Organic Farming and Growing

DOES IT STACK UP?

MARKET UPDATE 2021

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Organic Farming and Growing: Does it Stack Up?

There is no question that the Covid pandemic has sparked a renewed interest in food and farming. As recently reported in the Soil Association *Organic Market Report* 2021, people have become more interested in eating healthily and making sure their food choices are ethically and environmentally sound. As a result, the organic market grew by 12.6% last year, its biggest year-on-year increase in 15 years. Over £50 million a week is spent on organic in the UK, with the market now worth £2.79 billion.

Since 2020, we have seen a surge in demand for organic red meat, poultry, sausages, bacon and eggs, as many consumers sought to choose 'better' food and 'traded up' to higher quality when cooking at home, with supermarket sales of organic meat, fish and poultry increasing by 16.8% and dramatic increase in local and online sales.[1] Fresh produce sales at the supermarkets also increased by over 15%, while organic vegetable box schemes saw an unprecedented rise in demand throughout 2020, with many doubling in weekly sales.[1] The outlook for the UK organic arable market is equally positive, with significant opportunities ahead to expand production in order to meet domestic demand for organic milling grain and livestock feed. Sales of organic dairy products also continue to improve, with 7.7% growth between 2019 to 2020, although organic liquid milk prices have been challenging for the last 2-3 years.[1]

With such a positive market outlook, we are seeing renewed interest among farmers and growers in converting to organic to meet this growing demand. Organic Farming and Growing: Does it Stack Up? summarises data from Rural Business Research on the financial performance of organic farms compared to non-organic over the period 2013-2019, using data from the Farm Business Survey. But we also wanted to present an up-to-date commentary on the market – and potential opportunities – by speaking to business representatives from the various sectors.

Liz Bowles
Associate Director
Farming and Land Use
Soil Association

"With such a positive market outlook, we are seeing renewed interest among farmers and growers in converting to organic to meet this growing demand."

1. Based on Nielsen RMS data for the Organic category Soil Association Defined for the 12 month period ending 2nd Jan 2021 for the GB total retail market (Copyright @ 2021 The Nielsen Company)

Of course, that's not to say that there are no risks or uncertainties about the future organic market. As you'll read, there are concerns about the potential impact of a post-COVID recession on demand for organic food generally, while the individual organic sectors – arable, livestock, horticulture and dairy – face their own unique set of challenges. Significant uncertainties also remain about the ending of current support arrangements for farmers and the introduction of new environmental and 'productivity' schemes – not least exactly how organic farming and growing will be rewarded within them. We are working with others in the organic sector to highlight the multiple synergies from certified organic production that address many of Defra's aims for the delivery of public goods and cross cut the different strands that Defra propose as a mechanism for grant funding.

We also readily acknowledge that organic conversion is not necessarily an option for every farm – or indeed every farmer. Nevertheless, the general feeling is that consumer shopping habits were already changing before the outbreak and that Covid was merely a catalyst—albeit a very significant one. Organic is well established with a loyal customer base that understands its benefits and therefore another recession is unlikely to impact sales like it did in 2008. With this change in public opinion, we know organic really does 'tick all the right boxes'.

By presenting financial data and speaking to business representatives in the organic sector to get a current 'state of play' – warts and all – we hope this booklet will not only be of interest to existing organic farmers and growers, but will help those producers and land agents who are interested in organic conversion to make a more informed decision. When you are ready, we are here to discuss your options.

Finally, I would like to thank Rural Business Research for use of their farm data, as well as the individual market commentators and farmers and growers who gave their time to contribute to this publication. (See page 51.)

Liz Bowles

Associate Director
Farming and Land Use

THE SOIL ASSOCIATION ORGANIC MARKET REPORT 2021 IS AVAILABLE HERE

Organic Arable Production

Introduced by Adrian Steele

Adrian Steele
Organic Sector Development Advisor
Soil Association

"The market overall is expected to increase by at least 9% per year over the next five years."

Organic Arable Production

At only 8% of total UK organic land area (around 40,000ha)[1], the organic cereals and general cropping sector has plenty of potential for growth. Well-established routes to market exist for all organic grains and strong consumer facing brands are keen to develop relationships with farmers. But while the market for organic animal feed grains is growing, it is currently supplied almost exclusively through imports. In spite of this, the market overall is expected to increase by at least 9% per year over the next five years.[2] The total area of organic cereals has remained relatively stable over the last five years at around 40,000ha compared with a high of 60,000ha in 2009.

'Robocrop' inter-row cultivator guided by robotic 'eye'. Garford Farm Machinery.

Technical Innovation

Tightening of regulations across Europe around pesticide and herbicide use has led to a great deal of technical innovation in mechanical weed control, as well as greater use of rotations and cover crops. As a result, the mainstream machinery manufacturers have focused more research, development and investment on what had been a tiny niche market, greatly improving the range of options available to organic farmers.

Improvements in machinery, crop management and technical innovation on organic farms allow more timely and appropriate completion. Variable width ploughs help to make the most of soil conditions, while other cultivations are tracked to reduce over-lap and improve efficiency.

Seed planting and inter-row weeding can now be assisted by robotic technology and driven by satellite steered tractors, allowing effective weed control within 6mm of the crop and two or even three passes between emergence and full establishment. Some seed drills double up for both drilling and inter-row weeding.

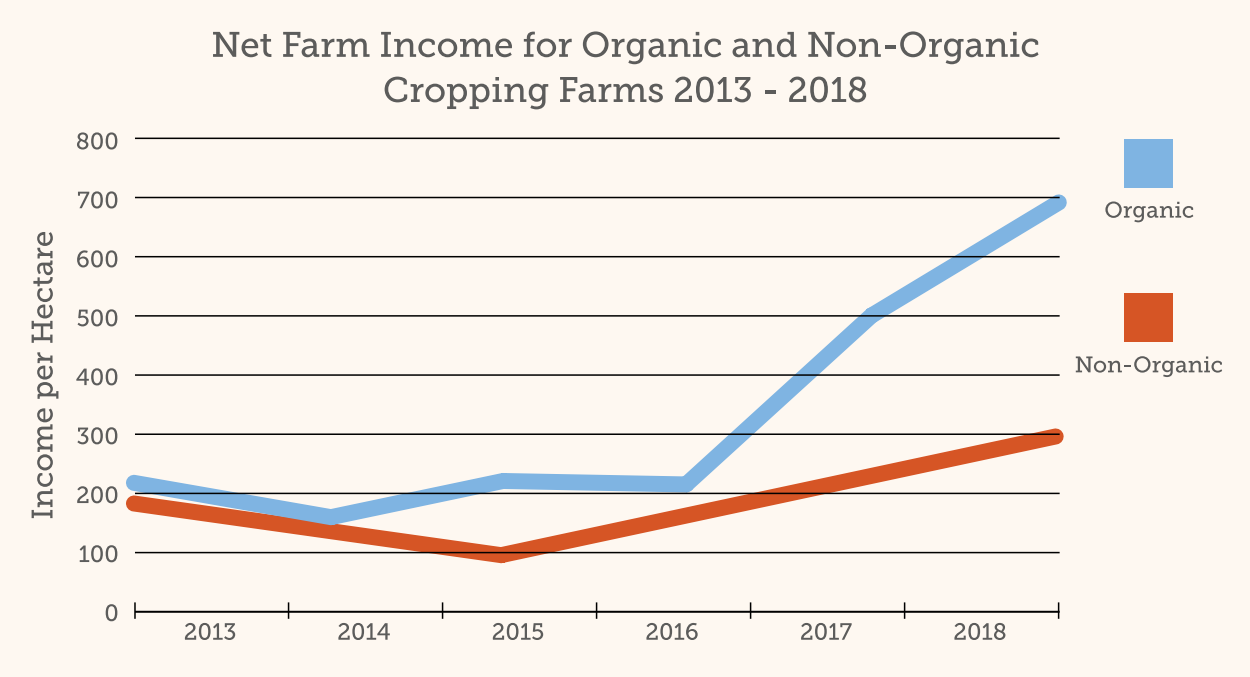
These innovations will make it much easier for 'conventional' (non-organic) farmers to consider organic conversion. In addition, crops from land more than 12 months into organic conversion – so called "in-conversion" crops – have been generating a significant premium over non-organic crops, reaching within £50/tonne of organic crops. This provides a considerable incentive to convert to organic, as well as potentially offering a much-needed cash boost during the conversion period.

'Combcut'. Manufactured by LyckeGard. The Combcut provides a post-emergent check on weed growth, invented by a farmer who recognised the potential to exploit the physical difference between young cereals (monocots) and the broad-leaved weeds (dicots) with their stronger stems.

Profitability

Net farm income has continued to increase for organic cropping farms, resulting in a significantly higher figure when compared to non-organic (£690/ha compared to £288/ha).[3] Output on organic farms per hectare was 34% higher than non-organic, at £2,331/ha and £1,745/ha respectively. Organic farms generated five times the revenue per hectare (£99/ha compared to £19/ha) from agri-environment schemes and 50% more revenue (£419/ha compared to £279/ha) from diversification. While organic cropping farms incurred a 14% greater total cost per hectare, variable costs were £86/ha less with fertiliser and crop protection contributing most to this difference.

> Organic farms generated five times the revenue per hectare from agri-environment schemes and 50% more revenue from diversification.



Data Source: Scott, 2020 Organic Farming in England 2018/19

Eye on the Market: Organic Arable Production

The outlook for the UK organic arable market is positive, with significant opportunities ahead. But the post-COVID economy, imports and climate change are key concerns.

