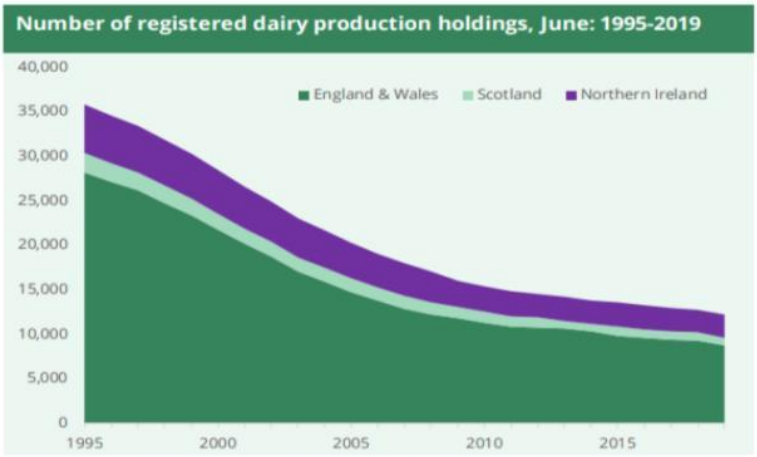
Helping to Save the Planet Through Small Steps – The Case for Reduced Consumption of Milk

Dr. Steven McCabe, Associate Professor, Institute of Design, Economic Acceleration & Sustainability (IDEAS) and Senior Fellow, Centre for Brexit Studies, Birmingham City University

In 2014 I wrote an article for a local paper about problems with the market for milk. There was much talk about the fact that those responsible for producing a foodstuff we've long been dependent on in this country, dairy farmers, were facing crisis.

According to The House of Commons, Briefing Paper Number 2721 *UK Dairy Industry Statistics* (published 1st May 2020), the number of cows in the UK has fallen by 27% since 1996 when there were just under 2.6 million to 1.883 million in 2018. There's also been an even greater decline in the UK's dairy producers from 35,741 in 1995 to 12,209 in 2019, representing a reduction of 66%.

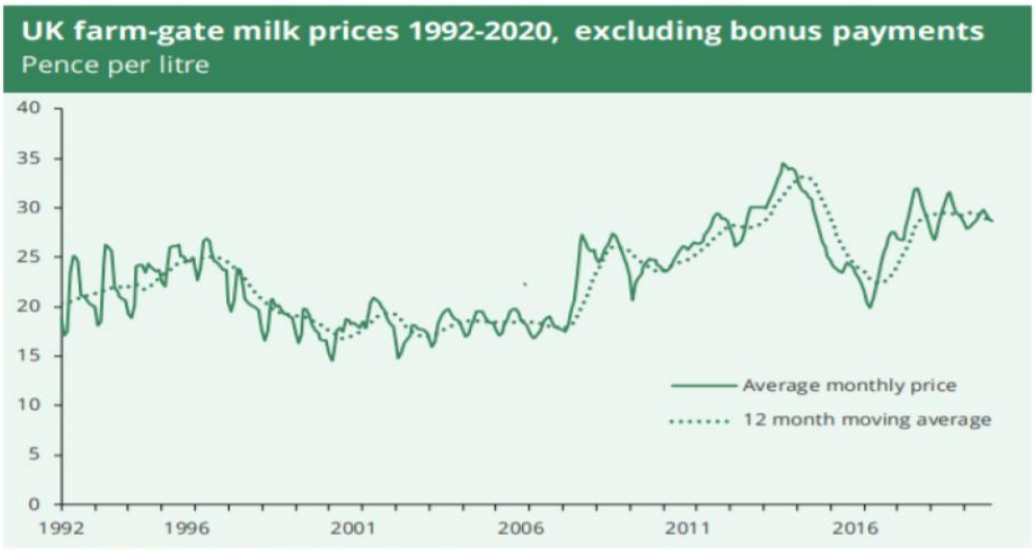


Source: AHDB Dairy, Producer numbers

Notes: From 2005 figures for Northern Ireland include farms on which dairy cows account for more than two-thirds of the total standard output.
Scotland has changed its typology in 2013 which is now based on 11 farm types and uses the cattle tracing scheme, figures have been revised from 2012 onwards, resulting in a significant fall in the number of holdings compared with 2011.
For England and Wales, all premises where milk is produced are referred to as 'Production Holdings'; this includes holdings with sheep, goats and buffalo

Dairy farmers, faced with making losses or so little profit as to be negligible, were resulting in many, some of whom had been involved in this trade for generations, to give up. As they claimed, milk was being used by large supermarkets as weapon, a 'loss leader', to attract customers without regard to the costs of production. There was talk that if something was not done urgently, the crisis among milk producers would become so great as to raise the question as to whether, apart from the very large faming concerns, any dairy farmers would be left.

