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What is the future for organic dairy?

Written by:

Sophie Gregory

October 2025

A NUFFIELD FARMING SCHOLARSHIPS REPORT

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Date of report: September 2025

"Leading positive change in agriculture. Inspiring passion and potential in people."

Title	What is the future for organic dairy?
Scholar	Sophie Gregory
Sponsor	The Trehane Trust
Objectives of Study Tour	Objectives of Study Tour 1. Assess the present position and the outlook for organic dairy across different countries and systems, comparing global lessons with the UK. 2. Suggest clear actions for farms and the wider sector to strengthen markets, reduce risk, and improve resilience 3. Clarify the story we tell, using simple messaging, to build trust, value and long-term profitability
Countries Visited	Hungary, Austria, United Kingdom (England & Wales) Denmark Ireland, Italy, Belgium, United States, Canada, Sri Lanka, Azerbaijan, Brazil, Australia (including Tasmania), Indonesia, Taiwan
Messages	1. **Organic dairy must adapt** resilience, collaboration, and innovation are crucial for future success. 2. **Clear communication and strong storytelling** are needed to show organic's unique value as conventional standards rise. 3. **Policy support and market growth** must work together to keep organic dairy viable and visible.

EXECUTIVE SUMMARY

This report explores the future for organic dairy through the lens of Sophie Gregory's Nuffield Scholarship journey. Rooted in both personal experience and international research, it examines the opportunities, challenges, and evolving role of organic dairy in a rapidly changing agricultural and consumer landscape.

Organic farming has long been positioned as a system that supports soil health, biodiversity, animal welfare, and environmental protection. However, the sector faces increasing competition from newer sustainability narratives such as regenerative and climate-smart farming which often appear more flexible and accessible. At the same time organic dairy has experienced volatile market dynamics, particularly during the 2022–2023 crash, when rising costs, falling demand, and oversupply drove milk prices below the cost of production.

Through extensive travel and case studies across Europe, the US, Asia, and Australia, the report identifies several key lessons. Successful organic dairy systems are often underpinned by

- Policy support and procurement frameworks
- Strong cooperative models that enable fairer pricing, infrastructure investment, and market access
- Storytelling and branding that make organic values visible and relatable to consumers
- System fit and genetics, where the right cow and forage system determine resilience and profitability.

Challenges remain. Organic's financial fragility is amplified by its dependence on consumer disposable income, limited UK processing capacity, and stricter input restrictions that reduce flexibility in crises. Certification can feel rigid, and messaging is often complex, leaving organic overshadowed in public discourse. Furthermore, climate volatility, feed security, and international competition raise questions about resilience.

Yet, there are opportunities. Research, such as Newcastle University's findings on higher omega-3 levels in organic milk, shows how science can boost trust and sales when communicated effectively. Collaboration across

the supply chain, the creation of a unified UK organic label, and stronger links between organic crop and dairy systems could all strengthen resilience. Above all, storytelling connecting consumers to nature, welfare, and provenance offers organic a distinct advantage.

The report concludes that organic dairy remains a valuable tool, though not a one-size-fits-all solution. Its future depends on aligning market presence with clear messaging, leveraging policy support as recognition for delivering public goods, and embracing regeneration as part of its identity. If organic can combine authenticity with innovation, it can continue to play a vital role in sustainable food systems worldwide.

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DISCLAIMER

The opinions expressed in this report are those of the author alone and not necessarily those of the Nuffield Farming Scholarships Trust, of the author's sponsor, or of any other sponsoring body.

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CHAPTER 1: INTRODUCTION

My name is Sophie Gregory. I am married to Tom, and we have three children: Harry, aged 16, Evie, aged 13, and Cecily, aged 7. We farm on the Dorset, Devon, and Somerset border, and to be honest, we are never entirely sure which county we are in at any given time.

At the time of applying for my Nuffield Scholarship, we were running a 50:50 share farming agreement with our business partner. We owned the stock and machinery equally and were milking around 400 organic cows across 900 acres with two different landlords. It is a business that has grown and changed a lot over time, and I will reflect on that journey later in this report.

I did not grow up in farming. My earliest connection to it came through visits to my godfather's local farm where he grew crops and potatoes. I always enjoyed being there but I never imagined farming would become my life. From the age of 13, I worked in a variety of jobs; pubs, retail, and everything in between. I was bright at school but never really applied myself. I did enough to get by and not much more.

Everything changed when I found out I was pregnant at 18. It was a sink or swim moment. University in the traditional sense was not an option, so I enrolled with the Open University to study accountancy just six weeks after having Harry. That decision changed everything. I found myself among people of all ages, at different life stages, studying for different reasons. It was time to swim, and I did.

I later went on to work for a local rural accountancy firm for a few years before returning to the farm. I never thought farming was something I could do, but life had other plans. Tom's dad sold his cows when Tom was ten years old, and ever since then Tom had been determined to get back into dairying in some way. In 2014, we made it happen. At the age of 24 and 25, we bought a 20 percent equity share in a new dairy business. It was a huge risk. We had two young children and put in our entire life savings, but at that age, we felt we had little to lose.

Being organic was not the driving force at that point. Getting into dairying was. But financially, organic seemed to stack up best on paper, our business partner had several other organic farms and it likely helped us secure the tenancy.

I have always believed that you make your own luck. If you position yourself in the right place, work hard, and keep going, opportunities will come. The business we run today looks quite different from the one we started.

CHAPTER 2: WHY DO A NUFFIELD? WHY THIS TOPIC?

Farming is full of decisions whose true impact only reveals itself years later. One of our biggest was converting to organic. At the time it looked best financially on paper and our business partner had 20 years' experience in organic dairy farming. Over time it became the way we farmed and aligned with our values, our system, and the market signals we were seeing. But lately the question has grown louder in my mind: was going organic the right decision for our business in the long term?

That question sat at the heart of my Nuffield application. In July 2023, when I applied, the organic milk price was around 40p per litre. By September, when I was awarded the scholarship, it had barely moved. That price was below the cost of production for most organic farms, ours included. The margins that once justified the paperwork, the restrictions, and the compromises had shrunk. We were running hard to stand still.