The impact of the 2019 winter on organic arable was not nearly as severe as in the 'conventional' market, where non-organic farmers are generally more reliant on autumn cropping. "The overall yield and performance of the 2020 organic harvest was good by comparison," said Tom Wood, trading director at Robin Appel Ltd. "The whole-farm approach often found in organic systems provides more resilience and flexibility, with the greater utilisation of cover crops and livestock integration." Simon Tubbs, organic trading manager at Saxon Agriculture, agrees: "Harvest 2020 was certainly affected by adverse weather events of winter 2019, but the emphasis on spring drilling in the organic farming sector limited the negative impact."

> "Fundamentally, we're still importing 150,000 – 200,000 tonnes of organic raw materials per annum. The demand is there; we just need to fill it."
>
> Tom Wood, Robin Appel Ltd.

As the Soil Association *Organic Market Report 2021* highlights, one of the few positives from the COVID pandemic is that demand for organic food increased dramatically over 2020: "We've seen a definite and welcome increase in organic demand, even if it's somewhat behind the more robust demand in much of Europe," says Tubbs.

While organic sales have increased in supermarkets, independents and box schemes, this has not necessarily offset the impact of the closure of the hospitality and foodservice industry on the UK organic arable market. "Demand for malting barley has taken a huge hit with the closure of pubs and the cancellation of all major events," says Wood. And while commentators are optimistic demand will return, it is worth remembering that any recession brought about by COVID could affect premium markets—including organic.

While niche crops like spelt, rye and linseed can reap significant reward, it is essential to work with the market, as they can very quickly become over supplied.

The impacts of Brexit—both the short and medium term—are also a concern for organic arable exports. "The last minute Brexit deal did provide some stability from January 2021," says Tubbs, "but the damage was already done." Wood agrees: "Around 30% of our trade goes to Europe. The uncertainties were not good for continuity of business relationships." Nevertheless, commentators are confident trade will return to pre-Brexit levels once additional paperwork issues are addressed.

So where are the future opportunities? The continuing dominance of cheaper organic imports is an ongoing issue. "We are optimistic in the longer term, particularly as the increased policy focus on carbon and provenance bodes well for domestic producers," says Andrew Trump of Organic Arable. "But fulfilling short to medium-term demand ahead of any future transition away from imports is the key challenge. Ultimately we need more buyers to commit to UK sourcing."

As with non-organic, the biggest crops are organic milling wheat, milling oats and malting barley. While niche crops like spelt, rye and linseed can reap significant reward, it is essential to work with the market, as they can very quickly become over supplied. "When prices are lower we tend to see more interest in growing exotic crops," says Trump. "But it's important to understand the risks, too. There are few quick fixes in organic and a failed crop can have consequences later in the rotation." The domestic organic feed market is also promising, with gathering momentum behind initiatives to reduce reliance on imports—particularly soya. "There are real opportunities to replace imported proteins," says Wood. "Better crop varieties and new weeding technologies should allow UK producers to offer competitive replacements in the near future."

But while interest in domestic sourcing is increasing, price is still king: "We need to keep in mind that organic cereal production has greatly increased in Europe over the last three years," Tubbs adds. Trump agrees: "The EU is going to be an interesting proposition as the Farm to Fork policy to have 25% of EU farmland organic is implemented. This may present opportunities for UK growers, but surplus EU grain could also impact on UK markets—especially if production is subsidised."

1. Defra (2019) Organic farming statistics United Kingdom 2019 Available: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/929302/organics-statsnotice-26oct20.pdf

2. Market Watch (2021) Global and Regional Organic Cereals Market Research Report | Growth Forecast 2026. Available: www.marketwatch.com/press-release/global-and-regional-organic-cereals-market-research-report-growth-forecast-2026-2021-01-27

3. Scott (2020) Organic Farming in England 2018/19. Available: www.ncl.ac.uk/nes/business/agriculture/survey/#publications

SPOTLIGHT ON:

Rushall Organics

"When it comes to public money for public goods, organic systems offer real value for money: we hope this is properly reflected in the new ELM scheme."

Joe Wookey farms around 2,000ha at Rushall Organics in the Vale of Pewsey, one of the oldest large-scale organic arable farms in the UK.

Rushall Farm has been in the Wookey family since 1928 and began its conversion to organic in 1970, completing conversion in 1991.

Bordering the Salisbury Plain, we're on one of the largest areas of calcareous grassland in Europe. Most of our soils are 8-10 inches deep over chalk and drain well. We have about 800ha we can cultivate, with the rest in permanent grass, woodland and environmental schemes.

Our business model is as much about keeping costs low as getting the best price for our output. Grass-clover leys are fundamental to our farming system. It's down for about three years and let out to a local shepherd for grazing. We chop and incorporate all straw, use cover crops and time cultivations to keep fertility on site. This 'closed nutrient recycling' retains and returns much natural fertility before three years of organic cereals.

We sell all crops through Organic Arable, with spelt going to Sharpham Park, oats to Whites Oats, and barley going as feed to BQP if we don't meet malting grade. We've also grown specialist crops like borage for medicinal use.

SPOTLIGHT ON:

Rushall Organics

Rushall Organics, Wiltshire

One of the by-products of the organic system is biodiversity, both above and below ground. With abundance of different habitats and insect life, we have critically endangered stone curlew, lapwing, grey partridge, yellowhammer, corn bunting and more, as well as predators like buzzards, kites and barn owls. The red hemp-nettle is just one of the nationally scarce plants found on the farm. When it comes to public money for public goods, organic systems offer real value for money: we hope this is properly reflected in the new ELM scheme.

My key advice to anyone looking at converting? Plan carefully: every farm is different and will require a different strategy. Engage with the organic farming community: there's a real willingness out there to share experience on cropping, rotations, integrating livestock and so on. Speak to merchants about demand and variety choice. It sounds obvious but don't grow without a secure market. Finally, don't convert for purely financial reasons. It's important to fully embrace organic principles, and part of that is recognising, protecting and enhancing farmland biodiversity, your soil, carbon storage and so on. All being well, this will be rewarded in the future".

Organic Horticulture

Introduced by Hugh Blogg

Hugh Blogg
Horticultural Advisor
Soil Association

"Organic vegetable box schemes saw an unprecedented rise in demand throughout 2020, with many doubling in weekly sales."

Organic Horticulture

2020 saw a large increase in the online and home delivery market, with growth of 36%, according to the latest Soil Association *Organic Market Report 2021*.[1] This is within the context of a total organic sales growth of 12.6%–the largest increase in 15 years.[4]

According to a recent study conducted by EITFood, consumers report eating up to a third more fruit and vegetables since the start of the COVID pandemic, with over 1 in 10 more attracted to plant-based diets.[2]

Organic vegetable box schemes saw an unprecedented rise in demand throughout 2020, with many doubling in weekly sales. While research by the Food Foundation found that 0.7 million boxes of fresh produce were delivered over a six-week period in April/May 2020, it is estimated this could have been as many as 5.3 million boxes if waiting lists had been met.[3] Nevertheless, supermarkets continue to dominate the share of organic sales (65%) with a large increase of over 15% in fresh produce sales.[4]

Fruit and vegetables (organic and non-organic combined) are the largest UK import value category, clocking in at £11.5bn.[5] While much of this cannot be grown in the UK, the potential to replace some of this demand with UK-grown produce is considerable. As Tim Lang, Professor of Food Policy at City University, points out in his book, Feeding Britain, only 168,000ha of the six million hectares of total cultivatable land in Britain is used for fruit and vegetables.[6]

CLICK TO ACCESS THE LATEST HORTICULTURAL PRICE DATA

> "Fruit and vegetables (organic and non-organic combined) are the largest UK import value category, clocking in at £11.5bn."

The proliferation of new online tools for managing orders and delivery could be a game changer in shifting consumer choice in favour of local fresh produce.

"While Defra Stewardship horticulture conversion payments of £400/ha (£450/ha for top fruit) currently offer welcome assistance, the historic lack of funding for small-scale producers, where farms under 5ha were not subsidised through the EU Common Agriculture Policy, has meant significant underinvestment in the sector.[7] Government subsidy accounts for 79% income for cereal producers, compared to only 10% for horticulture holdings.[8] A move away from area-based payments to ones based on the delivery of public goods would encourage sales to increase aligning with the government's recommendations to increase consumption of fruit and vegetables.[9]

It remains to be seen if the increase in demand and interest for local, direct sales will continue to grow beyond the initial pandemic period. But the proliferation of new online tools for managing orders and delivery could be a game changer in shifting consumer choice in favour of local fresh produce. Consumer relationships may have also been strengthened through positive social initiatives during the pandemic—for example, 65% of box scheme providers actively prioritised key workers, the vulnerable or those isolating, while many more dramatically expanded capacity to supply local communities when supermarket shelves were bare.[10]

Note: The economic figures available on organic horticulture are of limited value as they represent such diverse business types and only a small sample size. Hence we have not included a business comparison in this report.

1. Soil Association Certification (2021)

2. Mintel BLOG (2020) Pass the avocado on toast: a quarter of young millennials say covid-19 has made a vegan diet more appealing. www.mintel.com/press-centre/food-and-drink/pass-the-avocado-on-toast-a-quarter-of-young-millennials-say-covid-19-has-made-a-vegan-diet-more-appealing (Accessed: Feb 2021)

3. Food Foundation (2020) COVID-19 UK Veg Box Report. Available: www.foodfoundation.org.uk/wp-content/uploads/2020/05/Food-Foundation-COVID-19-Veg-Box-Scheme-report.pdf

4. Based on Nielsen RMS data for the Organic category Soil Association Defined for the 12 month period ending 2nd Jan 2021 for the GB total retail market (Copyright @ 2021 The Nielsen Company)

5. Defra National Statistics (2019). Available: www.gov.uk/government/statistics/food-statistics-pocketbook/food-statistics-in-your-pocket-global-and-uk-supply#uk-trade-in-different-food-groups-2019

6. Lang, Tim (2020) Feeding Britain - Our Food Problems and How to Fix Them

7. Food Foundation (2020)

8. Defra (2018) Moving away from Direct Payments - Agriculture Bill: Analysis of the impacts of removing Direct Payments

9. & 10. Food Foundation (2020)

Eye on the Market: Organic Horticulture

Demand for organic fruit and vegetables increased beyond all expectations in 2020, with the COVID pandemic sparking shortages and a greater appreciation of food—as well as those who grow it.

