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UK-IDF NEWSLETTER

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International Dairy Federation – UK National Committee

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2010 – A year of achievements and progress for IDF

The year since the Berlin Summit has seen IDF moving forward with the addition of more members, a number of new initiatives in the Programme of Work, recruitment of two further members of staff, enhanced collaboration with other international organisations, improvement of the existing website and the addition of a new microsite to promote the recently issued IDF Bulletin entitled “A Common Carbon Footprint Approach for Dairy: The IDF guide to standard lifecycle assessment methodology for the dairy sector”, which can be found at <http://www.dairy-sustainability-initiative.org/Public/> .

Additional improvements have come from the revamp of the World Dairy Situation Bulletin (*see page 5*), making it even more comprehensive and relevant to today’s dairy industry economic and policy issues, the re-launch of the IDF Dairy Innovation Awards and the second Elie Metchnikoff Prize (celebrating scientific discoveries in the field of fermented milks).

Over the course of the year, IDF has issued 6 Bulletins (*see pages 17/18*), jointly produced 25 Standards with the International Organisation for Standardisation (ISO) and made numerous submissions to on-going Codex work.

The IDF Award was won by Dr Manuela Juárez, a research Professor in the Spanish National Research Council, in recognition of outstanding contribution towards developing research in Food Science and Technology.

Towards the end of the year, a record number of delegates gathered in Auckland for the World Dairy Summit, with more than 1,600 delegates from 67 countries enjoying a highly successful event.

The Summit reflected the renewed air of confidence that has returned to the industry since the drop in commodity prices two years ago and highlighted the main forces driving the optimism – sustainability, innovation, quality and excellence.

This newsletter contains reports from UK-IDF representatives on the meetings they attended.

**IDF World Dairy Summit – Auckland
8 – 11 November 2010**

New Members Join IDF

IDF has increased its representation still further as **Chile and the Republic of Korea** were welcomed as new members at the General Assembly on 7 November, raising the number of countries participating in IDF work to 57.

Chile was very active in IDF many years ago and it is a positive sign that their involvement has been re-established.

SWIFT Session – 8 November

Ian Wakeling – UK-IDF Secretary

Over recent years, the IDF has held a Forum on Present and Future Work as part of the business meetings prior to the start of the conference session of the Summit, but the format was changed slightly for 2010 with the introduction of a SWIFT session to see how the IDF can be “Today’s Organisation Addressing Tomorrow’s Needs”.

The rationale behind this is to concentrate on the five key drivers for the further development of IDF, ensuring that the work is **Speedy, Worldwide visible, Impactful, Focused and Transparent**.

IDF President, Richard Doyle, introduced this theme explaining some of the initiatives IDF had adopted over the previous year and then five presentations were given with each one concentrating on one of the objectives and showing how this has improved the way that IDF operates and how it progresses its work.

Mr Doyle explained IDF had enhanced its communications systems with more sophisticated technology, including webcasts, video reports and webinars as well as a speeding-up of the time it takes for National Committees to reply to questionnaires and new work items. Both the IDF website and Intranet have been revamped to add focus on key issues and the IDF now has four websites and one microsite:

- <http://www.fil-idf.org/> for the IDF homepage to find out about the work of the organisation, including working areas, events, publications and the press room
- <http://www.idfdairynutrition.org/> for information on milk and milk products and their role in nutrition and health
- <http://www.dairy-sustainability-initiative.org/> highlighting the industry’s commitment to making a positive contribution to the global action in addressing climate change
- www.idfdairylaboratories.org for a searchable database of more than 100 dairy laboratories from 39 countries that provide analysis on milk and milk products, and
- <http://www.idf-lca-guide.org/> to support the on-going work associated with the new publication ‘A Common Carbon Footprint Approach for Dairy: The IDF Guide to Standard Lifecycle Assessment Methodology for the Dairy Sector’, which introduces a common methodology for assessing carbon footprint across the global dairy industry sector.

The contact database has also been expanded to ensure that all communications are sent to the relevant people and that all organisations / industry publications are aware of key developments. Collaboration has been enhanced with a number of leading international partner organisations, e.g. FAO, OIE, ISO, OECD, Codex etc and a more focused Programme of Work has been published.

The **Speedy** theme was addressed by Dr Petra Lutter who explained how National Committees had reacted swiftly to counteract the effect of the melamine contamination scandal in China in 2008 by producing a Joint Standard with ISO (number ISO/TS 15495|IDF/RM 230:2010) entitled **Milk, milk products and infant formulae - Guidelines for the quantitative determination of melamine and cyanuric acid by LC-MS/MS**.

Brian Lindsay (Chair of the IDF Standing Committee on Environment) addressed the **Worldwide** theme by showing how increased importance had been given by the worldwide dairy sector to take action against the effects of climate change.

This has included the First IDF Dairy Farming Summit, held in Edinburgh in 2008 under the title of Climate Change – The Heat is On?”, and publication of important documents, such as:

- IDF Bulletin 443/2010 - [Environmental issues at dairy farm level](#) a free publication providing an overall review of the interaction between milk production and the environment and possible measures to minimise the impact of each on the other,
- Bulletin 445/2010- [A common carbon footprint approach for dairy - The free IDF guide to standard lifecycle assessment methodology for the dairy sector](#) , another free publication, produced in collaboration with FAO and the Sustainable Agriculture Initiative (SAI) Platform, developing a common methodology for the global dairy sector to calculate carbon footprints for dairy farming and processing
- [Greenhouse Gas Emissions from the Dairy Sector: A Life Cycle Assessment](#), an IDF/FAO collaboration showing milk and dairy products are estimated to contribute 2.7% of anthropogenic GHG emissions, a figure much lower than suggested by earlier publications

The Global Dairy Agenda for Action on Climate Change is a statement of commitment by the dairy supply chain, signed at the World Dairy Summit in 2009, to take action to address climate change. As part of this, the Green Paper is a living document that has been created to provide evidence of this commitment and it catalogues the achievements already made, and in progress, along the whole of the dairy supply chain. This can be viewed by [clicking here](#).

