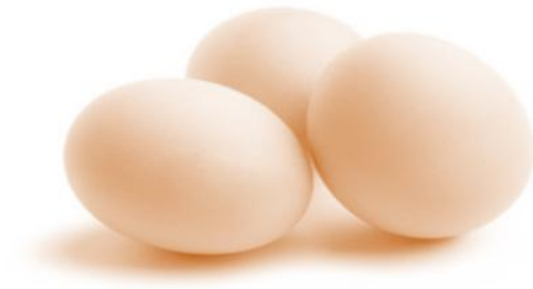


British Veterinary Poultry Association



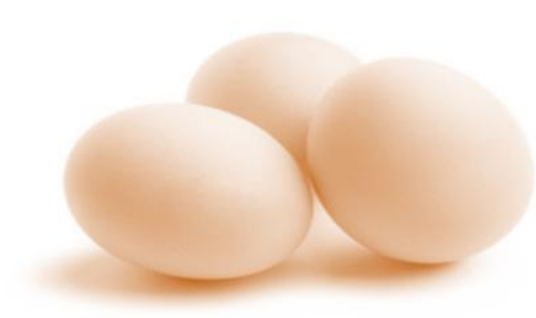
Sustainable table egg production in UK

Gary Ford, CEO BEIC



British Egg Industry Council

Sustainable table egg production in UK

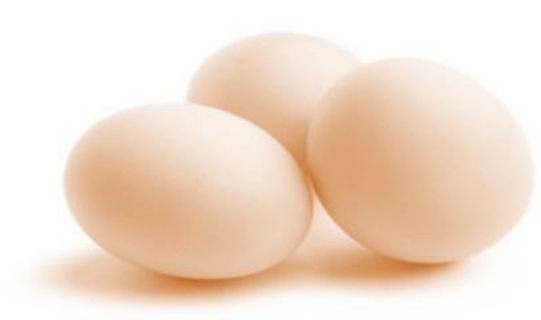


- Introduction
- Sustainability: The capacity to maintain or support a process continually over long period of time.
 - an environment lens
 - a numbers lens
 - a production lens
 - the lens of breeders
 - the lens of the Lion COP



British Egg Industry Council

British Egg Industry Council (BEIC)

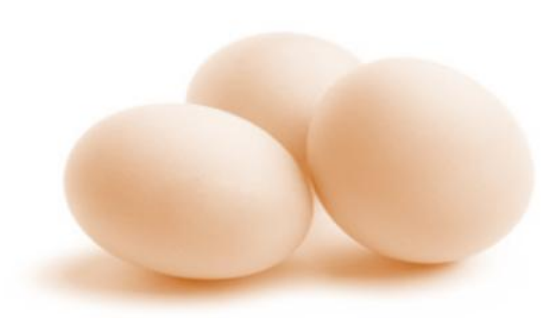


- Based in London
- Administer the Lion Code
- Lobby stakeholders for the benefit of the egg sector
- Represent the egg sector in the media
- Cover all sections of egg production
- Run a promotion and marketing campaign
- Fund R&D



British Egg Industry Council

BEIC



- Chairman: Mark Williams
- CEO: Gary Ford
- Technical Adviser: Mike Tyers
- Executive Officer: Deven Modha
- Head of Public Affairs: Morgan Brobyn
- Admin: Cheyenne & Charlie



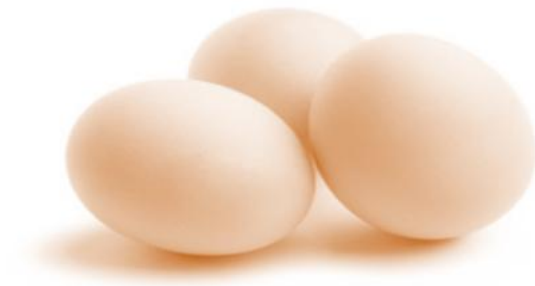
British Egg Industry Council



And the most important member of the team.....



British Egg Industry Council

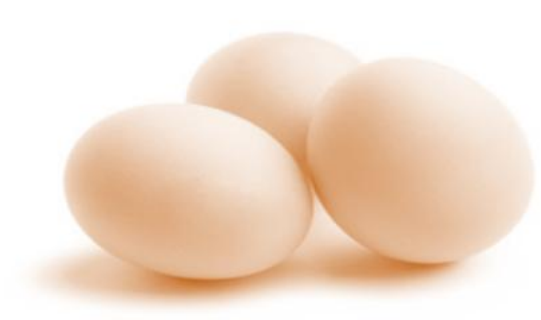


Ian Lowery, Crowshall, BEIC
Consultant Vet



British Egg Industry Council

Sustainable table egg production in UK



Why does it matter to the UK layer sector?

- The egg sector is an unsupported sector
- It matters to the consumer
- It matters to us given the numbers
- Different systems of production
- Greenhouse gases (GHGs) are an indicator of waste



British Egg Industry Council

Sustainable table egg production in UK

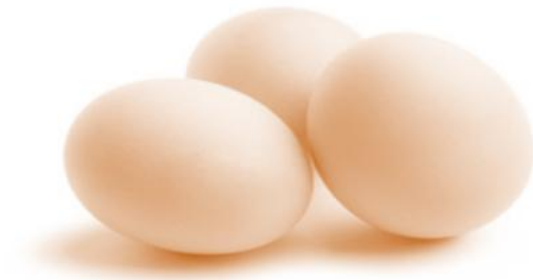


The numbers & systems of production



British Egg Industry Council

UK Lion egg production by farm type ⁽¹⁾



System of production	Number of farms	Number of Houses	Bird numbers (millions)
Barn	37	86	2.501
Enriched colony	47	146	7.392
Free Range	1,098	2,452	27.700
Organic	122	508	1.425
Total	1,251	3,192	39.018





The consumer



British Egg Industry Council

Food Standards Agency (FSA) Consumer Insights Tracker Annual Report



Consumer concerns about the food industry:

Sustainability - the **impact of food production on the environment:**

- March 2023: 60%
- March 2022: 56%

Concerns regarding **animal welfare in the food industry:**

- March 2023: 60%
- March 2022: 57%

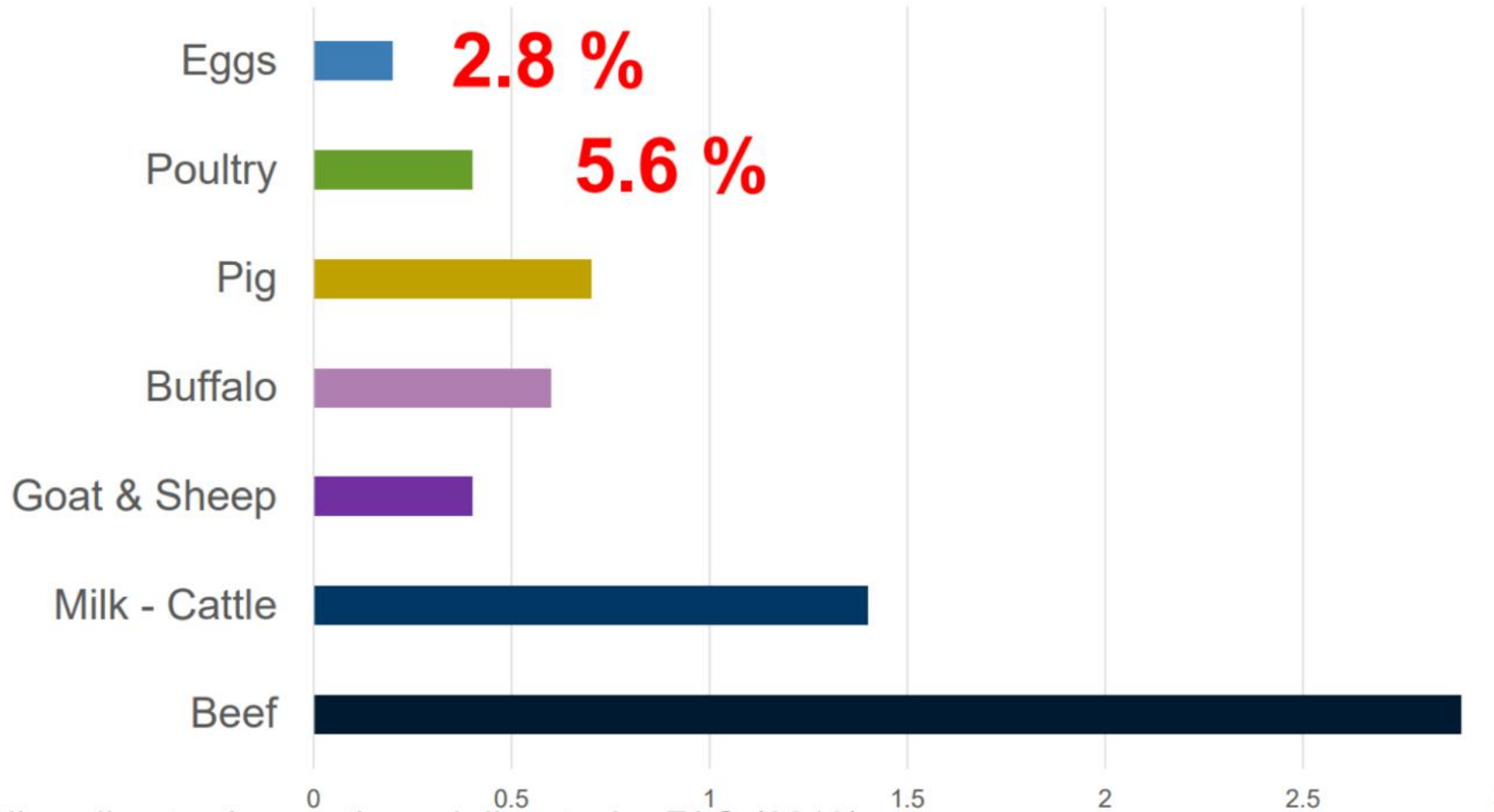


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Sustainable table egg production in UK