"Consumer behaviour was already changing before the pandemic struck," says Cathryn Ruffell of Organic North. "We were getting regular interest from restaurants and grocers looking to trial organic, and we were planning to expand. But things just exploded in March 2020, with new enquiries every day and existing customers doubling orders."

Joe Rolfe, divisional managing director at RBOrganic, also saw a dramatic increase in demand: "When COVID hit we were a fair way through our season, so we couldn't do more than make the best use of what we had in the ground," says Rolfe. "Initially, panic buying and hoarding resulted in a surge in sales volumes and we certainly benefited from that. Demand then levelled out somewhat, but people continued to 'trade up' to organic as they were unable to eat out."

The closure of the hospitality sector was a significant challenge, particularly for growers specialising in supply for the food service sector. But this was largely offset by overwhelming demand from retail and wholesale: "We've been at full capacity throughout the 2020-2021 season," says Rolfe. "We'd normally have exported some crops to the EU, but we've needed every single carrot, potato and onion to supply home markets."

As this year's 'hungry gap' approaches, UK winter crops are already running short: "Many of our regular growers cleared fields much earlier, so we've been on the constant lookout for new UK supplies," says Ruffell. "We can sell pretty much whatever we can get hold." In such a scenario, reliance on imports will inevitably increase. So what about the B-word?

"Although some of the nightmare scenarios have not occurred, Brexit has increased import paperwork and costs," says Ruffell. "Fortunately, the most significant regulatory changes keep getting kicked down the road. But the phytosanitary rules due in April could have serious implications for imports." Rolfe agrees that the real test will come later in the year: "But the Soil Association certification team was fantastic in terms of making sure we were aware of what we needed to do. Without their help we would have undoubtedly had many more problems."

> "Organic has experienced the largest year-on-year growth in sales for more than 15 years and future subsidies look likely to support more sustainable approaches to farming, so if you are doing those things you are setting yourself up well."
>
> Joe Rolfe, RBOrganic

So what about the future? Rolfe believes there is much to be positive about. "Organic has experienced the largest year-on-year growth in sales for more than 15 years and future subsidies look likely to support more sustainable approaches to farming," he says. "There is definitely a growing public awareness of the health and wellbeing and environmental benefits of organic food, too." Ruffell agrees: "While there will be some return to 'normality', I don't think things will go back to where they were before lockdown. Many people have got used to cooking from scratch and shopping more locally or online."

Whatever your scale or business model, it's essential to plan your route to market carefully. "There is healthy demand for organic veg and fruit across the board, whatever your market," says Ruffell. "I don't think anybody starting out organic growing or who decides to convert will find that they regret it in a year or two. Things are just going to get busier. But it is still absolutely vital to explore and secure markets."

Nevertheless, continued market uncertainties mean crop planning is highly problematic. "It's not an easy balance right now," Rolfe adds. "If everyone goes back to eating out we could easily end up with over supply. We've erred on the side of caution, keeping supply as tight as we can to maintain the value of what we grow." Climate change is another huge concern: "The extremes of flooding, frost and heat in the last 24 months caused significant losses out there," adds Ruffell. "It's not easy being a grower."

SPOTLIGHT ON:

Bagthorpe Farm

> "It's easy to underestimate just how niche some organic markets are. If you're a big conventional grower and thinking of putting a few hundred acres into conversion for potatoes, that's a significant amount in organic terms. It's very easy to oversupply."

Nick Walton grows field-scale organic vegetables at Bagthorpe Farm, a 300ha family-run mixed organic farm near Sandringham.

"Bagthorpe Farm has been organic since the mid-1980s. My father-in-law wanted to get away from using the chemicals, particularly after noticing a decline in wildlife. He wanted to make better use of his soil and do something a bit different.

We grow a range of vegetable and varieties, chosen to suit our soil type, climate and biological and cultural challenges. Our soils are light, free-draining sandy loams: ideal for growing root crops and onions. Current crops include early and maincrop carrots, brown and red onions, early, maincrop and salad potatoes, parsnips and beetroot. Our customers include wholesalers, such as Langridge Organic, independent retailers and local/national box schemes, including Abel & Cole, as well as supermarket packers. We grade and pack all produce on site. We also finish Aberdeen Angus cattle, which graze our diverse nitrogen-fixing clover leys year round and are an integral part of the nutrient cycle.

There's a common misconception that organic is all a bit archaic or luddite, throwing away chemicals or rejecting modern tech. But it's progressive and exciting, mixing old ways with seriously modern stuff like precision-steered hoes and GPS soil mapping. There's lot of science involved, too.

photo by Abel and Cole

SPOTLIGHT ON:

Bagthorpe Farm

> "These are exciting times. With the growing market, there's plenty of room for new entrants."

These are exciting times. With the growing market, there's plenty of room for new entrants. But even with the best technical knowledge, success is only possible when married with a razor-focus on the business side. Where is your market? Who are your competitors? Where is demand? Whether you're growing for a local box scheme or you're a mid- to large-scale farm, it's vital to have discussions with people in the sector, not only about the technical side, but also the market.

It's easy to underestimate just how niche some organic markets are. If you're a big conventional grower and thinking of putting a few hundred acres into conversion for potatoes, that's a significant amount in organic terms. It's very easy to oversupply. Don't just assume people will want what you grow. We've also found out too many times over the years that if you don't hit the spec you suddenly have a crop you can't sell. And there's not a lot of secondary market because organic processing is still very small.

Brexit presents real opportunities. We can grow an awful lot of things in this country. But veg is a cut-throat game and there are always inherent risks. The only way to manage that is to grow a range of crops and have as many different customers as makes sense. Yet loyalty and trust is also critical. Constantly hawking your stuff to the highest bidder is not a sustainable business model. Things go up and down and long-term relationships with customers will see you through times when you have too much or too little crop. More and more, business values and ethics are important."

Organic Livestock

Introduced by Jerry Alford

Jerry Alford
Farming Advisor
Soil Association

"Demand for organic meat continues to grow, with latest figures from the Soil Association *Organic Market Report 2021* revealing an increase of 16.8% total sales of organic meat, fish and poultry on the previous year."

Organic Livestock

Lowland Grazing Farms

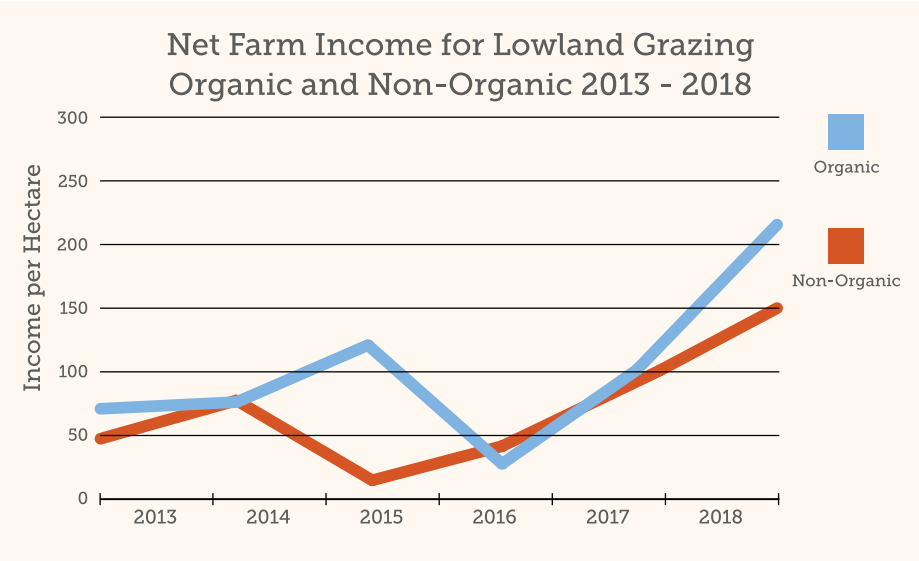
The red meat market has been challenging for all production systems with climate change concerns, cheap imports and the increased demand for plant-based foods. However, demand for organic meat continues to grow, with latest figures from the Soil Association *Organic Market Report 2021* revealing an increase of 16.8% total sales of organic meat, fish and poultry on the previous year.[1]

However, as this still equates to only 1.9% of total UK meat, fish and poultry sales, there is clearly significant potential to improve the organic market share, particularly given the growing consumer interest in organic, higher welfare and sustainable meat during the pandemic.[2]

System Differences

Organic lowland grazing farms are slightly smaller in size than non-organic, at around 85ha.[3] Organic farms are also more lightly stocked (0.82 GLU/ha compared to 0.95 GLU/ha) than their non–organic counterparts, probably because organic farms make full use of clover-based grass leys to fix atmospheric nitrogen, as opposed to using artificial nitrogen fertilisers. Organic stocking rates are therefore more likely to reflect the carrying capacity of the farm, rather than depending on purchased feed and artificial fertiliser, while lambing and calving is often later and more seasonal to coincide with natural feed availability.

Organic farms are also often based around native breeds, which are better suited to low-input systems and can finish more easily off grass and forage. Increasing market share of organic red meat would directly add to organic farmers income because a significant percentage of animals are still sold as non-organic even though reared as organic. This is particularly true of lambs, with the tighter lambing period resulting in supply exceeding demand at times.



Data Source: Scott, 2020 Organic Farming in England 2018/19

Variable costs are much lower on organic farms at £175/ha compared to £401/ha.

