The Farm Management Handbook

Farm Advisory Service

Organic Farming

The UK reference for farm business management

SAC CONSULTING

Part of Scotland's Rural College (SRUC)

Updated March 2025

Introduction

In 2023 the area of organic farmland in the UK decreased by % to 497,900ha from 508,600ha in 2022. This is mainly due to a reduction in organic grassland and a reduced in conversion area. The organic land area decreased steadily from a high of 743,500ha in 2008 to a low of 474,000ha in 2018 and grew steadily again up to 508,600ha before this contraction in area in 2023. The area of organic land in the UK now covers 2.9%. In contrast, organic production in Europe has continued to grow and now covers 16.9 million hectares from 9.5 million hectares in 2012, and now covers 10.5% of farmland.

The area of land used for organic farming in Scotland in 2023 was 116,600ha; and this has increased from 110,900ha in 2022 and represents 2.3% of Scottish farmland. The area of in-conversion land has however decreased to 13,100ha from a recent high of 18,400ha in 2022.

Organic cattle and sheep numbers have reduced by 2.75% & 5.78% respectively. Pig numbers have also reduced with a 35% contraction in numbers, but poultry has increased significantly by 19.1% (mainly due to broiler numbers increasing). Other livestock (goats, deer, and horses) have remained fairly static, but deer numbers have increased as goat and horse numbers reduced.

Total organic food sales in the UK increased by 2.0% during 2023, creating a market worth £3.2 billion. Organic produce makes up approximately 1.3% of the UK food and drink sector.

At farm level, the organic milk price premium is generally around 10ppl premium on conventional milk. The finished beef price trend has generally followed the conventional price, with an organic premium of approximately 40 - 60p/kg. The premium for organic lamb remains small at peak sale season in the autumn, but outwith this period, premiums are usually available (30-60p/kg).

Prices for organic cereals, remain strong, with premiums of approximately £100 - £150/t for organic cereals, but this is dependent on price and availability of imported organic cereals.

Why farm organically?

Organic farming seeks to work with natural biological systems to produce high quality food in an environmentally sustainable way that minimises damage to the environment and wildlife. This enables organic produce to attract a price premium.

Organic farming systems exclude the use of agrochemicals and synthetic fertilisers, and generally have low input systems with lower variable costs, which combined with price premiums have the potential to create profitable businesses where enterprise output can be maintained.

In Scotland, organic farming has been supported under the Agri-environment Climate Scheme (AECS) of the Rural Development Programme. Attractive rates have been available for both organic conversion and maintenance funding as shown in the following table.

£/ha	Year 1	Year 2	Year 3	Year 4	Year 5
	Conversion		Maintenance		
Arable	280	280	65	65	65
Fruit/veg	400	400	200	200	200
Improved grass	140	140	55	55	55
Rough grazing	12.50	12.50	8.50	8.50	8.50

The first two years of organic conversion payments are higher than the latter three years where maintenance rates apply. This is to compensate for lower output during the conversion period before organic premiums can be attained.

Land that is managed organically is exempt from all Greening requirements of the Basic Payment Scheme (BPS) (see the Rural Aid Schemes section on page 468).

The principles of organic farming also accord with the ethos of many land managers. Using clover and livestock manures to provide fertility, the promotion of health rather than treatment of disease, and an 'acceptable' weed burden that provides food for birds and pollinating species are the aims of some land managers. Going through the formal process of certification allows produce to be sold as organic, and so receive a price premium.

How to get into organic farming

Some farm businesses require big changes to their systems in order to convert, while others will require little change. It is worth talking through the implications of converting with an adviser. Many organisations run organic farm walks throughout the year, giving farmers the chance to visit an organic farm which will demonstrate the link between organic farming and good environmental management.

There are several different organic bodies that provide certification (details on page 247). The choice of certification body can depend on several factors, including cost and the enterprises operated on the farm. Grant funding is available for farmers, and it is advisable that this is secured before conversion.

Organic conversion

Converting to organic farming will require changes in farm management with emphasis on increasing a farm's self-reliance: growing most of its own livestock feed; recycling nutrients through manure management; and using ley phases with a lot of clover to fix nitrogen, and which helps to provide fertility for arable crops later in the rotation. As well as building fertility, crop rotations also provide clean grazing and help manage the

weed burden. The requirement for more 'natural' production restricts the amount of concentrates that can be fed to cattle and sheep, emphasising a forage-based system. Housed livestock have maximum stocking densities, and must also have a dedicated lying area, possibly necessitating changes to housing with existing slatted floors.

