The Farm Management Handbook

Farm Advisory Service

Beef Cattle

The UK reference for farm business management

SAC CONSULTING

Part of Scotland's Rural College (SRUC)

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Introduction

Markets and price drivers

The dynamic of the UK beef herd is altering, with BCMS cattle population data showing annual decreases in the suckler breeding herd, with the first quarter of 2024 reporting registrations down by 2.3%.

However, it shows growth in production of beef from the dairy. Population data showed renewed acceleration in the year-on-year decline of the beef breeding herd, with beef-sired females aged over 30 months on Scottish farms down 2.4% from April 2023. Meanwhile, the decline in England and Wales continued to outpace Scotland, showing a year-on-year reduction of 3.2%.

The reduction in the national beef herd has largely happened due to low profitability in beef enterprises, due to high production costs. These have come around due to volatility of global markets due to world conflict and extreme weather events making inputs at a premium price. In addition, the cull beef price has been at a premium, which has allowed many producers to look at the efficiency of individual animals, which has resulted in culls of older and non-efficient animals.

The beef price is largely dictated by domestic and global demand, supply and the price point, and how competitive our product is against other countries.

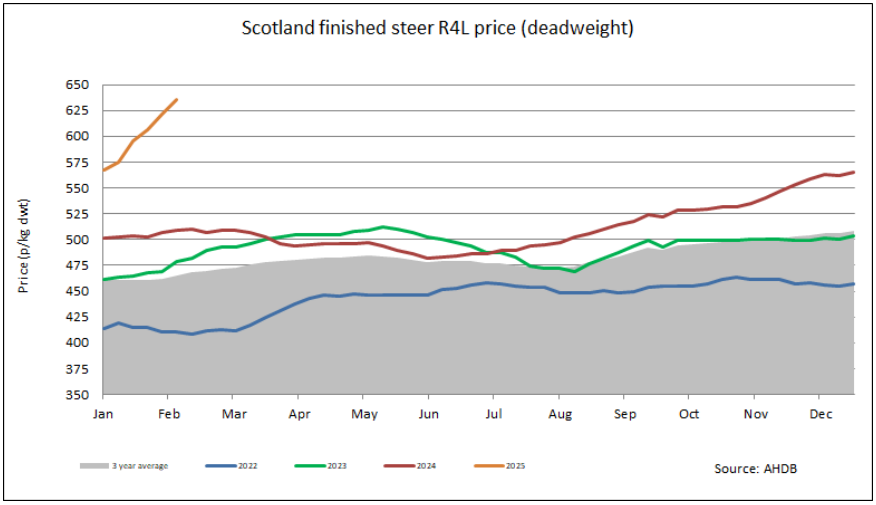
Scottish beef prices fluctuated throughout 2024. Prices started the year strongly, above £5/kg, approximately 9% above 2023 levels and 26-27% above the five-year average. Prices fell in April remaining low in late spring / early summer sitting at a low of 470p/kg deadweight in June. The price dip between March and June, was followed by a rebound of more than 7% over the following three months, with three-quarters of the rise occurring from late July onwards. Prices rose in July back above £5/kg deadweight when prices achieved were 15% higher than the 5-year average. Throughout late summer to end of January 2025 prices have continued to trend upwards to a record high of 615p/kg/deadweight at the end of January 2025.

The majority of Scottish processing capacity is now controlled by Irish companies. Demand for UK beef has remained strong throughout 2024, with export volumes up nearly 11% year-on-year between January and July. While much of this growth can be attributed to declining EU beef production, the UK also exports beef and has seen increasing levels to countries such as Hong Kong, Canada and the Philippines. The volume of beef imported to the UK has a major effect on the UK price.

Volatility and lack of certainty impacts producer confidence especially considering beef production's long lead-time. Meeting carcase specification of the intended market is essential, and a short finishing period is likely to be most cost effective. Carcase balance issues also

influence the producer price, for example, demand for higher value steaks over the BBQ season can lift whole carcase value. Beef demand is equally sensitive to inflation, the competitiveness of beef imports and alternative proteins such as chicken.

Similarly to 2023, more than a third of all beef sold in 2024 was associated with key seasonal events such as Valentines Day (Feb 14), Easter and Halloween (Oct 31), highlighting that seasonal events have the ability to lift beef sales. A 6% increase in household spending post-holiday period on beef added to retail demand year-to-date in summer 2024. Retail price inflation has also eased, halting the downward trend in sales volumes, with even a 3% year-on-year increase in the 12 weeks to early August.



Cow prices in 2024 have returned to more normal levels relative to prime cattle prices, starting the year at 370p/kg deadweight. Prices have remained strong throughout 2024, trading at a premium over England and Wales in late summer. Cull cow prices have started strongly for 2025, with prices of 510p/kg, over 25% higher than a year ago

With few exceptions, beef is traded on the commodity spot market and therefore most producers cannot use forward contracts or other price levelling mechanisms as a risk management tool. There is now a great deal of interest in shortening supply chains and dealing with or close to the end consumer. While the whole beef industry can't do this, there are opportunities for some businesses to deal directly with their consumer and ensure both profitability and business resilience.

Marketing

The vast majority of prime cattle marketed in Scotland are marketed direct to the slaughterhouse and sold deadweight. However, a large proportion will be traded at some stage in their lives through the auction

system. The live cattle auction provides a valued service, bringing many buyers and sellers together and creating genuine, healthy competition to buy livestock.

