14,812	16,202
VARIABLE COSTS				
Supplementary feed @ £330/t		165	165	165
Vet, medicines & dips		544	554	564
Commission, levies, haulage, scanning & tags		1,309	1,399	1,490
		2,018	2,118	2,219
Gross margin before forage		11,404	12,694	13,983
Forage variable costs:				
silage @ £207/ha		352	352	352
grazing @ £177/ha		1,239	1,239	1,239
		1,591	1,591	1,591
Total Variable Costs		3,609	3,709	3,810
GROSS MARGIN		9,813	11,103	12,392
GROSS MARGIN per forage ha		1,128	1,276	1,424
Sensitivity-Change ±		Change in Gross Margin/100 ewes (£)		
10 p/kg lwt in finished lamb price		248	248	248
£5/hd in all lamb sales		590	640	690
£5/hd in cast ewe price		90	90	90
10% lamb rearing rate		1158	1297	1436
30% change in stocking rate		477	477	477

Gimmering

PHYSICAL DATA

Breeds

System

Ewe lambs purchased in autumn, wintered on swedes and silage, grazed tightly in summer and sold as gimmers in autumn

	/100 sheep
Mortalities (no.)	2
Wool sales (kg)	270
Concentrate use:	
Barley (kg)	0
Forage: silage (ha)	1.5
swedes (ha)	2.5
grazing (ha)	5.0
Total forage (ha)	<u>9.0</u>

Basis of data:

1. Ewe lamb price, autumn 2024.
2. Estimate of gimmer price, autumn 2025.
3. Silage yield and quality 6 t DM/ha; ME 10.5 MJ/kg DM.
4. Silage and aftermath grazing.
5. Yield of swedes 75 t/ha. See Forage Crops section for swede production costs.
6. Opportunity to rear gimmers on a contract basis or mate the ewe lambs and keep or sell progeny
7. Approximately 20 ewes/ha on improved pasture (125kg N/ha, see Grassland-Grazing section) assumed alongside silage aftermath (70kg N/ha, one cut, see Grassland Silage and Aftermath).

Gimmering

GROSS MARGIN DATA

	£/100 sheep
OUTPUT	
Crossbred gimmers: 98 @ £200	19,600
Wool sales 270kg @ £0.3/kg	81
	<hr/>
	19,681
<i>Less:</i> Crossbred ewe lambs purchased - 100 @ £139	13,900
	<hr/>
	5,781
VARIABLE COSTS	
Concentrates - barley & minerals @ £290/t	-
Vet, medicines & dips	373
Commission, levies, haulage, shearing, scanning & tags	1,612
	<hr/>
	1,985
	<hr/>
Gross margin before forage	3,796
Forage variable costs:	
silage @ £207/ha	311
swedes @ £163/ha	408
grazing @ £177/ha	885
	<hr/>
Total Variable Costs	3,589
	<hr/>
GROSS MARGIN	2,192
	<hr/>
GROSS MARGIN per forage ha	244

Sensitivity-Change ±	Change in Gross Margin/100 sheep (£)
£5/hd in sale price	490

Short Keep Lambs - Winter Finishing on Rape

PHYSICAL DATA

System	Store lambs purchased in September/October, sold finished November/December	
Grazing period: range, low to high		
stocking period (days)		45-75
average (days)		55
Stocking rate: range (no./ha)		40-60
average (no./ha)		50
Liveweight at start (kg)		27
Liveweight at slaughter (kg)		42
Deadweight at slaughter (kg)		19
		/100 lambs
Mortalities (no.)		2
Area of rape (ha)		2
Area of grass 'run-back' (ha)		0.6
Concentrates (cereal) fed (t)		1

Basis of data:

1. Estimate of store lamb price, autumn 2024.
2. Estimate of finished lamb/hogg price, November/December 2024.
3. Performance from lambs grazing rape can vary greatly between years. The requirement for supplementary concentrates is also very variable from year to year, and area to area. Cereal supplementation will be more necessary in higher rainfall areas, and it may be difficult to finish lambs in very high rainfall areas. Small lambs under 25 kg liveweight fail to perform well on rape and should be finished inside. A dry run back area with suitable forage and water should be provided. See Forage Crops section for forage rape production costs.
4. Grazed on pasture without N fertiliser see Grassland-Grazing section.

