The Farm Management Handbook

Farm Advisory Service

Red Deer

The UK reference for farm business management

SAC CONSULTING

Part of Scotland's Rural College (SRUC)

Updated October 2024

Introduction

There was a 20 per cent increase in numbers of farmed deer in Scotland during 2023 to 14,900 compared with the five-year average (12,400 animals) according to Scotland's 2023 Agricultural Census. Farmed deer numbers have significantly increased since 2017 although Scotland's venison production which comes predominantly from venison from wild deer has remained relatively stable at around 3,500 tonnes, with farmed production only around 120 tonnes. The total UK venison market is estimated to be worth £100m with the farm sector in Scotland valued at approximately £540k. The Covid-19 pandemic and subsequent cost of living crisis have been major factors in holding back growth. Up until the COVID-19 pandemic, UK retail sales of venison had steadily grown with research by Kantar showing that the UK venison retail market had grown by 12% in value in 2019 (20% in volume) with that growth continuing through 2020. Growth has now slowed and indeed UK retail venison sales are in decline, the latest research compiled by The Knowledge Bank showing a drop in volume of 16.5% between 2021 and 2022 effectively taking the sector back to where it was in 2019/20, although it is understood that latest reports indicate that by early 2024 there has been some recovery in sales across the UK retail sector.

UK supply remains supplemented by some imported venison to meet demand at certain times of the year. However, imports have reduced in recent years with New Zealand prioritising other markets including the USA.

Prior to COVID-19 and its impact on the catering, food service, restaurants, and events markets, there was a drive in Scotland to encourage increased production of Scottish farmed venison and in so doing, reduce reliance on imports. Much of the wild venison that was held in cold storage as a result of the pandemic has now moved into the supply chain and in 2021/22 some processors were looking for additional supply. Scottish government policy is now to increase the annual cull of wild deer by some 50,000 animals per annum to combat climate change and promote biodiversity recovery and, notwithstanding a potential lack of processing infrastructure, this will inevitably lead to an erosion of the farmed deer market as this additional volume is funnelled into the supply chain at a lower cost.

Scottish Venison revised and relaunched its 2018 strategy in 2023 and that refreshed strategy 'Revisiting beyond the Glen' covers the sector up to 2030.

It is the task of the Scottish Venison Association (now Scottish Venison) to implement the strategy. It is likely that following this dip in the market and rising input costs particularly for fencing, and additional pressure to increase the wild deer cull across the whole UK, targets to increase farmed venison output from a baseline of 100 tonnes in 2018 have been significantly scaled back.

Changes in subsidy and the relative profitability of farmed deer compared to beef and sheep plus sustaining the market for farmed venison in the face of increasing volumes of less expensive wild product are key factors. Brexit has made export of wild venison more difficult into Europe and this may also result in additional volumes coming onto the domestic market. We are likely to find that more wild roe venison, which is traditionally exported to Europe, is available for the UK market although north European markets will remain important for late season stag venison.

Support and subsidies

Historically, deer farming did not attract support payments and subsidies putting it at a disadvantage to cattle and sheep farming. However, the reformed CAP regime latterly allowed deer farmers to claim support payments under the Basic Payment Scheme. Scottish deer farmers remained disadvantaged however in that specific grant schemes (such as the SACGS) did not allow inclusion of deer-specific equipment such as crushes. With the passing of the Agriculture and Communities (Scotland) Bill in 2024 however, venison - both wild and farmed - is now included in the legislation as eligible for support which is a major step forward.

Starting deer farming

The main barriers to entering deer farming are the start-up costs which are estimated at upwards of £120,000 for a 100 hind breeding herd. Red deer breeding hinds will generally cost from £350 - £600 for pedigree stock with breeding stags costing from £1000 - £3,000. Other significant costs include fencing at £15.00 - £20.00/m (fencing costs continue to increase substantially due to the soaring price of timber and wire) and handling facilities, crush and weigh scales at £15,000 - £25,000.

Other barriers include access to an abattoir, obtaining breeding stock and specialist knowledge relating to the industry. Some of these factors have been addressed and, as the sector has grown, quality Scottish-bred breeding stock is now readily available. The work of the British Deer Farms and Parks Association (BDFPA) and the Venison Advisory Service which ran a series of knowledge transfer days in 2023 through FAS Connect, and which continue through 2024, provide a regular forum for Scotland’s deer farmers to discuss, share and develop ideas sector.

Once set up, there is a relatively low labour demand for deer farming meaning that it may fit well with existing livestock or arable enterprises. In general, deer are relatively healthy and free from disease. The main health issues are TB, Johne’s disease, cryptosporidium, copper deficiency, lungworm and increasingly liver fluke, all of which are manageable with good practice. Scotland also remains officially and internationally recognised as free of bovine TB and measures are taken to ensure this status remains.