While some farmers sell all their cattle on one day, many seek to spread their risk by targeting several large sales per year. Price can be influenced by gaining feedback from buyers and selling the right type of cattle at the appropriate sales. Similarly, when selling direct to processors, a higher price might be achievable if a large number of in-specification cattle can be delivered at pre-arranged times and/or agreed to be spread throughout the year.

Margins

The bottom-line contribution of cattle is highly sensitive to the sales price. With the current market system, farmers have very limited options to influence the price they receive. For most farmers, efficiency savings are the key to improving financial performance. Efficiency savings also bring about a reduction to the carbon footprint for individual farm businesses.

The most profitable suckler cow enterprises make a positive net margin before subsidy. Top performing suckler beef systems tend to rear more calves per cow, to heavier weights, using less purchased feed. To achieve this, grassland management is key. Furthermore, while fixed costs may be lower, they are also diluted by selling more kilos of beef. The best farmers target investment in infrastructure and equipment towards things that lead to cost savings.

The high cull cow price resulted in large numbers of cows being culled. Scotland now has less than 400,000 suckler cows, sitting at 394,709 which is a fall of 3.5% between 2022 and 2023, with an estimated further loss of 2.5% lost in 2024. Summer 2024 saw an increase in Scottish herd dispersals; however, data suggests that 80% were sold into other herds.

Lack of succession and lack of labour are some of the reasons behind herds being dispersed alongside the investment required by some to adhere to new government regulations e.g. with slurry storage.

Suckler numbers have also fell in England and south of Ireland with numbers sitting at 627,000 head in England and 799,000 head in the south of Ireland.

This contraction of the breeding herd will continue to have ramifications for both store cattle availability and the supply of finished cattle to maintain critical mass in the country. Numbers look set to tighten further throughout the year, with figures forecasting beef production to fall by 6% in 2025.

Store cattle and weaned calf prices have continued to be elevated in 2024 above 2023, with strong demand from England for Scottish suckler

bred cattle contributing. It is reported that more than 20% of Scottish stores are now moving into England. Reduced calf crops in autumn 2023 and spring 2024 lead to cattle availability tightening across 2024 autumn sales.

Store cattle sales have started strongly for 2025 with many sales averaging over 365p/kg liveweight in January, with the strongest continental types sitting at 400p/kg liveweight.

Other benefits

It is important to remember that the cows form part of a business. How the enterprise complements other parts of the business is also important. For example, the share and spread of demand for labour and machinery will affect the success of the enterprise mix in a business. Furthermore, well managed multiple enterprises can spread risk and improve cash flow, having additional and multiple sale dates.

Suckler cows play a vital role in managing upland grazings, providing benefit to biodiversity, landscape management and grazing quality. Mixed livestock grazing systems also contribute to reduced worm burdens for both cattle and sheep. Their manure is also an important source of nutrients for arable cropping as part of a crop rotation. Consequently, any enterprise should not be viewed in isolation.

Subsidies and support

The Scottish Suckler Beef Support Scheme (SSBSS), commenced in 2015. Payment is made on male and female calves, which are at least 75% beef bred, born on your holding and have been kept there for at least 30 days. For the 2023 Scheme year, the net payment rate per eligible calf on the mainland was £105.24 and £151.24 on the islands. Actual payment rates are determined by the number of calves claimed each year and the exchange rate for that year. In 2023, there were 76 fewer claims than in 2022, and 4% fewer calves, making the payment rate per calf increase. Payments are confirmed once applications are validated in the spring following the year of claim. From 2025 onwards, calves will only be eligible for a SSBSS payment if their dam has a calving interval of 410 days or less. Heifers' calves will be eligible provided they meet the other conditions of the scheme as for first calvers, no calving internal is established.

For further details on payments and the requirements of the SSBSS see the Rural Aid Schemes section.

General Reference Data

Store cattle valuations

The sale value of store cattle can vary depending on time of sale. This variation has been removed for the gross margins.

The age and weight of calves at sale varies depending on season or month of calving - *be cautious when comparing spring and autumn calving herds.*

Note that an increasing share of fixed costs are attributable as the length of time trading stock spend on farm increases – this is true where other breeding or trading stock could have made use of the farm resources.

Foster calves
To reduce risk of disease, it is assumed that no foster calves are bought to replace dead calves. No cost for replacement calves has been included in the margins thus, if foster calves are bought, the appropriate adjustment should be made to the gross margin.

Liveweight to deadweight-price conversion
In order to calculate the deadweight price, divide the liveweight price by the killing out percentage (KO %). For example: 200 p/kg / 0.52 = 385 p/kg deadweight.

See quick reference table overleaf:

Liveweight Price (p/kg)	Killing out % 50%	52%	54%	56%	58%	60%
	Deadweight price (p/kg)					
200	400	385	370	357	345	333
202	404	388	374	361	348	337
204	408	392	378	364	352	340
206	412	396	381	368	355	343
208	416	400	385	371	359	347
210	420	404	389	375	362	350
212	424	408	393	379	366	353
214	428	412	396	382	369	357
216	432	415	400	386	372	360
218	436	419	404	389	376	363
220	440	423	407	393	379	367
222	444	427	411	396	383	370
224	448	431	415	400	386	373
226	452	435	419	404	390	377
228	456	438	422	407	393	380
230	460	442	426	411	397	383
232	464	446	430	414	400	387
234	468	450	433	418	403	390
236	472	454	437	421	407	393
238	476	458	441	425	410	397
240	480	462	444	429	414	400
242	484	465	448	432	417	403
244	488	469	452	436	421	407
246	492	473	456	439	424	410
248	496	477	459	443	428	413
250	500	481	463	446	431	417

