

Science and Sustainability

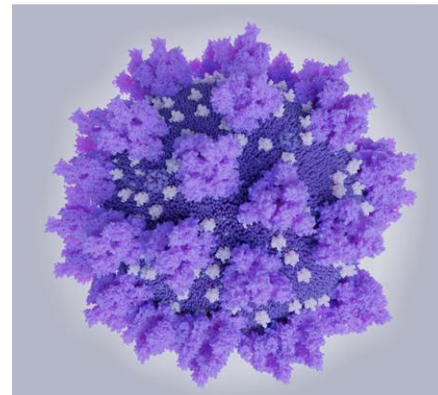
Sustainable Dairy Systems



Science and Innovation

- Innovation

- COVID-19
- Risk to food systems
- Vaccines
- Diagnostics
- Epidemiology – understanding disease



- COP26

- Climate change
- Biodiversity
- Sustainable Development Goals



Sustainable Dairy Systems

- Who “owns” sustainability?

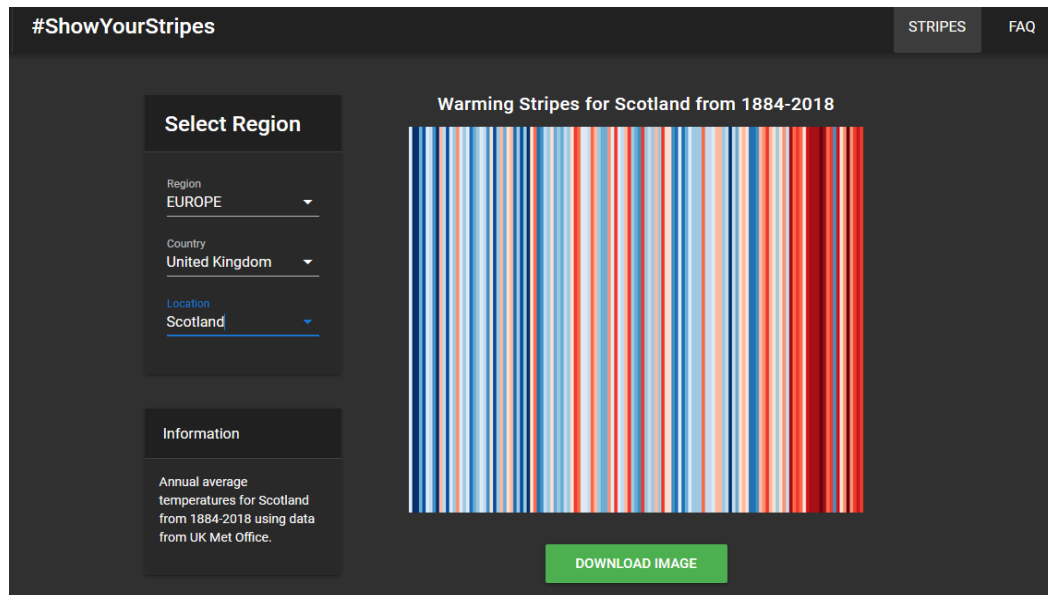
- Producers – primary production

- Processors

- Retailers

- The public/consumers

- Scientists



- Everyone!

Producers – primary production

The issues..

- Methane production
- “Intensive” farming systems
- Water regulation/nitrates



The answers..

- Economics
- Data and digital
- Engineering
- Reducing waste
- Nitrogen recycling
- Disease prevention and reduction
- Ensuring optimal welfare
- Genetics and genomics
- Protection of the environment

Processors

The issues....

- Lack of processors within some dairy regions
- Competition from imports



The answers...

- Quality driven by processing requirements
- Milk prices defined by quality issues, not just quantity
- Somatic cell payments focussed action on subclinical mastitis
- Avoidance of anti-biotic residues in milk, significant penalties
- Fantastic examples of local dairy products
- Local and regional food production = fewer carbon emissions/unit

Retailers

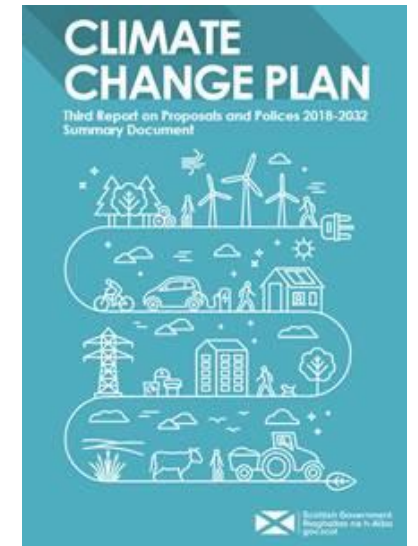
The issues....

- Pricing and competition
- Placement of healthy and unhealthy products in retail spaces
- “Green” agenda to address climate change



The answers.....

- Clear response to the “Green” agenda – part of the solution
- Work to deliver Scotland Food and Drink’s Ambition 2030
- Scotland’s Dairy Growth Board



The public/consumers

The issues....

- George Eustace proposes a “tax on meat and dairy”
- Dairy seen as high fat food and damaging to human health
- Vegans’ viewpoint

Getting the best
from our land

A Land Use Strategy
for Scotland 2016-2021



The answers...

- Addressing inequalities in Scotland (and elsewhere) including Food insecurity and Food poverty
- Benefits of protein for health and learning capacity/educational achievement
- Important for both developed and developing countries
- Good Food Bill/Good Food Nation – Scotland needs to do this

Scientists

The issues....

- Funding for large-scale or complex programmes and projects is difficult to attract
- Lack of scientists for research on dairying subjects



The answers...

- Sustainable food production should be a priority
- Funding via public/private sources
- Innovation funding
 - SRUC/UWS Digital Dairy Value Chain
 - Vistamilk, Ireland
- Scientific outputs can be applied in many countries across the world
- Talking about science – this conference!



Chief Scientific Adviser

- Ayrshire
- Glasgow vet school
- Milking dairy cows – Gilmour, Humeston
- Vet student “seeing” practice – Ayr, Mauchline, Kilmarnock
- Vet practitioner in Northumberland
- PhD on mastitis at Bristol vet school
- Fellow of the Hannah Research Institute
- Mastitis research, welfare, and dairying in East Africa
- CEO of Moredun Group
- Trustee of the Hannah Dairy Research Foundation

- Science advice into policy
- Policy for science within government
- Ambassador for science
- My objectives:
 - Responding to COVID-19
 - Pandemic preparedness
 - Science and technology roadmap for Scotland’s Climate Change Plan
 - Sustainable food systems for good food
 - Enhancing the Science and Innovation platform in Scotland