It wasn't just about price. At the same time, the agricultural landscape was shifting rapidly. Regenerative farming was being talked about in every room. Government schemes were being rewritten after leaving the EU. Consumers were increasingly confused about what labels meant. And yet, despite being the original 'eco' farming system, organic felt like it was being left behind. It was no longer the shiny option. It was serious but often misunderstood. Important, but sometimes impractical. Respected by some, rejected by others.

I applied for a Nuffield because I needed perspective. I wanted to see if organic dairy still has a place in the future of farming. I wanted to

understand how other farmers are adapting, what innovations are out there, and whether our business can stay true to its values while remaining resilient and profitable. I also wanted to ask difficult questions. Is organic still enough? Or has the conversation moved on?

This topic is not about defending organic farming blindly. It is about testing it honestly. Challenging the assumptions. Learning from those who have stayed in, those who have left, and those doing something entirely different. My aim is not to write a romantic defence or a harsh takedown, but to produce something grounded, useful, and honest.

This journey started with a financial question. But it quickly became one about identity, values, and vision. What is the future for organic dairy? And is it still the right fit for our business and others like it?

CHAPTER 3: BACKGROUND

3.1 What is organic?

"Relating to or derived from living matter. Of food or farming methods, produced without chemical fertilisers, pesticides, or other artificial chemicals."

In practice, organic farming works with nature to build healthy soils, support biodiversity, care for animals, and protect the environment. Farmers rely on natural processes. In livestock systems, animals have access to pasture and space to behave naturally, and routine antibiotics and artificial growth hormones are not used. In the United Kingdom, production is regulated and independently certified by bodies such as the Soil Association and Organic Farmers and Growers, with standards covering soil health, animal welfare, processing, and labelling. The approach is guided by four principles from the International Federation of Organic Agriculture Movements: Health, Ecology, Fairness, and Care.

3.2 A short history of organic farming

The organic movement emerged in the early twentieth century as a response to the rapid industrialisation of agriculture and the spread of synthetic fertilisers and pesticides. Sir Albert Howard's 1940 book **An Agricultural Testament** argued that healthy soil is the foundation of sustainable farming. Across Europe, thinkers and farmers reached similar conclusions, from Rudolf Steiner's biodynamic ideas to cooperatives that emphasised soil health and natural cycles. In Britain, Lady Eve Balfour's **The Living Soil** and the founding of the Soil Association in 1946 created a lasting champion for farming in harmony with nature. Through the 1960s and 1970s organic remained niche, but in the 1980s and 1990s rising public concern over residues, animal welfare, and the environment brought supermarket availability and formal certification. In the 2000s the sector expanded quickly with government support and consumer demand. Today organic farming is practiced in more than 180 countries. Although it remains a small share of total production, its influence on sustainability debates and food culture is significant.

3.3 A short history of organic milk in the UK

Organic dairy began in the 1980s with small numbers of farmers selling direct through farm shops, health food stores, and local deliveries before formal standards existed. Certification in the early 1990s and government support for conversion increased confidence but processing and distribution were challenging, so specialist processors and cooperatives

developed. A key step was the creation of the Organic Milk Suppliers Cooperative in 1994, which helped farmers market milk together, maintain standards, and reach export markets. By the late 1990s and 2000s, major processors and supermarkets took organic milk national with brands such as Yeo Valley helping it move from niche to mainstream. The financial crisis in 2008 reduced demand and premiums, but interest revived in 2020 and 2021 as consumers focused on provenance, health, and sustainability. In 2022 and 2023 the sector faced a sharp downturn as input costs rose with inflation and global events, demand fell during the cost-of-living squeeze, and oversupply built up. Milk was sometimes downgraded to conventional, volume caps were imposed, and farmgate prices fell to about 40ppl, below the cost of production for many. Some farms reverted to conventional, and the industry now views this period as a turning point, reassessing resilience, scale, fairness, and how to adapt to changing markets.