Hill Suckler Cows

PHYSICAL DATA

	Spring	Autumn
Calving period	**Feb-Apr**	**Sep-Nov**
Calves weaned per 100 cows put to the bull	90%	90%
Month of weaning	October	July
Days to weaning	220	270
Month of sale	October	October
Lwt of calves: at weaning (kg)	235	270
Lwt of calves: at sale/transfer (kg)	235	335
Herd life of cows (years)	7	7
Herd life of bulls (years)	4	4
Cow mortality (%)	1	1
Calf mortality (%)	4.5	4.5
Cow:bull ratio (:1)	35	35
Feeding/cow and calf (winter days):	210	210
silage (t)	5.5	7.5
straw (kg)	-	-
creep feed (kg) (incl. pre sale)	-	250
cow concentrates (kg)	50	200
cow cobs (kg)	50	50
grazing (hill/rough pasture)	>0.5	>0.6
Silage fertiliser (kg N/ha)	125	125
Silage:		
yield (t/ha from 1-cut)	20	20
DM quality (g/kg)	300	300
ME quality (MJ/kg DM)	10	10
Rough grazing (ha)	>0.6	>0.5
Silage & aftermath grazing (ha)	0.28	0.375
Housing system:		
Straw for general use incl. calving pens	0.33	0.42
Straw bedding (if in bedded courts) (t)	1.25	1.50

Based on bought-in straw.

* Amend bedding costs for cows outwintered or housed on straw.

Assumptions:

1. Grazing is assumed to be hill grazing with some improvements, carrying a maintenance charge of £50/grazing livestock unit.
2. SSBSS value is based on mainland payments, adjusted for living calves at 30 days of age. For further detail on this scheme see pages 151 and 474.

Hill Suckler Cows

GROSS MARGIN DATA

	Spring	Autumn
Calving period	**Feb-Apr**	**Sep-Nov**
OUTPUT	**£/cow**	**£/cow**
Calf sales (lwt)		
Steers Heifers		
350 kg @ 385 p 320 kg @ 375 p	-	1146
250 kg @ 385 p 220 kg @ 375 p	804	-
Scottish Suckler Beef Support Scheme	97	97
	901	1243
Less: Replacement - cow	26	26
bull	26	26
	849	1191
VARIABLE COSTS		
Cow concentrates @ £280/t	14	56
Cow cobs @ £316/t	16	16
Creep feed @ £250/t	-	63
Vet & medicines	37	37
Straw bedding @ £145/t (bought-in)	48	61
Commission, haulage & tags	56	70
	171	303
Gross Margin before forage	678	888
Forage variable costs:		
silage @ £211/ha	58	79
grazing @ £10/grazing livestock unit	11	15
	69	94
Total Variable Costs	240	397
GROSS MARGIN £/cow	609	794

Sensitivity-Change ±	**Change in Gross Margin/head (£)**	
10 p/kg in lwt sale price	22	31
Sale weight ± 10kg	35	35
Herd life ± 1 year	12	12

Replacement Cost prices:

Cull cow	£1,150	In-calf heifer (purch.)	£1,250
Cull bull	£1,400	Replacement bull	£5,000

Upland Suckler Cows - Mainly Silage Diets

PHYSICAL DATA

Breed: Commercial cows bred to a range of bulls, mostly continental.

Calving period	**Feb-Apr**	**May-Jun**	**Aug-Oct**
Calves weaned	92%	92%	92%
Month of weaning	October	December	July
Days to weaning	220	200	300
Month of sale	October	April	October
Lwt of calves: at weaning (kg)	275	260	330
Lwt of calves: at sale/transfer (kg)	275	350	400
Herd life of cows (years)	7	7	7
Herd life of bulls (years)	4	4	4
Cow mortality (%)	1	1	1
Calf mortality (%)	4.5	4.5	4.5
Cow:bull ratio (:1)	35	35	35
Feeding/cow and calf (winter days):	180	180	200
silage (t)	4.8	6.9	7.5
straw (t)	0.3	0.2	0.35
calf concentrates (kg)	100	280	365
cow concentrates (kg)	100	150	200
Grazing fertiliser (kg N/ha)	125	125	125
Silage & aftermath fertiliser (kgN/ha)	200	200	200
Silage:			
yield (t/ha from 1-cut)	23	23	23
DM quality (g/kg)	300	300	300
ME quality (MJ/kg DM)	10.5	10.5	10.5
Overall forage area (ha):			
silage and aftermath grazing	0.24	0.25	0.38
grazing	0.30	0.30	0.34
	0.54	0.55	0.72
Housing system: In cubicles*			
Straw for general use incl. calving pens	0.33	0.33	0.42
Straw bedding (if in bedded courts) (t)	1.25	1.75	1.50

Based on bought-in straw, adjust if home-grown.

* Amend bedding costs for cows outwintered or housed on straw.

Assumptions:

1. Mainly grass farm either buying in all straw and concentrates or growing small amount of cereals. May/June calves weaned in February when on silage diets.
2. SSBSS value is based on mainland payments, adjusted for living calves at 30 days of age. For further detail on this scheme see pages 151 and 474.