Technical information

The data used in the preparation of the gross margins overleaf has been a necessary compromise of organic production figures from across Scotland. This should be borne in mind when using the margins, for example, in areas where straw is difficult to source a much higher price should be allocated to bedding.

Silage yield is based on a lower yielding, two cut system. Where yields are high due to a large clover yield in a year with an early spring, this should be increased. If only one cut is taken and yields are lower, then the forage area will have to be adjusted accordingly. Silage costs are based on baling and wrapping a third of the silage produced. This cost will increase or decrease depending on the proportion of pit or baled silage.

Organic certification

Any farmer wishing to produce food for sale as organic must comply with regulations setting out the minimum standards of production. Certification bodies have their own standards which are generally more specific, and in some respects stricter than the basic EU standards. All farmers in the UK are certified to this higher level.

The number of licenced producers and processors in Scotland has decreased to 521 in 2023 from 528 in 2022. The number of producers has stayed similar to last year at 379, with a reduction in the number of processors. The number of crop producers rose from 350 in 2022 to 362 in 2023 but livestock producers have decreased from 269 to 267 over the same timeframe. Mixed farm holdings however are recorded under both crop and livestock, hence numbers do not correlate to the number of producers.

Organic Farming Contacts

Certification bodies

Scottish Organic Producers Association (SOPA)	0300 772 9795 info@sopa.org.uk
The Biodynamic Association (BDA)	01453 759 501 office@biodynamic.org.uk
Organic Farmers and Growers (OF&G)	01939 291 800 info@ofgorganic.org
Irish Organic Association (IOA)	+353 090 643 3680 info@irishoa.ie
The Organic Food Federation	01760 720 444 info@orgfoodfed.com
Organic Trust Ltd.	+ 353 (0) 185 30271 organic@iol.ie
Quality Welsh Food Certification Ltd. (QWFC)	01970 636 688 enquiries@qwfc.co.uk
Soil Association Certification Ltd.	England: 0117 914 2411 Scotland: 0131 370 8150

Information and advice

SAC Consulting	01467 625385
Organic Advice, Support & Information Service	0844 800 0091 advice@organicinfo.org.uk

Organic Wheat - Winter

PHYSICAL DATA

(a) Seed
Organic seed sown at 200 kg/ha (1.60 cwt/acre).

(b) Fertiliser
No manure or mineral fertiliser applied routinely to first crop after ley. Annualised cost of rock phosphate and permitted potash fertiliser (e.g. sulphate of potash) after derogation.

(c) Trace elements
Trace elements (e.g. manganese sulphate).

(d) Other crop expenses
Net wrap at £1.10/bale for round straw bales.

Organic Wheat - Winter

GROSS MARGIN DATA

Grain yield: t/ha (t/acre)	4.0	(1.6)	5.3	(2.1)	6.5	(2.6)
Straw yield: t/ha (t/acre)	2.1	(0.9)	2.8	(1.1)	3.4	(1.4)
OUTPUT			**£/ha (acre)**			
Grain @ £290/t*	1,160		1,537		1,885	
Straw @ £60/t	127		169		207	
	1,287	(521)	1,706	(690)	2,092	(847)
VARIABLE COSTS						
Seed @ £750/t	150		150		150	
Fertiliser	46		46		46	
Trace elements	10		10		10	
Other crop expenses	15		19		24	
	221	(89)	225	(91)	230	(93)
GROSS MARGIN	1,066	(432)	1,481	(599)	1,862	(754)

GRAIN PRICE SENSITIVITY

£270 /t	986	(399)	1,375	(556)	1,732	(701)
£310 /t	1,146	(464)	1,587	(642)	1,992	(806)
£330 /t	1,226	(496)	1,693	(685)	2,122	(859)

* Feed price (milling premium £60/t)

Basis of data:

Sale price estimate for 2025 crop, September/October ex-farm spot price at 15% moisture content and average quality.

Organic Oats - Spring

PHYSICAL DATA

(a) Seed

Organic seed sown at 200 kg/ha (1.60 cwt/acre).