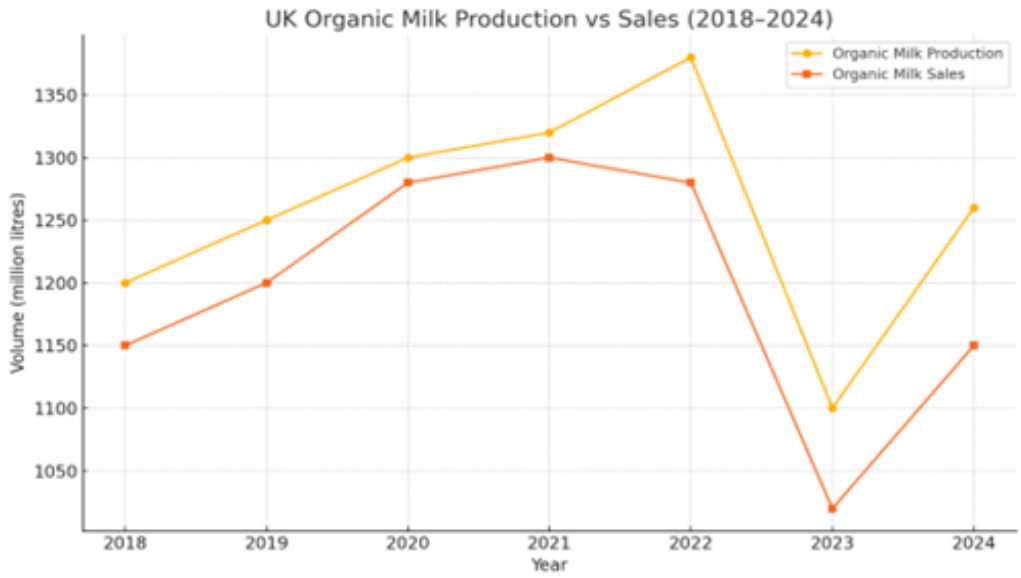

Figure 1: UK organic milk production vs sales

Category	Organic Dairy	Conventional Dairy
Feed	Certified organic feed, mostly forage based. No GMOs or synthetic additives.	Balanced rations with non-organic, imported, and GMO feed allowed.
Grazing	Grazing is required during the season. Pasture access is mandatory.	Grazing is optional. Some cows graze, others are housed all year.
Animal Health	Focus on prevention. Limited antibiotic use. Longer withdrawal periods.	Full access to treatments under vet guidance. Shorter withdrawal periods.
Soil Management	No synthetic fertilisers or pesticides. Emphasis on soil biology and rotation.	Synthetic inputs permitted. Soil fertility managed through conventional means.
Certification	Must be certified by an approved organic body. Regular inspections required.	No organic certification needed. Follows general farm assurance schemes.
Milk Yield	Lower yields per cow. Costs higher but offset by organic premium.	Higher yields. Efficiency driven by input use, genetics, and housing.
Environmental Impact	Lower input use, higher biodiversity, may need more land per litre of milk.	More efficient per litre but environmental impact varies by practice.

Figure 2: Differences between organic and conventional dairy in the UK

CHAPTER 4: TRAVEL

I truly embraced the travel aspect of the Nuffield experience exploring some incredible places along the way. Not wanting to keep those adventures to myself, I'll be sharing them on my Substack:

🌍 www.farmerintraining.substack.com

Where	I visited…
Hungary and Austria	A biodynamic farm in Hungary. In Austria, I visited Gut Hardegg estate.
Cotswolds Mobile Dairy-UK	A mobile dairy operation in the Cotswolds, The estate also has arable and beef enterprise,
Soil Association HQ Bristol	The headquarters of the Soil Association in Bristol, the UK's leading charity for organic.
Arla HQ – Denmark	Arla's global headquarters in Denmark,
Teagasc Growing Organics Open Day	Bill George's farm in Co. Laois, Ireland, as part of the Teagasc Growing Organics open day programme.
Bologna, Italy	Bologna in Italy staying in an organic hotel and Parmigiano-Reggiano cheese production and farms.
Nuffield Dairy Tour	The Nuffield Dairy Tour in North Wales, visiting a range of farms from intensive but simple systems to block-calving setups
EU Headquarters, Brussels	BAB IFOAM Europe, farming unions, and representatives from across EU member states.
Hafod Farm, Wales	Patrick and Becky and their boys on their farm milking cows and making organic cheese
East Coast USA	A variety of farming systems from Amish to intensive plus Washington DC to meet government agencies
Canada	Couple of farms in Ontario
Sri Lanka	From rice to tea to cows to government policy
Azerbaijan	Speaking at COP29 plus large-scale dairy
Tasmania, Australia	Grounded festival, vineyard and merino sheep visit to Jane, tropical plant nursery and Ashgrove cheese
Indonesia	Meetings with retailers, government agricultural department, workshops with farmers
Taiwan	Pineapples on roundabouts and IFOAM conference
Australia	Feedlots merino sheep large scale corporate dairy cherry's apples dairy processing.

CHAPTER 5: DISCUSSION

5.1 The Power of Marketing and Storytelling

If there is one thing that has become clear to me throughout this journey, it is that the future of organic dairy will not be won in the field alone.

Storytelling is how we make that visible and relatable, and it is an area where organic has historically fallen short. Simple storytelling sells.

One of the best examples of storytelling done well is Yeo Valley. The Mead family did not just build a brand; they built a movement around their farm. By connecting consumers to a real place, a real family, and real values, they turned Somerset into a national identity. From clear, distinctive packaging to memorable campaigns like the 2010 Yeo Valley Rap, they showed how authenticity and creativity can make organic part of the mainstream weekly shop. What made it work was that people often trusted Yeo Valley before they even realised it was organic. That is the power of story, it builds trust first and sells the system second.

Figure 3: Yeo Valley rapping farmers

I saw another brilliant example of this in Denmark. In supermarkets, floor graphics compare the living space of animals in different systems, giving shoppers instant, visual context. Public procurement policies make organic the norm in schools and hospitals, and restaurant certifications proudly display how much of their menu is organic. The result is that organic is not positioned as a niche luxury, it is part of Denmark's national food identity, supported by clarity, consistency, and transparency. The Danish government own the organic label and certification body and take a lot of responsibility for the marketing of it.

We also need to recognise how successfully regenerative agriculture has captured the narrative. At the IFOAM (**International Federation of Organic Agriculture Movements)** World Congress in Taiwan, we discussed how films like Kiss the Ground have made regenerative feel dynamic, forward thinking and, crucially, cool. They speak to the next

generation who want solutions. Regenerative is often telling a similar story to organic, but with fresher language, strong visuals and more emotional weight. That is our wake-up call. The future is bringing the best of organic and regenerative together, boldly, clearly and without apology. Since then, IFOAM has come out with the statement;

"*Regeneration is already embedded in the principles of organic farming. But to stay relevant, organic must continue to evolve. It must communicate more effectively, innovate without*

compromising its foundations and reclaim its position as a leader in sustainability."

In the end, this is not just about selling milk. It is about shaping how people connect to the story behind the food, remembering ...SIMPLE STORYTELLING SELLS

As part of the story telling I think the big fix is what shoppers see on pack and on shelf. In Denmark and Taiwan there is one clear national organic mark; Europe has the green leaf; you spot it in a second. In the UK we have certifier logos but no single sign that ties milk, meat, veg and store cupboard together. I would love a simple UK organic mark that sits in the same place on every pack, so it reads like a family. Put the same mark on the shelf edge too, so you can follow it across the store.

5.2 Seasonality

Seasonality is a pressure point for organic in the UK, even more so than conventional. This shouldn't be a surprise because of the nature of organic. Many farms calve to match spring grass and follow nature, and even autumn calvers often lift production at turnout, so the spring flush can be a double whammy. Around 70–80% of organic milk is sold as liquid, which has a short shelf life. That makes the peak hard to manage and some milk gets downgraded. Some processors, like Arla, run seasonality schemes to encourage production when demand is highest, but we need more ideas. One is to promote organic milk hard during the flush, when it is cheaper to produce and might otherwise be downgraded, while showcasing a core organic principle: cows at grass. Another is to push for sensible flex in drying plants so switching to organic powder is quicker and cheaper. We should also make more longer shelf-life products in this period, such as cheese, and get inventive with new dairy lines.