Looking at **Impact**, Cary Frye showed the importance that IDF’s role as technical advisor relating to milk and dairy for Codex has helped to give the organisation credibility and representation at key meetings. This collaboration has resulted in the finalisation of 34 revised or new standards for international trade and achieved notable success in work on the Protein Nitrogen Conversion Factor, infant formulae, the General Standard for Food Additives and the Codex Milk Hygiene Code.

Jeremy Hill stressed the industry must **Focus** on issues of the most importance and urgency, giving the example of milk fat and explained that the IDF is working with FAO in support of a revision of the 1972 report on Milk and Milk Products in Human Nutrition.

This session was concluded with a video presentation from Claus Heggum, Chair of the IDF Science and Programme Coordination Committee (SPCC), looking at the **Transparent** future direction of IDF, with the emphasis on sustainability - environmental, socio-economic and economic.

The SWIFT session demonstrated that IDF has identified the key topics that need to be addressed, who they need to be communicated to, the organisations that IDF should work with and the most efficient tools with which to facilitate this.

World Dairy Leaders Forum – 8th November

Dr Karen Wonnacott – DairyCo

One of the most popular events of recent World Dairy Summits has been the World Dairy Leaders Forum, in which CEOs from across the dairy supply chain provide their perspectives on the challenges and opportunities for the global sector over the years ahead.

This year’s programme consisted of the following seven topics, which were each introduced by one of the panellists and then the discussion was opened out to questions from the floor:

- **Markets** **Jacqueline Pieters**, *Global Sector Head Dairy, Rabobank, The Netherlands*
- **New consumers** **Alex Chu**, *Deputy Chairman and Executive Director, Dah Chong Hong Holdings, Hong Kong*
- **Health** **Cees ‘t Hart**, *CEO, Friesland Campina, The Netherlands*
- **Sustainability** **Ken MacKenzie**, *CEO, Amcor (packaging), Australia*
- **Farming** **Jerry Kozak**, *President and CEO, National Milk Producers Federation, USA*
- **Trade & government policy** **Andrew Ferrier**, *CEO, Fonterra Co-Operative Group, and*
- **Market volatility** **Neils Graugaard**, *COO Process Technology, GEA, Germany*

The key themes that were identified during each of these topics were:

Markets

Challenges:

- How to meet asymmetric demand growth
- How to serve consistent, high quality supply in growth markets
- Extreme weather, e.g. floods and drought in Australasia
- Global giants, e.g. Coca-Cola, attempting to gain a foothold in the lucrative milk drinks sector
- High prices and volatility are here to stay!

Opportunities:

- Mismatch in supply and demand increases trade
- Mergers and acquisitions picking up again with further industry collaboration
- Increase in value added products in developing and developed countries
- Prepare financially for opportunities and challenges

Global demand growth = 2.5%, led by developing markets such as China, Brazil and India

European growth = 1.5% when quotas are abolished (by 2015)

80% of growth in milk market over the next 10 years will be from developed countries?

New consumers

Challenges:

- Sustaining high speed Chinese growth (78% growth from 2004 – 2008)
- Melamine scandal – consumer confidence in local products fell; confidence in imports increased
- Development in China happens very quickly
- Reliable cold supply chain

Opportunities:

- Create credibility by ensuring food safety
- Create competitiveness by ensuring comfort and confidence of consumers
- Credibility and competitiveness = greater quality and greater demand
- Increasing demand for higher value dairy products and move towards cheese
- Increasing awareness of dairy products' benefits to health – more westernised dining patterns
- Countryside to city movement leads to demand for more sophisticated products

40 – 45% of the Chinese population are lactose intolerant

Health

Challenges:

- Get out of the defensive mode
- Commoditisation of our industry
- Sustainability as a growing public concern

Opportunities:

- Roll out 'goodness of dairy' message
- Differentiation and branding based on health propositions
- Getting our sustainability act together in supply chains

Health message, healthy propositions, healthy business

High nutrient density of dairy products, especially milk.

Sustainability – the role of packaging

Challenges:

- Farms, processing and manufacturing are the main producers of GHG emissions and are the main consumers of water in the dairy supply chain
- Distribution and packaging have small impacts but consumers believe that they have large impacts
- Satisfying consumers' desires for sustainably produced products

Opportunities:

- Protect products and add functionality that minimises waste and maximises shelf life
- Harness new technologies to optimise the packaging solution
- Reassure consumers and satisfy their desires for sustainably produced products

Farming

Challenges:

- Price volatility of all commodities related to livestock agriculture
- Social/consumer expectations – greater scrutiny of producers
- More Government regulation – in trade and environmental issues
- Increasing feed, fertiliser, fuel and energy costs

Opportunities:

- Increased importance of developing risk management tools
- Better chance for farmers to provide facts and consumer education
- Chance to highlight best management practices exhibited by farms

There is a lot of misinformation out there

It makes sense to manage the land and health of our animals as well as we can

Trend to larger herd sizes in the EU – predicted to be 100/125 in 10 year's time

Trade and Government Policy

Challenges:

- 6 million more mouths to feed per month – must be done sustainably – UN says food demand will double over next 40 years
- Trade protection and distortion is holding back sustainable growth in dairy
- Incremental bi-lateral agreements don't solve the real issue

Opportunities:

- Food needs to move around a lot more than it has done in the past!
- World food production to double by 2050
- Sustainable growth in dairy through more efficient production
- Step-change to multi-food, multi-lateral agreement