Upland Suckler Cows - Mainly Silage Diets

GROSS MARGIN DATA

Calving period	**Feb-Apr**	**May-Jun**	**Aug-Oct**
OUTPUT	**£/cow**	**£/cow**	**£/cow**
Calf sales (lwt - 92% crop)			
Steers Heifers			
290 kg @ 385 p 260 kg @ 375 p	962	-	-
370 kg @ 385 p 330 kg @ 375 p	-	1225	-
420 kg @ 385 p 380 kg @ 375 p	-	-	1399
Scottish Suckler Beef Support Scheme	99	99	99
	1061	1324	1498
Less: Replacement - cow	41	41	41
bull	32	32	32
	988	1251	1425
VARIABLE COSTS			
Cow concentrates @ £280/t	28	42	56
Calf concentrates @ £250/t	25	70	91
Vet & medicines	39	39	39
Feeding straw @ £145/t (bought-in)	44	29	51
Bedding straw @ £145/t (bought-in)	48	48	61
Commission, haulage, tags & levies	63	74	81
	247	302	379
Gross Margin before forage	741	949	1046
Forage variable costs:			
silage @ £211/ha	51	53	80
grazing @ £193/ha	58	58	66
	109	111	146
Total Variable Costs	356	413	525
GROSS MARGIN £/cow	632	838	900
GROSS MARGIN £/ha	1170	1523	1250

Sensitivity-Change ±	**Change in Gross Margin/head (£)**		
10 p/kg in lwt sale price	25	32	37
Sale weight ± 10kg	35	34	35
Herd life ± 1 year	16	16	16

Replacement cost prices:

Cull cow	£1,360	In-calf heifer (purch.)	£1,550
Cull bull	£1,575	Replacement bull	£6,000

Suckler Cows - Mainly Straw Diets

PHYSICAL DATA

Breed: Dairy-beef cross cows bred to range of bulls, mostly continental.

Calving period	**Feb-Apr**	**May-Jun**	**Aug-Oct**
Calves weaned (%)	92%	92%	92%
Month of weaning	October	December	July
Days to weaning	220	200	300
Month of sale	October	April	October
Lwt of calves: at weaning (kg)	275	260	330
Lwt of calves: at sale/transfer (kg)	275	350	400
Herd life of cows (years)	7	7	7
Herd life of bulls (years)	4	4	4
Cow mortality (%)	1	1	1
Calf mortality (%)	4.5	4.5	4.5
Cow:bull ratio (:1)	35	35	35
Feeding/cow and calf (winter days):	180	180	200
silage (t)	1.5	-	-
straw (t)	1.5	2.2	1.3
calf concentrates (kg)	100	330	415
cow concentrates (kg)	600	550	1,500
Grazing fertiliser (kg N/ha)	125	125	125
Silage & aftermath fertiliser (kg N/ha)	175	-	-
Silage:			
yield (t/ha from 1-cut)	23	23	23
DM quality (g/kg)	300	300	300
ME quality (MJ/kg DM)	10.5	10.5	10.5
Overall forage area (ha):			
silage and aftermath grazing	0.07	-	-
grazing	0.34	0.38	0.40
	0.41	0.38	0.40
Housing system: Straw bedding assumed*			
Straw bedding (t)	0.75	1.05	0.90

Based on home-grown straw, adjust if bought-in.

* Amend bedding costs for cows outwintered or housed elsewhere.

Assumptions:

1. Mixed farm growing sufficient grain to cover concentrate and straw feeding/bedding requirements. Only purchasing protein and minerals. May/June calves weaned earlier to reduce cow wintering costs. Small amount of silage made to cover extra grass growth in early season.
2. SSBSS value is based on mainland payments, adjusted for living calves at 30 days of age. For further detail on this scheme see pages 151 and 474.

Suckler Cows - Mainly Straw Diets

GROSS MARGIN DATA

Calving period		**Feb-Apr**	**May-Jun**	**Aug-Oct**
OUTPUT		**£/cow**	**£/cow**	**£/cow**
Calf sales (lwt - 92% crop)				
Steers	Heifers			
290 kg @ 385 p	260 kg @ 375 p	962	-	-
370 kg @ 385 p	330 kg @ 375 p	-	1225	-
420 kg @ 385 p	370 kg @ 375 p	-	-	1382
Scottish Suckler Beef Support Scheme		99	99	99
		1061	1324	1481
Less: Replacement -	cow	41	41	41
	bull	32	32	32
		988	1251	1408
VARIABLE COSTS				
Cow concentrates @ £294/t (home-mix)		176	162	441
Calf concentrates @ £395/t (home-mix)		40	130	164
Feeding straw @ £120/t (home-grown)		180	264	156
Bedding straw @ £120/t (home-grown)		90	126	108
Vet & medicines		39	39	39
Commission, haulage & tags		63	74	80
		588	795	988
Gross Margin before forage		400	456	420
Forage variable costs:				
silage @ £211/ha		14	-	-
grazing @ £255/ha		87	97	102
		101	97	102
Total Variable Costs		689	892	1090
GROSS MARGIN £/cow		299	359	318
GROSS MARGIN £/ha		737	944	794

Sensitivity-Change ±	**Change in Gross Margin/head (£)**		
10 p/kg in lwt sale price	25	32	36
Sale weight ± 10kg	35	34	35
Herd life ± 1 year	16	16	16

Replacement cost prices:

Cull cow	£1,360	In-calf heifer (purch.)	£1,550
Cull bull	£1,575	Replacement bull	£6,000

