Sustainable development is a collective effort that depends on collaboration between governments, international organisations and the private sectors, along with individuals. The International Dairy Federation (IDF) recognises the challenges and opportunities and is committed to contributing relevant scientific information and good practice to the discussion.

The second IDF Dairy Sustainability Outlook aims to provide a viewpoint on sustainable development of relevant importance for the dairy sector. It offers an opportunity for those involved in the field to share ongoing projects and new research on sustainability of importance for the dairy sector.

International Dairy Topics takes a look at some of the research and new initiatives that are taking place around the world.

New Zealand:

Workplace action plan for sustainable dairying

Jenny Jago and Andrew Hoggard
DairyNZ and New Zealand Federated Farmers • New Zealand
• jenny.jago@dairynz.co.nz

New Zealand dairy farming is built on a history of innovation, of highly efficient farming systems with a focus on profitability. Embedded in this history is a culture of hard work and long hours to achieve personal goals. As the sector has grown, so too has the diversity of business structures and people who make up the dairy workforce. Employment practices on dairy farms are critical to a successful industry.

The Sustainable Dairying: Workplace Action Plan emerged from the desire of the NZ dairy sector to front foot the issue and show the public that our sector wants to be recognised as a quality employer. To do this we developed and provided guidance, resources and tools, along with leadership to enable farmers to work towards improvements in their businesses that will attract and retain people.

The Action Plan supports the dairy sector's strategy Dairy Tomorrow which describes a broad-based approach to sustainability and describes how we are committed to building great workplaces for New Zealand's most talented work force.

The action plan was developed by farmers (Federated Farmers) and industry body DairyNZ to assist the 2,000 diverse businesses in the dairy sector to adopt good workplace management practices. It sets out a firm destination and direction for the sector.

We are clear that people are fundamental to driving sustainable, high quality milk production which minimises environmental and social costs. The quality of the work environment is central to attracting and retaining good people.

The benefit people will bring to dairy businesses and to the wider community is the reason why DairyNZ and Federated Farmers want to proactively improve farm work places. ■

The Netherlands:

A future proof and responsible dairy sector

Bregje van Erve and Tjitske Bolt
Duurzame Zuivelketen (Sustainable Dairy Chain) • The Netherlands
• Vanerve@zuivelnl.nl; bolt@nzo.nl

Through the Sustainable Dairy Chain, an initiative drafted in 2010, dairy organisations (NZO) and dairy farmers (LTO) in the Netherlands work together towards a dairy sector that is future-proof and responsible.

In the dairy chain, we want our work to be safe and satisfying; we want to earn a good income, produce high-quality food, respect animals and the environment, and be appreciated by Dutch society.

The Sustainable Dairy Chain has formulated four main objectives:

- Climate-neutral development.
- Continuous improvements in livestock health and welfare.
- Preservation of grazing.
- Protecting biodiversity and the environment.

The Sustainable Dairy Chain initiative requires annual updates on the progress towards these objectives, so they can be evaluated, both with partners involved and with societal organisations. The reporting must be based on the best available quantitative information. The sector report, drawn up by Wageningen Economic Research, describes the objectives as pursued by the Sustainable Dairy Chain, the indicators that were chosen to monitor the progress of these objectives, and the performance related to these objectives in 2017.

Through the Sustainable Dairy Chain, Dutch dairy companies and dairy farms joined forces to contribute to goals set on the themes climate-neutral development, continuous improvements in livestock health and welfare, preservation of grazing and protection of biodiversity and the environment.

All the dairy companies in the Netherlands have designed their own sustainability program in order to achieve the goals set in the Sustainable Dairy Chain.

In these sustainability programs the farmers share their new knowledge on reducing their impact and they can compare their efforts and results with each other.

Furthermore, they can qualify for extra financial means if they make progress to achieve their own sustainability goals. Measures will be taken if the farmer does not take the responsibility to move ahead. ■

Denmark:

Milk production carbon net zero by 2050

Kirsten Holm Svendsen
The Danish Dairy Board Brussels sa • Denmark • khs@agridan.be

An increasing number of consumers are concerned about the climate effect of milk production. We need to make sure that our consumers maintain their confidence in milk as a source of healthy, nutritious and sustainable food. An important part of the strategy is to cooperate with farmers to measure and to increase the amount of CO_2 to be sequestered.

Since 2013 almost 700 on farm meetings have been held to inform about possible actions and more than 5,000 climate checks have been carried out on farms in order to make instant improvements and to plan for further improvements.

A database has been established in order to measure and benchmark production. Since 1990 Arla farmers have reduced their emission per kilo of milk by 24%. Emissions from dairy activities, such as packaging and transport, has been reduced by 22% since 2005, notwithstanding the fact that production in the same period has increased by 40%.

According to FAO the global emission average is 2.5kg CO_2 per kilo of milk. Arla foods' farmers have already achieved an average emission of 1.15kg CO_2 per kilo of milk. The main beneficiaries are the consumers who will get milk with less emissions, but the farmers themselves will also benefit to a certain extent since CO_2 reduction is often cost reducing.

The next step is to establish parameters to indicate the farms' imprint on environment and climate in order to best determine in which areas the largest potential for improvement lies and to identify farms with the best practice. ■

France:

Maintaining and enhancing biodiversity on dairy farms

Ronan Lasbleiz
CNIEL • France • rlasbleiz@cniel.com

The EuroDairy programme aims to develop a network of farmers, advisers and stakeholders to improve the viability and sustainability of milk production in Europe. The biodiversity issue is crucial for dairy farmers as they have a particular role to maintain habitats and food to ordinary biodiversity through grasslands and agro ecological infrastructures.