Profitability

Both Farm Business Income (FBI) and Net Farm Income (NFI) on organic lowland grazing farms significantly decreased in 2018/19, at 40% and 91% respectively.[4] However, compared with non-organic, FBI was slightly higher at £134/ha compared to £129/ha. NFI was also higher on organic: £20/ha compared to -£5/ha for non-organic farms. Total outputs were £945/ha for organic compared to £1,221/ha for non-organic. However, half of the income for organic farmers is from agri-environment schemes, direct payment support and diversification. On non-organic farms, direct farm income accounts for 61% of the total.

Variable costs are much lower on organic farms at £175/ha compared to £401/ha. This represents just 21% of total costs compared to 37% on non-organic farms. Less purchased feed is used and total purchased feed costs are less than a quarter than that of non-organic farms. Feed costs were only 35% of livestock variable costs, compared with 61% for non-organic farms. Fixed costs are broadly similar showing that profitability is not always associated with maximum inputs.

1. Soil Association Certification (2021) Organic Market Report 2021. Available: https://www.soilassociation.org/certification/market-research-and-data/download-the-organic-market-report/
Based on Nielsen RMS data for the Organic category Soil Association Defined for the 12 month period ending 2nd Jan 2021 for the GB total retail market (Copyright @ 2021 The Nielsen Company)
2. Based on Nielsen RMS data for the Organic category Soil Association Defined for the 12 month period ending 2nd Jan 2021 for the GB total retail market (Copyright @ 2021 The Nielsen Company)
3.& 4. Scott (2020)

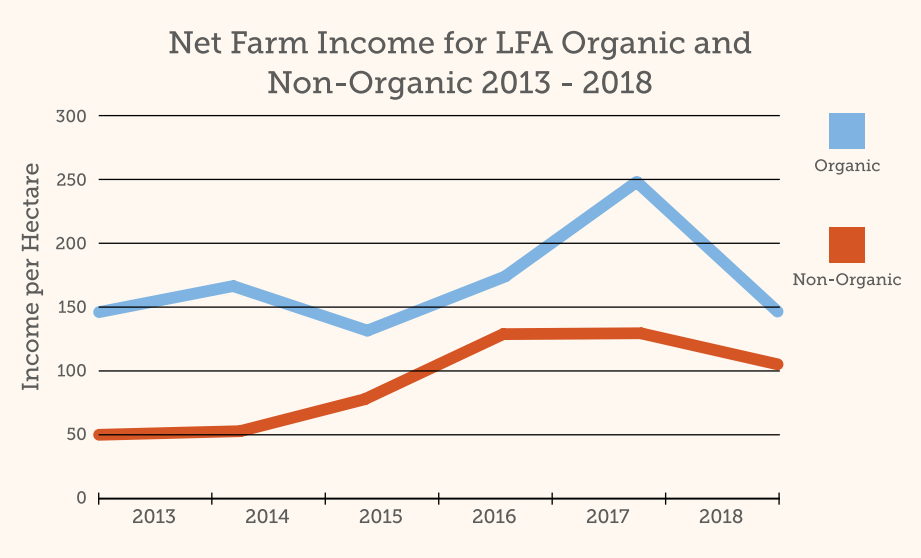
Upland Grazing Farms

The market for organic upland and less-favoured-area (LFA) grazing farms is largely influenced by the profitability of lowland farms. Although some stock are finished and sold fat, most are sold as stores to lowland farmers. As a result, the market is therefore dependent on profitability and demand from lowland farmers. Breed type and system have some influence but environmental and climate restricts available options.

System Differences

Most upland or LFA farms operate a low input system. On non-organic farms, inputs are limited to fertiliser, which is usually applied on ground near farm buildings suitable for cutting and creep feed to maximise growth rates and increase store value. High organic feed costs and reliance on legumes like clover instead of artificial fertiliser make organic systems even less input based.

With grass as the cheapest food source, and poor response to fertiliser except on the very best fields, there is a far greater dependence on natural systems on upland farms. Common or shared grazing areas, along with areas of 'unimproved grassland', often receive no artificial inputs and are of low agricultural value. However, these areas are of huge environmental and amenity value and dependent on livestock grazing for carbon sequestration and the maintenance of habitat for biodiversity.



Data Source: Scott, 2020 Organic Farming in England 2018/19

Profitability

Although the profitability of organic LFA farms fell in 2018/19, they remain generally more profitable than non-organic LFA farms.[5] This is partly due to a more resilient system which can sustain lower output because of lower variable costs. Most of the difference in variable costs between organic and non-organic LFA farms was due to feed and fertiliser costs. Reduced sales came through reduced livestock sales value and a significant reduction in agri-environment scheme payments in 2018/19. However, weather and secondary markets drive the system profitability more than anything, and the Wildlife Trust report, Less is More, highlights that additional inputs such as feed do not necessarily increase profitability.[6] It is fair to say that the profitability of both organic and non-organic LFA farms is low and frequently highly dependent on family labour and diversification opportunities.

5 Scott (2020)

6 Chris Clarke, B. S. K. H. (2019) Less is More: Improving profitability and the natural environment in hill and other marginal farming systems

Eye on the Market: Organic Beef and Lamb

COVID saw increased demand for organic meat and eggs, as many consumers sought to choose 'better' food and 'traded up' to higher quality when cooking at home...

When the pandemic first hit in early March 2020, demand for red meat increased as consumers reacted to the 'stay at home' government messages, with 'home cooking' becoming the new market driver. In response, some supermarkets chose to import meat from eastern EU as they worried about meeting this increased demand. "While this had the initial effect of keeping UK prices down, many consumers sought UK meat," says Stuart Vile, beef and sheep manager at Meadow Quality. Demand increased with the unusual early warm weather for Easter, followed by a dry spring, which saw sales increase for outdoor cooking: "With beef sales up by 12-17% on previous year's figures, organic beef saw sales increase to levels not seen for 10 years," he adds.

There is no doubt the 'lockdowns' led to changes in consumer behaviour, with growing interest in healthier eating, making more ethical food choices and trading up to 'better' meat—including organic: "The 'stay at home and eat' culture over the last 12 months has increased beef and lamb sales dramatically, particularly at the quality and organic end of the market," says Peter Jones, director of the Organic Livestock Marketing Cooperative.

Many consumers also chose to shop locally due to initial shortages at supermarkets, while others wanted to avoid supermarkets due to perceived risks, leading to significant increases in local and online meat sales. "Traditional organic butchers, delicatessens and farm shops fared very well during the last 12 months—particularly those who adapted to provide on-line ordering or delivery services," says Peter Jones. "There is no doubt that some of these outlets are now firmly on the map and should continue to enjoy long-term growth." This shift in shopping habits also encouraged some farmers to consider direct sales or explore options to supply existing local outlets: "We definitely saw more organic producers looking at options to sell directly to consumers," adds Stuart Vile.

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COVID impacted organic livestock trading in other ways. Initially, many farmers (especially the older generation) decided to stay away from livestock markets, choosing instead to trade store animals via online 'selling livestock' platforms, a trend which has continued throughout the pandemic.

Increasing organic feed costs and the drive to reduce reliance on imported feed—particularly soya—means more farmers are looking to finish their beef cattle and lamb using either grass or fodder crops. "However, this may result in supplies of organic livestock becoming more concentrated in July to November, leading to possible oversupplies of numbers with lower prices," warns Stuart Vile.

While many factors are beyond our control, such as the weather or the domestic economy, Peter Jones says farmers can continue to improve the things that are within their control: "Better breeding by using the best genetics available, innovative cross breeding, improving grassland and forage management and overcoming drought situations that keep reoccurring are all of importance, as is planning and budgeting."

But despite the present buoyant market, with demand exceeding livestock supplies, could future events change market conditions? "We anticipate demand to ease when holidays abroad are allowed again, and that demand will revert back to its pre-Covid level" says Stuart Vile. And while the surge in interest in organic food is very welcome, price is still the number one issue for most consumers: "Will the ending of furlough schemes or possible downturns in the economy change consumer buying attitudes? If the organic retail price goes too high, will consumers choose a cheaper 'premium' option?" he adds. Nevertheless, Peter Jones feels there is much to be optimistic about: "For the first time in 20 years, we're experiencing a shortage of cattle—particularly organic cattle—while organic store lamb and finished lamb producers continue to enjoy good returns and lamb prices have exceeded expectations for the second year in succession."

Increased sales over the last year has meant cattle have been moved a lot quicker, while two years of droughts meant some producers had reduced numbers of breeding cows. "The buoyancy in the red meat sector and the slowdown in availability of organic cattle and sheep appears strong enough to carry us through what lies ahead," he adds.

SPOTLIGHT ON:

Courthill Farm

> "Like everyone, we're apprehensive about losing subsidies, particularly as we're tenants. But future schemes are likely to encourage high nature status and good welfare; as organic farmers, it puts us in a good position."

Madeleine and Paul Crawley manage a 267ha mixed organic farm near Slindon in the South Downs National Park.

"We've farmed at Courthill Farm for about eight years, arriving in 2014 with seven in-calf Beef Shorthorn cows. Today, we have 90 pedigree Beef Shorthorn suckler cows and 500 Lleyn sheep, with a few Zwarbles. We also grow about 95ha of organic spring malting barley as part of a 5-6 year rotation: barley for three years, undersown in the third year with a clover/grass ley, which is grazed or cut for silage for 2-3 years, before going back into barley.

We generally outwinter the cattle, but recent wet winters have led to increased poaching and erosion, so we plan to house more of the cows next winter. The alkaline soils, together with the high rainfalls have depleted the available minerals and led to deficiencies of cobalt, selenium, iodine and manganese in the cattle and sheep, which is a challenge to rectify organically.