Spring Calving Cows Producing 18 - 20 Month Finished Cattle

PHYSICAL DATA

Breed: Commercial cows bred to a range of bulls, mostly continental

		Steers	**Heifers**
Calving period		Feb-Apr	Feb-Apr
Calves weaned (%)		92%	92%
Month of weaning		October	October
Calves sold finished (%)		91%	91%
Sale weight (kg lwt)		650	600
Dead weight (kg dwt)		365	340
Weaning weight (kg lwt)		290	260
Herd life of cows (years)		7	7
Herd life of bulls (years)		4	4
Cow:bull ratio (:1)		35	35
Feeding/cow and calf (winter days):		180	180
silage (t)		5.0	5.0
straw bedding (t)		2.0	2.0
calf concentrates (kg) pre-weaning		100	100
cow concentrates (kg)		100	100
Forage area (ha):	silage + aftermath	0.16	0.16
	grazing	0.30	0.30
Overwintered calves:			
Feeding period 180 days, October-April			
Liveweight gain (kg)		144	144
Average daily liveweight gain (kg)		0.8	0.8
Feeding: barley/protein/minerals (t)		0.38	0.4
silage (t)		3.25	3.0
Silage area (ha)		0.11	0.10
Finishing cattle:			
Feeding period (days):	at grass	145	145
	housed	54	60
Liveweight gain		216	196
Daily liveweight gain:	at grass	1	0.9
	housed	1.3	1.1
Feeding: concentrates at grass (t)		0.20	0.25
barley/protein/minerals in house (t)		0.65	0.70
straw fed in house (t)		0.1	0.1
Grazing area (ha)		0.23	0.20

Housing system: Straw bedding assumed, home-grown*

* Amend bedding costs for cows outwintered or on slurry systems.

Assumption: SSBSS value as per note on page 158.

Spring Calving Cows Producing 18 - 20 Month Finished Cattle

GROSS MARGIN DATA

	Spring born	
	Steer	**Heifer**
OUTPUT	**£/cow**	**£/cow**
Calf sales (dwt - 91% crop)		
365 kg @ 580 p	1,926	-
340 kg @ 580 p	-	1,795
Scottish Suckler Beef Support Scheme	98	98
	2,024	1,893
Less: Replacement - cow	41	41
bull	32	32
	1,951	1,820
VARIABLE COSTS		
Cow concentrates @ £280/t	28	28
Calf concentrates @ £250/t	25	25
Barley, protein & minerals @ £240/t housed	247	264
Barley, protein & minerals @ £240/t at grass	48	60
Feeding straw @ £120/t (home-grown)	12	12
Bedding straw @ £120/t (home-grown)	240	240
Vet & medicines	78	78
Commission, levies & haulage	123	117
	801	824
Gross Margin before forage	1,150	996
Forage variable costs:		
silage @ £327/ha	88	85
grazing @ £193/ha	102	97
	190	182
Total Variable Costs	991	1,006
GROSS MARGIN £/cow	960	814
GROSS MARGIN £/ha (acre)	1200 (486)	1071 (434)

Sensitivity-Change ±	**Change in Gross Margin/head (£)**	
10 p/kg in dwt sale price	34	30
Not bedded on straw	240	240
£10/t in straw price	21	21

Replacement cost prices:

Cull cow	£1,360	In-calf heifer (purch.)	£1,550
Cull bull	£1,575	Replacement bull	£6,000

Overwintering Spring-Born Suckled Calves

PHYSICAL DATA

		Spring-born Steer		Spring-born Heifer	
Purchase/transfer date		October		October	
Sale/transfer date		April		April	
Feeding period (days)		180		180	
Liveweight:	at purchase/transfer (kg)	290		260	
	at sale/transfer (kg)	420		386	
Average daily liveweight gain (kg/day)		0.7		0.7	
Mortality (%)		1		1	
Feeding:	diet basis	silage	straw	silage	straw
	barley/protein/minerals (t)	0.30	0.75	0.25	0.75
	silage (t)	3.5	-	3.0	-
	straw (t) ME 6.5 MJ/kg DM	-	0.8	-	0.8
Silage area (ha)		0.11	-	0.10	-
Silage: yield (t/ha)		31	31	31	31
DM quality (g/kg)		300	300	300	300
ME quality (MJ/kg DM)		10.5	10.5	10.5	10.5
N-fertiliser (kg/ha)		220	220	220	220
Housing system: Straw bedding assumed*.					
Straw bedding (t)		0.5	0.3	0.5	0.3

Cost @ £120/t based on home grown straw - adjust if bought in.

* Amend bedding costs if outwintered or on slurry systems.

Assumptions:

1. Silage diet concentrates phased out by 4 weeks to turnout.
2. Silage could be costed on a per tonne basis for clamp silage instead of a per hectare basis to reflect the true cost of growing, making, storing and handling silage.