5.3 Emotional Peaks and Troughs

Lessons from the 2022 to 2023 crash and the 2025 survey at the highs (see Appendix 5)

When I applied for my Nuffield, organic dairy was hurting. Prices had slumped, costs were climbing, and oversupply bit hard. In yards and kitchens there was worry, fatigue, and a quiet question: does this still stack up? That shock shaped my questions and forced me to separate what feels right from what pays.

Fast forward to 2025 and I ran a farmer survey at a moment of record milk prices and a far better milk to feed ratio. The mood had lifted. Confidence was high. **44%** said they were very confident about the future of organic and another **44%** were somewhat confident, despite the scars of recent years. You could hear it in people's voices, relief, a bit of pride, and a guarded hope.

How people arrive in organic explains a lot of those emotions. Many start for financial reasons, a premium, conversion support, or a landlord requirement, but over time it becomes how they farm and part of who they are. In my survey, farmers said exactly that, what began as a financial decision often evolved into a way of life. Identity runs deep too. **39%** described themselves as socks and sandals, **52%** as cash crop, came in for the numbers, stayed for the values, and **9%** move in and out depending on circumstances.

Underneath the pride sit real frustrations. Weather feels like a double hit, on grass and on cash flow. Certification can feel too complicated and too focused on inputs rather than whole farm outcomes. Yields of grass remain a worry. Most also said subsidies matter, with more than two thirds rating them important, which adds stress every time policy shifts.

Our old business partner Mike wisely once said he reevaluates his position on organic over a 10 year period each year and as long as this remains better he stays.

The lesson from these peaks and troughs is simple. Emotion is the why, and numbers must lead the how. Organic suits some farms, some farmers, and some countries more than others.

5.4 Organic language: from exclusive to inclusive

Organic did not begin as a club. It began as a rebellion. The early pioneers were trying to break the mould of post war industrial farming, to be freer of synthetic inputs, and to work with soil life, animals and landscape on

their own terms. Over time, that spirit was formalised. Standards, inspections and labels brought trust and scale, but they also changed the feel of the word. What started as a movement became a system, and one of the most regulated spaces in farming.

Organic dairy farmer and former CEO of the Soil Association, Patrick Holden's choice of words captures that shift. He created Sustainable Food Trust to be inclusive, to invite everyone who is trying to do better for land, animals and people, not only those who carry a certificate. The aim was to lead with shared purpose rather than draw a line between the approved and the excluded. That tone speaks to where food culture is heading and to why language matters so much for organic today.

Policy language has moved as well. In Whitehall and industry forums, the conversation is often framed around nature recovery, climate outcomes, and resilient food systems. Unless organic is named as one of the delivery routes, it risks being invisible inside broader terms like nature friendly farming. The irony is that organic already delivers many of those outcomes, but the word itself is not always invited into the room.

Retail has added another layer. Conventional milk is often used as a loss leader, while organic carries higher margins. On the shelf that gap can make organic look like a niche choice for people with more money. Over years, that pricing picture has trained shoppers to see organic as a premium product. The language followed the price signal, and the word organic picked up an aura of exclusivity it never set out to have.

So, we sit with a paradox. A movement born from freedom to farm with nature now reads to many as official, rule bound and a little elite. The answer starts with telling the story honestly. Organic was the original push against the grain. It proved that fewer artificial inputs, pasture-based systems and higher welfare could scale with integrity. It helped shape national debates and the standards others now use. Naming that history and reconnecting the word to its open, pioneering roots is the first step to making organic feel inclusive again.

Organic can feel rigid on the ground. At the Cotswolds mobile dairy, I saw why some farmers want more room to adapt. They kept milk organic, but ran beef as grass fed and sold grain through Wild Farmed. Same farm, same intent to farm with nature, but different roots to market where needed. It showed me that the rules can be tight enough to limit sensible choices, and that many farmers are asking for flexibility within organic so they can respond to weather, labour and markets without losing the spirit of the system

Figure 4: Pasture fed beef in the Cotswolds

5.5 Is no policy better than the wrong policy?

Sri Lanka shows what happens when policy moves faster than practice. In 2021 the government removed access to synthetic fertiliser and pesticides overnight, with no transition plan or farmer support. Yields fell, food insecurity rose, and a country that was broadly self-sufficient in rice started importing it before the policy was reversed. The intent to cut inputs was not matched by training, infrastructure, or time to adapt. It was not a failure of vision but a failure of implementation.

Azerbaijan sits at the other end of the spectrum. When 90% of milk is imported and borders feel fragile, feeding the country becomes the first and only priority. On the PASA dairy unit I saw scale, state level focus, and a system built for volume and resilience. There were to be 10,000 cows arriving in 2025, abattoir on site, and bottling. In that context organic does

not come up. The national lens is food security first, everything else second.

Figure 5: PASA dairy in Azerbaijan

Denmark is a useful counterpoint for what good policy can do. Public procurement sets clear organic targets for schools and hospitals. Restaurants opt into a national organic label that publicly shows the share of organic on the menu. Certification is government owned which builds trust. In-store communication is direct and visual, so shoppers understand production differences briefly. Policy is consistent, practical, and consumer facing and it shows up in market share.

So is no policy better than the wrong policy? Sri Lanka suggests that a bad policy delivered fast can do real harm. Azerbaijan reminds us that context matters and that food security can crowd out everything else. Denmark shows that steady, well-designed policy can normalise better practice and build markets.

Where does that leave organic in the UK? My 2025 farmer survey was run at a time of record milk prices and a stronger milk to feed ratio. Confidence was high, but farmers were clear that policy still matters. Around two thirds said subsidy and policy support are important to their businesses. The message I heard was not that organic should live on subsidy, but that policy should reward outcomes and give confidence for long term decisions.