(b) Fertiliser

No manure or mineral fertiliser applied routinely to first crop after ley. Manure applied to 2nd and 3rd crop after ley. Annualised cost of rock phosphate and permitted potash fertiliser (e.g. sulphate of potash) after derogation.

(c) Trace elements

Trace elements (e.g. manganese sulphate).

(d) Other crop expenses

Net wrap at £1.10/bale for round straw bales.

Organic Oats - Spring

GROSS MARGIN DATA

Grain yield: t/ha (t/acre)	3.0	(1.2)	4.0	(1.6)	5.0	(2.0)
Straw yield: t/ha (t/acre)	1.8	(0.7)	2.4	(1.0)	3.0	(1.2)
OUTPUT			**£/ha (acre)**			
Grain @ £300/t*	900		1,200		1,500	
Straw @ £60/t	108		144		180	
	1,008	(408)	1,344	(544)	1,680	(680)
VARIABLE COSTS						
Seed @ £675/t	135		135		135	
Fertiliser	46		46		46	
Trace elements	10		10		10	
Other crop expenses	12		17		21	
	203	(82)	208	(84)	212	(86)
GROSS MARGIN	805	(326)	1,137	(460)	1,468	(594)
GRAIN PRICE SENSITIVITY						
£280 /t	745	(301)	1,057	(428)	1,368	(554)
£320 /t	865	(350)	1,217	(493)	1,568	(635)
£340 /t	925	(374)	1,297	(525)	1,668	(675)

* Milling price (feed price £30/t lower)

Basis of data:

Sale price - estimate for 2025 crop, September/October ex-farm spot price at 15% moisture content and average quality.

Organic Barley - Spring

PHYSICAL DATA

(a) Seed

Seed sown at 200 kg/ha (1.6 cwt/acre).

(b) Fertiliser

No manure or mineral fertiliser applied routinely to first crop after ley. Manure applied to 2nd and 3rd crop after ley. Annualised cost of rock phosphate and permitted potash fertiliser (e.g. sulphate of potash) after derogation.

(c) Trace elements

Trace elements (e.g. manganese sulphate).

Organic Barley - Spring

GROSS MARGIN DATA

Grain yield: t/ha (t/acre)	3.0	(1.2)	4.0	(1.6)	5.0	(2.0)
Straw yield: t/ha (t/acre)	1.6	(0.6)	2.1	(0.9)	2.7	(1.1)
OUTPUT			**£/ha (acre)**			
Grain @ £290/t*	870		1,160		1,450	
Straw @ £70/t	111		148		186	
	981	(397)	1,308	(529)	1,636	(662)
VARIABLE COSTS						
Seed @ £675/t	135		135		135	
Fertiliser	46		46		46	
Trace elements	10		10		10	
Other crop expenses	11		15		18	
	202	(82)	206	(83)	209	(85)
GROSS MARGIN	779	(315)	1,102	(446)	1,427	(577)
GRAIN PRICE SENSITIVITY						
£270 /t	719	(291)	1,022	(414)	1,327	(537)
£310 /t	839	(340)	1,182	(478)	1,527	(618)
£330 /t	899	(364)	1,262	(511)	1,627	(658)

* Feed price (malting premium £30/t)

Basis of data:

Sale price estimate for 2025 crop.

Organic Beans - Spring

PHYSICAL DATA

(a) Seed

Seed sown at 225 kg/ha (1.8 cwt/acre).

(b) Fertiliser

No manure or mineral fertiliser applied routinely to first crop after ley. Manure applied to 2nd and 3rd crop after ley. Annualised cost rock phosphate and permitted potash fertiliser (e.g. sulphate of potash) after derogation.

(c) Trace elements

Trace elements (e.g. manganese sulphate).

Organic Beans - Spring

GROSS MARGIN DATA

Grain yield: t/ha (t/acre)	3.0	(1.2)	5.0	(2.0)
OUTPUT		**£/ha (acre)**		
Grain @ £425/t*	1,275		2,125	
	1,275	(516)	2,125	(860)
VARIABLE COSTS				
Seed @ £750/t	188		188	
Fertiliser	46		46	
Trace elements	10		10	
Other crop expenses	-		-	
	244	(99)	244	(99)
GROSS MARGIN	1,031	(417)	1,881	(761)
GRAIN PRICE SENSITIVITY				
£385 /t	911	(369)	1,681	(680)
£465 /t	1,151	(466)	2,081	(842)
£485 /t	1,211	(490)	2,181	(883)

* Feed price

Basis of data:

Sale price estimate for 2025 crop. Deductions for high levels of field beans which do not meet minimum quality standards can reduce the price considerably.