Overwintering Spring-Born Suckled Calves

GROSS MARGIN DATA

	Spring-born			
	Steer		**Heifer**	
OUTPUT	**£/head**		**£/head**	
Sale value (lwt - 1% mortality):				
420 kg @ 385 p	1601		-	
386 kg @ 375 p	-		1433	
Less: Weaned calf (lwt):				
290 kg @ 385 p	1117		-	
260 kg @ 375 p	-		975	
	484		458	
VARIABLE COSTS				
Diet basis	*silage*	*straw*	*silage*	*straw*
Barley, protein & minerals @ £240/t	72	-	60	-
Barley, protein & minerals @ £240/t	-	180	-	180
Feeding straw @ £120/t (home-grown)	-	96	-	96
Bedding straw @ £120/t (home-grown)	60	36	60	36
Vet & medicines	34	34	34	34
Commission, levies & haulage	75	75	68	68
	241	421	222	414
Gross Margin before forage	243	63	236	44
Forage variable costs:				
silage @ £327/ha	36	-	33	-
Total Variable Costs	277	421	254	414
GROSS MARGIN £/head	207	63	204	44
GROSS MARGIN £/ha (acre)	1,884 (763)	-	2,035 (824)	-

Sensitivity-Change ±	**Change in Gross Margin/head (£)**			
10 p/kg in lwt sale price	41	41	38	38
10 p/kg in lwt purchase price	29	29	26	26
Not bedded on straw	60	36	60	36
£10/t in straw price	5	11	5	11

Finishing Spring-Born Suckled Calves Intensively at 13 Months

PHYSICAL DATA

	Spring-born	
	Steer	**Bull**
Purchase/transfer date	October	October
Sale date	June	May
Feeding period (days)	247	225
Liveweight: at purchase/transfer (kg lwt)	290	300
at sale (kg lwt)	612	650
Deadweight at sale (kg dwt)	337	364
Average daily liveweight gain (kg/day)	1.30	1.56
Mortality (%)	1	1
Feeding:		
barley/protein/minerals (t)	2.4	2.5
straw (t) ME 6.5 MJ/kg DM	0.3	0.3
Housing system: Straw bedding assumed*.		
Straw bedding (t)	0.50	0.45

Based on home-grown straw, adjust if bought-in.

* Amend bedding costs if on slurry based systems.

Finishing Spring-Born Suckled Calves Intensively at 13 Months

GROSS MARGIN DATA

OUTPUT	Steer £/head	Bull £/head
Sale value (dwt - 1% mortality):		
337 kg @ 580 p (612 kg lwt)	1,933	-
364 kg @ 570 p (650 kg lwt)	-	2,054
Less: Store purchase (lwt):		
290 kg @ 385 p	1117	-
300 kg @ 350 p	-	1050
	816	1004
VARIABLE COSTS		
Barley, protein & minerals @ £250/t	600	625
Feeding straw @ £120/t (home-grown)	36	36
Bedding straw @ £120/t (home-grown)	60	54
Vet & medicines	34	34
Commission, levies & haulage	108	112
Total Variable Costs	838	861
GROSS MARGIN £/head	-22	143

Sensitivity-Change ±	**Change in Gross Margin/head (£)**	
10 p/kg in dwt sale price	33	36
10 p/kg in lwt purchase price	29	30
Not bedded on straw	60	54
£10/t in straw price	8	8

Finishing Year Old Autumn-Born Suckled Calves at 18 Months

PHYSICAL DATA

	Autumn-born	
	Steer	**Heifer**
Purchase/transfer date	October	October
Sale date	April	April
Feeding period (days)	164	180
Liveweight: at purchase/transfer (kg lwt)	420	380
Liveweight: at sale (kg lwt)	650	600
Deadweight at sale (kg dwt)	360	340
Average daily liveweight gain (kg/day)	1.4	1.2
Mortality (%)	1	1
Feeding:		
barley/protein/minerals (t)	1.10	0.90
kg/day	6.6	5.0
silage (t)	4.1	4.5
kg/day	25.1	25.1
Silage area (ha)	0.15	0.15
Silage: yield	31	31
DM quality (g/kg)	300	300
ME quality (MJ/kg DM)	10.5	10.5
Silage fertiliser (kg N/ha)	220	220
Housing system: Straw bedding assumed*.		
Straw bedding (t)	0.75	0.70

Based on home-grown straw, adjust if bought-in.

* For slatted court omit bedding costs.

Assumptions:

1. Calves from Upland/Lowground Suckler Cows – silage or straw diet.
2. Silage could be costed on a per tonne basis for clamp silage instead of a per hectare basis to reflect the true cost of growing, making, storing and handling silage.

Finishing Year Old Autumn-Born Suckled Calves at 18 Months

GROSS MARGIN DATA

OUTPUT	Steer £/head		Heifer £/head	
Sale value (dwt - 1% mortality):				
360 kg @ 580 p (650 kg lwt)	2,067		-	
340 kg @ 580 p (600 kg lwt)	-		1,952	
Less: Weaned calf (lwt):				
420 kg @ 385 p	1,617		-	
380 kg @ 375 p	-		1,425	
	450		527	
VARIABLE COSTS				
Barley, protein & minerals @ £250/t	275		225	
Bedding straw @ £120/t (home-grown)	90		84	
Vet & medicines	26		26	
Commission, levies & haulage	113		109	
	504		444	
Gross Margin before forage	- 54		83	
Forage variable costs:				
silage @ £327/ha	49		49	
Total Variable costs	553		493	
GROSS MARGIN £/head	- 103		34	
GROSS MARGIN £/ha (acre)	- 684	-(277)	229	(93)

Sensitivity-Change ±	**Change in Gross Margin/head (£)**	
10 p/kg in dwt sale price	36	34
10 p/kg in lwt purchase price	42	38
Not bedded on straw	90	84
£10/t in straw price	8	7

Finishing Year Old Spring-Born Suckled Calves at 18 - 20 Months

PHYSICAL DATA

	Spring-born	
	Yearling steer	**Yearling heifer**
Purchase/transfer date	April	April
Sale date	December	December
Feeding period (days): at grass	140	140
housed	91	100
Liveweight: at purchase/transfer (kg lwt)	420	380
at housing (kg lwt)	532	492
at sale (kg lwt)	650	600
Deadweight at sale (kg dwt)	370	340
Average daily lwt gain: at grass (kg/day)	0.8	0.8
housed (kg/day)	1.3	1.1
Mortality (%)	0.3	0.3
Feeding:		
concentrates at grass (t)	0.20	0.25
barley/protein/minerals in house (t)	1.1	1.0
straw fed in house (t) ME 6.5 MJ/kg DM	0.1	0.1
Housing system: Straw bedding assumed*		
Straw bedding (t)**	0.25	0.20
Grazing area (ha)	0.23	0.20
Grazing fertiliser (kg N/ha)	125	125
Stocking rate at grass (animals/ha)	4.2	5.0

* Amend bedding costs if on slurry based systems.