Figure 6: Restaurant labelling in Denmark showing percentage of organic food used

The lesson I take is simple. The wrong policy can break trust and production. No policy can leave progress to chance and to retailer tactics. The right policy creates space and time for change, rewards outcomes, and helps ordinary shoppers recognise and choose what we are trying to do.

5.6 Knowledge exchange

Carrying on from Sri Lanka and the devastating shock of removing fertiliser overnight, the biggest lesson for me was the absence of knowledge transfer, not only within the country but also from international sources. Part of why the policy failed was simple and painful; many farmers had not been shown how to farm without synthetic fertiliser.

I met two brilliant young women one a dairy extension officer with her own Facebook page to share knowledge with local farmers, and the other doing the same within the poultry sector. They were real shining lights and took me through dairies and tea plantations where real progress is happening. Sri Lanka needs many more people like them to educate farmers and spread know-how. The contrast with Indonesia was stark. In a not too dissimilar climate, cows on comparable small farms were giving 20 to 30 litres a day, while in Sri Lanka I often saw 10 litres, occasionally 15. That gap is enormous when a family keeps only 2 to 5 cows and three generations depend on the income. The crucial difference was structured learning and external support. In Indonesia, international input, like the organic project Arla runs on the south side of the main island, brings local farmers together to develop skills, improve genetics, and adopt better routines. The impact on quality of life has been remarkable, not just financially, but socially, with morale lifted by a sense of community and shared purpose. Organic has served as a practical teaching framework, raising welfare and production through clear, hands-on programmes, even though the rules flex with the climate while aiming for the same outcomes.

I was lucky to help deliver two days of workshops sharing experiences from home. Watching farmers arrive with churns, their milk measured into a communal bulk tank and recorded for payment, was deeply moving. I felt huge admiration for their determination to keep dairying for their families. It underscored how vital knowledge exchange is, and how much more of it we should champion in the UK.

Figure 7: Leading a workshop with Indonesian dairy farmers

We have got bright spots; a local group started by Matt Preston (a local organic dairy farmer) that regularly brings organic farmers together; our cluster group; and organic forums via our milk buyer. We also sit in a wider discussion group where we are the only organic farm, which I value because it keeps us questioning our own practice. Not everyone has access to a network like this, but I would urge you to join one, or create one, if you can.

"If you want to go fast, go alone. If you want to go far, go together".

Figures 8 and 9: Milk delivered on moped to a central bulk tank in Indonesia

5.7 Getting Inventive with Protein

Organic protein is one of the most expensive costs and one of the biggest challenges in organic dairy; on our farm it sits just behind rent, so we must stay inventive. As the climate shifts, proteins that might not have suited our area before may now be possible, and we need to stay open minded.

Figure 10 and 11: A grain free diet and male sterile maize

Travel sharpened my thinking. In the US I was lucky enough to meet Ed Zimba and his wife Melanie, who run an organic grass fed dairy with 2,000

cows. The grass fed standard, meaning no grains in the diet, forced them to get genuinely inventive with protein. Their cows were fed a mix of sorghum, male sterile maize, alfalfa and clover silage, yielding roughly 30 litres per cow per day, which is seriously impressive. Ed's huge dedication to building soil that could grow these crops was remarkable. Yes, climate was on their side, but with not a very high rainfall it was not simple to achieve.

Figure 12: Ed and Melanie Zimba

One of the first farms I visited in America was the Fry family in Maryland. Ed, the father, walked me through his alfalfa fields and for a moment I thought I had found the magic bullet for organic dairying, six cuts of silage a year from one crop. It turned out to be lucerne by another name, and the real lesson was that the right crop in the right conditions matters most. Many conventional and organic herds use lucerne as a large part of the diet because it delivers home grown protein and improves soil. The Fry diet had changed little since going organic, the difference was management. Short, precise harvest intervals lifted forage quality and put better milk in the tank. With summer heat, cows grazed in the cooler parts of the day and were buffer fed year-round, a simple adaptation to climate. Ed was a businessman, and with 800 cows and close access to organic processing he secured a strong premium for his milk. It was the first time I had seen farmers negotiate directly with a processor on a long-term basis, in this case five years.

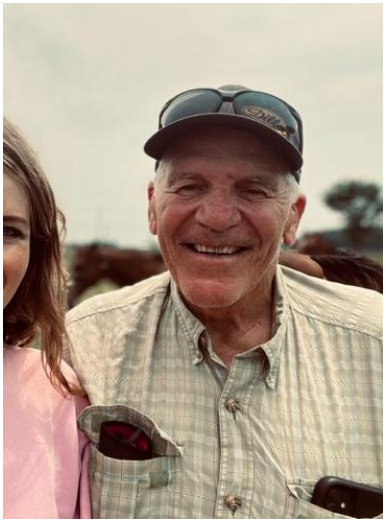

Figure 13: Ed Fry

In Sri Lanka, protein was coming in very varied forms but was easily accessible. Coconut by-products, rice hulls, maize and molasses made up a nut often fed to dairy cows. They were also feeding sorghum type forages, which thrived in their climate.

Figure 14: Dairy nuts in Sri Lanka

Closer to home, we have grown, milled and fed peas with barley, and we have bought in oats and palm kernel this year. We have tried peas and barley wholecrop, triticale and lupin wholecrop, and wheat and beans too. Clover is a no brainer for any system, reducing inputs on conventional or fixing nitrogen on organic. SFI has encouraged farmers who might not have tried it to test different mixes to fit the herbal ley element. Because organic protein is so expensive, over the past few years we have really

tightened up our silage management: clean faces, reducing waste, and taking silage at the right time, even making a few more cuts to increase quality. Building a good relationship with contractors helps so you are higher up the list when the weather looks favourable.

Figure 15: Wheat and beans at home

There are standout innovators in the UK organic space, such as Will Armitage, who has seen success growing sugar beet to support winter milk production, and Matt Senior, who is always trialling new whole crop and protein ideas. We need people like this to test the boundaries and bring back practical ideas the rest of us can use.