Fat lambs are sold to ABP Yetminster. We keep all sheep entire and after weaning, split them into single sex groups, drafting every 2-3 weeks. It's extra work, but it's a good system for us, as we find the females get fatter much quicker. Any lambs that aren't ready by November are sold as organic stores. Our Beef Shorthorn steers are sold as yearlings to other organic farmers. Over the last few years, the pedigree heifers have been sold to a farmer in Wiltshire who is building up a Beef Shorthorn herd.

Perhaps the greatest negative impact of COVID has been the malting barley, which we sell through Robin Appel Ltd. People just haven't been drinking beer: we need the pubs, events and weddings. We've thought

SPOTLIGHT ON:

Courthill Farm

> "You do need to approach organic farming with completely fresh eyes: there's no point in thinking you can do the same system you did before. It just doesn't always work."

about growing something different, but we're good at barley and want to minimise risks. Saying that, we have just moved to a Simtech T-SEM direct drill this year to try and minimise our soil disturbance. Ploughing and cultivating isn't great for soil structure and soil carbon emissions, not to mention time and fuel costs. This year, the sheep grazed the stubble turnips right down and we drilled in one pass. It's a huge step forward—if it works! We hope it will be able to outgrow the weeds and that the wireworm stays away!

The pandemic has definitely changed consumer behaviour: more people thinking about their food, spending more on better food and cooking at home. Demand for organic beef and lamb has skyrocketed and we've had some really good prices. But it's swings and roundabouts. One of the reasons for mixed farming is that we don't want all our eggs in one basket and we're confident the malting barley market will recover. The system works well, too: it would be difficult to do arable without the livestock, as they help get the weeds down and provide fertility.

Like everyone, we're apprehensive about losing subsidies, particularly as we're tenants. But future schemes are likely to encourage high nature status and good welfare; as organic farmers, it puts us in a good position. Learning from other farmers is so important. We're part of AHDB's progressive sheep group, which has been fantastic—not just technically but socially, too. There is so much information available online, from webinars, forums, YouTube or kit reviews. While some of it might not be 100% accurate, you just need to be a bit savvy. You can learn from everyone: there are many good 'conventional' farmers out there who are applying some very 'organic' techniques. For example, some arable farmers are trying to reduce fertiliser costs and nitrate pollution by using red clovers. Equally organic farmers are learning methods of successful minimum tillage. We can all learn from each other. But you do need to approach organic farming with completely fresh eyes: there's no point in thinking you can do the same system you did before. It just doesn't always work".

Eye on the Market: Organic Chicken

As with organic beef, lamb and pork, the Covid outbreak – and the subsequent national lockdowns – led to a surge in demand for organic poultry meat during 2020. According to the Soil Association *Organic Market Report 2021*, total sales of organic meat, fish and poultry increased by 16.8% for 52 weeks ending 2 January 2021.[1]

"More people are doing more home cooking and thinking about what they eat and their lifestyle choices," says Hugh Grierson, who farms organic beef cattle, sheep, pigs and chickens in the Strathearn valley near Perth, processing 10,000 organic table birds a year for online and retail markets. "We have seen a significant increase in demand, particularly our online sales, and could sell many more birds."

However, the sudden closure of the food service industry has had a significant impact on the organic poultry sector. Although many producers were able to adapt and divert product from previous food service customers to meet increased retail demand or online sales, for example, those who were heavily reliant on supplying restaurants and other food service outlets have suffered.

Retail demand for organic poultry meat remains strong across most channels. But while there are significant opportunities, there are also concerns about the future—particularly the potential impact of a post-Covid recession. "Markets are good at the moment, but over the years we've seen the rise and fall in sales of organic table birds," says Grierson. "As we've just seen, markets can vanish as quickly as they arrive. You have to work out how you will cope through a potential recession, which could mean cutting production by 50%. If all your overheads are covered, fine. If you are borrowing money, it can become problematic."

With feed costs comprising 75-80% of production costs, and heavy reliance on imported grain, there are a number of research initiatives underway to reduce reliance on grain feed and imports in general—particularly soya. While both necessary and welcome, these are unlikely to significantly reduce feed costs in the short to medium term.

Brexit has also presented additional challenges for smaller poultry operations. First, many UK poultry farmers were heavily reliant on European labour for processing. "As farmers can only get an exemption for short-term 'harvest' labour," Hugh explains, "finding staff to kill and gut chickens really will now be a limiting factor." Second, previous EU regulations meant small producers slaughtering under 10,000 birds a year were exempt from far more costly inspection and licensing under the Food Standards Agency. "We just hope that whoever is making the rules now will continue to exempt smaller processors from costly regulation," adds Hugh. "That's a real concern."

With feed costs comprising 75-80% of production costs, and heavy reliance on imported grain, there are a number of research initiatives underway to reduce reliance on grain feed and imports in general—particularly soya.

1. Based on Nielsen RMS data for the Organic category Soil Association Defined for the 12 month period ending 2nd Jan 2021 for the GB total retail market (Copyright @ 2021 The Nielsen Company)

Eye on the Market: Organic Eggs

The COVID pandemic has had a tremendous impact on the egg industry. From March 2020, retail demand was extraordinarily high, driven by a lack of availability on shelves and leading to panic buying and hoarding, which continued for at least 3-4 months. As a result, the 15-20% of eggs normally destined for the hospitality and food service sector was easily absorbed into the retail sector.

Interestingly, the sudden closure of the hospitality sector in 2020 (which is very cost-focused and heavily reliant on cage eggs) effectively 'turned off' demand for cage eggs and imports—and significantly dialled up demand for higher welfare, British eggs: "Combined with the reduction in demand for UK egg exports as a result of Brexit, we have seen an oversupply of cage eggs, leading to the depopulation of some intensive sheds," explains Tom Willings, supply chain director at Stonegate, which supplies around 25% of all organic eggs to supermarkets and the hospitality and food service sector. This trend is further compounded by expectations that the voluntary commitment from major retailers to sell only cage-free eggs after 2025 means free-range will soon become the baseline for UK egg production.

So what's the outlook for the organic egg market? "That's the 64 million dollar question," says Tom. "But if you are a free-range egg producer, the market is about to become very congested and very competitive. Organic offers a huge and clear competitive advantage in that space."

Nevertheless, the impact of any post-COVID recession is a concern: "If you look back at 2008-2014, the decline in organic retail trade was desperate," says Willings. "Back then, organic food was somewhat sacrificed by most supermarkets on the altar of perceived value. Today, we are on the precipice of significant change among consumer food buying habits when it comes to health, animal welfare and the environment. Consumers are far more aware of—and sympathetic to—the wide-ranging benefits of organic."

But while there are significant opportunities, there is urgent need for clarity and realism on organic standards relating to egg production: "When it comes to supplying organic eggs at scale, uncertainties about future changes in UK/EU organic standards is undermining the necessary confidence among non-organic producers to make the often significant investment required for organic conversion."

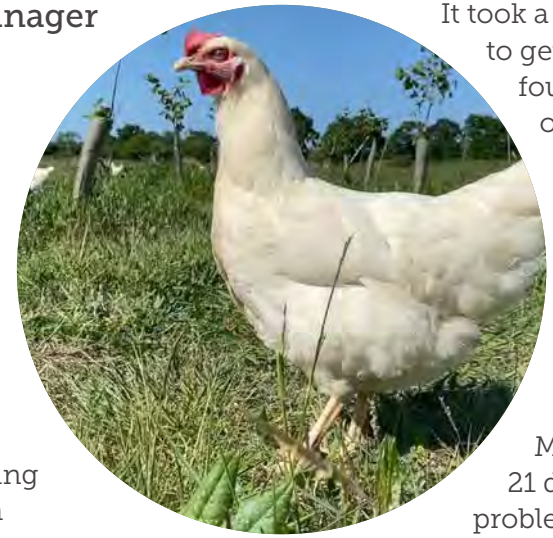
> "If you drew a Venn diagram of all of the important things in people's minds right now when they buy food – the health and wellbeing of the people eating it, the health of the animals and the environment, and the wellbeing of the people who produced it – then organic sits very neatly in the middle. That has to be a good thing."
>
> Tom Willings, Stonegate

SPOTLIGHT ON:

Maple Farm Kelsale

> "All sorts of magic happened when we dropped the stocking rate. Reductions in bird stress, improvements in health, feather condition, mortality...the birds were just noticeably happier."

Mike Mallett is farm manager Maple Farm Kelsale, a 137ha mixed farm near Saxmundham in Suffolk.



"Maple Farm has been fully organic since 2004. Our main focus is cereals, growing traditional varieties for on-site milling on around 85ha. But any grain that doesn't make milling grade goes to our laying hen operation.

We have around 3,000 hens at any one time. We run 10 flocks on a continual basis, giving us a year-round supply of eggs, sold at local Waitrose and Co-Operative stores and numerous local retailers. Our system has evolved over the years, trying to find what really works for us. A small flock size was the key.

It took a lot experimentation to get things right. We found 200 birds/ha was optimum for us. All sorts of magic happened when we dropped the stocking rate. Improvements in bird stress, health, feather condition, mortality... the birds were just noticeably happier. Moving the sheds every 21 days meant rodent problems disappeared. It just all came together. We go to great lengths to ensure hens have year-round access to grass. The weather is still the biggest challenge: things can get muddy very quickly if we're not careful, especially in winter.

We're fortunate to make our own feed and have learnt how to do it really well. Growing our own grains and pulses and

SPOTLIGHT ON:

Maple Farm Kelsale

> "Soil is everything. If you get soil management right, it all falls into place: quality feed, healthy birds, great-tasting eggs and biodiversity."

running small flocks means we can experiment and identify the most cost-effective ingredients. We've done a lot of experimenting with breeds too. Some just don't work well in an organic system. The classic free-range hen is simply too delicate. You need a robust, adventurous bird that wants to hunt and scavenge. My favourite is the Black Rock: they'll lay in hot or cold conditions and, given plenty of space outdoors and inside, their aggression disappears. A fantastic bird.