** Based on home-grown straw, adjust if bought-in.

Finishing Year Old Spring-Born Suckled Calves at 18 - 20 Months

GROSS MARGIN DATA

OUTPUT	Steer £/head	Heifer £/head
Sale value (dwt - 0.3% mortality):		
370 kg @ 580 p (650 kg lwt)	2,140	-
340 kg @ 580 p (600 kg lwt)	-	1,966
Less: Yearling calf (lwt):		
420 kg @ 385 p	1617	-
380 kg @ 375 p	-	1425
	523	541
VARIABLE COSTS		
Barley, protein & minerals @ £240/t (at grass)	48	60
Barley, protein & minerals @ £240/t (housed)	254	240
Feeding straw @ £120/t (home-grown)	12	12
Bedding straw @ £120/t (home-grown)	30	24
Vet & medicines	19	19
Commission, levies & haulage	116	109
	479	464
Gross Margin before forage	44	77
Forage variable costs:		
grazing @ £255/ha	59	51
Total Variable costs	538	515
GROSS MARGIN £/head	-15	26
GROSS MARGIN £/ha (acre)	-64 -(26)	132 (53)

Sensitivity-Change ±	Change in Gross Margin/head (£)	
10 p/kg in dwt sale price	36	34
10 p/kg in lwt purchase price	42	38
Not bedded on straw	30	24
£10/t in straw price	4	-

Beef Cattle Summer Finishing

PHYSICAL DATA

		Steer (Housed)	**Heifer** (At Grass)
Liveweight at purchase	(kg)	450	420
Liveweight at slaughter	(kg lwt)	650	590
	(kg dwt)	357	318
Cattle bought		mid-April	mid-April
Cattle sold		mid-September	mid-September
Mortality (%)		0.15	0.15
Finishing period (days)		133	154
Liveweight gain (kg)		200	170
Daily liveweight gain (kg)		1.5	1.1
Supplementary feed:			
barley, proteins & minerals (kg)		1700	250
Straw fed in house (t) ME 6.5 MJ/kg DM		0.24	
Grazing area (ha)		0.00	0.20
Grazing fertiliser N (kg/ha)			175
Feed levels per day:			
first 8 weeks (kg)			0
next 6 weeks (kg)			2
next 4 weeks (kg)			3
last 2 weeks* (kg)			4

Housing system: Straw bedding assumed*

Straw bedding (t)** 0.3

* Amend bedding costs if on slurry based systems.

** Based on home-grown straw, adjust if bought-in.

* Feed at this level to finish by mid-September. Many will house by this time if finishing later.

Assumptions:

In practice, a proportion of the following cattle may be sold as forward stores or housed for autumn finishing at heavier weights. If so, additional concentrate feeding will be required.

Beef Cattle Summer Finishing

GROSS MARGIN DATA

OUTPUT	Steer £/head	Heifer £/head
Sale value (dwt):		
357 kg @ 580 p (650 kg lwt)	2,071	-
318 kg @ 580 p (590 kg lwt)	-	1,844
Less: Purchased store calf in April (lwt):		
450 kg @ 385 p	1,733	
420 kg @ 375 p	-	1575
	338	269
VARIABLE COSTS		
Barley, protein & minerals @ £240/t	408	60
Feeding straw @ £120/t (home-grown)	29	
Bedding straw @ £120/t (home-grown)	36	
Vet & medicines	19	19
Commission, levies & haulage	113	105
	605	184
Gross Margin before forage	-267	85
Forage variable costs:		
grazing @ £255/ha	0	51
Total Variable costs	605	235
GROSS MARGIN £/head	-267	34
GROSS MARGIN £/ha (acre)	-	172 (70)

Sensitivity-Change ±	**Change in Gross Margin/head (£)**	
10 p/kg in dwt sale price	35	32
10 p/kg in lwt purchase price	45	42

Calf Rearing Costs to 3 Months

PHYSICAL DATA

		Bucket fed	***Ad-lib* fed**
Liveweight (kg):	at birth	40	40
	at sale, 3 months	110	115
Liveweight gain (kg/day)		0.78	0.83
Feeding period (days)		90	90
Mortality (%)		5	4
		kg	**kg**
Feeding*:	Milk substitute	28	42
	Calf concentrates	160	150
	Hay	35	30
	Bedding (straw)	0.2	0.2

* Homebred calves receive colostrum followed by whole milk up to 10 days of age.