Our impact on the environment scorecard

GHG emissions allocated to livestock species



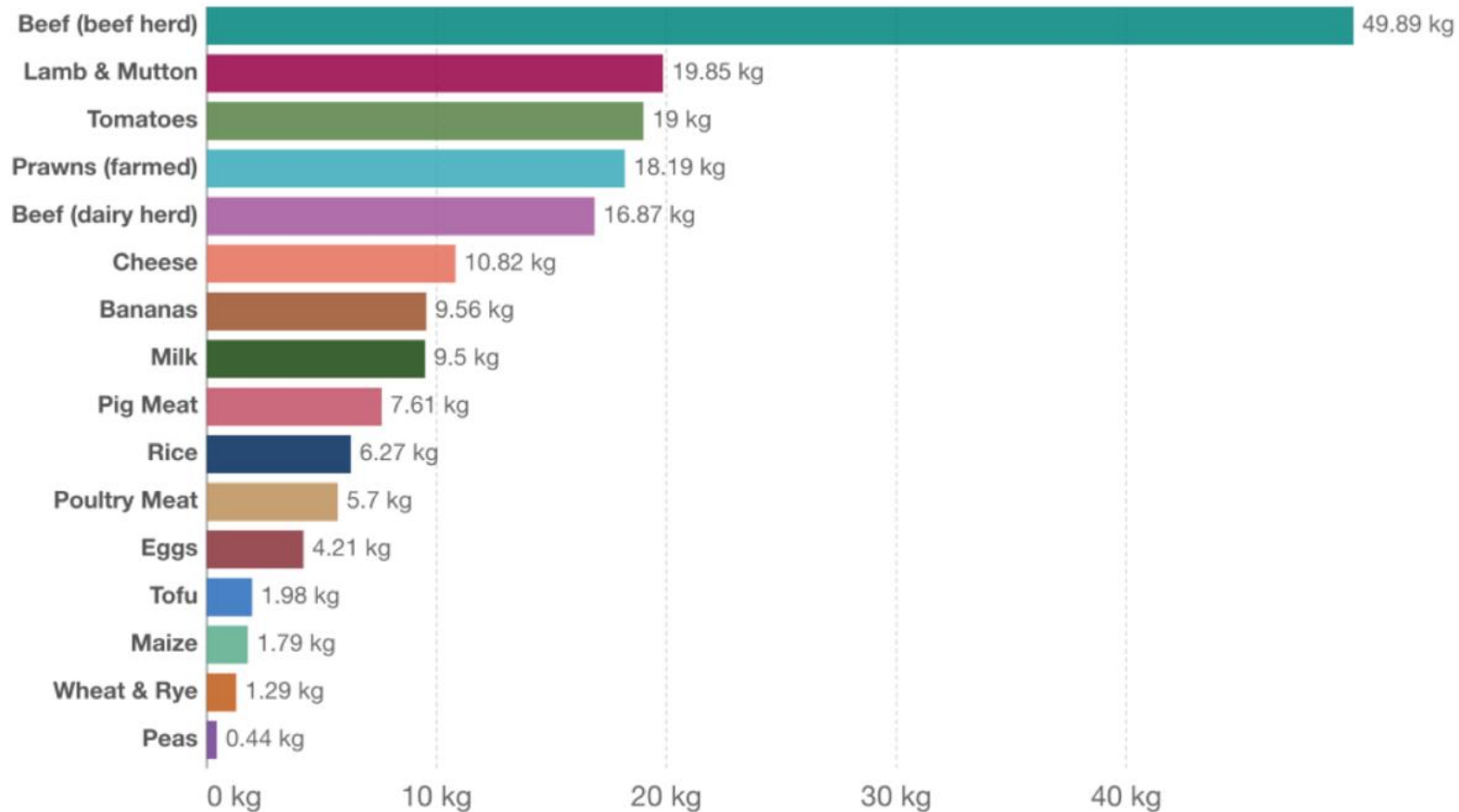
Source: Tackling climate change through livestock - FAO (2013)

© Hy-Line International



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GHG emissions per 100g protein

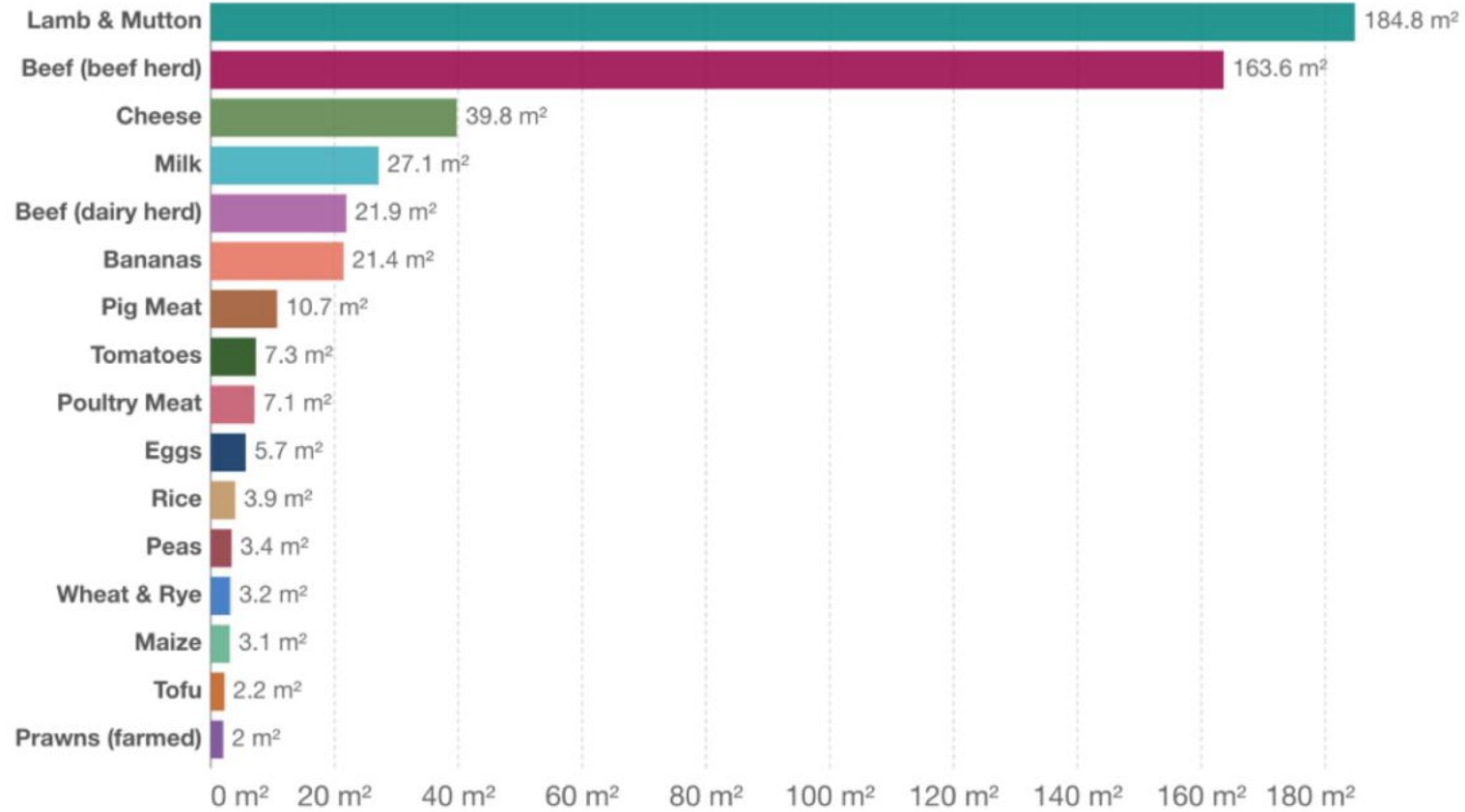


Source: Joseph Poore and Thomas Nemecek (2018). Additional calculations by Our World in Data.
OurWorldInData.org/environmental-impacts-of-food • CC BY



British Egg Industry Council

Land Use per 100 g of protein



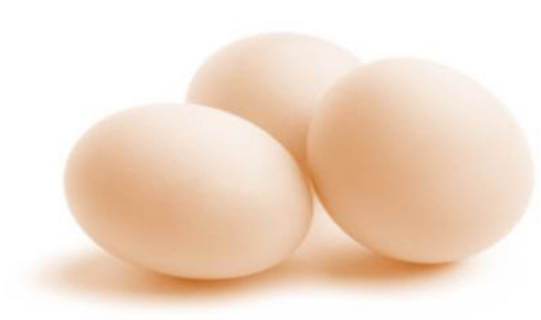
Source: Joseph Poore and Thomas Nemecek (2018). Additional calculations by Our World in Data.
[OurWorldInData.org/environmental-impacts-of-food](https://ourworldindata.org/environmental-impacts-of-food) • CC BY

FIGURE 2 Land use (measured in metres squared) per 100g of protein for a range of animal and plant foods, including eggs.