There's huge demand for organic eggs across all markets. We're constantly turning customers away. But it's vital to get the system right and this requires planning and capital. It's also important to build up provenance for marketing. My advice is to start local and then grow.

Organic management is exciting. It's about looking at the whole system and how it all integrates. Soil is everything. If you get soil management right, it all falls into place: quality feed, healthy birds, great-tasting eggs and biodiversity. With public payments for public goods, we know we're already ahead of the game".

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Eye on the market: Organic Pork

As with other organic meat, the Covid pandemic led to a surge in demand for organic pork across all channels. Unfortunately, this follows a very challenging period for the UK organic pork sector: a surplus of organic pork across the EU in 2019 resulted in a significant pressure on price and almost all organic pig producers had reduced their herd sizes. Building up production takes time and, at present, demand for UK organic pork is outstripping available supply.

"The current market is very challenging from a supply point of view," says Vicky McNicholas, managing director at Eastbrook Farm Organic Meats. "Rising demand is very welcome, just so long as we can keep up with it. We do, however, feel the shift for many consumers to organic meat is here to stay and that many have embraced the benefits that come with it – environmental, welfare, nutrition and, of, course taste. We are actively looking for more farms to work with and would love to talk to anyone who would like to join our supply chain."

According to *The Grocer's* Top Products 2020 Survey, sausages and bacon were among the fastest growing food products, as more people cooked at home and 'traded up' to premium pork, with growing interest in specialist cuts like belly and ribs for home cooking. Sales through alternative markets – particularly online sales – also increased significantly, with strong demand at the local level.

"Our direct and online sales are going fantastically," says Helen Wade of Eastleach Downs Organic Farm, Gloucestershire. "There is no question that there is healthy demand out there for organic pork, sausage and bacon. But unless you are a large producer or you have a strong local market, producing organic pork is a real challenge." Between 2015 and 2021, the organic pig feed price – which represents 80% of the cost of organic pig production – has gone up by 50%, while pig prices have increased by around 10% in the same period. Limited local slaughter and processing infrastructure is also a potential barrier, particularly for small to medium producers, as transport and processing can add significant costs for direct sales. "While there is positive demand for organic pork at all levels, securing a long-term market is absolutely essential," Helen adds.

There is growing pressure to address the feeding of significant quantities of human-grade feed to monogastrics, particularly to reduce or remove imported soya from rations on environmental and ethical grounds. Various initiatives are underway to help farmers utilise alternative feeds, such as clover silage, UK-grown peas and beans, as well as novel materials such as nuts. The big challenge is getting the amino acids right to avoid potential health and welfare impacts.

"There are opportunities to supply organic pork direct and under contract," says Helen. "But much more needs to be done to educate consumers about the differences between organic and non-organic intensive pork."

Organic Dairy

Introduced by Kate Still

Kate Still
Farming Programme
Delivery Manager
Soil Association

"Producing milk from forage is the most economically viable and sustainable approach."

Organic Dairy

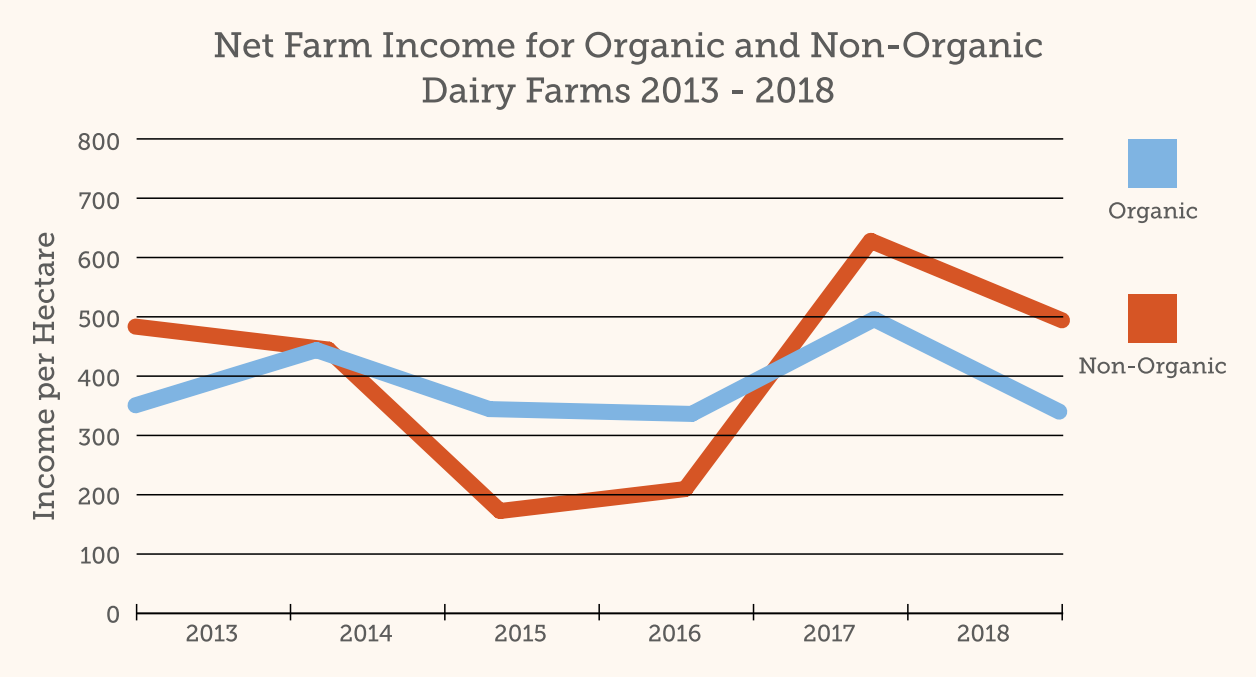
"At 25.4%, organic dairy products hold the largest share of the organic food and drink UK market (worth around £459m), with 7.7% growth in sales in 2020.[1]

Despite the pandemic significantly impacting food service sales, the drive in sales through supermarkets, home delivery and direct sales, including the growth in milk vending machines, has more than compensated. Additionally, it is believed the public interest in plant-based and healthier, more ethical diets in general is leading to a "less but better" approach to milk and dairy purchases. Organic milk exports are also a significant and important part of total sales, which need to be protected in future trade.

Organic milk production has grown steadily in the UK over recent years and now accounts for just under 4% of total UK milk production. Globally, the organic market for milk is worth $18bn, with an annual growth rate of 8%. Nevertheless, the UK organic dairy sector still lags behind European organic milk production, which has doubled since 2007 to 4.4bn litres.[2]

Sustainable milk production from forage

Producing milk from forage is the most economically viable and sustainable approach. Organic dairy cows must be outside grazing as much of the year as possible; in practice this can average over 220 days per year.[3] Many organic farmers have been embracing drought-tolerant herbal leys, focusing on grazing management and increasing the use of wholecrop silage to maximise yields from forage. This is reflected in Kingshay reporting a 14.9% rise in milk from forage to 3,240 litres per cow last year (March 2019 – 2020), as expected this is reflected in organic dairy farmers bucking the general trend in dairy farming to increase concentrate feed, which has seen a 10% rise in the non-organic sector over the last decade to 2,642kg per cow, compared with a typical organic cow consuming 1,775kg of concentrate.[4]



Data source: Scott, 2020 Organic Farming in England 2018/19

The high cost of organic purchased feed and the need for many farms to purchase additional organic forage due to drought—particularly in 2018—has contributed to a general decline in organic dairy profitability over the last few years. In 2018–2019, for example, organic dairy farms saw a 6% decrease in total organic farm business output compared to the previous year.[5] The organic milk price has also been in decline over the last two years and is currently at its lowest level for at least four years. As a result, the price gap between organic and non-organic is closing.

1. Based on Nielsen RMS data for the Organic category Soil Association Defined for the 12 month period ending 2nd Jan 2021 for the GB total retail market (Copyright @ 2021 The Nielsen Company)

2. OMSCo (2019)

3. Kingshay (2020) Dairy Costings Focus Annual Report 2020. Available: https://www.kingshay.com/news/kingshays-dairy-costings-focus-report-2020-released/

4. Kingshay (2020)

5. Scott (2020)

Eye on the Market: Organic Dairy

With the largest product share of the UK organic market, dairy continues to drive organic sales. But any future expansion must be managed carefully.

The sight of farmers pouring away thousands of litres of fresh milk after supply chain disruptions caused by the pandemic is something most would like to forget. While we fortunately did not see similar scenes in the organic sector, disruption was still severe.

"When the world went in to lockdown in March, Arla was not immune to the shake-up that came to the full supply chain," says Rosie Cowie, Arla Foods customer agricultural manager. "While things were changing day by day, we put plans in place to ensure milk kept flowing from farm to fridge, prioritising supply of the products that were most important to people at the time."

"Our biggest challenge was diverting established trading and customer patterns from customers where trade was down to those where trading had improved," says Richard Hampton, Omsco managing director. "This added cost and inefficiency in the short term, but we were quickly able to get on top of the issues and continue to service our customer base in full."

Lockdown restrictions also had a major impact on Calon Wen: "The first lockdown had a massive impact on operations, as much of our raw milk goes into Pret a Manger and Leon stores," says Dai Miles, Calon Wen managing director. "As a result, we had to sell significant quantities of organic milk as conventional for a short time. Things started to pick up again by June and have subsequently stabilised." Arla's foodservice business was similarly affected: "We collected all of the milk our farmer owners produced and were able to redirect milk and products destined for foodservice into other areas of demand," Cowie says. "The supermarkets saw an uplift in liquid milk sales and many increased volumes ordered, which allowed us to cope with some of the foodservice impact." Hampton explains that foodservice is a relatively small part of what Omsco does: "We found our overall demand portfolio strengthened during Covid, as the gains in our retail marketplace have outweighed the losses in foodservice.