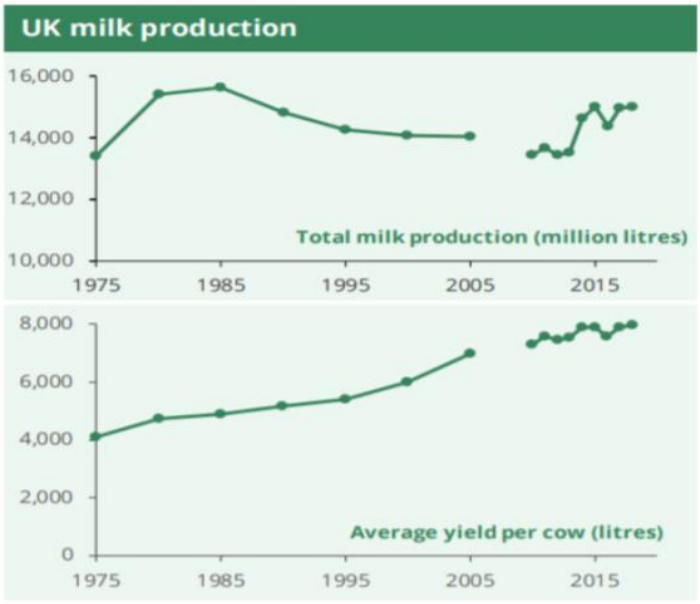
Many argued that supermarkets, if they wished to continue to sell milk, should do more to ensure that famers were better paid by increasing the price it was sold at. Obviously, this would mean everyone would pay more. Equally, supermarkets were exhorted to use their dominance to force those who supplied them, primarily dairies consisting of large corporate concerns, to pass on more margin to dairy farmers.



Source: AHDB Dairy, UK farmgate milk prices

Inevitably, some tried to argue membership of the European Union (EU) had distorted the market for milk through subsidies paid to farmers in other countries giving them unfair advantage. However, though milk, when processed into cheese or other products, can readily be transported over long time periods, fresh milk in its 'pure' form, after pasteurisation, is far more susceptible to degradation. In January 2015, *MoneyWeek* reported that 80% of all milk produced in the UK is consumed domestically

As *MoneyWeek* explained, even though there were fewer farmers, there was still an abundance of supply from the very large efficient farms. These, which some cynically refer to as being based on the principles of mass production found in factories', were accused of using methods considered, at best, non-traditional and, at worst, inhumane. Cows remaining permanently indoors without access to daylight and treated with antibiotics intended to ensure maximum yield hardly aligns what what's considered to be the bucolic idyll.



Source: Defra, Agriculture in the UK, various years

Though there was some adjustment of the pricing structure of milk, especially as it was noted at the time that it price was lower than bottled water, and some order restored, fundamental challenges still remain. As recently as 28th April the trade journal for those engaged in farming, *Farmers Weekly*, reported that dairy producers were confronted with "high costs in [a] tricky market".

Farmers Weekly assert that poor prices are still paid by those they supply to, the dairies which process milk and sell to supermarkets and other retailers. Combined with high feed costs, low grass growth in a cold, dry spring as well as, possibly due to Brexit, inability to procure labour still essential in this activity, regardless how much automation is produced, means difficulties remain for dairy farmers.

In 2018 Defra's 'Family Food Survey' reported that, on average each year, every UK citizen consumed 70 litres of milk. Though consumption has remained broadly consistent in the last six years after hitting an all-time low in 2014, recent average consumption per person is half of the 140 litres consumed each year by every person in 1974.

There's undoubtedly been a shift away from dairy products by UK citizens. Our habits and tastes have changed. As Defra's in its 'Family Food Survey' explained, fewer people eat breakfast at home and there's a greater tendency to drink tea and coffee without milk. Increasingly, there's more willingness to switch to plant-based milks.