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Sustainable table egg production in UK

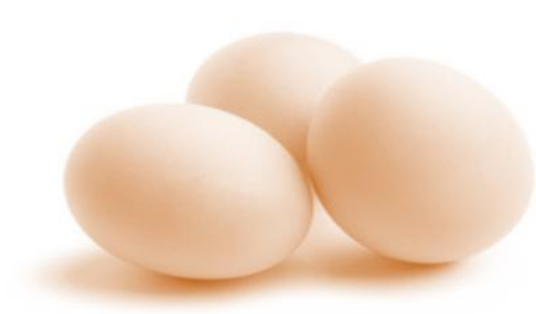


Back to the sustainability of numbers



British Egg Industry Council

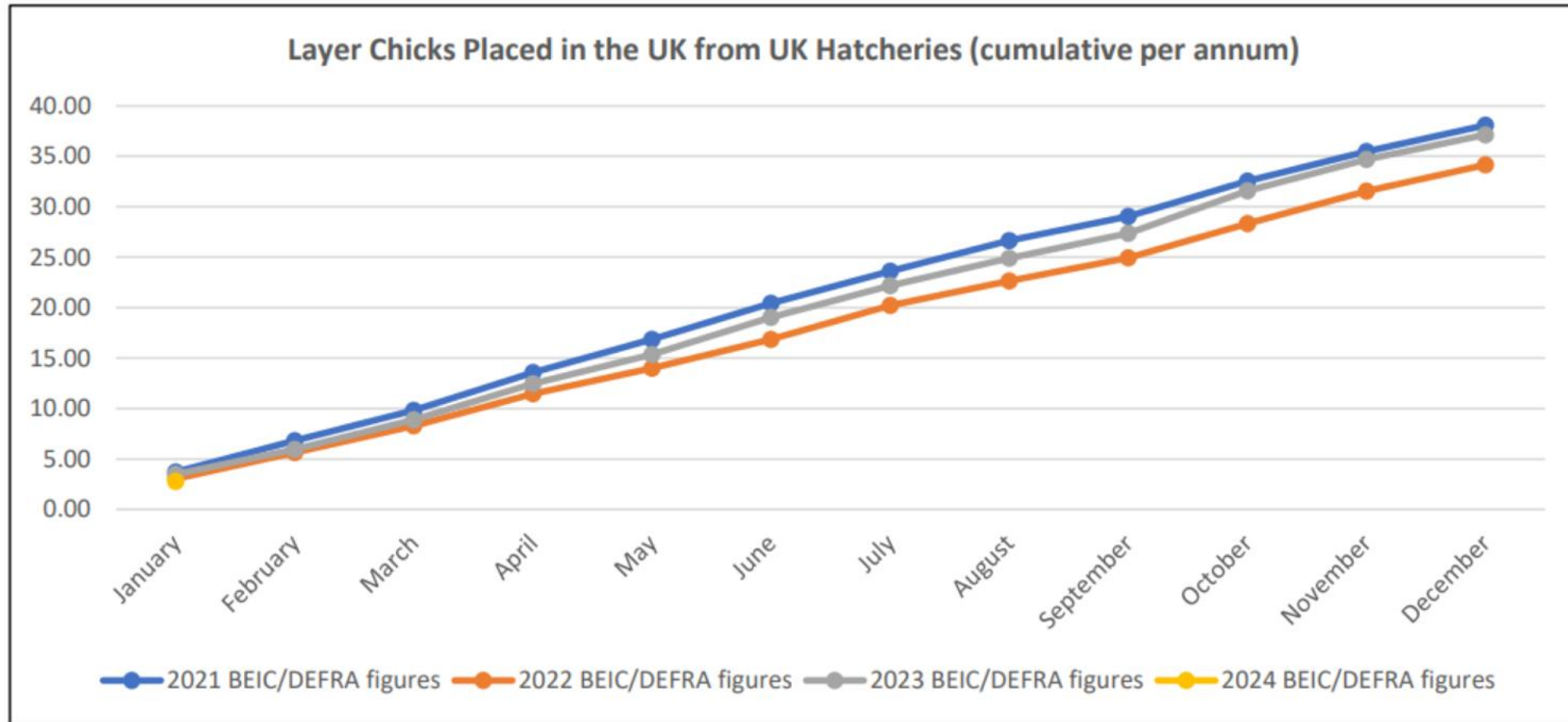
UK day old pullet chick numbers ⁽²⁾



Year	Day old layer chick numbers (million)
2019	38.62
2020	40.49
2021	38.08
2022	34.16
2023	37.14
5 year average	37.698



Day-old chick numbers



Total 2023 BEIC/DEFRA = 37.14
Total 2022 BEIC/DEFRA = 34.16
Total 2021 BEIC/DEFRA = 38.08



British Egg Industry Council

UK egg consumption



Year	Retail eggs per person per week	Per capita
2010	1.62	177
2011	1.66	176
2012	1.73	175
2013	1.78	176
2014	1.79	179
2015	1.87	186
2016	1.94	188
2017	2.03	192
2018	2.09	194
2019	2.16	192
2020	2.49	189
2021	2.36	185
2022	2.20	175
2023	2.12	175



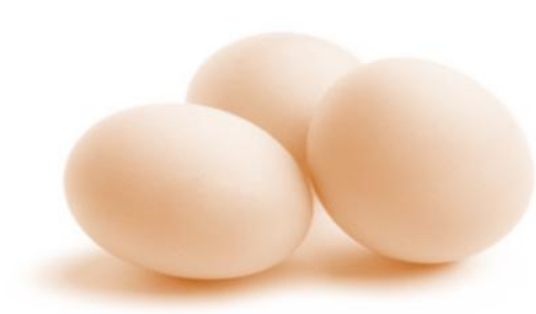
Summary of the numbers



- UK production is at its lowest level since 2014
- Self-sufficiency is now at 86%, the lowest since 2017
- Eggs bought for breaking are at their lowest level since stats started
- Per capita, per week retail consumption is back at 2018/9 levels, although remains over 2 per week
- Overall per capita remains at 2012 levels
- Foodservice has recovered with growth of 26% on last year but remains down by around 50% on pre-pandemic levels.



What do we need

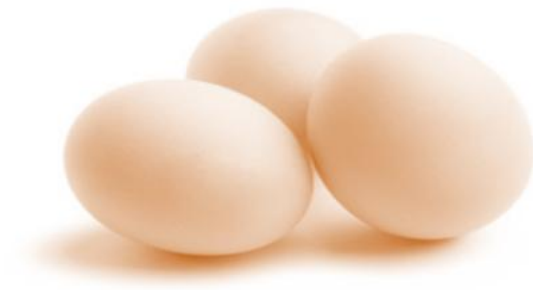


In simple terms we need to increase production/productivity.
For this we need:

- **Willingness to invest (confidence)**
 - risk v reward
- **Ability to invest**
 - access to finance
 - planning permission
 - environment



Sustainable table egg production in UK

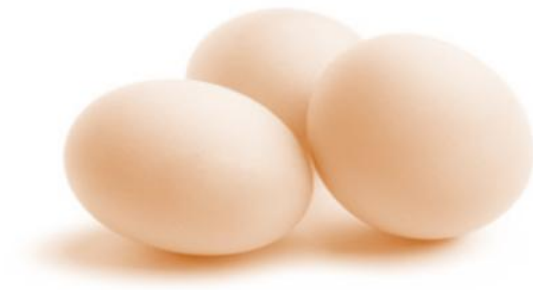


Through a farming lens



British Egg Industry Council

Sustainable table egg production in UK

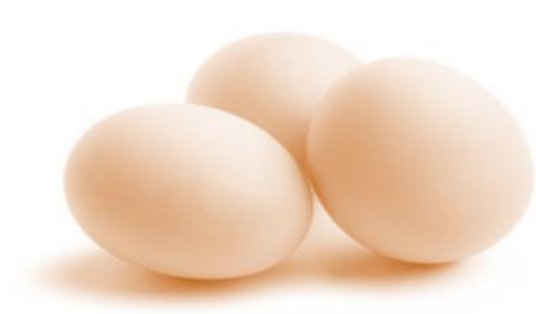


A good story to tell but we need to evidence it better



British Egg Industry Council

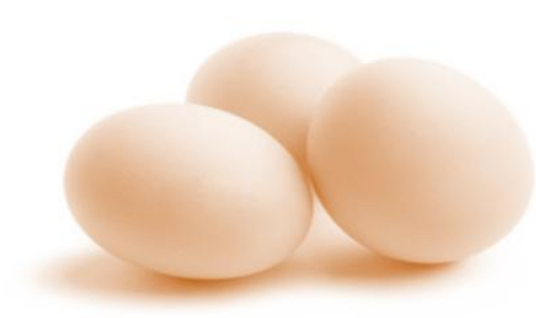
Tree planting



- Growth in free range eggs has resulted in the majority of egg producers planting trees on the ranging area to encourage the birds to go outside
- Industry estimates
 - 80% of free range and organic flocks with average 20% tree cover
 - Equates to 25m hens (1560 flocks x 16,000) with 640 trees per 16,000 flock
- Estimate more than 1 million trees planted – a carbon reduction of 10,000 tonnes of CO2 equivalent per annum over a 20-year cycle



Farming



Areas for focus on:

- Investment in pullet rearing & layer farms
- Productivity
- Data collection and implementation
- Benchmarking
- Knowledge exchange
- Carbon footprinting