Another area we have looked at is what we feed over winter in the wagon. I know this is not an option for everyone, and it does not always feel organic in spirit, but sustainable also means a sustainable bottom line, and that means reducing costs. There are a lot more options available than I realised, including from specialist organic suppliers like Rob Daykin. He has still not got me to buy a load of soya, but we have had good success with wheat feed and PK alongside our own grown crops. It is all about doing the maths.

Material	Spot	Forward	Change	Availability
Soya Exp	£612	£612	Down -£8	Available
Rape Exp	£495	£495	Level	Available
Sunflower Exp	£470	£470	Level	Available
Wheat (UK)	£320	£320	Level	Available
Wheat (Imp)	£315	£315	Level	Available
Barley (UK)	£310–£315	POA	Level	Available
Maize*	£340	£340	Up +£5	Available
Lucerne	£275	£275	Level	Available
PK (IP)	£380	£380	Level	Available
Peas	£460	£465	Up +£10 Spot	Limited

Figure 16: Organic prices as of October 2025

When I first looked at organic crops, I thought, there must be someone doing this who wants to sell direct.

John Pawsley from Sharpham says selling UK-grown organic combinable crops has become much harder since he converted in 1999 because buyers favour cheaper imported grain. He has long tried to persuade livestock farmers and feed mills to use domestic organic grain but faces resistance. With cheaper imported alternatives available, is there realistic hope of better linking the crop and livestock sectors? Ireland has made strong progress in collaboration between dairy and arable farmers, helped significantly by subsidy support. Regardless of market or policy shifts, the shared challenge and exchange of knowledge remain central to why he stays in organic farming and finds it rewarding.

5.8 Does organic need to look different in different countries and markets?

Yes. The principles stay the same, but the practice must fit the place. Climate, soils, policy, processing, markets, and food culture all shape how organic works on the ground. The basics are the same everywhere, but the route will vary. I have outlined some simple country examples in the table below.

Country	How organic typically takes shape here
United States	The system leans into what the land can grow. Farms build high quality forage with lucerne, sorghum and maize, and some milk three times a day with strong yields. I arrived thinking alfalfa might be the silver bullet that would save organic and learned it is lucerne by another name, but in the right climate it is a powerhouse protein that makes scale possible. Heat changes grazing patterns too. Evening grazing helps cows dodge sun and heat stress. A caution as well. The lifetime no antibiotics rule can become a barrier in the wrong hands. If treatment is delayed, animals can suffer. Good intentions must be backed by clear welfare protocols.
Denmark	The same principles show up differently. Shorter grazing windows and cooler, wetter seasons mean more conserved home-grown feed clover, lucerne and whole crop cereals and a steadier milk curve across the year. Strong policy helps. Public kitchens use organic as standard, restaurants display organic shares on their menus, and government owned certification builds trust. With that infrastructure, Danish organic cows often produce more litres per cow than in the UK.
Ireland	Flexibility within the standard matters. Teagasc farms showed how farm specific organic plans, the right cow for the grass led system, and tight crop dairy links can reduce bought in concentrates. Home grown barley pea mixes and clover silage, plus collaboration with neighbours, keep performance steady while staying within the rules.
Canada	A quota system changes the picture again. Output is capped and price is tied to quota, not a floating premium, so planning is more stable. Farms are often smaller, the land base is used intensively, and decisions are made with long term certainty. It is a reminder that policy design can be as important as soil and weather.
Italy	Food culture and cooperatives do a lot of the work. Cheese makers pool milk, add value together and rely on strict external grading. Organic sits inside a wider story of quality and provenance, which helps smaller farms compete and keeps standards visible to the public.

Organic farming doesn't exist in isolation; its appeal depends on how conventional farming looks in each country. In the UK, most people picture dairy as cows grazing in green fields. That perception makes it harder to explain why organic is different, because about half of conventional herds also graze outdoors. To the public eye, the two systems often look the same.

As Robert Craig put it:

"The problem is that we are getting closer as conventional. We are all learning to use less nitrogen and our welfare standards are some of the highest in the world. Where does this put organic?"

In countries where conventional farming uses more inputs or keeps cows indoors, organic stands out immediately. For example, in the United States, zero grazing routine hormones and no antibiotics re common in conventional dairy, so organic's promise of pasture and no hormones is easy to understand. In northern Europe, baseline rules are already strong, but shoppers value provenance and trust clear certification marks, so organic still carries weight.

In the UK, the challenge is that conventional and organic often look similar. Organic cannot rely on appearance alone it needs to make its differences clear and meaningful in a market where conventional standards are already high.

Figure 17: Public perception of dairy farming in the UK

5.9 Who is buying organic?

One of the toughest headwinds for organic dairy is its tie to disposable income. When confidence is up, shoppers trade up; when budgets tighten, organic is one of the first to slip, especially in a liquid heavy market where the premium is visible every week. Retail promotions, private label switching, and price matching can widen or narrow that gap overnight. The result is volatility than milk and a risk of downgrades in month.

Group	Details
Baby Boomers	Baby boomers spend more on food for practical reasons shaped by their history, Many were raised by parents who lived through rationing. so safe, decent ingredients were a priority at home. In adulthood they saw major food scares and scndals, which made standards, provenance and clear labels matter. They were also the first big audience for the early organic movernent and cookery TV that normalised "pay a bit more, get better.' On average they have steadier pensions and higher housing. wealth, so the extra 20-30p on milk is affordable. Health is a driver too, they link organic with fewer inputs and better welfare. Put together,
Parents	Parents buy organic milk for their kids when they link the price to "better." Most parents just want to do what feels best for their children. We saw that play out after the Newcastle University meta-analysis was published in the *British Journal* of *Nuttition* on 16 February 2016 (appendix 6), which found about 50% more omega-3 fatty acids in organic milk compared with conventional. That simple message drove a big uptake, much of it from parents. One line from my trayels sticks with me. In Tasmania, Jane Bennett (Nuffield Australia) said: ' There isn't enough guiity mothers for organic to thrive in Australia."

more standard bigger

a weak

Figure 18: Organic consumers

Today's youth consumer wants things that are easy, tasty, and feel worth the money. Value: fair price for clear benefits. We must focus on attracting this audience for the future of organic dairy.