For a large swathe of the population milk is still regarded as essential for daily existence, a commodity normal life is difficult to contemplate without. For many others, milk's a troublesome liquid that can easily be dispensed with. Indeed, many contend, milk is bad for us and bad for the planet.

When I wrote my article about eight or nine years ago, I was interested in the social changes that had accompanied changes in milk production and distribution. In particular, I was interested in the way that milk had altered from being a localised product to one that was national and, increasingly, international.

Milk, which evidence suggests we've consumed for at least some 10,000 years, was regarded as vital to daily existence. The Industrial revolution, when people left the land in search of new forms of employment, meant milk needed to be produced on farms close to major towns and cities and delivered daily to our doorsteps by local dairies.

Up to the 1980s, when sales of milk in supermarkets started to increase, the vast majority of milk consumed was delivered in bottles to our doorsteps. Even just over a quarter of century ago, in 1995, 45% of milk was still delivered daily. However, as Dairy UK, the trade body for the UK dairy industry, believes this figure is now about 3%.

As Defra in *UK Dairy Industry Statistics* reports, this is in large part due to the huge increase in price differential between doorstop delivery and from retailers such as supermarkets. In 1995 a pint cost an average of 37.9p delivered to the doorstep and 23.9p from retailers, a difference of 14p. By March 2020 this differential for a pint of milk has almost quadrupled to a whopping 52.7p (81p on the doorstep and 28.3p from retailers).

It's hardly any surprise we collectively ceased to have milk delivered each day in bottles.

Fascinatingly, for those who consider electric-powered vehicles to be novel, the cheapest, most reliable and, given that deliveries occurred in the early hours of the morning, quietest form of

transport used by dairies, was what was known as the 'milk float'. Though it might be surmised that vehicles powered by battery seemed to float along in a smooth way, there is no evidence for this.

For those who've never seen such a vehicle, with a top speed of 10-15 miles per hour, they consisted of a cab with a flat area behind on top of sufficient batteries, charged each night, to carry enough bottles of milk, in crates, to be delivered to customers on a 'round' of regular customers who paid, normally in cash, at the end of the week:

Source: ALAMY

This quintessentially British arrangement gradually disappeared as people were more willing to buy their milk from supermarkets. In some places it's still possible to see the odd traditional 'float'. One of the upsides of the pandemic has been a rise in home deliveries of milk, as well as other daily staples such as bread, to those not wishing to visit supermarkets. Sadly, we're yet to see the re-emergence of milk floats.

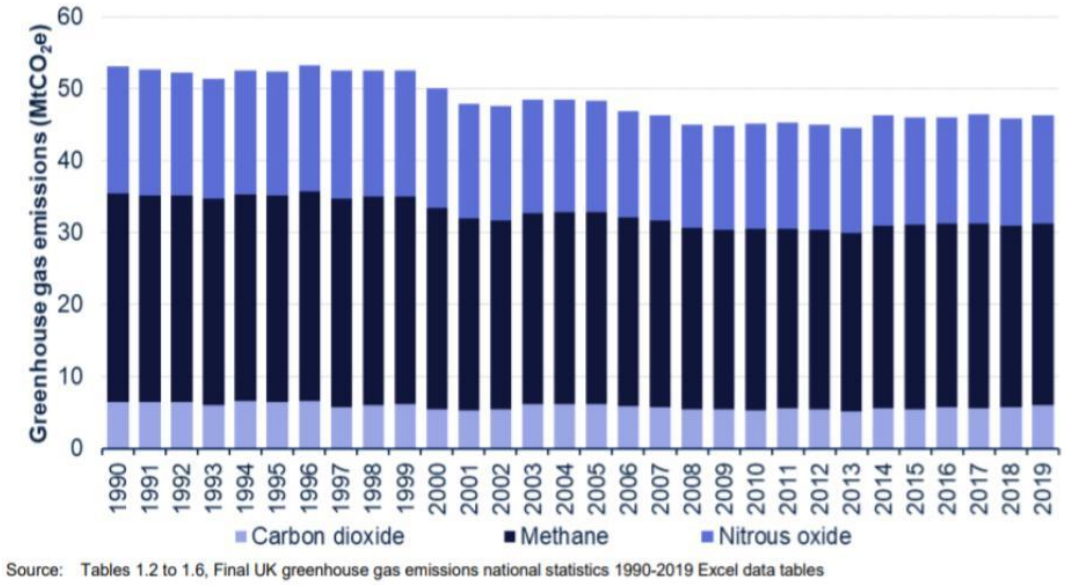
Moving away from milk delivered daily was, as well as being accompanied by the demise of local dairies and small farms, was a change in the vessel in which milk is contained. Rather than glass bottles, once used, put out and collected by the person making the next delivery of milk, returned to the dairy to be thoroughly sanitised and cleaned and used again, recycling in action, we instead were offered milk in cartons or the plastic containers that have become so ubiquitous.