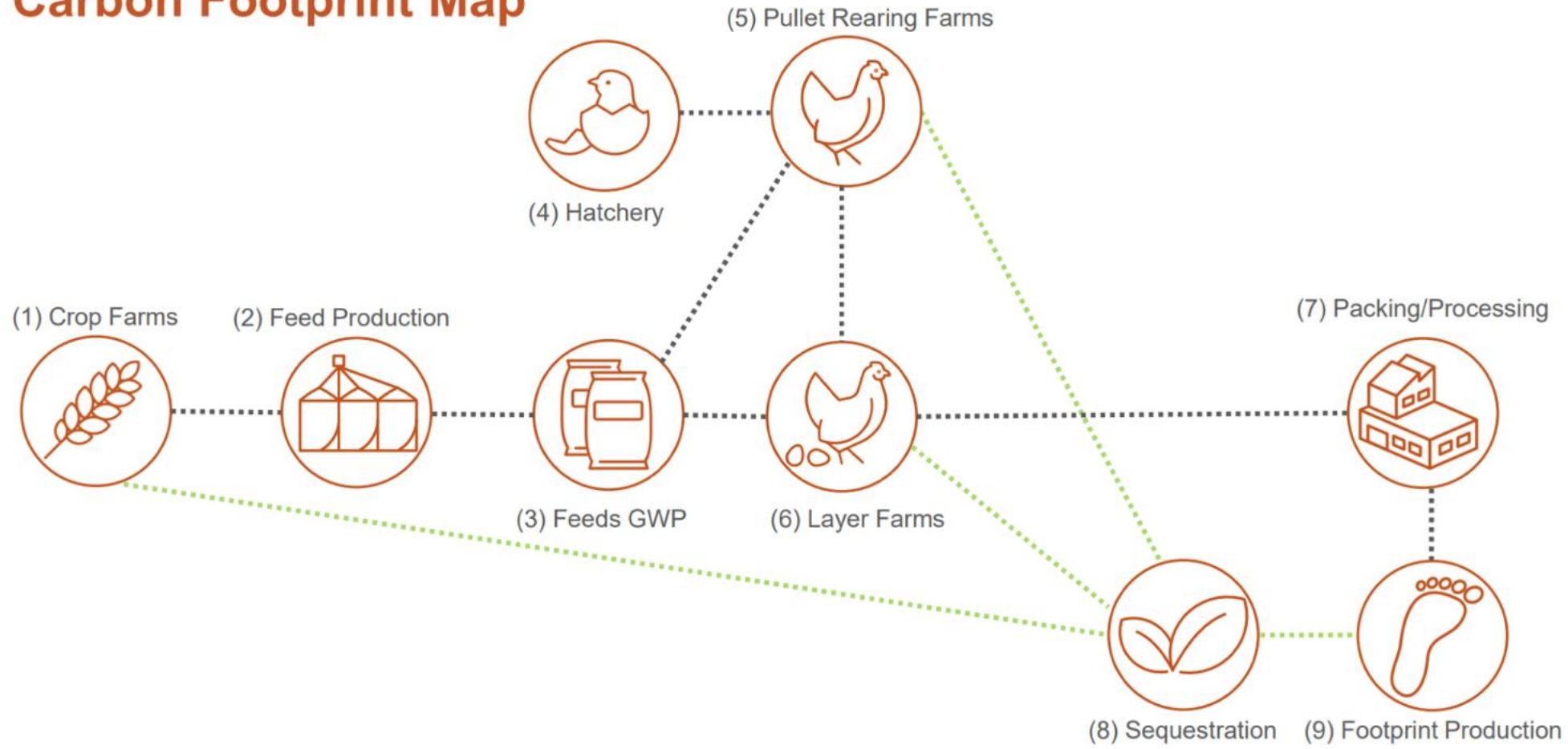


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Sustainable table egg production in UK



Carbon Footprint Map

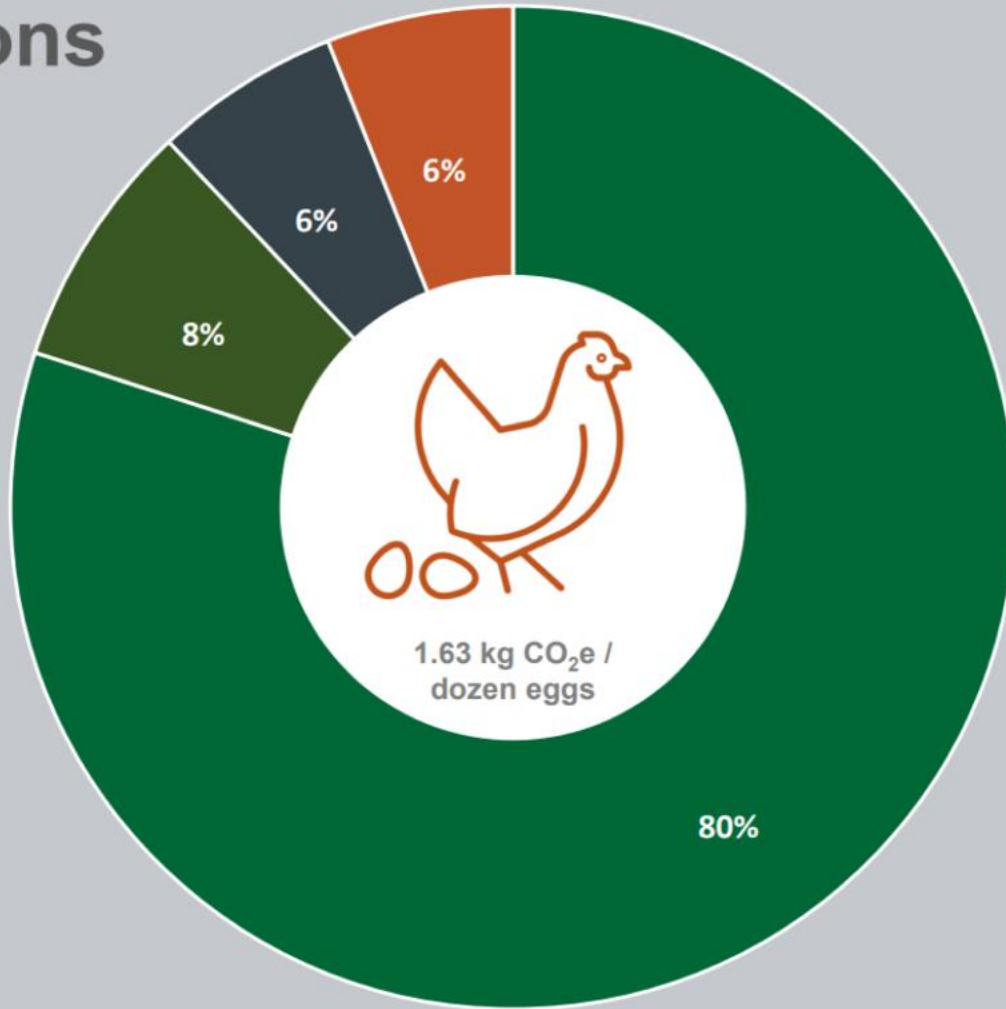


Alltech E-CO₂



British Egg Industry Council

Poultry Farm Emissions



Feed use



Hens



Manure emissions



Energy (Fuel and electricity)

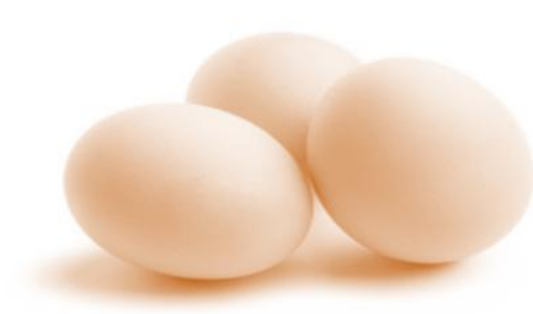


Altech E-CO₂



British Egg Industry Council

Areas for focus



Adjust diet and consider carbon footprint of feed components

- Replacing the soybean meal with rapeseed resulted in reductions of 22% of the GHG emissions from layer systems, when the ingredients were associated with LUC

Enhance bird health

Consider precision feeding and management strategies

Adapt approach to storing and utilising manure

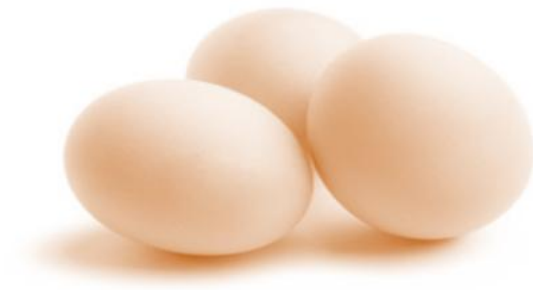
- Physical treatment of manure, such as improved stacking, pelleting reduces GHG emissions using litter as fuel or as a substrate for AD instead of spreading on fields can reduce GHG emissions
- Such alternative systems can also deliver wider environmental benefits through reduction of emissions of NH₃ and other odours

Source: CIEL



British Egg Industry Council

Sustainable table egg production in UK

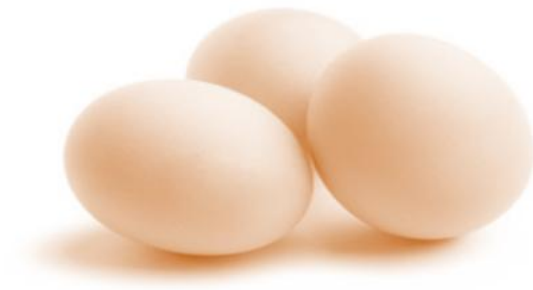


Through the lens of the breed companies



British Egg Industry Council

Breed companies



Productivity – a great news story

– typically 240 eggs in 1970, now 475 eggs to 100 weeks

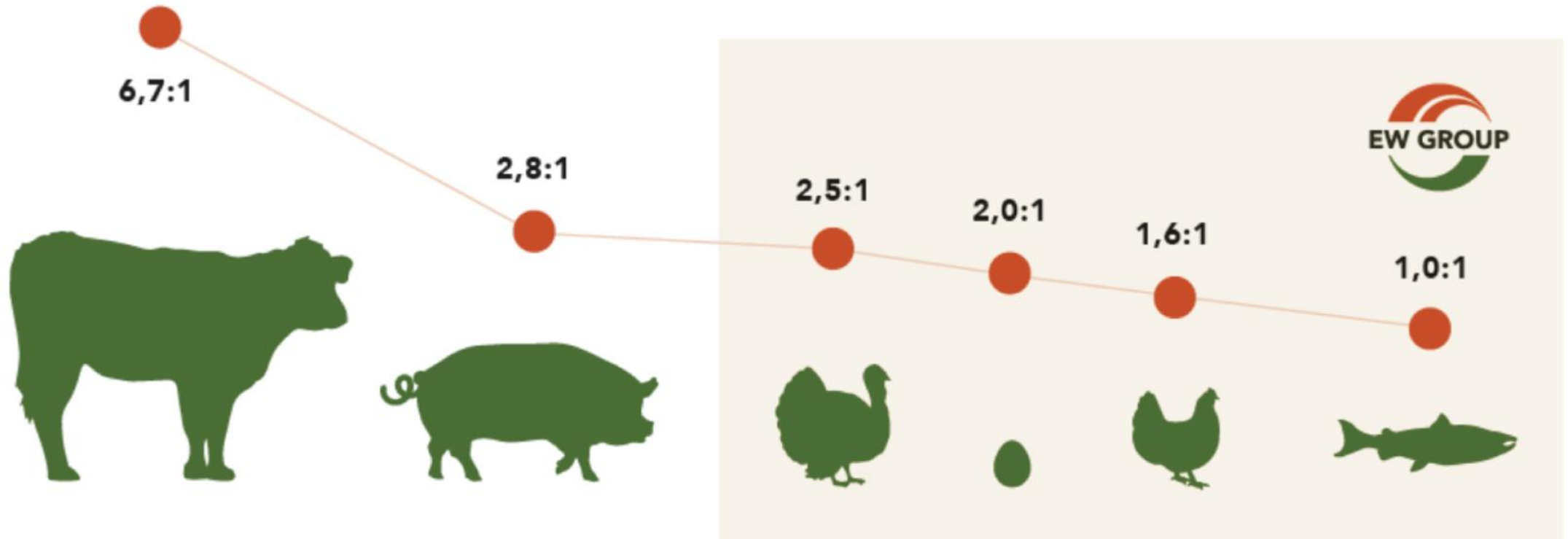
Two areas where they will have a significant impact on the footprint of egg production:

- improving FCR and
- longer cycles



British Egg Industry Council

Feed Conversion per kg of meat/egg



© Hy-Line International

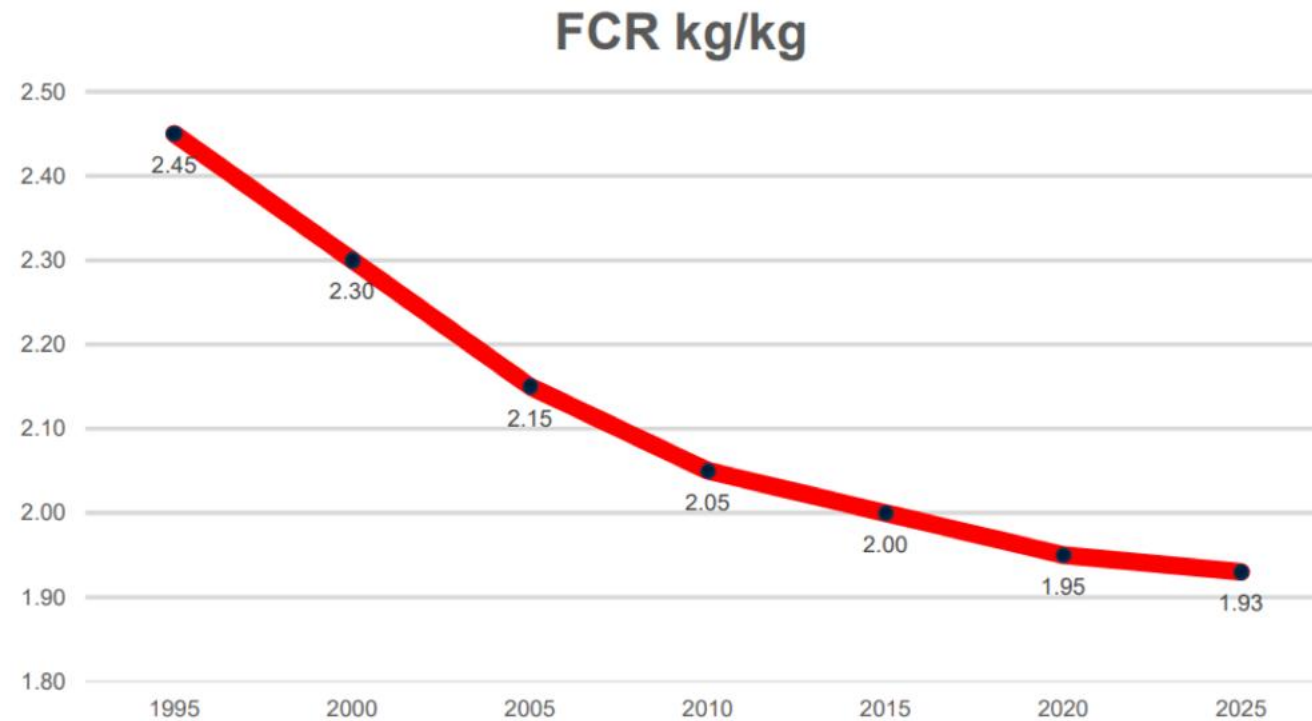


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Trend for feed efficiency in layers

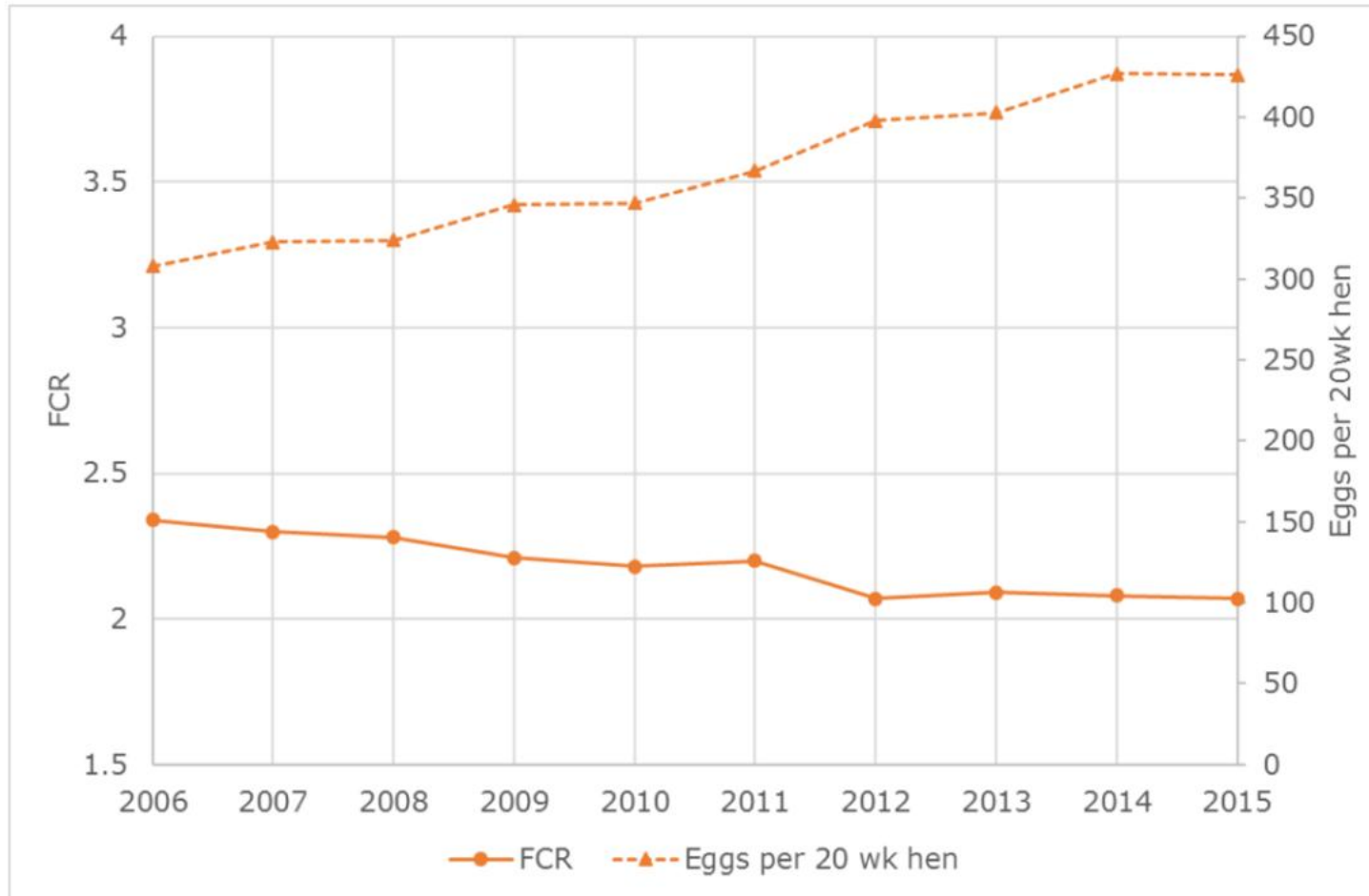
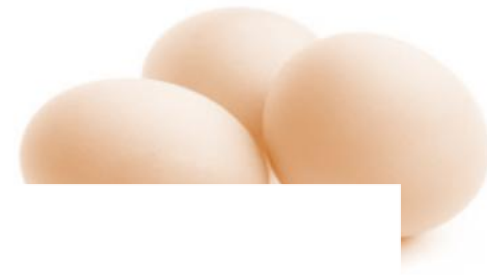


- FCR is improving step wise every year but the pace of this is slowing as the animals approach their biological limits.