Figure 19: Values of today's young consumer

5.10 Co-op structures

We supply a co-op, which I have always felt is the best way to sell our milk without going fully direct. It gives us a say in how our milk is sold and, importantly, brings the people doing the selling closer to farming. If we get the messaging right, it is also more attractive for shoppers to know the profit goes back to the owners; the farmers.

Figure 20: Arla

I like that our co-op sells both organic and conventional: it spreads risk, even if we are only about 4% of the pool. Sometimes it can feel tricky to shout about the good in organic without knocking other systems, but having different brands like Yeo Valley can do this well. On my travels I saw co-op structures working globally for exactly these reasons: reach, stability, and a clearer farmer story.

5.11 Genetics

Wherever I went, one thing was the same on every thriving farm: getting the right cow for the system and the farm. I saw exceptional cows in places with limited resources and in highly developed systems. The common thread was fit for purpose. Cows were matched to forage, climate and labour, with fertility and longevity valued alongside litres.

While I was travelling, I kept asking whether there is such a thing as a good organic cow breed. My answer now is that it is not one breed but a type.

Trait	Description
Forage Intake	Must eat a large share of her diet at grass during grazing months, even when pasture quality varies.
Yield Responsiveness	Needs the capacity to lift milk yield when feed price ratios are favorable.
Health & Resilience	Strong health is essential because antibiotic use is reduced and some treatments are limited.
Fertility	Highly fertile as routine hormone treatments are not allowed.
Overall Selection Goal	Focus on forage intake, resilience, fitness, and fertility, then adapt to farm-specific conditions.

The best herd I saw was on the side of a hill in North Wales during the dairy tour. The cows that stood out belonged to a young farmer, Morgan Tudor, whose herd grazed a mountain slope and often crossed a river to reach pasture. Their performance figures were outstanding, and the herd was one of the most uniform groups I have ever seen. It showed how matching breed, land and management can deliver results even in tough conditions.

Figure 21: Morgan Tudor

Morgan's family story is both inspiring and tragic. The Tudors at Llysun Farm, Llanerfyl, Powys, had converted from beef and sheep to dairy to support succession. Tragically, Morgan's father Richard, a Nuffield Scholar, died in a farm accident just four weeks into their first spring calving season, and the family did not yet have a milk contract. Morgan was seventeen and in the middle of calving, but he and the family carried on, focused on producing milk as efficiently as possible while they found a

buyer. Seeing that resolve alongside such a well-matched herd was inspiring.

Danish and Swedish genetics add real value. Breeding in Scandinavia has focused for decades on health, fertility, feet, udders and solids, not just peak yield. Breeds such as Viking Red or Swedish Red, Danish Jersey, and Danish or Swedish Holstein are widely used in organic because they hold body condition on forage, get back in calf, and last. Many farms use simple crossbreeding, for example Red crossed to Jersey crossed to Holstein, to blend fertility, components, and frame for pasture-based systems.

For context on output, organic herds in Denmark often average around 9,000kg of milk per cow per year, a little below conventional herds, reflecting different goals and rations rather than poor performance. Many organic farms exceed the average when genetics and system fit are aligned.

"Match the engine to the road, and the miles take care of themselves.".

Following on from that:

Organic dairying is not a one-size-fits-all approach. It is best seen as a tool that can work especially well on certain types of farms. Large areas of less productive land, with fewer buildings and a more extensive system, can often lend themselves naturally to organic.

Landlords also play a role. In some cases, being organic is a condition of taking on land, and in others it makes a tenant more likely to be chosen. For estates organic farming can also help meet wider objectives. For example, limiting or preventing maize growth fits with the needs of estates that place a high value on their shoots and game management.

Of course, perspectives vary. One of our own landlords is less interested in organic, mainly because of the more visible weeds and what can be perceived as "untidiness." This highlights that while organic has clear advantages in certain situations, it also comes with trade-offs that not every landowner is comfortable with.

CHAPTER 6: RECOMMENDATIONS

Following my incredible adventure here are my recommendations.

For Industry

Storytelling & Marketing	• Simple storytelling sells: Learn from Yeo Valley and Denmark for clear messaging. • Attract next generation: Take cues from the regenerative movement. • Create one trusted UK organic mark for instant recognition. • Talk about the basics of organic. • Clarify: Who is in charge of marketing organic?
Collaboration	• Bring buyers, certifiers, DEFRA, and farmers together formally to focus on practical fixes.
Policy	• Ensure policy understands organic sector needs. • Push for a place at the table in public procurement discussions.
Seasonality	• Promote organic milk hard during spring flush; link to cows at grass. • Use simple in-store deals. • Seek flexibility for processing surplus into powder, cheese, butter, yoghurt, UHT. • Trial new dairy lines.
Certification	• Rethink certification: reward actions and outcomes, not just measure inputs. • Make inspections a positive experience, not a "cheat test."

For Farmers

Subsection	Details
System & Livestock	• Right cow, right system. • Get inventive with proteins. • Right farm, right system.
Knowledge Exchange	• Learn from each other. • Share best practices.
Business Focus	• Revalue your business regularly to avoid emotion-driven decisions. • Stay focused on a sustainable bottom line.

CHAPTER 7: AFTER NUFFIELD

Last year I helped set up and became chair of the newly formed Organic Dairy Roundtable, with the slogan “partnering for progress.” We meet two to three times a year and bring farmers, certifiers, milk buyers, DEFRA, processors, the levy body**,** and feed mills around one table to solve practical problems. We have focused on seasonality, processing pinch points, clearer on pack messaging, and making sure policy recognises the public goods organic delivers.

Nuffield has opened some amazing doors, and I am genuinely grateful. The scholarship took me across the world and into rooms I would never have reached, and it fed straight back into our work at home; sharing ideas through our discussion groups and the Marshwood Cluster and putting knowledge exchange at the heart of what we do.

In March last year we bought out our business partner of 10 years and in August we took on a second farm which is conventional, with a different farm type and different landlords. That choice fits my view that the right system is the one that suits the land and the business. Across our wider business we now run organic and conventional side by side, supply our co-op, and value the way it spreads risk and keeps us close to the market.