Market volatility

Challenges:

- Price volatility is much more extreme at farm and commodity end of the value supply chain than at the consumer end
- Feed shortages exaggerate milk price volatility
- Price volatility of globally traded dairy commodities will remain high
- Futures trading very limited but *globalDairyTrade* gives clarity to marketplace

Opportunities:

- Dairy production remains one of the fastest growing food sectors
- On-farm technology improves productivity; processing technology improves responsiveness to market trends and seasonality
- Innovation creates differentiated products tailored to consumers' needs.
- Commodity prices are expected to rise 15-40% from 2012-2019 compared to decade preceding 2007/08 peak

Dairy Policies and Economics Conference – 9th/10th November

Ian Wakeling – UK-IDF Secretary

For many years, the flagship IDF publication has been the annual **World Dairy Situation** Bulletin, which includes statistics and analysis on production, consumption and trade in all regions of the world (based on questionnaires completed by National Committees), as well as views of industry experts on topical issues.

The 2010 Bulletin has been revamped to make the publication more relevant to the industry with the statistical section now produced in a standard form to make comparisons between countries easier and regional statistics have now been included. Experts have also been asked to contribute to topical discussions and the subjects selected for this year are informal dairy economies, milk production costs, volatility and initiatives undertaken in the field of futures. This excellent publication costs €125 and is available from the UK-IDF office.

The editor of the publication, Adriaan Krijger, presented the key finding of the report during the Dairy Policies and Economics conference. He said that 2010 had been steady with production moderate and prices high following on from the recovery seen during the second half of 2009.

Cows milk production had only grown by 0.6% in 2009 with liquid milk stable in western countries but growing in other parts of the world (1.3% in total). Growth had also been recorded for all every product except WMP (-6.1%) with cheese up by 0.5% and SMP by 3.9%. **Global consumption had decreased** for the first time in years (-0.4%), despite a remarkable recovery in the second half of the year, and the EU milk price was at a record low, with the U.S. also low but that in New Zealand had increased. New Zealand had also regained its position as the main exporter (27%), with the EU 2nd (24%) but the rest the world had declined.

Over the course of the first half of 2010, markets were very strong, buoyed by Chinese demand (especially for milk powder), milk prices had improved and this had stimulated milk production. The outlook at the end of the year was certainly much more positive than it had been at the start.

Tim Mackle, the CEO of Dairy NZ, presented an overview of the **NZ dairy market**, explaining that 95% of product was exported to 140 countries (with China as the main customer) and it is the eighth largest global producer, accounting for 2.3% of world production. There is no support to the milk price and there are 2.4 million cows in 10,500 herds (down from 18,000 35 years ago). More milk is produced in the north but the south (40%) is growing with Fonterra handling 90% of the total milk supply. Farmers are cash poor but asset rich and have a low cost of production. Overall, dairy is making a growing contribution to the economy but rising input costs may pose a threat in the future.

Chris Phillips from Dairy Australia said that **Australia** had been “riding the roller coaster” with production expanding through the 1990s but now falling back to 9 billion litres as the country had battled a succession of droughts. 7,500 farms produce 9 billion litres of milk, of which 45% is exported, with farm gate returns linked to international markets. Farmers are having to adapt and they have done so by increasing grain and hay feeding and are using irrigation water more efficiently to grow feed crops and autumn pasture.

The manufacturing sector continues to consolidate (90% of milk is processed by the 6 largest firms) and the number of farmer co-operatives is decreasing (80% of milk in the 1990s but only 37% in 2010). Farmer optimism, however, is improving, with 75% confident about the future, but this is not borne out by their views on their future production levels as only 50% say they expect production to rise (compared to 65% in 2009) and increasing numbers are expecting to either not be in business or having static or falling production. Domestically, the Greens have the balance of power and a Greenhouse Gas Committee has been established. A deregulated position leaves Australian dairy vulnerable to open market volatility and farmer's risk management skills are becoming increasingly important.

Jim Begg chaired a session focusing on production, trade and market trends and prospects. Torsten Hemme (International Farm Comparison Network) noted that the average farm size in the world is only 2-3 cows and there are 145 million dairy farms globally on which between 0.7 and 1 billion people depend for their income.

Over the last few years, global production has been increasing (2.0% CAGR from 2000-2009) and most regions have shown growth during the period (notably Asia 5.6%, South America 2.8% and Africa 3.7%) with the EU (-0.1%) as the only region to record a fall.

In terms of the **cost of milk production** there can be anything up to a factor of 10 between the top and bottom countries. Some of the most noteworthy changes over the past decade have been seen in New Zealand (where the cost has tripled, partly due to currency), the USA (stable until 2003 then a sharp rise followed by a steep fall) and Poland (where the cost was very low and then rocketed after it joined the EU).

Overall, production is dominated by small farms and milk regions matter (within the EU, USA and China the milk volume traded is twice the volume on the world market). The supply decline in 2009 was driven by the economic downturn, an unfavourable climate and China restructuring but there are still opportunities if you continually monitor costs and have a clear strategy.

Jurgen Jansen of the Dutch Dairy Board stated that **global dairy trade** in 2009 was 49.8 million tons m.e., (representing 7% of production) with growth for all of the major products (cheese 5.1%, WMP 4.9%, SMP 11.6%, butter and butteroil 15.8% and whey & whey products 4.6%).

Russia is the major market for both butter and cheese but Chinese demand for cheese and WMP has led to it taking an increasingly more prominent role as an importer of these products. Over the first half of 2010, exports had grown very strongly in the USA, and less so in the EU, but those for Australia, New Zealand and Argentina had fallen away sharply.