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Laying hens - feed conversion and production

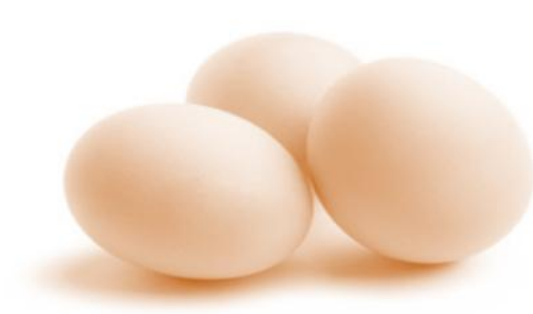


eggs: Increase, due to longer production periods

FCR: Decrease, but seems to flatten



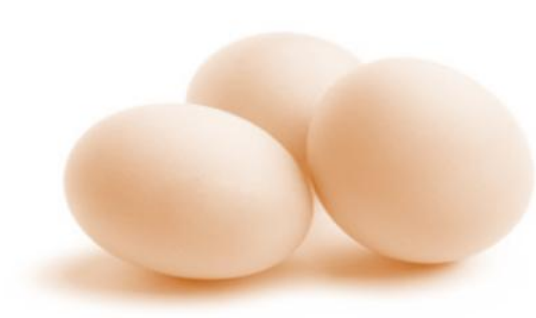
The exciting bit... longevity



- Breeding hens that have longer economic lives.
- 120 weeks will be a realistic depletion age in the not-too-distant future.
- Currently 90 weeks+ for brown and 100 weeks for white is a realistic prospect.
- 100 weeks means only three new flocks of pullets every five years instead of four with a depletion age of 78 weeks.
- The carbon footprint saving of this is quite significant. Data from Eggbase shows a c2.5% reduction in carbon footprint per kg of eggs when depleting at 80 weeks compared to 72 weeks
- And then there is the ethical argument about longer lived food animals.



More exciting news....



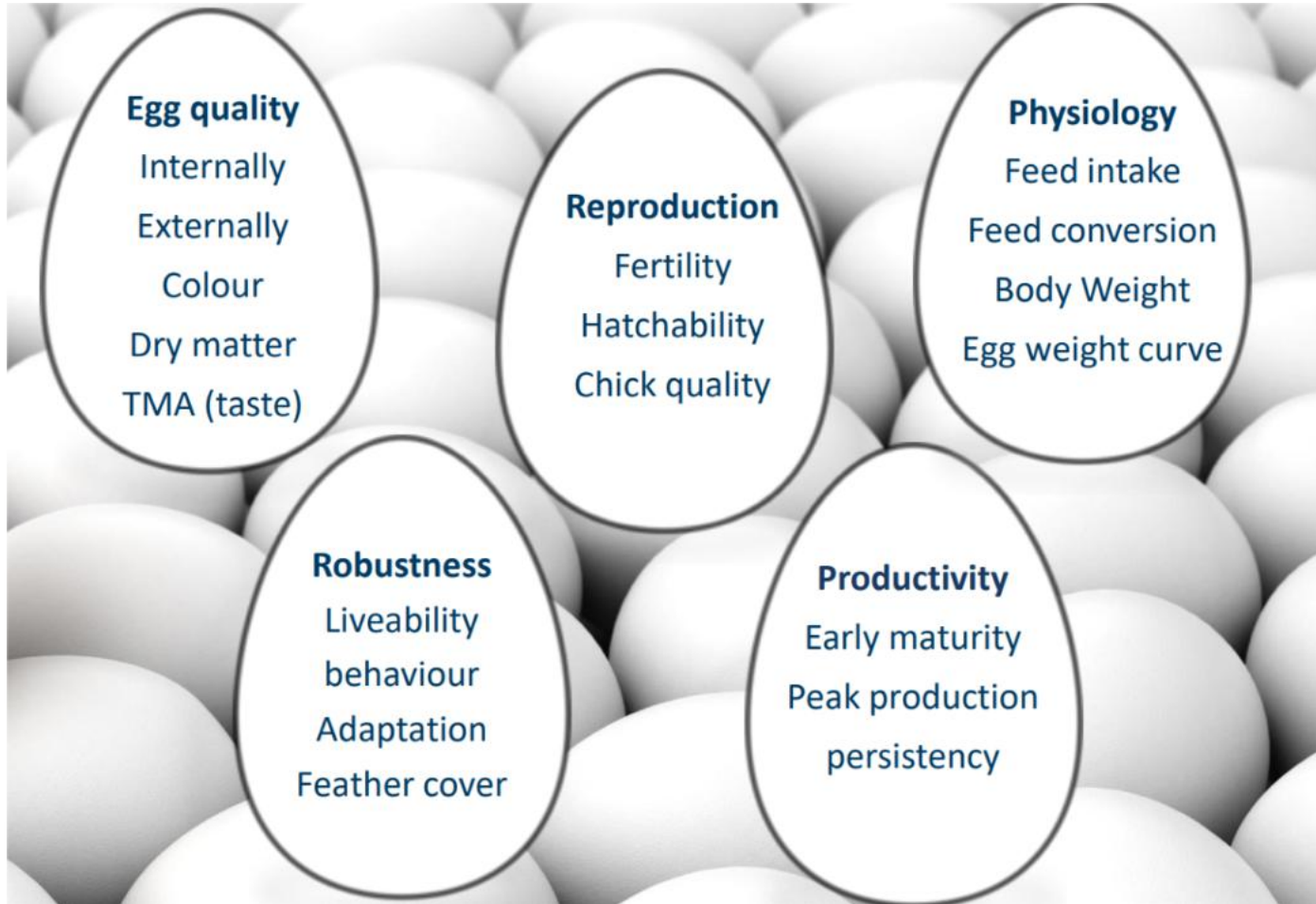
In other areas:

- Breeding for improved liveability which contributes to the longer cycles proposition as well as meaning flocks are overall more healthy.
- Breeding in a sustainable way. Hendrix Genetics (HG) are members of code EFABAR (Responsible and Balanced Farm Animal and Aquaculture Breeding)
- In-ovo sexing – HG are trialling two different types of machine at a commercial scale
- Breeding for tolerance of more bi-product type raw materials in order to give the option to remove or reduce soya in diets. This is one of the reasons why Dekalb White is used in the Kipster project.
- Monitoring feed, energy and antibiotics use in breeding programmes



British Egg Industry Council

Selection traits



White revolution



towards White hens

Looking from a Welfare & Sustainability point of view



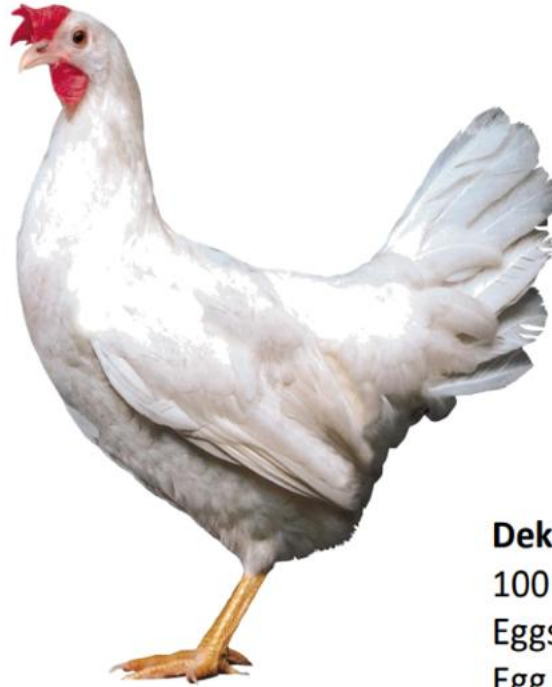
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Brown versus White



Bovans Brown

88 weeks
Eggs HH 404.7
Egg mass 25.2 kg
Feedconversion 2.25 kg/kg
Livability 92.9 %
BW 1972 grams



Dekalb White

88 weeks
Eggs HH 423.3
Egg mass 25.7 kg
Feedconversion 2.15 kg/kg
Livability 93.3 %
BW 1716 grams

Dekalb White

100 weeks
Eggs HH 481.4
Egg mass 29.4 kg
Feedconversion 2.20 kg/kg
Livability 90.1 %
BW 1729 grams