Farmed venison processing and markets

Deer farmers are unique in the livestock sector in being able to kill their deer either on the farm or in an abattoir. Deer for slaughter must be examined ante-mortem by a vet within 72 hours of death unless being transported to and killed in an abattoir. The meat must be processed through facilities that have been licensed and regularly inspected by the Food Standards Agency or Food Standards Scotland. Only two supermarkets in the UK purchase farmed venison generally from abattoir killed carcases.

Following the closure of the Fife abattoir in 2022 there is only one dedicated abattoir in the UK killing Scottish farmed deer.

It is a QA requirement for the industry that all deer farms must have a physical vet inspection at least annually and Deer Health Plans kept updated.

Most Scottish finished farmed deer are processed directly through the Dovecote Park producer group through state-of-the-art slaughter and processing facilities in Yorkshire. This group comprises members who farm deer to the highest welfare standards and are audited annually. All farms have Quality Assurance. Dovecote supplies high-end retail and selected foodservice outlets.

Another option is for farmers to sell their deer to finishers. There are several producers in England and Scotland that will accept deer from six months old and finish them on their own farm before processing.

Field slaughter remains an option for small numbers albeit this requires both ante and postmortem vet inspection and, because of low volumes, may not be a realistic alternative.

Venison Market and Consumer Information

The latest market research undertaken by The Knowledge Bank for venison is available on the Scottish Venison Association Website (www.scottish-venison.info/what-is-the-scottish-venison-association).

References

A range of information relating to deer farming is available from the organisations below:

- "Revisiting Beyond the Glen". A refreshed strategy for the Scottish Venison Sector to 2030 https://www.scottish-venison.info/wp-content/uploads/2023/11/21803-Playfair-Walker-Scottish-Venison-Strategy-A4-Report-081123-SCREEN-SINGLES.pdf "
- Scottish Venison: https://www.scottish-venison.info
- The Venison Advisory Service: www.venisonadvisory.co.uk/
- The Deer Farm & Park Demonstration Project: http://deerfarmdemoproject.scottish-venison.info/
- The British Deer Farms and Parks Association: http://bdfpa.org/
- Quality Assured Farm Venison Scheme:
- https://www.saiglobal.com/assurance/farm-assurance/quality-assured-farm-venison.htm

Red Deer - Lowground Breeding and Feeding

PHYSICAL DATA

Calving period			May-Jun
Sale period			Aug-Nov
Herd life:	hinds (years)		12
	stags (years)		10
Calves born			90%
Calves reared			85%
Hind deaths (no.)			1
Liveweight at sale:		15-18 month stags (kg)	108
		15-18 month hinds (kg)	85
		cull hinds (kg)	110
Killing out percentage			54%
			/100 hinds
Stags (no.)			3
Sales:			
15-18 month stags (no.)			43
15-18 month hinds (no.)			35
cull hinds (no.)			7
Winter feeding period (days):			
hinds and stags			70
calves			180
Feeding:	concentrates (t)		11.0
	silage (t)		161.2
Silage:	yield (t/ha from 2 cuts)		31
	ME quality (MJ/kg DM)		10
	fertiliser (kg N/ha)		220
Grazing	fertiliser (kg N/ha)		175
Total forage area required (ha)			
Silage and aftermath grazing			5.2
Grazing			13.0
			18.2

Hay (3.8 ha at 7 t/ha) and swedes (1.7 ha at 75 t/ha) can be fed as an alternative to silage.

Housing system (straw bedding assumed):

Hinds housed January to April, calves housed November to April.

Straw bedding (t/hd)	- hinds and stags	0.10
	- calves	0.10
Antler sales	- kg per stag	5.50
	- kg per yearling	0.5
	- yearling antlers saleable	10%

Red Deer - Lowground Breeding and Feeding

GROSS MARGIN DATA

OUTPUT						£/100 hinds
Sale value (dwt):						
Stags	58	kg	@	550	p/kg dwt	13,558
Hinds	45	kg	@	550	p/kg dwt	8,784
Cull hinds	59.4	kg	@	300	p/kg dwt	1,247
Antlers:	18.6	kg	@	£10	/kg	186
						23,775
Less: hinds purchased						2,400
share of replacement stag						374
						21,001
VARIABLE COSTS						
Concentrates @ £210/t						2,319
Vet & medicines						631
Bedding straw @ £125/t (bought-in)						2,344
Other livestock expenses						2,685
						7,979
Gross Margin before forage						13,022
Forage variable costs:						
silage @ £317/ha						1,648
grazing @ £233/ha						3,029
						4,677
Total Variable Costs						12,656
GROSS MARGIN £/100 hinds						8,345
GROSS MARGIN £/ha						459

Sensitivity - Change ±	**Change in Gross Margin/100 hinds (£)**
£5/hd in all deer sales	425

Replacement cost prices:

Cull hind	£178	Hind (purch.)	£300
Cull stag	£136	Replacement stag	£1,500

Basis of data:

Sale price - slaughter price based on expected prices for sales to the abbatoir. In practice, many deer farms sell part of their production direct to retailers, caterers and consumers at deadweight prices over £5.50/kg but with additional processing and marketing costs.