Increased consumer demand helped to drive retail sales of organic dairy products, particularly through online and alternative outlets. "Ironically, our branded milk, cheese and butter sales have never had it so good," says Miles. "We saw increased sales through Ocado, Abel

> "While you need to have a contract before conversion, anyone looking at conversion should have a genuine empathy for organic, rather than just seeking a relatively decent milk price."
>
> Dai Miles, Calon Wen

& Cole, Suma, Essentials and across our supermarket customers in Wales." Hampton is confident that much of the market growth will remain in the post-Covid era. "Consumer behaviours have undoubtedly changed," he says. "We're cautiously optimistic about the continued progress of output in the face of prices, which have been relatively stable with a gently upwards slope."

While positive about the future, all commentators agree there are limited recruitment opportunities for new entrants and that expansion must be managed carefully to ensure market stability and price. "Make sure you have a contract commitment from your buyer before entering conversion," says Hampton. "Farmers should convert because it is right for the farm and because they believe in the benefits of the system." Miles agrees: "While you need to have a contract before conversion, anyone looking at conversion should have a genuine empathy for organic, rather than just seeking a relatively decent milk price."

Brexit presents both opportunities and challenges. UK organic dairy is a substantial net exporter and EU markets are relied upon not only for growth, but also for access to specialised processing and for balancing of both raw milk and milk fractions. "Despite the very real challenges resulting from Brexit, Omsco has worked hard to adapt to the new trading environment and continued to export product to a range of EU customers," says Hampton. "Currently, the EU market is accessible without official trade tariffs, but the admin costs and customs fees for both export and import have the same effect. In the short to medium term, Brexit means the UK organic dairy sector is more reliant on domestic market performance and will not make the same speed of progress in market diversity and growth that it otherwise could." Miles agrees: "We export predominantly to the Middle East and Hong Kong, but most UK organic dairy exports rely heavily on EU markets, as well as specialist processing on the continent. If exports become problematic that could ultimately depress prices for everyone."

"More consumers are interested in sustainability and how their food is produced, and organic has a lot to offer," Cowie adds. "But there is still much to be done to improve the consumer's understanding of the benefits of organic dairy."

SPOTLIGHT ON:

New House Farm

"We use sexed semen on the girls and will raise the occasional Friesian bull to 3-4 months and sell them conventionally. There's no money in them but you're giving them a life."

Glyn and Eira Jones raise 200 organic dairy cows on 242ha near Narberth in Pembrokeshire

We're the fifth generation farming here at New House Farm, farming about 240ha, two-thirds of which is owned. We currently have around 200 milking cows, mainly pedigree Friesian-Holsteins with some pedigree Shorthorns and Jerseys, and 200-odd followers.

Our aim is to produce as much feed as we can off the farm, so we grow our own wheat, barley, oats and peas. We're growing around 50ha of cereals this year, trying different grains to find what works best here, with both winter and spring sown crops. This year we are trialling triticale for the first time. In an ideal world we'd like to become self-sufficient but protein will be our limiting factor. While I'm sure the credibility of imported organic cereals isn't an issue, I do think we all need to do more to reduce transport and associated GHG emissions. Ultimately, for me, it also comes down to sustainability and self-sufficiency: I don't want to have to rely on somebody else if I can help it.

Our cows are producing 7,000 litres/cow on a tonne and a half of concentrate per head and our focus is to get as much as we can out of our forage. For the last two years we've successfully grown fodder beet, achieving around 50-60 tonnes/hectare.

SPOTLIGHT ON:

New House Farm

> "It's fair to say that the organic milk price has been challenging for the last 2-3 years, so the Covid pandemic – and particularly the sudden closure of the food service sector – really hasn't helped matters."

It's been a really good feed to grow here and compliments our clover silage, with decent energy. But unfortunately it's not an option this year due to unforeseen land issues, so we've had to make alternative plans.

We're contracted to supply Omsco and we were one of the group of farmers who transferred from First Milk back in 2016. It's fair to say that the organic milk price has been challenging for the last 2-3 years, so the Covid pandemic – and particularly the sudden closure of the food service sector – really hasn't helped matters. While things have now stabilised somewhat, the price has never fully recovered since early 2020 and I think the industry needs to focus on existing organic suppliers before any thoughts on expanding.

It's a challenging time for everyone and if I was looking at converting I'd want to go in with my eyes completely open – and with a contract! Yes, if you have a solid business plan to bottle your own milk or you're making organic ice cream or doing something else that doesn't rely on having a milk contract, then crack on. It's clear many consumers are thinking more about sustainable farming and how their food is produced, so there is demand out there if you have the right product in the right place at the right price. But there's no point in anyone thinking about converting to organic dairying without a contract or a secure market for their milk.

Agroforestry

Introduced by Ben Raskin

Ben Raskin
Head of Agroforestry
and Horticulture
Soil Association

"In some cases, using projections from trees reaching full productivity in their eighth year, agroforestry systems could be as much as 40% more productive, significantly increasing output per hectare."

Agroforestry

Agroforestry can have a broad range of on farm benefits, including productivity, mitigation of climate change, water management, biodiversity and animal welfare. The economic case for agroforestry systems can be presented in three main ways:

The value of enhanced ecosystem services

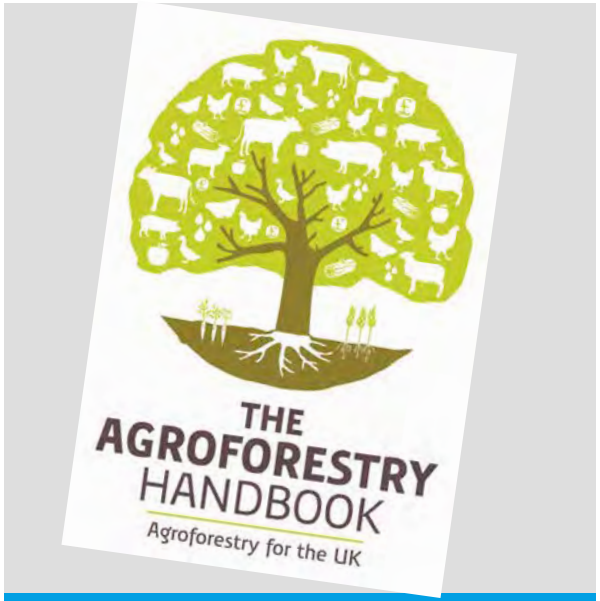
These may benefit both the farm and the wider public. For example, flood alleviation, enhanced biodiversity, and carbon sequestration through improving soil health.

The value of enhanced agriculture outputs

For example, increased grain yield or meat production.

The value derived directly from the tree component of the system

The addition of fruit, nuts and berries, browse for livestock, timber or woodfuel.



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Robust historic financial figures are not yet available for agroforestry in the UK; this is further compounded by the wide range of potential farming systems, soils and climates to which agroforestry can be applied. Therefore, this section is based upon a variety of research-based assumptions and projections. Trees are multi-year and long term, yielding differently according to their species and age, an important aspect when considering profitability.

Profitability

Whole farm budgeting for profit from agroforestry

Using a whole farm budget can show the anticipated performance of the business over a period of time. Start by calculating how many hectares of crop or head of livestock will be kept and the planned area of agroforestry to be planted. From the change in cropping or stocking area, estimates can be made on inputs and outputs for each enterprise – crops, livestock and agroforestry. Adjust the costing for the tree component as trees establish and mature in the system.[1]

Agroforestry fixed costs, labour and machinery budgeting

Implementing an agroforestry system may require some added specialist knowledge, skills or equipment. When planning, consider species and spacings to ease seasonal management (pruning and harvesting) to minimise fixed costs. An opportunity exists within labour to provide employment during the quieter seasonal periods, as much of tree management and pruning happens in late autumn or winter. Allow enough space between trees and between alleys for machine width (or multiples of) based on mature tree and canopy sizes.

A useful tool for understanding the productivity of agroforestry systems vs monoculture is the Land Equivalent Ratio (LER) calculation.

"Research project SAFE analysed 42 tree-crop combinations and using LERs determined agroforestry systems to be 20-30% more productive on average."

Forecasting agroforestry outputs

A useful tool for understanding the productivity of agroforestry systems vs monoculture is the Land Equivalent Ratio (LER) calculation. This is a way of comparing combined yields in varying ratios to yields obtained from a monoculture. Research project SAFE analysed 42 tree-crop combinations and using LERs determined agroforestry systems to be 20-30% more productive on average. In some cases, using projections from trees reaching full productivity in their eighth year, agroforestry systems could be as much as 40% more productive, significantly increasing output per hectare (see table opposite).

Year Eight Sample LER Spreadsheet Calculation Apple/Wheat

	LAND AREA %	YIELD HA/YR	VALUE £/T	COMPONENT OUTPUT £/H/YR	TOTAL OUTPUT £/H/YR
MONOCULTURE					
Apple (1000 trees/ha)	100	10.4t	650	6,760	**6,760**
Wheat	100	10t	150	1,500	**1,500**
AGROFORESTRY					
Apple (90 trees/ha)	8	6t	650	3,900	**3,900**
Wheat	92	9t	150	1,248.9	**1,248.9**
	1.0t/ha reduced from shading				
					5,419
L.E.R. = 1.4	6	$\frac{\text{Tree Agroforestry Yield}}{\text{Tree Monoculture Yield}} + \frac{\text{Crop or livestock Tree Agroforestry Yield}}{\text{Crop or livestock Tree Monoculture Yield}}$			**9**
	10.4				**10**

Source: (2019) The Agroforestry Handbook – Agroforestry for the UK

1. (2019) The Agroforestry Handbook – Agroforestry for the UK. Available: www.soilassociation.org/farmers-growers/technicalinformation/agroforestry-handbook/download-the-agroforestry-handbook/
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Envrionmental Land Management Schemes

Adrian Steele
Organic Sector
Development Advisor
Soil Association

"The overall message is clear – don't hold off applying for Countryside Stewardship now because you think something better might be round the corner."