Looking at the past decade, trade has grown faster than production and there has been a long term shift towards (whole) milk powder, cheese and whey products but in 2009 SMP and butter showed the fastest growth.

The supply balance of the international market is vulnerable to external circumstances, such as weather and the economy, and is dependent on a limited number of exporters but demand is still expected to grow steadily and the market needs to mitigate extreme price fluctuations.

Dairy was one of the fastest growing sectors in 2010, with outlook far more optimistic than it was for 2009, according to Pavel Vavra of OECD. Over the next decade, the forecast is that population levels will increase and commodity prices will continue slowly, but steadily, upwards.

As has already been mentioned, exports will increase strongly, especially for cheese and WMP on the back of demand from developing countries, but some of the traditional exporters will be subject to diminished supplies as the weather and economic stability continue to have an impact. The key issues looking forward are developments in domestic policies, the eventual outcome of the WTO negotiations, consumer confidence, food security, climate change and increased volatility.

Another factor that will determine the future outlook for dairy is the future shape of **CAP policy**, with the fourth phase running from 2014-2020. Mariann Fischer-Boel reported that this would include the creation of a safety net against market failure, the continuation of direct payments, export refunds disappearing over the medium/long term, the use of risk management tools and eradication of imbalances in the supply chain.

Her predictions for the years up to 2016 are more value-added products, a second generation of biofuels, a more balanced butter market but slow de-stocking of SMP intervention stocks as a result of weak EU demand and poor export prospects. Markets will recover from the lows of 2009 and producers will have strengthened bargaining power as their contracts improve. There will be reduced income volatility and a development of origin labelling (to prevent imitation products) accompanied by a promotion of transparency, innovation and research.

Concentrating on the **U.S. market**, Joe Glauber of the US Department of Agriculture believes that cow numbers will fall, but farm numbers will fall even faster, meaning that herd sizes will increase (35 cows/farm in 1980 up to 140 currently) and production will shift towards the west. U.S. dairy policy is currently geared towards price support for liquid milk, direct payments (MILC - Milk Income Loss Contract), supply reduction programmes and export subsidies but the proposals for forthcoming years are for a termination of MILC and price supports and an introduction of a product margin protection programme and market stabilisation plan.

A further contributory factor towards the direction of markets in the future is the growing influence of **grains and oilseeds**, according to Tim Hunt of Rabobank. The substantial rises in the costs of these products means they are acquiring greater importance in the cost base, and the increased price of dairy make it a greater target for substitutes, so suppliers have to work harder to maintain dairy's market share. Further implications are costs will increase pressure for higher dairy prices and they will sustain the cost advantage of pasture based regions.

Another potential thorn in the side of dairy sector in the future is the Danish proposal for a **saturated fat tax**, which will come into force at the end of 2011 and apply to dairy products (except milk) and oils as well as processed foods containing dairy products and oils. The Danish dairy industry has joined with various other bodies (e.g. EDA, CIAA) to oppose this tax on the grounds that meat and meat products are exempted and there are other ways in which the 1 billion DKK it hopes to raise can be generated. They have, therefore, issued a counter proposal including meat, thereby lowering the rate for dairy, and an exemption for all products with less than 3.5% total fat (both SF and USF).

Sustainability has, of course, come increasingly to the forefront of thinking over recent years and the implications for dairy were considered during the second day of the conference. Hans Jöhr of Nestle, and co-founder of the Sustainable Agriculture Initiative (SAI) Platform, said the industry has the opportunity to feed 9 billion people and has to meet the requirements of consumers in terms of environmental, social and economic aspects whilst facing the threats of water and soil management and rising input costs. A tool called RISE (Response-Inducing Sustainability Initiative), which is an interview-based method for assessing the sustainability of farming operations, can be used to monitor how this is being achieved.

Tim Bennett, the Chairman of DairyCo, examined the implications for the **UK dairy industry**. He reported that dairy only accounts for less than 2% of UK GHG emissions and efforts to reduce methane and nitrous emissions have been successful with them falling by 17% and 23% respectively since 1990, although more reductions are possible.

He explained that the **Milk Roadmap** is being expanded to include all dairy products and the targets are being revised to ensure that the Roadmap remains challenging and up-to-date. The future is expected to show consumer demand for dairy products growing, a reduction in the number of dairy farmers, consolidation of dairy processors and potential to increase production.

David Homer – DairyCo

Some 200 delegates from around the world participated in the dairy farming sustainability conference - as you might expect quite a proportion of the representation was from New Zealand and Australia. The dairy farming conference was opened by the New Zealand Minister of Agriculture, who spoke with passion and clearly demonstrated great pride about dairying's 15% contribution to New Zealand's gross domestic product. Our host's dairy farming sector shows some interesting trends over the last 10 years:

	1999	2009	% change
No of herds	13,861	11,618	- 16
Cow numbers	3.26m	4.25m	+ 30
Ave herd size	236	366	+ 55
Stocking rate	2.67	2.83	+ 6

Source: DairyNZ

One of the most concerning facts is that the New Zealand public's attitude towards dairying. More people (now 48%) believe that dairy farming is bad for the environment and that farmers are not doing their best in addressing environment issues. Thus this Summit presented a timely opportunity to look at some of these issues in detail.

The dairy farming programme in Auckland was in essence a follow up to the first **IDF World Dairy Farming Summit**, organised by UK-IDF and De Laval in Edinburgh June 2008, and the 2010 Summit offered solutions to many of the issues identified in 2008.

Event design was similar with a dynamic leadership using two moderators encouraging interaction between the speakers and delegates, and short video clips from around the world setting the scene between speakers.

