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.

The IDF Dairy Sustainability Outlook can be downloaded for free from the IDF website: www.fil-idf.org

Canada:

Canadian dairy farmers' Covid-19 response

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With the shutdown of several sectors of the economy and the sudden closure of many workplaces, the Covid-19 crisis hit millions of Canadians hard. Many faced unexpected job losses and financial difficulties.

According to Statistics Canada, at the end of March 2020, 17% of Canadians reported that the pandemic had a major impact on their ability to fulfill their financial obligations or meet their essential needs such as grocery purchases.

Thanks in part to the efforts of stakeholders in the dairy industry, the agri-food sector was designated essential by the Canadian government.

This allowed supply chain to remain open, ensuring all Canadians had access to local, safe and nutritious dairy products while respecting the constraints imposed by public health authorities.

Despite the Canadian government's best efforts to help workers and businesses through this challenging time, many struggled to gain access to quality and nutritious food.

In the early days of the pandemic, some short-term supply chain disruptions in areas such as transportation and distribution also contributed to significant milk disposal, something that occurred in many other countries, as well.

Dairy farmers in Canada adapted quickly by adjusting milk supply and increasing donations to food banks to ensure continued access to quality local food. ■

France:

Support for dairy activity during the Covid-19 period

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Social responsibility and solidarity within the dairy sector were put to the test during the Covid-19 pandemic.

The French dairy sector, like most dairy countries, was strongly impacted by Covid-19 and the containment of the population with a triple challenge:

- Loss of outlets with the closure of restaurants, collective catering (-60%) and numerous players in take-out catering; and sharp slowdown in the agri-food industries.
- Change in household consumption patterns to the detriment of 'pleasure' products: traditional cheeses were particularly in difficulty (60% drop in orders for PDOs). Cheese consumption was plummeting, and a significant number of producers and SMEs were seeing their situation deteriorate.
- Social and health issues for all stakeholders in the dairy chain (absenteeism rate, withdrawal rights, etc) and logistical difficulties (changes in production lines, delayed deliveries, etc).

In addition to this is seasonal milk production, which reached its annual peak (usually in April in France) and saturated already struggling production tools.

The dairy interbranch association, CNIEL, has decided to act in a responsible, collective and united way by maintaining the activity of the sector in all its diversity by avoiding the shortage on the shelves, by reorganising the market and limiting the economic impact of the crisis on the members of the sector.

The aim was also to inform consumers of these three main actions put in place. This also included the establishment in April of an exceptional solidarity fund of 10 million euros (payable by CNIEL) to compensate any dairy farmer trying to limit production (for a drop of 2-5% based on production April 2019).

CNIEL asked the EU authorities to validate this temporary production planning measure under the exceptional measures provided for by the Common Market Organization.

When the crisis is over and things are back to normal, it will be useful to evaluate the impact it had on the dairy sector, not only from an economic point of view, but also on other aspects such as crisis management, collaborations put in place, impact of collective actions, consumers attitude and perception of the dairy sector and dairy products. ■

Brazil:

Biogas promotes agricultural sustainability

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The production of biogas from agricultural and livestock waste and agricultural industries enables the generation of clean and sustainable energy.

The biggest challenge for agriculture is the sustainable use of natural resources. Brazil has the world's second biggest bovine population and requires sustainable technologies and solutions for the sector.

Manure may pass through processes that will end up into clean energy plus the disposal of less harmful residues. The Brazilian Agricultural Research Corporation has aligned its work towards the UN's Sustainable Development Goals (SDG) aiming at a more sustainable agriculture. SDG 7, that is to increase access to energy, is achieved for instance as several Embrapa's technologies help improve the management of agricultural residues.

The Energy Research Enterprise estimates that by 2030, biogas may produce the same amount of distributed energy as photovoltaic solar energy, the agricultural sector sharing a significant part of it.

Co-digestion research aims to improve livestock residues anaerobic bio-digestion process, reducing soil and water contamination, in addition to using effluents as biofertilisers. Results from organic residues co-digestion are quite promising. ■

Sweden:

Dairy farming: vital for biodiversity and sustainable local value chains

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Every dairy farmer in Northern Sweden and their agricultural activity is essential for maintaining biodiversity, protecting endangered species and delivering a resilient food system for future generations.

The area of northern Sweden is one of the most northerly areas with agricultural production in the world. This offers unique conditions to produce food, ecosystem services and biodiversity. Increased knowledge in the role and the potential of dairy farming in this region is key to deliver long term sustainable food production.

The biggest threat to biodiversity in the agricultural landscape in Sweden is overgrowth and lack of grazing livestock. Short summers with many daylight hours in the north creates unique conditions to grow grass, while many other feed crops are not suitable to the area.