Red Deer - Upland Breeding Selling Calves

PHYSICAL DATA

Calving period			May-Jun
Sale period			Nov-Dec
Herd life:	hinds (years)		12
	stags (years)		10
Calves born			90%
Calves reared			85%
Hind deaths (no.)			1
Liveweight at sale:		stag calves (kg)	50
		hind calves (kg)	40
		cull hinds (kg)	110
Killing out percentage			54%
			/100 hinds
Stags (no.)			3
Sales:			
stag calves (no.)			43
hind calves (no.)			35
cull hinds (no.)			7
Winter feeding period (days):			
stags			70
calves			150
Feeding:	concentrates (t)		9.9
	hay (t)		4.2
Hay:	yield (t/ha)		7
	ME quality (MJ/kg DM)		8.5
	fertiliser (kg N/ha)		125
Grazing	fertiliser (kg N/ha)		125
Total forage area required (ha)			
Hay and aftermath grazing			0.6
Grazing			10.0
			10.6
Hill outrun			70.0

Housing system (straw bedding assumed):
Hinds outwintered on hill, replacement calves housed November to April.

Straw bedding (t/hd)	- hinds and stags	0.00
	- calves	0.10
Antler sales	- kg per stag	5.50

Red Deer - Upland Breeding Selling Calves

GROSS MARGIN DATA

OUTPUT						**£/100 hinds**
Sale value:						
Stag calves	50	kg	@	260	p/kg lwt	5,525
Hind calves	40	kg	@	240	p/kg lwt	3,407
Cull hinds	59.4	kg	@	300	p/kg dwt	1,247
Antlers:	16.5	kg	@	£10	/kg	165
						10,344
Less : hinds purchased						2,400
share of replacement stag						375
						7,569
VARIABLE COSTS						
Concentrates @ £380/t						3,753
Vet & medicines						670
Bedding straw @ £125/t (bought-in)						88
Other livestock expenses						2,685
						7,196
Gross Margin before forage						373
Forage variable costs:						
hay @ £280/ha						168
grazing @ £177/ha						1,770
						1,938
Total Variable Costs						9,134
GROSS MARGIN £/100 hinds						-1,565
GROSS MARGIN £/ha						-148

Sensitivity - Change ±	**Change in Gross Margin/100 hinds (£)**
£5/hd in all deer sales	425

Replacement cost prices:

Cull hind	£178	Hind (purch.)	£300
Cull stag	£136	Replacement stag	£1,500

Red Deer - Finishing Stag Calves

PHYSICAL DATA

Time of purchase		October
Sale period		Aug-Nov
Stags reared		97
Liveweight:	at purchase (kg)	50
	at sale (kg)	108
Killing out percentage		54%
Deadweight at sale (kg)		58
Mortality		3%
Liveweight gain (kg/day)		0.15
		/100 stags
Feeding:	concentrates (t)	7.3
	silage (t)	80.6
Silage:	yield (t/ha)	31
	ME quality (MJ/kg DM)	10
	fertiliser (kg N/ha)	220
Grazing	fertiliser (kg N/ha)	175
Total forage area required (ha)		
Silage and aftermath grazing		2.6
Grazing		5.5
		8.1

Hay (2.0 ha at 7 t/ha) and swedes (0.8 ha at 75 t/ha) can be fed as an alternative to silage.

Housing system (straw bedding assumed):

Calves housed November to April.

Straw bedding (t/hd)	- calves	0.10
Antler sales	- kg per yearling	0.50
	- yearling antlers saleable	10%

Red Deer - Finishing Stag Calves

GROSS MARGIN DATA

OUTPUT							£/100 stags
Sale value:							
Finished stags	58	kg	@	550	p/kg	dwt	30,943
Antlers:	4.9	kg	@	£10	/kg		49
							30,992
Less : calves purchased	50	kg	@	260	p/kg	lwt	13,000
							17,992
VARIABLE COSTS							
Concentrates @ £380/t							2,765
Vet & medicines							485
Bedding straw @ £125/t (bought-in)							1,213
Other livestock expenses							2,625
							7,088
Gross Margin before forage							10,904
Forage variable costs:							
silage@ £317/ha							728
grazing @ £233/ha							974
							1,702
Total Variable Costs							8,790
GROSS MARGIN £/100 stags							9,202
GROSS MARGIN £/ha							1,136

Sensitivity - Change ±	**Change in Gross Margin/100 stags (£)**
£5/hd in stag sales	485

Basis of data:

Sale price - slaughter price based on expected prices for sales to the abbatoir. In practice many deer farms sell part of their production direct to retailers, caterers and consumers at deadweight prices over £5.50/kg but with additional processing and marketing costs.