The day was set up with a panel of three. Lachlan McKenzie, president of Federated Farmers, who gave an overview of the **priorities facing New Zealand farmers** and how he hoped they would be tackled by his members and government working closely together. Heather Jenkins from Waitrose (the only retailer from the whole world interested enough in dairy farming sustainability to attend both the 2008 and 2010 events) expressed her concern about **food supply**, and asked the question "who and how will enough food be produced bearing in mind the FAO's predictions of requirements?" and Torsten Hemme gave a quick overview of the **economic position of dairy farmers** from around the world. He considers the No.1 cost affecting profitability to be feed and the key drivers to be feed efficiency + price. At current feed prices I'm sure many people would now agree with him!

Thanks to the use of interactive technology, delegates were polled on a range of issues.

Nearly all delegates (95%) believed that human activity is contributing to climate change and over 75% believed that dairy farming is both contributing to, and forms part of, the solution to climate change.

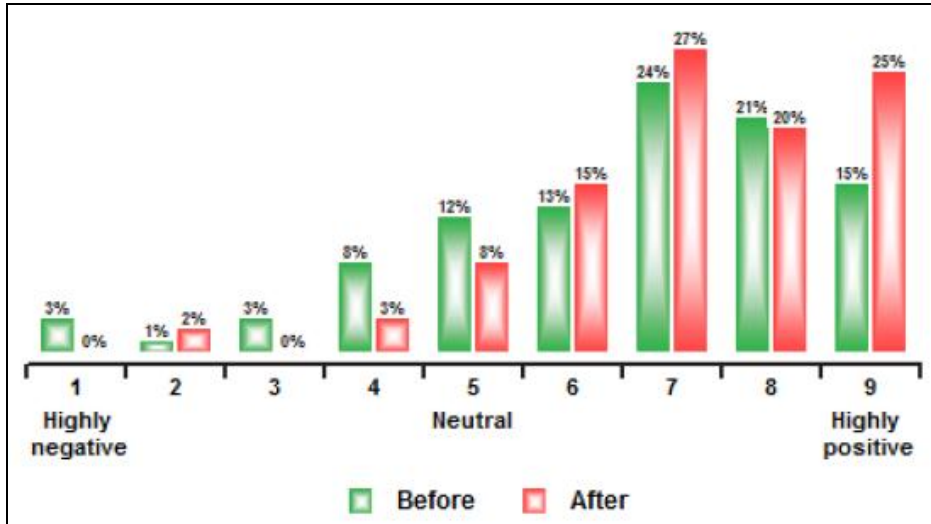
The day was full of presentations of research by scientists and practical applications by farmers on their drive for much more **efficient use of water and nutrients** and reductions in greenhouse emissions. There are, of course, enormous scientific challenges, one of the biggest being finding ways to help reduce farming's greenhouse gas emissions and other climate change impacts. The IDF and its World Dairy Summit sessions are playing an important leading role.

Although the complexity of the science means the return on investment won't come for many years, the conference was full of current and near-term actions dairy farmers can take. Many are recognising these as business opportunities rather than burdens imposed on them by governments. For example, in Northern Victoria, **trading in water and feed markets** is routine and farmers have adapted calving times, crop production and feed supplementation to optimise profit in the face of long-term water shortages. Similarly, in New Zealand, farmers are adopting new irrigation technologies and water storage solutions to make the most of the available water.

Research work highlighted included looking at ways to **reduce enteric methane emissions** from dairy cows through use of vaccines or inhibitory substances to suppress the activity of methane producing micro-organisms. Nitrification inhibitors to reduce nitrous oxide losses from soils were discussed, along with a range of other measures to reduce methane production from a range of crops and dairy systems. On-farm technologies, including use of variable speed vacuum pumps and adoption of anaerobic digesters were given as examples of positive actions that dairy farmers are already taking on an international basis.

Delegates were asked one question at the outset, and then again at the end of the day, to see if views had changed as a result of attending the session:

How do you rate sustainability as a driver in your farming business?



The conference had clearly succeeded in raising interest levels and stimulating action to improve sustainability in dairy farming – helping farmers to turn a threat into an opportunity.

Dairy Farming Conference (From Threats to Opportunities)
Day 2 – Farm Visits – 10th November

Dr Karen Wonnacott – DairyCo

Farm visit 1: Commercial dairy farm of **Peter Buckley**.



Peter has been developing farming practices in an environmentally sensitive area and has made significant strides in tackling the impact of extensive dairy farming on lakes and streams. We met Brian and Amanda who had a share milking agreement with Peter, which started in June 2010 and lasts for three years. Brian and Amanda own the Friesian crossed over Jersey cows using a 20-day grass rotation.

This farm provides a huge challenge in terms of the climate. Last summer was extremely dry but the autumn was extremely wet so the cows weren't eating enough. Brian and Amanda had to supplement the cows with palm kernel (Peter had never given his cows supplements) but the heifers wouldn't eat it so they had to add molasses on top! Also, the cows are suffering with facial eczema which is a problem that attacks the udder, teats, skin and liver.

Farm visit 2: DairyNZ Scott Farm at Hamilton, Waikato where farm systems research was demonstrated. Scott farm is 143 hectares, mainly in half hectare paddocks used for grazing; 20 hectares of wooded area and wetlands, races and buildings. Scott Farm currently milks 460 cows, mainly Friesian and Kiwi-cross through a 44 bail rotary milking shed with individual cow milk recording.



Calving begins 1st July and drying off takes place mid to late May. There is a lined stand-off pad with a capacity for 120 cows and the effluent system is an advanced pond system, which treats effluent from both Lye and Scott Farms (750 cows + indoor feeding facilities) along with a weighbridge for feeding supplements, plus load cells on the feed-out wagon.