Organic Potatoes - Maincrop

PHYSICAL DATA

(a) Seed

Planted at 2.5 t/ha. This figure can rise to 4 t/ha depending on seed size. Organic seed must be used unless a derogation is obtained for specialist varieties.

(b) Fertiliser

Farm yard manure used, no artificial fertiliser.

(c) Sprays

Seed treatment	None.
Nematicide	Assumption of no treatment applied.
Herbicides	None used.
Blight control	None used.
Aphid control	None used.
Slug control	2 applications of ferric phosphate (derogation obtainable) for high risk situations. If low risk situation (i.e. sandy soils), reduce cost by £43/ha.
Desiccation	Pulverising and/or gas burning. See page 381 for costs.

(d) Other crop expenses

SPCS field inspection fees; roguing and labels and positive ventilation and cold storage are included. Other costs may include bags (£7.50-£11.20/t of crop) and royalties (which will depend on variety).

(e) Irrigation

Irrigation may be applied in some circumstances for yield and quality. These costs are not included. Annual capital charge could be £350-500/ha plus £1.60-1.90/ha.mm with a contract charge of approximately £5.40/ha.mm.

(f) Casual labour

These costs are not included. Costs calculated using the data below could be used. Labour charged at £15/hr as per labour rates on page 60 for low yielding potato crops.

Organic Potatoes - Maincrop

GROSS MARGIN DATA

Yield: t/ha (t/acre): seed	17	(6.9)	17	(6.9)
Yield: t/ha (t/acre): ware	15	(6.1)	22	(8.9)
Yield: t/ha (t/acre): s/feed	6	(2.4)	6	(2.4)
	38	(15.4)	45	(18.2)
OUTPUT		**£/ha (acre)**		
Seed @ £415/t	7,055		7,055	
Ware @ £380/t	5,700		8,360	
Stockfeed @ £30/t	180		180	
	12,935	(5,235)	15,595	(6,311)
VARIABLE COSTS				
Seed @ £375/t	938		938	
Fertiliser	-		-	
Sprays	40		40	
Other expenses	2,892		3,403	
	3,870	(1,566)	4,381	(1,773)
GROSS MARGIN	9,065	(3,669)	11,214	(4,538)
WARE PRICE SENSITIVITY				
£150 /t	5,615	(2,272)	6,154	(2,490)
£250 /t	7,115	(2,879)	8,354	(3,381)
£310 /t	8,015	(3,244)	9,674	(3,915)
£360 /t	8,765	(3,547)	10,774	(4,360)

Organic Dairying

Introduction

Organic dairy farming aims for self-sufficiency within a unit. An effective way of doing this is by utilising high quality grass and grass silage as the main source of both protein and energy to maximise milk from forage. This achieves economies in concentrate feeding. Further economies can be made by growing more protein on the farm such as peas and beans and increasing the use of both red and white clover in grass leys to reduce bought-in protein costs. Replacing compound feeds and blends with home mixes will help reduce feed costs further. The higher reliance on forage means that milk output is around 20% lower than in a conventional system.

Gross margins

The enterprise performance level is specific to the individual cow per annum based on the whole herd performance divided by the average number of cows in the herd. This allows for a number of variables, but also contains a number of constant assumptions.

Variables

Feeding systems can vary greatly depending on yield with the simplest system being silage or grass ad-lib with parlour cake fed to yield. Higher input systems may make use of a partial mixed ration with a low level of concentrate fed along with silage and other forages, again topped up with feeding in the parlour or robot. Total mixed rations may also be fed without additional parlour feed. Organic concentrate costs are significantly higher, in the region of about 50-70% over conventional feeds. Whatever the system, forage inclusion must be a minimum 60% of the total ration on a dry matter basis. It is a requirement of the organic certification standards that dairy cows must be at pasture when conditions allow, which is typically over 200 days on average per year.