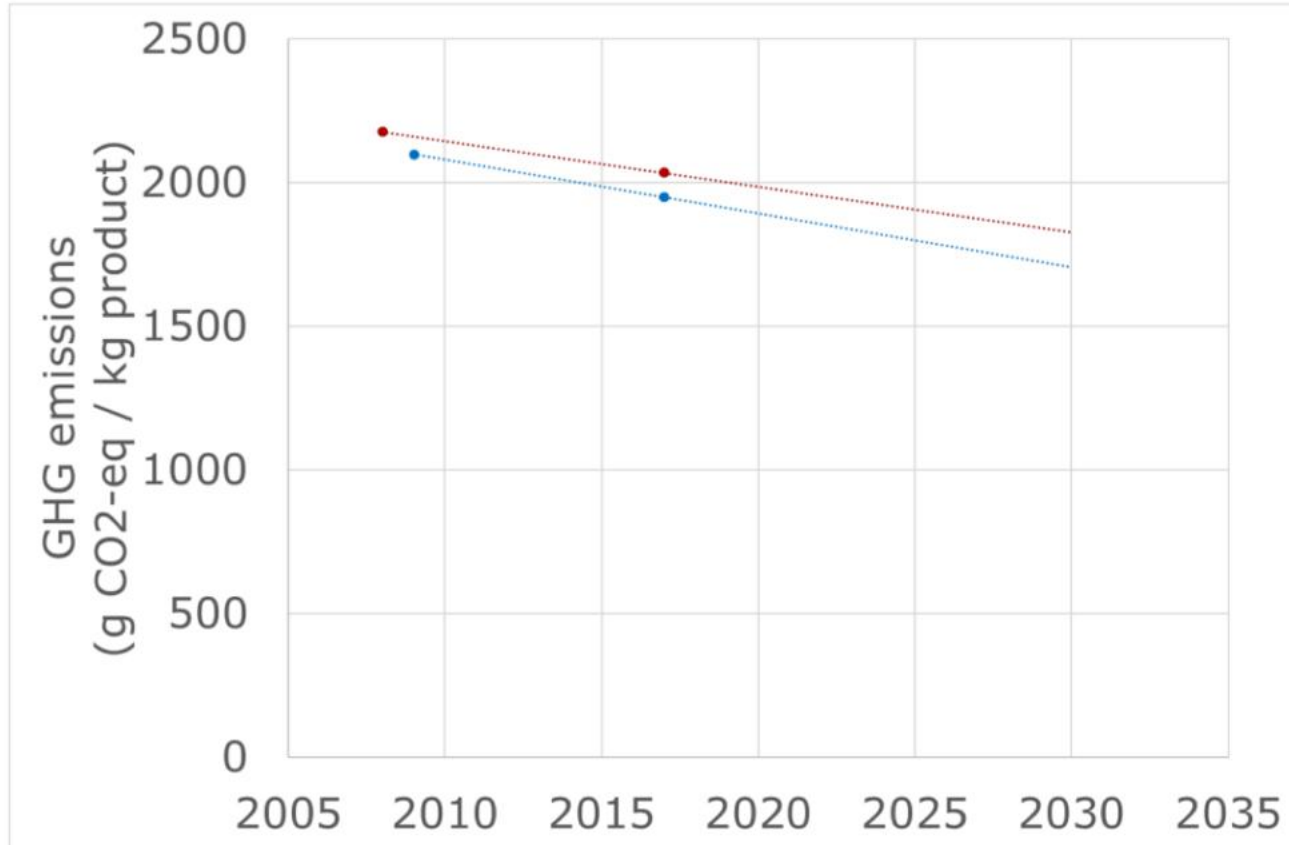
Benelux standards www.Vepymo.be

18



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GHG comparison



Brown

-16 g CO₂-eq per kg^a per yr

-0.8 % per yr

White

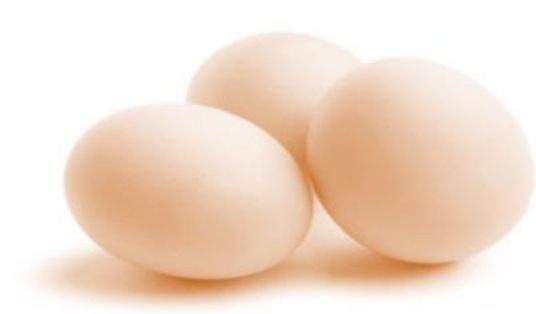
-19 g CO₂-eq per kg^a per yr

-1.0 % per yr



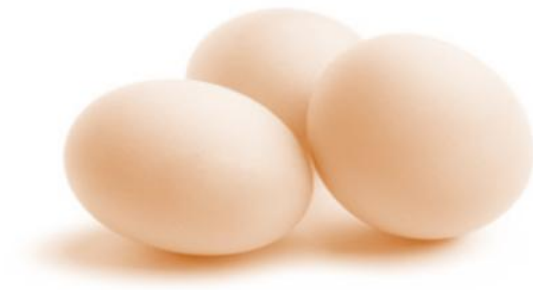
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UK Hatcheries



- Both UK hatcheries have installed solar panels at their hatchery
- Use of heat pumps which will eliminate the need for energy intensive chillers, a major part of any hatchery's electricity use.
- Ground source heating





Through the lens of the Lion Code



British Egg Industry Council

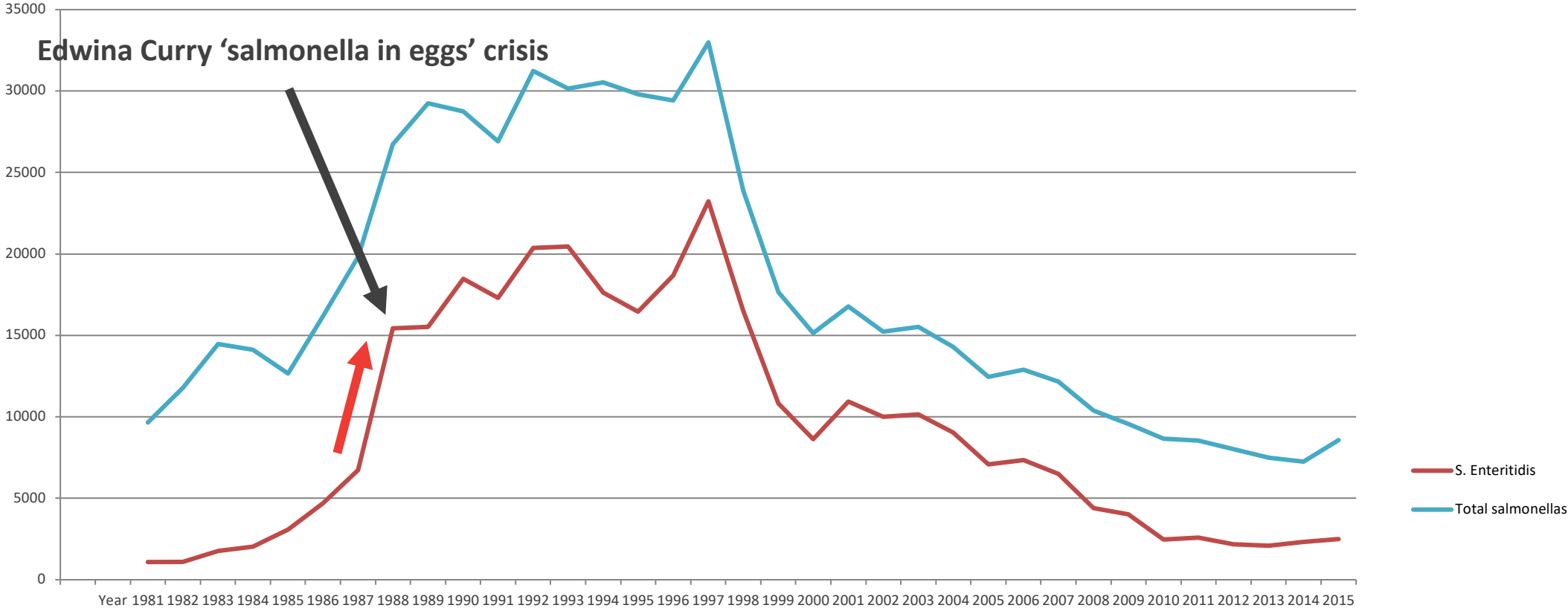
A British Success Story

Version 8 published June 2023, came into force on 1 September 2023

- Whilst primarily a food safety Code of Practice, hen welfare standards brought more to the fore
- Environmental standards strengthened
- Lion Training Passport, which introduces formal training modules