The DairyNZ Environment Team showed us to four work stations showcasing some of the research work currently being

undertaken at Scott Farm, which covered the following topics:

1. Plant Diversity – and implications for forage yield and persistence, and milksolids production and nitrogen efficiency. – Sharon Woodward
2. The highly productive, environmentally sustainable (ESP) dairy farm of the future – Chris Glassey
3. Measuring carbon budgets of dairy farms
4. Effluent Management



Farm visit 3: Heritage Farm



The Yates family farms the first organic, all-pasture, fully automated milking dairy farm in the world. The farm is 140 hectares, divided into three grazing areas of 30ha, along with 50ha of unproductive and support land. The Yates family currently milk 94 cows and are planning to expand to 180. Average milksolids per cow is 350kg and calving is split, 50% of cows calf from 20 March through to May and the other 50% calf from 20 August through to October.

The development had been in operation for one month when we visited and used the DeLaval Voluntary Milking System in an otherwise entirely pasture-based system complying with New Zealand organic standards.

Installed on the farm are two voluntary milking stations (VMS) with the provision for a third station in the future. Milk is transported into a buffer tank (BCC) which allows it to be pumped and cooled in the most energy efficient way; milk is cooled via water pre cooling and then via glycol instant cooling, delivering milk to the bulk milk tank at 3°C. It is passed through an energy recovery system which allows water to be stored in vats at 45-50°C.

World Dairy Summit Auckland: A nutrition perspective

Dr Judith Bryans – Vice-Chair of UK-IDF and Chair of IDF Nutrition and Health Standing Committee

When you combine a meeting of the Standing Committee on Nutrition and Health (SCNH) with two days of nutrition talks you get a feast of dairy-nutrition. And that's exactly what happened at the 2010 World Dairy Summit in Auckland.

The SCNH is one of the largest committees within the IDF with a membership of over sixty delegates representing twenty six countries.

The committee had a full agenda of items to discuss in Auckland. These are just a few highlights:

- **Protein quality** – The Food and Agriculture Organisation (FAO) will hold a symposium and an expert consultation on protein quality in 2011. It's important for the IDF to be able to give input to both of these. During the SCNH meeting, an Action Team was set up to develop an IDF briefing/IDF position on proteins with a view to provide input to the FAO consultation.
- **Dairy and environmental sustainability** – The SCNH along with colleagues on the Standing Committees on Environment and the Dairy Policy & Economics are developing a work item in conjunction with the Global Dairy Platform which will marry up the nutritional contribution of dairy to the diet with its environmental cost. This work item was further progressed during the SCNH meeting.
- **Dairy and children's diets** – A work item on dairy and children's diets, which will result in a peer reviewed article on this topic, was progressed during the committee meeting.
- **Carbohydrates with a specific focus on lactose** – A joint Action Team between the SCNH and the SCDT previously completed a piece of work on this topic. The resulting papers will be published in a special issue of the International Dairy Journal in 2011. These papers will serve as a useful resource in the anticipated WHO expert review of carbohydrates in human health.

During the Summit, delegates attending the nutrition sessions heard twenty two high quality talks on a wide range of nutrition topics from fat and heart disease to current thinking on calcium requirements and teen diets to satiety – and a myriad of topics in between. Only two of the many presentations are highlighted here:

Gary Taubes, a contributing correspondent for the journal *Science* and a Robert Wood Johnson Foundation Independent Investigator at the University of California at Berkeley School of Public Health, gave one of the most entertaining and controversial talks of the nutrition conference.

During his talk Gary challenged conventional thinking on **the role of diet in overweight, obesity and health disease**. Charting opinions over time, Gary told the audience that since the 1950s, overweight and obesity have been perceived as “energy balance” disorders caused specifically by overeating and sedentary behaviour. Virtually all research in obesity and related fields is predicated on this energy balance paradigm, as is the conventional wisdom on how to cure and prevent obesity: consume fewer calories than expended and we will become lean. Reasonable as it seems, this prescription has little to no efficacy, suggesting the possibility that the underlying hypothesis is incorrect.

What's the alternative? Prior to World War II, European clinicians argued that to understand obesity, we have to think of it as fundamentally a disorder of excess fat accumulation, not energy balance. A defect in the regulation of adipose tissue metabolism causes the accumulation of excess fat, and positive energy balance is an effect, not a cause. By the 1960s, it was clear that fat accumulation is fundamentally regulated by the hormone insulin, which in turn is secreted primarily in response to the carbohydrates in our diet. Thus, a reasonable hypothesis of obesity and overweight is that these conditions are caused not by excess calorie consumption, but by the quantity and quality of carbohydrates consumed.

This hypothesis was rejected by medical authorities not because it was proven to be wrong, but because it could not be reconciled with the hypothesis that dietary fat caused heart disease and that low-fat, high-carbohydrate diets were heart-healthy and ideal for maintaining weight. The appearance of obesity and diabetes epidemics coincident with the acceptance of this latter hypothesis as medical orthodoxy suggests that it's time to reappraise our beliefs on the causes of obesity and heart disease, as well as other associated chronic diseases.

Professor Mark Thomas, a senior lecturer in Human Evolutionary Genetics at University College London presented on **the importance of the lactase persistence gene** in evolution and in dairying. Mark has worked extensively on understanding how humans have evolved and migrated around the world and used genetic data including computer simulations of ancient DNA as well as archaeological information to examine the origins and past migration of a number of specific human populations. In more recent years he has worked on modelling cultural evolution to better understand the origins of lactase persistence and dairying in Europe and Africa.

Lactase is the enzyme that breaks down milk sugar and whether the expression of this enzyme persists after childhood or not depends on whether they have the lactase persistence gene. During his talk, Mark told the audience that lactase persistence (LP) is common among people of European ancestry, but with the exception of some African, Middle Eastern and southern Asian groups, is rare or absent elsewhere in the world.