Grazing livestock are necessary to maintain species-rich permanent or semi-permanent grassland areas that are under constant risk of overgrowth and being left abandoned. This has serious consequences for many ecosystem services and our future ability to produce food and bioenergy in the area. Furthermore, improved knowledge is also important for social sustainability and farmer pride and confidence at a time when dairy farming and its role is often questioned from an environmental perspective.

At the same time the sector must attract more young people. Best practice examples of sustainable farming will also improve the understanding among decision makers and consumers.

The aim of this initiative by Norrmejerier Dairy Coop was to study biodiversity on eight different dairy farms located in different regions in the area during the summer of 2020, to support and improve the knowledge of the role of dairy farming for biodiversity in northern Sweden today.

The study confirms the importance of dairy farming in all of Sweden for biodiversity, and in northern Sweden in particular.

A more balanced approach to sustainability by showing good examples will also contribute both to attract more young people into dairying and improve the understanding among decision makers and consumers ■

Belgium:

8% less added sugar in Belgian dairy products

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The number of overweight and obese people is rising worldwide. The causes are complex and need a multidisciplinary approach.

In Belgium, the dairy industry engaged, as part of the food industry, to take its responsibility and part in this debate by providing dairy products with less added sugar to consumers. This was formalised in a collaboration between the food industry, retail, and the government.

The dairy industry committed to reduce the added sugars in dairy products by 8% in 2020 (in comparison to 2012).

In collaboration with the dairy companies, a reduction target was set: 8% less added sugar in dairy products by 2020. Retail and dairy companies worked together to reach this goal. To allow consumers to get used to a less sweet taste, reformulation must be accomplished stepwise.

For some products, they noticed that the achieved added sugar reduction was not acceptable for consumers. In such cases, dairy companies were forced to take a step back, and adjust their reduction scheme.

Every year, all products within this commitment are monitored to see their evolution and to estimate the overall added sugar reduction in dairy products, based on their market shares. ■

Switzerland:

Point system climate protection for Swiss farms

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As one of the most important agricultural producer and distributor organisations in Switzerland, IP-SUISSE launched a new programme with the goal to reduce greenhouse gas emissions from its farms by 10%. All farmers producing under the IP-SUISSE label must achieve a certain number of climate points, which they do by implementing climate protection measures.

Agroscope, the Swiss centre of excellence for agricultural research, developed the point system together with IP-SUISSE. Using life cycle assessment methodology, we calculated the emission saving potential of each climate protection measure on model farms.

From that, we derived the theoretical greenhouse gas savings of each measure and the extent to which each measure must be implemented to achieve one climate point. The prerequisite was that measures should not impede production and should be applicable on the farms as they are.

The potential to reduce greenhouse gas emissions of model farms with most of these measures was rather small and mostly less than 1%; only covering the manure store and increasing the number of lactations led to greenhouse gas savings of 3.0-3.6%.

However, we expect that many small measures with low reduction potential will add up if used widely on farms.

In 2021, we will collect data on the climate protection measures implemented on all IP-SUISSE farms for the first time. Their evaluation will show whether the point system needs to be adjusted in order to achieve the desired result.

From 2022 onwards, the point system will be compulsory for all label farms. ■

Denmark:

Extending cooperation to dairy farming in China

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Better milk quality, more efficient use of resources, higher yield per cows and improved employee and animal welfare is the positive cooperation result between Arla foods and Mengniu.

The China-Denmark Milk Technology Cooperation Centre (CDMTCC) was founded in 2012 by Inner Mongolia Mengniu Dairy and Arla Foods.

The centre promotes cooperation between the Chinese and Danish dairy industries in order to lift the quality and quantity of Chinese milk production to European standards with the purpose of strengthening food safety and local supply.

The centre also acts as a platform for collaboration and knowledge sharing between companies, authorities, organisations, and scientific institutions on dairy related issues.

Since its inception, the centre has initiated over 40 different projects and activities to support the improvement of milk quality, production and animal welfare. In doing so the centre is helping dairy farmers to increase their income while, at the same time, increasing the local sourcing of feed, which is beneficial for the environment.

Since 2012 the Chinese dairy farming industry has gone through tremendous changes from small scale farming to modernised dairy production.

Today, some farms even achieve 40kg/cow/day while reducing their production costs. Last year, annual milk production in China increased to its best level ever and was achieved with less or the same CO_2 emissions as in previous years.

Since 2012, the CDMTCC has worked with over 700 Chinese dairy farmers, who have a combined milk pool of 4.5 billion kg, to support them to produce milk more efficiently and at a higher quality. A direct consequence of this work is that it helps to improve the Chinese consumers' perception of milk as a good and safe source of nutrition. ■