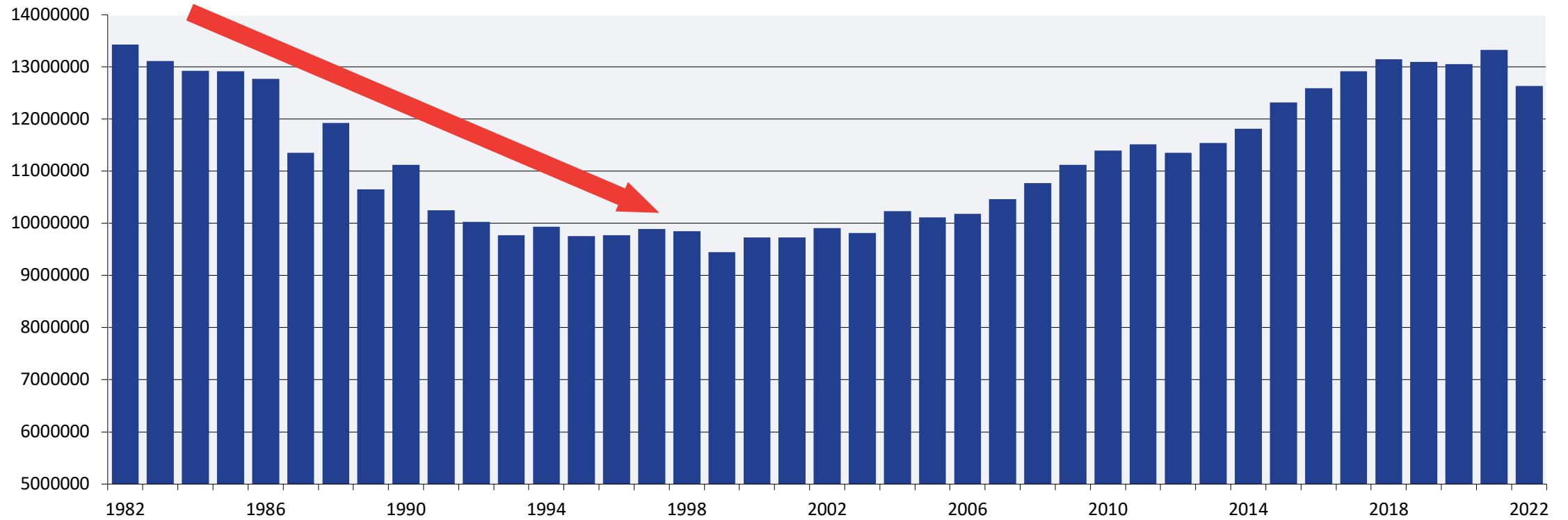


Human Salmonellosis: Reduction in Salmonella cases

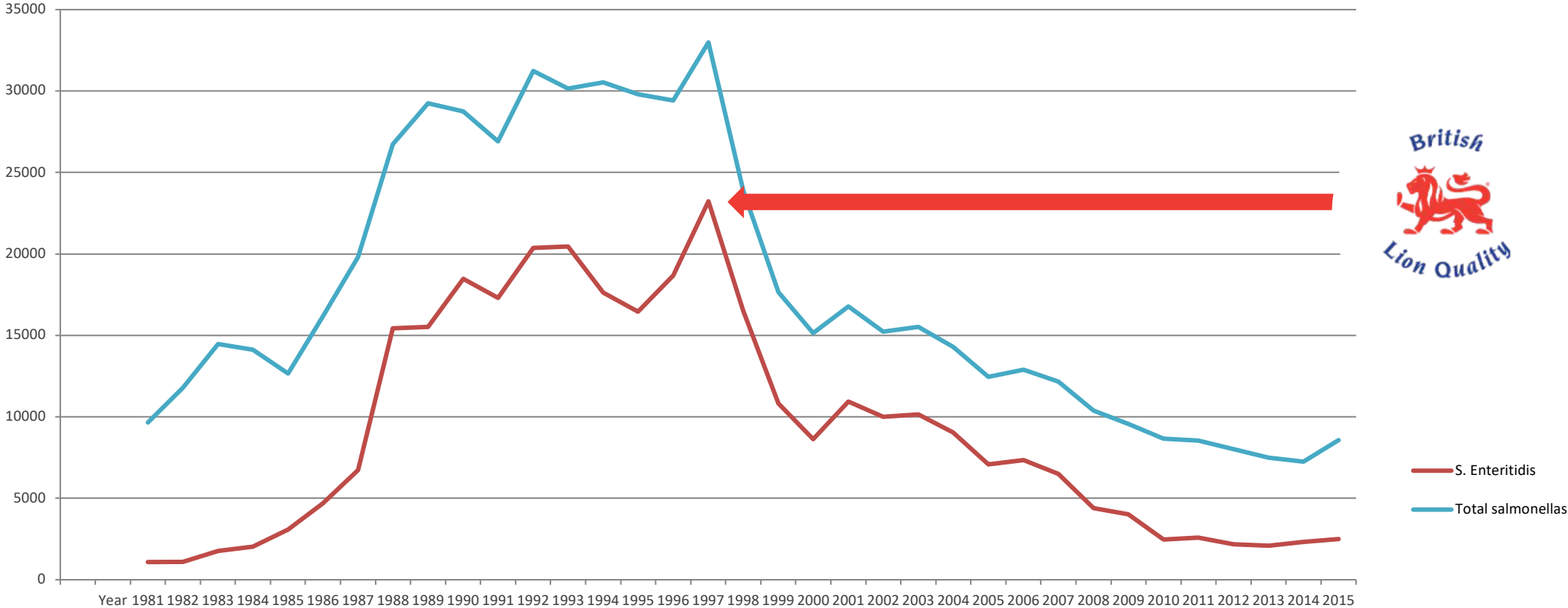


UK egg consumption trends 1982-2022

('000 eggs)

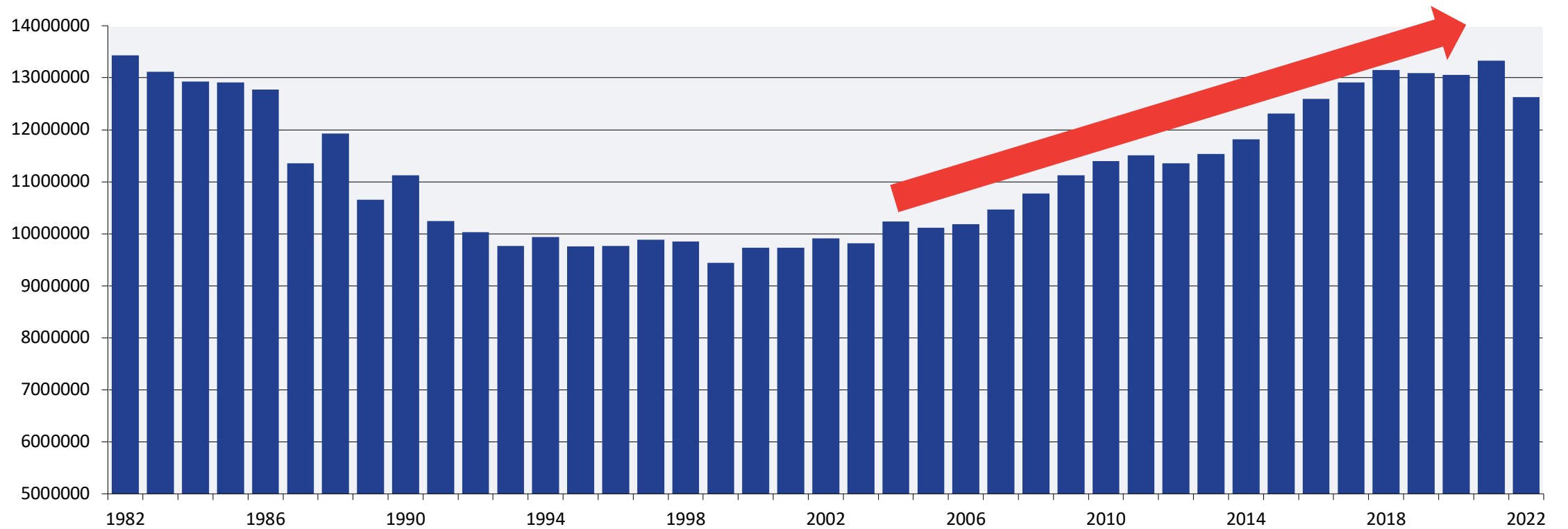


Human Salmonellosis: Reduction in Salmonella cases

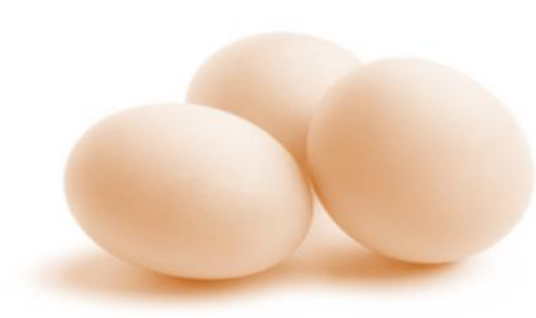


UK egg consumption trends 1982-2022

('000 eggs)



Environment standard



In Version 8 of the Lion Code

- Waste
- Community
- Biodiversity – ‘maintain & enhance’
 - under sow part of the range (3 acres) with chicory or clover, wildflowers, herbage leys
 - only cut twice per year;
 - hedgerow management
- Carbon Footprint
 - Applies to all flocks housed after 01/01/24;
 - Not about giving anything away;
 - About where you are as a business.
- Guidance and support



Protecting the environment ...

The responsibility of everyone

- Impact of river pollution e.g. Wye & Usk
- Reports on:
 - Wye/Usk catchment water and soil sampling
 - Percentage manure deposited in house compared to range
 - Nutrient content of laying hen manure
 - Wash water sampling for nutrient content
- Planning permission becoming extremely difficult
- BEIC Environment sub-committee



Sustainable table egg production in UK



Finally, UK government



British Egg Industry Council

UK Government



- Trade deals
 - Systems banned in the UK
 - Higher UK costs of production
- Planning permission



Food industry welcomes imported egg warning

By Gwen Ridler

07-Dec-2023 - Last updated on 07-Dec-2023 at 12:09 GMT

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FSA issues warning over imported eggs from Poland after and outbreak of Salmonella. Image: Getty, Ralf Liebold

RELATED TAGS [Foodborne Disease Outbreaks](#)

Members of the food manufacturing and food science community have welcomed recent warnings from the Food Standards Agency (FSA) against the consumption of imported eggs.

The FSA – along with Food Standards Scotland (FSS) and the UK Health Security Agent (UKHSA) – reminded consumers to take care when cooking poultry products at home, in light of a recent rise in cases of food poisoning caused by Salmonella Enteritidis linked to products imported from Poland.

An investigation is ongoing, with more than 200 human cases of salmonellosis caused by specific genetic strains of Salmonella Enteritidis that have been linked to poultry products such as meat and eggs, this year.

Tina Potter, head of incidents at the FSA, said: "A number of the cases have involved the consumption of eggs produced in Poland and used in meals in restaurants and cafes. We are therefore asking local authorities to remind food businesses about the importance of good hygiene practices."

Health and reputation on the line

Gary Ford, British Egg Industry Council deputy chief executive, said British Lion eggs fully endorsed the FSA's announcement and decision to safeguard British consumers and food businesses from the risks posed by Polish eggs.

"There have been ongoing food safety issues with non-UK eggs for years," Ford added. "Once you move away from the comprehensive food safety controls offered by the British Lion Code of Practice, businesses that choose to use imported eggs not only gamble with the health of their customers, they're also putting their hard-earned reputations on the line."

"We strongly urge responsible businesses to source British Lion eggs, which are clearly marked with the little red Lion on the packaging and the shell, to ensure that they are selling and serving safe eggs."

AWARDS

Tickets now available for an unforgettable night

Join us at the Food Manufacture Excellence Awards on 8 February 2024 for an evening of fun, glamour, networking and celebration. It truly is the most excellent night in the entire food and drink manufacturing industry - make sure you're there!... [Click here](#)

Salmonella outbreaks

Warnings over imported eggs from Poland followed more than [200 cases of Salmonella identified by the UKHSA in travellers returning from Turkey](#) between 15 January and 19 July 2023. Many were linked to the Antalya region.

Institute of Food Science and Technology Sterling Crew added: "As a food safety professional, I would always advocate food businesses and consumers to prioritise the food safety guarantees offered by British Lion eggs, which are produced to the most comprehensive standards in the world."

"The risks associated with Polish eggs are very real and could have serious consequences, particularly for vulnerable groups."

Meanwhile, Food Manufacture explores how the food and drink industry can [make improvements in the areas of food safety, hygiene and cleaning](#).

[Imported egg warning welcomed by members of industry \(foodmanufacture.co.uk\)](#)

Sustainable table egg production in UK



- A good story to tell but to continually improve our sustainability we need all stakeholders to come together
- Farmers
- Packers
- Retailers
- Vets
- Breeders
- Feed suppliers
- Government
- Trade associations
- Academics
- Certification bodies
- Welfare groups
- NGOS



British Egg Industry Council

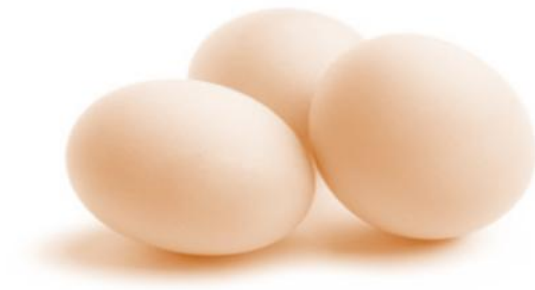
Eggs



**A protein fit for the
21st century**



British Egg Industry Council



Thank you



British Egg Industry Council