He discussed the genetic modelling work that his group had undertaken leading them to the conclusion that “lactase persistence is only favoured in cultures practising dairying, and dairying is more favoured lactase persistent populations”. He talked about the survival advantage that the lactase persistence gene offered. Mark's work has been published and his paper on lactase persistence in Europe are available free of charge from the following url <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2722739/pdf/pcbi.1000491.pdf>

Dr Mike Johnston – Dairy Council for Northern Ireland

The Conference, which had the title “Creating Consumer Value”, was organised in four sessions:

Session 1 – Marketing around health claims

Dr Geoffrey Annison, from the Australian Food and Grocery Council, reviewed the current status of **health claims regulations in Australia and New Zealand**. He provided a wide ranging review covering health claims, labelling, regulation and the lack of scientific basis for a nutrient profiling scoring system.

This was followed by an excellent presentation by Dr Judith Bryans, The Dairy Council, on the **status of health claims approvals in EU**. Dr Bryans reviewed the procedures for approvals, and the status of various nutrients applicable to milk and dairy products. Her presentation concluded with an evaluation of the pros and cons of submitting health claims.

The final presentation in the session was by Julian Mellentin of New Nutrition Business. The focus of his presentation was “marketing with – and beyond - **health claims**”. He made the point that the key to a company’s success in the area of health is its willingness to be innovative in every aspect of its business. In particular, he suggested a company should aim to be the “expert brand” for whatever benefit it is offering, and should focus on creating value, not just volume.

He presented a number of short case studies which showed how **packaging innovation** can be used to differentiate a product and brand and his presentation concluded with advice of caution – to realise the need for significant investment in marketing, and not to over-estimate either the size of potential markets, or rates of growth.

Session 2 – Communicating nutrient richness

Dr Linda Tapsell from the University of Wollongong in Australia, reviewed the communication of **nutrient richness** from its scientific basis to action. In her presentation she highlighted the importance of dairy as a core food group, and its role in delivering key nutrients.

Vivien Godfrey, MilkPEP, provided as **US perspective**, and presented their approach to communicating nutrient richness messages. MilkPEP targets mothers with children living at home, and use a variety of communication channels, including celebrity role models in print and TV advertising.

The **European approach** to communicating nutrient richness of dairy products was outlined by Kees Pette, NZO. He provided some background to the European Dairy Marketing Forum (EDMF), its membership and structure. Kees concluded with a summary of a pan European campaign that EDMF is developing, “Milk:Nutritious by Nature”, to communicate the nutrient richness of milk and cheese to consumers and health professionals.

The final presentation of the session was provided by Donald Moore, Global Dairy Platform (GDP), who outlined the programme of work being undertaken by **GDP** in the area of nutrient richness. Donald also provided an update of the joint initiative between GDP and IDF’s International Milk Promotion (IMP) group, to develop a framework that would define the relationship that an individual has with dairy throughout their life.

Session 3 – New Consumer behaviour

This session opened with a presentation by Lars Witt Jensen from the **Danish Dairy Board** on their web-based activities to encourage consumers to use dairy products during breakfast. He showed how they had used a new web site to raise awareness of the importance of breakfast, and the role of dairy within the breakfast occasion.

The remainder of the session was devoted to presentations by the 3 finalists in the **Yves Boutonnat IMP Trophy competition**. The 3 finalists and their campaigns were:

- Austria : “Hay Milk”
- Canada : “Get Enough”
- France : “3 a day”

The winner was Austria.

Session 4 – New Ingredients

In this session, Dr Robert Pettit from Dairy Australia looked at the challenge to dairy from other products, for use as **ingredients** in other foods. He reviewed a number of related aspects, including the drivers of protein technology and their implications for dairy; the factors influencing customer perceptions and behaviour; the influence of government regulation; and, finally, some issues around sustainability.

In conclusion, Robert suggested that the positives for dairy as an ingredient are its nutritional and flavour profiles, together with its history of use. He also highlighted opportunities for dairy as an ingredient in the general area of health and wellness products.

The final presentation was by Joanna Mobley from Fonterra, who spoke on the topic “taste without compromise”. She made the point that **health trends** are being driven by both food manufacturers and regulators; and are tied in with increasing health concerns at consumer level. The combined effect is that food manufacturers are reformulating their products, and regulators are tightening their controls. However, Joanna made the point that, from a consumer perspective, “healthier” should not be at the expense of taste.

Environment Conference – 11th November

Brian Lindsay – Lindsay Consulting Ltd.

Supported by DairyCo to undertake this work for the UK-IDF National Committee

The Environment day of the IDF Conference focused on the latest developments in global Climate Change policy and the consequences for the dairy industry. It also investigated the outcomes from the carbon footprint projects being undertaken by the dairy industry. The day also went beyond the usual production and processing aspects and explored how to reduce waste and recover/reuse what were once waste products such as packaging.

Each of the sessions (excluding Water) had a series of papers which I will extract some of the key messages.

Climate Change

Prof. Martin Manning highlighted that the science of climate change is moving rapidly and not for reasons of complacency. One example he used was that virtually all peer reviewed papers on sea level rise over the last three years are uniform in giving revised estimates that are about twice as large as that reported in the IPCC Assessment Report in 2007.

Though Governments have basically agreed to working towards a 2 degree or below temperature rise, there is increasing evidence that this will not occur unless there is some very quick developments in energy technologies. He also noted that there are some structural differences between greenhouse gas emissions coming from agriculture and industry and these need to be considered in more detail.

Scenarios that are now being used as the basis for the next IPCC assessment are establishing a framework that starts to go beyond the current approach that just compares GHG's by using their Global Warming Potentials as required by the Kyoto Protocol.