This is a major problem with milk we consume today.

Whilst we drink considerably less milk than half a century ago, it still produces tremendous environmental damage. As well as being a significant direct contributor to greenhouse gases through its production (see below), the amount of plastic produced due to milk containers causes harmful wastes. Requiring factory processes to manufacture, and thus contributing to carbon emissions, containers once used are difficult, and expensive, to recycle. This represents an ever-growing problem.

The need to provide food to dairy cows to produce increased yields has resulted in a vast amount of land turned over to growing soya. This results in reduced growth of other crops meaning the

likelihood of imports is increased. The Office for National Statistics (ONS) reported in '2019 UK Greenhouse Gas Emissions, Final Figures', that agriculture is estimated to be responsible for 10% of gases emitted in this country.



Source: Tables 1.2 to 1.6, Final UK greenhouse gas emissions national statistics 1990-2019 Excel data tables

Greenhouse gas emissions from agriculture, UK 1990-2019 (Source: ONS)

Dairy farming produces natural waste. One cow can produce between 60-70 litres of manure each day. In large farms if such waste is not properly collected and dealt with can pollute water courses.

Methane produced by cows is another problem. According to ONS, 54% of methane emission is due to cattle and our continued desire to consume milk is a major contributor. As *The Guardian* reported just over a year ago, in 2018 research by the University of Oxford showed that every glass of dairy milk produced "almost three times more greenhouse gas emissions than any plant-based milk and it consumes nine times more land than any of the milk alternatives".

One other major issue with the dairy industry is that in order to have cows producing milk, they must produce calves. This 'by product' of the dairy industry may offer opportunity for some famers. The trouble is, as critics point out, young calves may end up as the veal. Consumption of veal is, because of the way young calves are fed to ensure pale meat, condemned as cruel and inhumane.

Many dairy farmers, already hard pushed to make money, find that males calves, females becoming dairy cows of the future, do not produce sufficient return after feeding them and instead choose to slaughter them shortly after birth. An investigation carried out by the Guardian in 2018 "estimated that at least 95,000 were killed every year "within a few days of birth". New rules introduced by government will, by the end of this year, mean any dairy farmer must prove they no longer slaughter male calves in this manner.

Our continued desire to consume milk comes at a high price to the environment and, if possible, we should actively consider plant-based alternatives. These would include oat, soy, hazelnut, almond, rice, coconut as well as hemp and flax. However, as the Guardian article stresses, many come with particular environmental issues.

As we move towards a future intended to produce less waste and reduce emissions, there's a belief by many that whatever we do is relatively insignificant. However, the contrary argument is that if we

make small efforts or sacrifices, collectively this will make a vital difference. As we're exhorted every person should make more effort essential to help the environment, irrefutably damaged by industrialisation and phenomenal population growth, recovery and ensure sustainability.

Consuming less milk is something many of us could engage in as part of this effort.

Needless to say, if we need to continue to consume milk, whichever form it comes in, we should strive to demand the container it comes in is conducive to improving the environmental. This would mean in bottles and not plastic containers. Let's face it, this method of containing milk was around for many, many decades until we were seduced to believe that convenience through alterative packaging sold in supermarkets was in our interest.

To adapt a marketing line used in the past by one very large well-known supermarket, every little we do will help.

Dr. Steven McCabe is co-editor of *Brexit and Northern Ireland, Bordering on Confusion* (published by Bite-Sized Books, ISBN-13:978-1694447807) and *English Regions After Brexit: Examining Potential Change through Devolved Power* (published by Bite-Sized Books, ISBN-13: 979-8666953099). His latest co-edited book, *Exploring the Green Economy, Issues, Challenges and Benefits*, will be published in early Summer. Additionally, 'Al Promised You a Miracle – Life Under 'Greased Piglet' Johnson', will be included as a chapter in a forthcoming book, *Populism and the Media*, to be published by Abramis Academic Publishing in June.