This issue is both important for consumers whose interest is growing, and for farmers that rely on biodiversity development, through ecosystems benefits for production. To support its network, EuroDairy aimed to identify current practices and opportunities to favour ordinary biodiversity development in their territory.

The objective of EuroDairy was to develop a common method to assess biodiversity on dairy farms to highlight the positive impact of the farm in its territory and to develop virtuous practices.

Based on this biodiversity assessment tool (BIOTEX developed by the French Livestock Institute IDELE), it was then possible to disseminate these results in Europe.

First, an agreement between the EuroDairy members was made on a common method and definition of biodiversity (a focus on ordinary biodiversity, choice of indirect indicators, analysis of the territory, farm and plot scale). Then, 52 BIOTEX biodiversity assessments were done in 10 European countries. Each farm received an individual report of its impact and its potential improvement levers. Moreover, 12 case studies were prepared to present different approaches and opportunities for European farmers.

All these results and analyses (reports, research and policy recommendations, case studies) were disseminated with presentations, workshops, videos and webinars through Europe.

Thanks to the EuroDairy programme, the dairy sector was able to develop a strong method and tool that supports the action of dairy farmers to make progress regarding biodiversity. Based on this experience, it is now more feasible to disseminate a biodiversity programme for farmers.

Thus, the main beneficiaries are first the farmers but also, more globally, the organisations that want to rely on a solid working frame to improve its impact on biodiversity and to value the efforts.

Consequently, the long-term objective is to support the appropriation of the biodiversity issue by dairy farmers. ■

Switzerland:

Collaboration for on farm sustainability performance

Patricia Garcia Diaz
SAI Platform • Switzerland • pgarciadiaz@saiplatform.org

The B2B Model for sustainable dairy is the result of the output of a precompetitive and trustworthy cooperation between dairy buyers and processors on sustainability.

Without recreating any new standards, the B2B Model builds on the Dairy sustainability Framework and its 11 criteria.

It provides a credible approach to foster and demonstrate continuous improvement and compliance to the Dairy Sustainability Framework (DSF).

The model aims to focus and streamline farm improvement efforts by reducing the needs of multiple and misaligned audits at farm level. It reduces costs for processors and buyers, facilitates efficient sourcing and achieves measurable progress against sustainability priorities.

The development of the B2B model was initiated in 2017, together with companies that represent 25% of the total milk volume. In 2018 the model was tested by five of the largest dairy processors in Europe, the US and Australia.

Today, in 2019 we are finalising the model to be ready to use in commercial relationships among the first wave of users. After concluding the five pilots, we have validated how the model streamlines the communication between dairy buyers and processors.

It recognises national and company programs without recreating new standards and it leverages existing relationships among dairy farmers and processors.

The model provides a win-win situation for all parties involved and allows more effort to be focused on improvements at the farm level.

Dairy processors and their supplying farmers can prioritise effort on what really matters to their business rather than in fulfilling multiple differing demands from their customers.

Dairy buyers can demonstrate impact of their suppliers at farm level, reward good performance and collaborate with their suppliers in addressing their challenges. In 2019 the model is being refined and used by members of the Dairy working group from the SAI Platform: Sustainable Agricultural Platform to prepare it for wider use.

The model will be ready and open for use by the global dairy industry in early 2020. ■

United Kingdom:

Dairy strategy on food loss and waste

Henry Clifford
Dairy UK • United Kingdom • hclifford@dairyUK.org

Globally, roughly one third of the food produced for human consumption – approximately 1.3 billion tonnes – is lost or wasted. The total financial cost of this waste is estimated to exceed $1 trillion every year (FAO, 2019), and its impact on our climate and environment is equally costly.

If food waste was a country it would be the third largest greenhouse gas emitting country in the world (FAO, 2011).

In the UK, an estimated 330,000 tonnes of milk are wasted each year from processing to home, accounting for roughly 3.2% of the total food waste footprint.

Whilst losses are reported all along the dairy supply chain the vast majority of this waste (90%) comes from consumers (WRAP, 2019).

Recognising the social, economic and environmental burden of food loss and waste, Dairy UK has made a series of commitments to encourage a step-change in the way the UK dairy sector considers waste.

Dairy UK is a signatory of the Courtauld Commitment 2025, a WRAP (Waste and Resources Action Programme) led initiative aiming for a 20% reduction in the carbon, water and waste associated with food and drink production by 2025.

Dairy UK is also a signatory of the UK Food Waste Roadmap helping the UK to deliver its part in achieving Sustainable development Goal 12.3.

The UK Dairy Roadmap aims to incorporate further commitments including the ambition of Sustainable development Goal 12.3 to halve food waste by 2030.

Whilst more time is needed to show the progress we have made against our food waste ambitions, data from 2018 confirmed that only 2.8% of the milk entering dairies is lost from the human food supply chain or wasted and, of this, more than half already goes to other valuable uses such as animal feed or energy production (Dairy UK Environmental Benchmarking Report 2018).

The waste attributed to consumers – almost 90% of all milk waste – remains a key challenge, and the industry is currently exploring what changes it can make to product design, packaging and labelling, to influence change in this area.

The introduction of the dairy specific monitoring framework provides a vital tool to assess the sector's waste, however, a key goal moving forward will be to maximise uptake and reporting amongst the UK's dairy processors. ■