Environmental Land Management and Organic Farming

The future for environmental support

At present, support for organic conversion and continuing organic management is delivered through either the Mid or Higher Tier Countryside Stewardship scheme. Defra has indicated that this scheme will continue until 2024, but that a number of different grant programmes will be introduced between now and then – and after 2024 the new Environmental Land Management (ELM) scheme will become fully operational.

There is still much we don't know about these new schemes – not least exactly how organic farming and growing will be rewarded within them. But this is what we know so far:

> Although CS is being phased out, Defra has been clear that being part of CS now will put you in the best position to join the new schemes later.

Countryside Stewardship

Countryside Stewardship (CS) includes options for conversion and maintenance of organic land with different rates of payment for different land uses— from permanent pasture, rotational or arable land to horticulture and top fruit. There are also some specific land management options for organic farmers, such as undersown cereals or multi-species leys, as well as many options that are available to both organic and non-organic farmers, such as permanent pasture with very low inputs, hedgerow management, and a variety of capital options including fencing.

Until now, the application period for these schemes has been the spring of one year with a start date of 1 January the following year. But the Rural Payments Agency (RPA) has indicated they intend to move to rolling start dates for the last few years of this programme – something that should definitely help when planning to align organic conversion timings. Although CS is being phased out, Defra has been clear that being part of CS now will put you in the best position to join the new schemes later. Defra has confirmed that if ELM offers better options for farmers when it is launched, it will be possible to end one agreement early and transition to a new scheme with no penalties. There will no doubt be some specific requirements and timelines for this process, but the overall message is clear – don't hold off applying for CS now because you think something better might be round the corner.

Environmental Land Management Scheme

The Environmental Land Management (ELM) scheme consists of three strands: Sustainable Farming Incentive (SFI), Local Nature Recovery, and Landscape Recovery.

ELM – Sustainable Farming Incentive

The pilot for SFI was launched in early 2021, but could only be used on land that was not already in any other Stewardship agreements. However, the intent is that, from 2022, SFI will be available for all land, even land under other agreements. SFI will pay for additional actions – different to Stewardship options – that farmers take to manage land in an environmentally-sustainable way. Actions are grouped into different packages: arable and horticultural land and soils, improved grassland and improved grassland soils, low and non-input grassland, woodland and waterbody buffering. Within each of these packages farmers can choose from three levels – introductory, intermediate and advanced. Each level has more requirements, but offers higher payments than the previous level and delivers greater environmental benefits.

ELM – Local Nature Recovery

The next strand of ELM is Local Nature Recovery. This will pay for actions that support local nature recovery and deliver local environmental priorities, such as creating, managing or restoring habitats, natural flood and species management. This scheme will also encourage collaboration between farmers, helping them work together to improve their local environment.

ELM – Landscape Recovery

The final ELM strand is Landscape Recovery. This will support the delivery of large-scale landscape and ecosystem recovery through long-term, land use change projects, such as creation or restoration of forests, coastal habitats or peatland.

Other grant opportunities

Defra has said other funding will be available to support animal health and welfare, but there is limited information and it doesn't look like we'll find out more till 2022. Defra says that they would like this to sit alongside its environmental schemes to help farmers to improve animal health and welfare.

Defra will also offer Business Planning Advice, Support for New Entrants and a Farming Investment Fund that looks like the next iteration of the Countryside Productivity Scheme, which should be open for grant applications later in 2021.

Grants for organic farmers – unanswered questions

Despite the fact that organic farming clearly delivers the public goods that Defra wants farmers to deliver, there is no specific mention of organic farming in the description of any of the new ELM strands.

The English Organic Forum (of which the Soil Association is a member) released a **report** in February 2021, making the case to Defra as to why organic land management must be integrated into England's agricultural strategy through ELM. The report makes clear that there are multiple synergies from certified organic production that address many of Defra's aims for the delivery of public goods and cross cut the different strands that Defra propose as a mechanism for grant funding.

> The Soil Association will continue to work with others in the organic sector to ensure fair recognition for the many benefits that organic land management delivers, and ensure organic farmers can receive payments for their good environmental and animal welfare outcomes.

SPOTLIGHT ON:

Lesquite Organics

As well as assessing your business financials, climate change makes it more important than ever to look at soil health and grassland management, particularly the potential to improve grazing resilience and forage production.

Tom and Nic Tolputt farm organic beef cattle and arable crops at Lesquite Organics near Fowey, Cornwall

"British agriculture is about to change quite dramatically. With such an uncertain future ahead, it's now time for us all to get our ducks in a row.

As both an organic farmer and farm consultant, I am concerned about post-Brexit trade negotiations, changes to support payments on the horizon, and the likelihood of a post-COVID-19 recession (where the public will have less to spend on things like food). That's not to mention the extreme weather patterns we now have to contend with.

In light of these challenges, my wife and I have been reviewing our organic beef and arable farm business here in Cornwall. We wanted to be prepared for the worst-case scenario of a halving in farm-received subsidy (tapering to zero of BPS, Stewardship agreements coming to an end and uncertainty about the new ELM payments) and a 10% reduction in the farm gate price. The outcome was quite chilling and we made two immediate decisions: first, to ensure we're making full use of land we have available by increasing stock numbers, out-wintering mature cattle and mob grazing herbal leys. Second, to rationalise the business and get rid of anything that's not making a profit. I would strongly advise everyone to take similar steps to assess their farm businesses and explore any practical measures that could help improve overall farm resilience.

COVID has shown us that there is a significant minority out there who are interested in food quality and recognise the importance of domestic producers

SPOTLIGHT ON:

Lesquite Organics

for future food security. So it's well worth considering opportunities to add value to your products, perhaps selling locally or online, or if you can promote your farm produce in a positive manner through certification, for example. Agritourism is another potential for many farms, particularly as public interest in food, farming and wildlife continues to grow. Can you offer holiday accommodation or camping—or even glamping? What about potential opportunities to work with forward-looking arable farms who are looking to re-introduce livestock into their rotations to improve soil health or address weed problems?

As well as assessing your business financials, climate change makes it more important than ever to look at soil health and grassland management, particularly the potential to improve grazing resilience and forage production. Have you considered deep rooting herbal leys or drought-resistant sainfoin to provide more reliable grazing and forage supplies? After introducing herbal leys about seven years ago, we're achieving 0.8kg daily liveweight gain with no concentrates. We're hoping to increase this to 1.35kg/day through improved grassland management.

Similarly, measuring and managing carbon stocks on your farm is another key area to explore. Not only will building soil organic matter improve overall resilience of your farming system (improving infiltration rates in the wet and retaining moisture in the dry), but gathering actual data on your farm carbon status will allow you to communicate the benefits to customers. Policymakers are looking at ways to reward farms that are actively sequestering soil carbon and we know improving soil organic matter will be critical to achieving five of the ELM scheme's objectives. Plus there are two specific soil strands within the recently launched Sustainable Farming Incentive: one for arable and horticulture and one for improved grassland. Both start with a requirement to assess and protect soil with intermediate and advanced options to improve soil structure and support soil biology. We're already well on the way to delivering this now – something we hope will give us a head start when SFI opens for everyone."

> "I would strongly advise everyone to take similar steps to assess their farm businesses and explore any practical measures that could help improve overall farm resilience."

Going Organic

Introduced by Sophie Kirk

Sophie Kirk,
Senior Business
Development Manager
Soil Association Certification Ltd

Get in touch with Soil Association Certification's expert producer team to find out more about organic certification.

Going Organic

What is organic certification?

Organic farming is defined by EU law and therefore any product sold as organic in the UK must comply with a set of production and processing standards. DEFRA oversee approved certification bodies such as Soil Association Certification to provide organic certification and inspection services to organic farms.

Who are Soil Association Certification?

Soil Association Certification is an approved organic certification body which is wholly owned by the Soil Association Charity. It is the UK's leading certification body certifying hundreds of organic farms and 70% of the UK food and drink on sale in the UK. They help businesses to navigate the requirements of organic conversion and certification, inspect farms to organic standards and provide them with an organic licence to sell products with use of the Soil Association Organic Symbol. As a not-for-profit business, any surplus income is gift aided to the Soil Association charity to develop, build and safeguard the organic sector. They certify all farm sizes and enterprises and provide organic certification for on–farm processing and packing.

Land and crop conversion

Before marketing land or selling animals or products as organic, farms must undergo a "conversion period" where land and animals are managed to the organic standards for a required period. This provides time to start establishing organic management techniques and building soil fertility and biological activity. The conversion period for land is typically two years, although there is scope to reduce this if it can be demonstrated that land has been managed according to organic standards before entering conversion. Perennials will also require a further twelve months on top of the standard two-year period before the crop can be harvested as organic. To produce an organic annual crop, seed must be sown into and harvested from land that has completed its conversion period and has organic status. Crops harvested during the second year of conversion can be sold as 'in conversion'. For more information on organic conversion please view Soil Association Certification's crop conversion guide and livestock and poultry conversion guide.

Annual inspections and support

Organic certification includes a physical inspection of the farm every year to look at land, livestock, crops and records to verify that all organic production rules are met. Every Soil Association Certification farming licensee is assigned an experienced certification officer, responsible for managing their organic certification and signposting to business support. An application inspection is undertaken by Soil Association Certification auditors. Soil Association Certification provides a range of benefits for their clients including joint audits, organic market insights, marketing materials and support and organic farming communications.

Find out more about certification

Get in touch with Soil Association Certification's expert producer team to find out more about organic certification and conversion and how it can work on your farm.

Call: 0117 914 2412
Email: goorganic@soilassociation.org
Visit: www.soilassociation.org/certification/farming

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