Calf Rearing Costs to 3 Months

VARIABLE COST DATA

	Bucket fed	Ad-lib
VARIABLE COSTS		
Feed:		
milk substitute @ £2300/t	64	97
calf concentrate @ £350/t	56	53
hay (purchased) @ £105/t	4	3
	124	153
Vet & medicines & tags	25	25
Bedding straw @ £120/t (home-grown)	24	24
	49	49
Total Variable Costs	173	202

Sensitivity-Change ±	**Change in costs/head (£)**	
£100/t in milk substitute price	2.80	4.20
£10/t in calf concentrate price	1.60	1.50

Assumptions:

1. Dairy calves do not receive SSBSS payments – eligible calves have to be 75% beef genetics.
2. Adjust straw cost if bought-in.

Intensive Finishing of Dairy Bred Bulls

PHYSICAL DATA

	Dairy Sire	Beef Sire
Breed		
Liveweight at start (kg)	120	120
Feeding period (days)	450	400
Liveweight at slaughter (kg lwt)	570	620
Deadweight at slaughter (kg dwt)	296	322
Killing out percentage (%)	52	52
Overall daily liveweight gain (kg/day)	1.0	1.25
Mortality (%)	2	2
Feeding [1]:		
110-120 kg liveweight/purchase to slaughter:		
concentrates at grass (t)	0.2	0.2
barley/protein/minerals in house (t)	1.60	1.70
straw (t)	0.10	0.14
silage (t)	1.8	1.8
Silage area (ha)	0.15	0.2
Silage: Yield (t)	31	31
DM quality (g/kg)	300	300
ME quality (MJ/kg DM)	10.5	10.5
Silage fertiliser (kg N/ha)	220	220.0
Housing system: Straw bedding assumed [2].		
Straw bedding [3] (t)	0.3	0.6
grazing area (ha)	0.46	0.46
grazing fertiliser (N)	125	125

1 For home bred calves see '*Calf rearing costs to 3 months'* (pages 172-173) for cost of feeding to 12-14 weeks (or 110-115kg lwt).

2 If housed on slurry based systems omit bedding costs.

3 Adjust straw cost if bought-in.

Intensive Finishing of Dairy Bred Bulls

GROSS MARGIN DATA

	Dairy Sire	Beef Sire
OUTPUT	**£/head**	**£/head**
Sale value (dwt - adj 3% mortality):		
296 kg @ 500 p	1,436	-
322 kg @ 550 p	-	1,718
Less: Calf purchase (3 months):		
@ £550	550	-
@ £550	-	550
	886	1,168
VARIABLE COSTS		
Concentrates @ £250/t	400	425
Feeding straw @ £120/t (home-grown)	12	17
Bedding straw @ £120/t (home-grown)	36	72
Vet & medicines	21	21
Commission, haulage & levies, etc.	90	100
Total Variable costs	559	635
GROSS MARGIN £/head (before forage)	327	533
Forage variable costs:		
Silage @ £327/ha	49	65
Grazing @ £193/ha	89	89
Total Variable costs	697	789
GROSS MARGIN £/head	189	379

Sensitivity-Change ±	**Change in Gross Margin/head (£)**	
£10/t in concentrate price	16	17
10 p/kg in dwt sale price	28	31

Forage Based Finishing Dairy Steers at 24 Months

PHYSICAL DATA

		Beef
Breed		**Cross**
Liveweight at start (kg) [1]		120
Feeding period (days)		659
Liveweight at slaughter (kg lwt)		632
Deadweight at slaughter (kg dwt)		316
Killing out percentage (%)		50
Overall daily liveweight gain (kg/day)		0.8
Mortality (%)		3
Feeding:		
110-125 kg liveweight/purchase to slaughter:		
concentrates (2nd stage calf mix) (t)		0.15
concentrates (barley/protein/minerals) (t)		0.68
silage (t) - over two housing periods		6.4
Grazing area - over two summers (ha)		0.42
Silage area - for two housing periods (ha)		0.32
Silage:	yield	20
	DM quality (g/kg)	300
	ME quality (MJ/kg DM)	10.5
Silage fertiliser (kg N/ha)		125
Housing system: Straw bedding assumed [2].		
Straw bedding [3] (t)		0.0

1 For home bred calves see '*Calf rearing costs to 3 months'* (pages 172-173) for cost of feeding to 12-14 weeks (or 110-115kg lwt).

2 If housed on slurry based systems omit bedding costs.

3 Adjust straw cost if bought-in.

Forage Based Finishing Dairy Steers at 24 Months

GROSS MARGIN DATA

	Beef Cross [3]
OUTPUT	**£/head**
Sale value (dwt - adj 3% mortality):	
316 kg @ 560 p	1,717
Less: Calf purchase :	
@ £550	550
	1,167
VARIABLE COSTS	
Concentrate calf mix @ £325/t	38
Concentrate barley blend @ £250/t	170
Bedding straw @ £120/t (home grown)	-
Vet & medicines	37
Commission, haulage & levies, etc.	100
Total Variable costs	345
Gross Margin before forage	822
Forage variable costs:	
silage @ £211/ha	68
grazing @ £193/ha	81
	149
Total Variable costs	494
GROSS MARGIN £/head [1]	673
GROSS MARGIN £/ha (acre) [2]	455

Sensitivity-Change ±	**Change in Gross Margin/head (£)** (184)
£10/t in concentrate price	7
10 p/kg in dwt sale price	30

* Unlike other beef finishing enterprises featured in the Farm

1 Unlike other beef finishing enterprises featured in the Farm Management Handbook, spanning over two years effectively incurs double the fixed cost share, which is not included above.

2 This enterprise produces a strong gross margin per head but the extensive nature of this enterprise dilutes its return per hectare.