Short Keep Lambs - Winter Finishing on Rape

GROSS MARGIN DATA

OUTPUT	£/100 lambs
Finished lambs: 98 @ £130 (42 kg lwt)	12,740
Less: Store lambs purchased - 100 @ £61	<u>6,100</u>
	6,640
VARIABLE COSTS	
Concentrates - barley & minerals @ £290/t	290
Vet & medicines	186
Commission, levies, haulage, shearing, scanning & tags	<u>1,330</u>
	1,806
Gross margin before forage	<u>4,834</u>
Forage variable costs:	
forage rape @ £161/ha	<u>322</u>
Total Variable Costs	<u>2,128</u>
GROSS MARGIN	<u>4,512</u>
GROSS MARGIN per forage ha	1,735

Sensitivity-Change ±	Change in Gross Margin/100 lambs (£)
£5/hd in lamb sale price	490

Short Keep Lambs - Indoor Finishing on Concentrates

PHYSICAL DATA

System	Store lambs housed in December, sold finished February
Liveweight at housing (kg)	28
Liveweight at slaughter (kg)	36
Deadweight at slaughter (kg)	16.5
Food conversion efficiency (kg feed/kg lwt gain)	range 7-10
Finishing period (days)	60
Daily liveweight gain (g)	100-150
	/100 lambs
Mortalities (no.)	3
Concentrates: whole barley (kg)	4,020
sugar beet pulp (kg)	1,610
protein supplement (46% CP) (kg)	805
salt/minerals/vitamins (kg)	165
Total mix (kg)	<u>6,600</u>
Silage feeding (kg freshweight)	7,900
Bedding straw (housed period) (kg/day)	80

Basis of data:

1. Estimate of store lamb price, autumn 2024.
2. Estimate of finished lamb price, February 2025.
3. Suitable for late-born smaller lambs, non-standard types, any lambs under 25 kg liveweight and lambs that have failed to finish outside e.g. ram lambs, thin lambs.
4. Profitability depends on rising lamb prices rather than food conversion efficiency.
5. Care should be taken when introducing housed lambs to concentrate feeding where starchy cereals (e.g., barley) are used. Acidosis can often result, causing digestive upsets and in some cases, mortality. Typical feed conversion rate is 8.25 kg concentrate to produce 1 kg lwt (including concentrate fed during introductory period), for Blackface and other hill breeds. Crossbred lambs convert at 7-7.5 kg when gaining from 30-35 kg to 40-45 kg. Minerals will contain no Mg and low P.

Short Keep Lambs - Indoor Finishing on Concentrates

GROSS MARGIN DATA

OUTPUT	£/100 lambs
Finished lambs: 97 @ £130 (36 kg lwt)	12,610
Less: Store lambs purchased - 100 @ £61	6,100
	<hr/>
	6,510
VARIABLE COSTS	
Concentrates homemix @ £330/t	2,178
Vet & medicines	186
Bedding straw @ £125/t (bought-in)	420
Commission, levies, haulage, shearing, scanning & tags	1,318
	<hr/>
	4,102
	<hr/>
Gross margin before forage	2,408
Forage variable costs:	
silage @ £207/ha	82
Total Variable Costs	<hr/>
	4,184
	<hr/>
GROSS MARGIN	2,326

Sensitivity-Change ±	Change in Gross Margin/100 lambs (£)
10 p/kg lwt in finished lamb price	363
£5/hd in store lamb purchase price	500
£10/t in concentrate price	66
10 days in finishing period - straw, feed and silage	462

Long Keep Lambs - Finishing on Swedes

PHYSICAL DATA

System	Store lambs purchased in September/October, run over stubbles and grassland to mid-December, folded on swedes to end March/ mid-April
Liveweight at start (kg)	27
Liveweight at slaughter (kg)	44
Deadweight at slaughter (kg)	21
Finishing period (days)	180
	/100 lambs
Mortalities (no.)	4
Concentrates: barley and minerals (kg)	1,750
Forage: silage (ha)	0.50
swedes (ha)	1.40
Total forage area (ha)	<hr/> <hr/> 1.90

Basis of data:

1. Estimate of store lamb price, autumn 2024.
2. Estimate of finished hogg price, spring 2025.
3. Silage yield and quality 6 t DM/ha; ME 10.5 MJ/kg DM.
4. Yield of Swedes - 75 t/ha. See Forage Crops section for swede production costs. Use winter hardy varieties of swedes after December. A dry run back area with suitable forage and water should be provided. Supplement with additional protein if swede tops lost by frost and no grassy runback available. Provide access to dry lying area.
5. Grazing cost not included.

Long Keep Lambs - Finishing on Swedes

GROSS MARGIN DATA

OUTPUT	£/100 lambs
Finished lambs: 96 @ £150 (44 kg lwt)	14,400
Less: Store lambs purchased - 100 @ £61	<u>6,100</u>
	<u>8,300</u>
VARIABLE COSTS	
Concentrates @ £330/t	578
Vet & medicines	396
Commission, levies, haulage, shearing, scanning & tags	<u>1,385</u>
	<u>2,359</u>
Gross margin before forage	<u>5,941</u>
Forage variable costs:	
silage @ £207/ha	104
swedes @ £163/ha	228
grazing @ £177/ha	<u>-</u>
Total Variable Costs	<u>2,691</u>
GROSS MARGIN	<u>5,609</u>

Sensitivity-Change ±	Change in Gross Margin/100 lambs (£)
£5/hd in lamb sale price	480
£5/hd in store purchase price	500