Public engagement has been a big thread. We hosted Open Farm Sunday at Home Farm and welcomed 1,400 people. The new classroom, backed by our landlord and a FIPL grant, lets us teach the next generation about soil, cows, and food. I am keen to keep encouraging the next generation of dairy farmers with opportunities, mentorship, and enthusiasm.

The ripple effects matter too. One of my Nuffield year groups has decided to convert his beef and sheep farm to dairy and to go organic. I have been glad to be on hand to support that journey, linking him into networks and farmer groups.

One day soon I would like to sell something direct to market using our milk so watch this space.

And I write this last one so you can all keep me accountable; one day I would like to buy a farm.

CHAPTER 8: ACKNOWLEDGEMENT AND THANKS

To my family, thank you for the support, encouragement and patience that made months of travel possible. To my dad, my quiet hero, thank you for your steady belief and every role you picked up.

Thank you to the **Trehane Trust** for generous sponsorship and mentorship. To my landlord the Eyre family, thank you not only for financial support but also for your active interest and backing.

To my team back on the farm that not only kept the farming going but really stepped up to the challenge.

To those who encouraged me to apply, your belief in me was magic. My year group what an honour to do this with you thank you. To Charlotte and the Nuffield team, thank you for patience and guidance. And to the farmers, processors, civil servants, scientists, and campaigners who opened gates and gave their time, thank you.

APPENDIX 1 – FARMER SURVEY SEPTEMBER 2025

In September 2025 I **surveyed a group of farmers voluntarily** to capture views on the current state and future of the sector. A total of 50 responses were received

Experience in Organic

- **72%** have been farming organically for **more than 10 years**.
- Only **4%** were in their first year, showing a well-established and experienced sample.

Why Farmers Chose Organic

- Many cited a **mix of financial and ideological reasons**: the price premium, reduced input costs, and environmental values.
- Several noted they converted because of **conversion aid in the early 2000s** or because landlords required it.
- A common theme: what began as a financial decision often evolved into a **way of life**.

Why Farmers Stayed During Downturns

- The **thought of having to reconvert** kept many from leaving.
- A strong sense of **belief and responsibility**: *"I have strongly held belief that it is the right way to farm."*
- Some stayed because they did not want to be *"one of the crowd."*

Confidence in the Future

- **44%** said they are *very confident* about the future of organic farming.
- **44%** are *somewhat confident*.
- Only **12%** were neutral, and **none** said they were doubtful.
  ➡️ Overall confidence in the sector's future is strong.

What Farmers Value Most

- **Community and identity**.
- Working **with nature** and building a holistic system.
- **Simplicity** and reducing reliance on external inputs.
- The challenge of finding solutions with limited tools.

Biggest Frustrations

- **Lack of flexibility** in tough years.
- Weather having a *"double impact"* on both yields and financial performance.
- Certification being **too focused on inputs** rather than the whole farm system.
- Yields of grass and crops remain a recurring concern.

Role of Subsidies

- **12%** said subsidies are *very important*.
- **56%** said *somewhat important*.
- **20%** were neutral.
- Only **12% combined** said *not very important* or *not important at all*.
  ➡️ Subsidies clearly remain a key pillar for most organic farmers.

Identity of Farmers

- **39%**: *"Socks and sandals"* → would rather not farm than farm conventionally; live by organic values in daily life.
- **52%**: *"Cash crop"* → entered for financial opportunity or landlord requirements but stayed as it became identity.
- **9%**: *"In out in out"* → move between organic and conventional depending on circumstances.

Growth Ambitions

- **60%** want to grow.
- **40%** want to stay the same.
- **0%** intend to downsize.

Certification

- Split almost evenly: **54% certified with OF&G** and **46% with Soil Association**.

Key Messages from the Survey

1. **Confidence is high**: nearly 9 in 10 farmers feel positive about the future.
2. **Motivations have shifted**: many entered for financial reasons but now stay for belief and identity.
3. **Subsidies matter** over two-thirds say they are important, highlighting the role of policy in organic viability.
4. **Growth mindset**: a majority plan to expand, showing ambition despite frustrations.
5. **Challenges remain** certification focus, weather, and yields continue to test resilience

APPENDIX 2 – NEWCASTLE RESEARCH

In the British Journal of Nutrition on **16 February 2016**, Newcastle University led a large meta-analysis comparing organic and conventional milk (and meat). It found **about 50% more omega-3 fatty acids** in organic milk, a **lower omega-6 to omega-3 ratio**, and **around 40% more CLA**, with some higher fat-soluble vitamins; it also noted **higher iodine in conventional milk**, which matters in the UK where iodised salt use is low. The authors linked the fatty-acid profile to grazing and lower concentrate feeding in organic systems. Media coverage was huge, and, in the UK, it coincided with a strong year for organic: the **Soil Association reported market growth of just over 7% in 2016**, and retailers fed back that the omega-3 message helped parents and health-focused shoppers justify the small premium on everyday dairy. In short, clear science, a simple take-away number, and heavy press coverage combined to lift trust and sales

Study finds clear differences between organic and non-organic products

Published on: 16 February 2016

A new study has shown that both organic milk and meat contain around 50% more beneficial omega-3 fatty acids than conventionally produced products.

Largest study of its kind

Analysing data from around the world, **the team led by Newcastle University, reviewed 196 papers on milk and 67 papers on meat and found clear differences between organic and conventional milk and meat**, especially in terms of fatty acid composition, and the concentrations of certain essential minerals and antioxidants.

Publishing their findings today in the British Journal of Nutrition, the team say the data show a switch to organic meat and milk would go some way towards increasing our intake of nutritionally important fatty acids.

Chris Seal, Professor of Food and Human Nutrition at Newcastle University explains: "Omega-3s are linked to reductions in cardiovascular disease, improved neurological development and function, and better immune function.

Gillian Buller, Senior Lecturer in animal nutrition at Newcastle University

"Our study suggests that switching to organic would go some

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