Constant assumptions

Herd life	3 to 5 years
Calving interval	380 days
Cow mortality	5%
Calf mortality (up to 7 days)	7%
Size of cow	600 kg
Winter feeding period	180 days

Rations

For simplicity the feeds included have been restricted to ad-lib silage (when housed) or grass plus an 18% crude protein (fresh weight), 13.0 MJ ME/kg DM compound cake.

Organic Dairying - Summary of Assumptions

(a) Average price assumed (ppl)

An average price of 54ppl is assumed. This will fluctuate seasonally and will be dependent on quality characteristics such as hygiene measures and milk fat and protein percentage.

(b) Calf value

A sale/transfer price of £166/hd has been adjusted for calving interval and mortality. The calf value can be altered by £8.61 for each £10 difference in the sale/transfer price.

(c) Cull cow (annual share)

A sale price of £707.00/hd has been adjusted for herd life and mortality, and assumes no variation between high and low yielding cows. The annual share can be altered by £2.34 for each £10 difference in cull cow price. Assumed herd life of 4.17 years.

(d) Heifer replacement (annual share)

Heifer purchase/transfer price varies according to yield. A purchase price equating 18ppl has been used, here, and this has been adjusted for herd life and mortality. The annual share can be altered by £2.45 for each £10 difference in purchase/transfer price.

(e) Other livestock expenses

These are taken from commercial dairy herds and include milk recording, bedding sawdust, dairy detergents, and feeding straw.

Organic Dairy Cow - 7,000 Litres

PHYSICAL DATA

Calving period	All year **/cow**
Average annual yield (litres)	7,000
Feed requirements (kg)	
Silage (kg)	7,700
Concentrates (kg)	1,800
Concentrates fed per litre (kg)	0.26
Overall forage area (ha)	
Silage and aftermath grazing	0.25
Grazing	0.34
Total	0.59

Basis of data:

See *Summary of assumptions-physical data,* page 258-259.

Organic Dairy Cow - 7,000 Litres

GROSS MARGIN DATA

Calving period	All year **/cow**
Average annual yield (litres)	7,000
OUTPUT	£
All year milk @ 54 p/litre	3,780
Calf value	175
Cull cow (annual share)	197
	4,152
Less: Heifer replacement (annual share)	314
	3,838
VARIABLE COSTS	
Concentrates @ £530/t	954
AI	55
Vet & medicines	89
Other livestock expenses	103
	1,201
Gross margin before forage	2,637
Forage variable costs:	
Silage @ £84/ha	21
Grazing @ £84/ha	29
Total Variable costs	1,251
GROSS MARGIN £/cow	2,587
GROSS MARGIN £/ha	4,385

Sensitivity-Change ±

1 p/litre in milk price	70
£10/t in concentrate price	18

Organic Suckler Cows - Mainly Silage Diets

PHYSICAL DATA

Breed:	Commercial type cows bred to a range of bulls, mostly continental
Calving period	Feb-Apr
Calves weaned (%)	92
Month of weaning	October
Days to weaning	220
Month of sale	October
Liveweight of calves at sale	
Steers (kg)	260
Heifers (kg)	240
Herd life of cows (years)	7
Herd life of bulls (years)	4
Cow mortality (%)	2
Calf mortality (%)	3
Cow:bull ratio (:1)	35
Feeding/cow and calf (winter days):	180
silage (t)	6
calf concentrates (kg)	180
cow concentrates (kg)	-
Straw (t)	0.9
Silage:	
yield	30 t/ha from 2 cuts;
quality	DM 220 g/kg; ME 10.5 MJ/kg DM
Overall forage area (ha)	
silage and aftermath grazing	0.20
grazing	0.45
	0.65

Assumptions:

Mainly grass farm either buying in all straw and concentrates or growing small amount of cereals.

Note:

1. SSBSS based on 94% calves claimed. See pages 151 and 474 for more details.

Organic Suckler Cows - Mainly Silage Diets

GROSS MARGIN DATA

Calving period		**Feb-Apr**	
OUTPUT		**£/cow**	
Calf sales (lwt - 92% crop)			
Steers	Heifers		
260 kg @ 385p	240 kg @ 375p	874	
Scottish Suckler Beef Support Scheme		99	
		973	
Less: Replacement -	cow	73	
	bull	23	
		877	
VARIABLE COSTS			
Barley @ £290/t		52	
Minerals		15	
Vet & medicines		39	
Straw - feeding & bedding @ £145/t (bought-in)		131	
Commission, tags & levies		41	
		278	
Gross Margin before forage		599	
Forage variable costs:			
silage @ £84/ha		17	
grazing @ £84/ha		38	
		55	
Total Variable Costs		333	
GROSS MARGIN £/cow		544	
GROSS MARGIN £/ forage ha (acre)		836	(338)

Sensitivity-Change ±

10 p/kg in lwt sale price	23
Sale weight ± 10kg	35
Herd life ± 1 year	20

Replacement cost prices:

Cull cow	£1,600	In-calf heifer (purch.)	£2,000
Cull bull	£2,000	Replacement bull	£5,250

Organic Finishing Cattle

PHYSICAL DATA

Liveweight at purchase (kg)	250
Liveweight at slaughter:	
kg lwt	580
kg dwt	320
Cattle bought	October
Cattle sold	January
Finishing period (days)	440
Liveweight gain (kg)	330
Daily liveweight gain (kg)	0.75
Supplementary feed-barley, protein & minerals (kg)	700
Straw (t)	0.8
Overall forage area (ha)	
silage and aftermath grazing	0.22
grazing	0.25
	0.47

Organic Finishing Cattle

GROSS MARGIN DATA

OUTPUT	**£/head**	
Sale value (dwt):		
320 kg @ 680p	2,176	
Less: Purchased store calf in October (lwt)		
250 kg @ 380p	950	
	1226	
VARIABLE COSTS		
Barley, protein & minerals @ £385/t	270	
Vet & medicines	18	
Straw - feeding & bedding @ £145/t (bought-in)	116	
Commission, tags & levies	102	
	506	
Gross Margin before forage	720	
Forage variable costs:		
silage @ £84/ha	18	
grazing @ £84/ha	21	
	39	
Total Variable Costs	545	
GROSS MARGIN £/head	681	
GROSS MARGIN £/ha (acre)	1,450	(587)

Sensitivity-Change ±	
10 p/kg in dwt sale price	32
Dwt sale weight ± 10kg	68

Organic Breeding Ewes - Finished Lamb Production

PHYSICAL DATA

Breeds		Crossbred ewe to terminal sire
Lambing period		April/May
Lamb crops per ewe (avg)		4
Ram flock life (seasons)		3
		/100 ewes tupped
Rams (no.)		2.5
Lamb numbers:	marked	150
	mortalities	5
	sold finished	145
Lamb lwt at slaughter (kg)		42
Lamb dwt at slaughter (kg)		20
Ewes:	culls	20
	mortalities	5
	gimmers purchased	25
Wool sales (kg)		272
Concentrate use: barley/mineral (kg)		2,000
Total concentrate (kg)		2,000
Forage (ha):	silage	1
	grazing	12
Total forage (ha)		13

Basis of data:

1. Silage yield and quality 30 t/ha from 2 cuts; ME 10.5 MJ/kg DM.
2. Breeding stock and finished lamb prices 2024/25 season.

Organic Breeding Ewes - Finished Lamb Production

GROSS MARGIN DATA

OUTPUT		£/100 ewes tupped	
Finished lambs: 145 @ £144/hd		20,880	
Cast ewes: 20 @ £93/hd		1,860	
Wool sales: 272kg @ £1/kg		272	
		23,012	
Less:	25 gimmers purchased @ £190/hd	4,750	
	ram replacement (net)	375	
		17,887	
VARIABLE COSTS			
Cereals & minerals @ £475/t		950	
Vet, medicines & dips		554	
Commission, levies, shearing, scanning & tags		1,403	
Gross margin before forage		14,980	
Forage variable costs:			
1 ha silage @ £84/ha		84	
12 ha grazing @ £84/ha		1,008	
Total Variable Costs		3,999	
GROSS MARGIN		13,888	
GROSS MARGIN £/ forage ha (acre)		1,068	(432)

Sensitivity-Change ±	**Change in Gross Margin/100 ewes (£)**
£1/hd in finished lamb price	145
£1/hd in draft ewe price	20
5% change in lambs sold	1,044