Brian Lindsay outlined the progress of the **Global Agenda for Action** that was launched at the IDF conference in Berlin, 2009. This was the first time that all levels of the industry had come together on a global basis and agreed to collaborate in this manner. The Ultimate objective – to reduce GHG emissions.

Not only had the commitment moved forward in many areas though had actually delivered in others such as the development of the IDF Common Methodology for calculating GHG emissions from dairy farming and processing which was launched in October 2010. Impressively The **Green Paper website** that provides a public access to the work being undertaken by the industry in this area globally had moved from the 260 examples at the launch in Berlin to some 330 examples of sustainability projects being undertaken by the dairy sector globally.

Dr Anna-Karin Modin Edman spoke of the recent ground breaking work undertaken by her team in Sweden which investigated the combination of **nutrient density and climate impact of foods**. The focus of this work was placed on milk and dairy products due to their high nutritional value. The results demonstrated that when combining product GHG emissions with product nutrient density conclusions on food choices, from a climate perspective can alter considerably. The important outcome of this work (apart from milk and dairy products scoring favourably) is that we now have a model to incorporate the climate impact when making food recommendations and dietary guidelines

Carbon Footprint

Sophie Bertrand outlined the recently launched **IDF Common Carbon Footprint Approach for Dairy Farming** which, after 18 months of development involving global Lifecycle Assessment (LCA) experts and industry practitioners has provided consistency and a model for the global industry to adhere to in order to better understand and address the challenges of climate change and dairy farming and processing.

The IDF Methodology is the first international consensus document describing a common approach and also addresses the LCA challenges of allocation to co-products and Land Use Change. The methodology also addresses areas of ambiguity or differing views an approach and recommends a science-based approach that can also be adopted/inserted into existing or developing 'tools' for practical application.

Two different views on **soil carbon sequestration** were presented, one from Australia and one from France.

David McKenzie provided a review of the science in relation to **Australian** dairy farming and the potential benefits. The review basically indicated that as dairy pastures already have a high level of organic matter and the associated management of these, the potential for further improvements in soil condition and soil carbon content will be difficult to achieve especially if the climate is hotter and drier.

The basic science strongly indicates:

1. It is very unlikely that dairy farmers (in Australia) would be able to benefit significantly from soil carbon sequestration even if carbon prices operate at or above the highest current estimates
2. There are significant long term (including intergenerational) risks associated with selling carbon sequestration when the future of soil carbon is cannot be known.

Sophie Bertrand of the institute de L'Elevage, France provided a more optimistic view with results from studies in **France** showing that grassland of more than 30 years can stock 200kg/ha/yr and a grassland of less than 30 years can stock some 500kg/ha/yr. If tillage of the grassland is undertaken a potential release of some 1000kg/ha/yr is feasible! When incorporating these results into a dairy farm level calculation sequestration under grasslands can compensate from 5-35% of GHG emissions from the farm.

These two presentations clearly highlight the limitations and differences in the science for sequestration application on a global basis. This is definitely an area that requires considerably more scientific investment.

Water

This session was conducted as a workshop. Dr Sven Lundie PE International - Germany and Dr Stewart Ledgard, Agresearch - New Zealand, provided introductory presentations outlining the different water accounting approaches currently in use for calculating '**water footprints**'.

The workshop involving some 100 delegates was being used by the IDF Standing Committee on Environment to shape a proposed work programme on water footprinting for the dairy sector. Some of the key outcomes of the session related to this objective were:

- This is very different to carbon foot printing
- The need to consider water availability and scarcity in our work
- The need to spend time debating - what are we doing this work for? - This will provide the framework for the work to be completed and answer the key questions that we as a sector (or others) are asking
- The need to be very open with our data and act responsibly when reporting
- Develop models and tools that assist in water use efficiency and even consider water reuse and be applicable on a local level
- Water reuse was a big discussion regarding how do we classify and quantify the different types of water classifications - blue, grey etc?
- Communication about our work and the subsequent implementation of best practice etc will be rewarded if we get the communications around it right!

These points and others have subsequently been considered in the development of the new IDF work item which is now underway.

Reduce/Recycle

Spring Humphreys of Fonterra shared Fonterra's efforts in identifying waste streams and the implementation of programmes to reduce and recycle. Like other aspects of the supply chain the key take home message here was the importance of communication and collaboration between service providers, facility management and, most importantly, staff.

Erika Mink of Tetra Pak highlighted the fact that consumers increasingly look for sustainable products that are offered in **sustainable packaging**. Though small in the overall lifecycle impact of dairy products, packaging is perceived by consumers as an environmental issue. Retailers under pressure from NGO's or other angles appear increasingly to focus on the wider sustainability agenda. There are many options available such as low impact and recyclable milk packages which support both dairy manufacturers and retail agendas. Basically it is a prerequisite to communicate the products sustainability to consumers and stakeholders and even offers potential for product differentiation.

Importantly actions in this area will also support the dairy sustainability and climate agenda and aid in positioning milk as a fundamental aspect of sustainable health.

***Walking the Supply Chain – Technical Tour - 11th November
Bella Vista Farm / Fonterra Te Rapa / SAITL / LIC / Dairy NZ***

Julia Hawley – Chair of UK-IDF/DairyCo Board Member

Our day began with a coach ride out to **Bella Vista Farming Co** in the Waikato region where M & G Shaw milk 470 Friesian cows, producing 194,000 kg of milk solids per annum (2.2m litres milk), generating a projected income of NZ\$ 1,235,780 (approx £618,000).



The herd is run in 2 management groups, 120 spring calving and, more unusually, 350 autumn calving, with their winter milk contract (90 days May-July) paying on 490 kg milk solids/day at a premium of \$1.35/kg. The area receives 900-1200 mm of rainfall per annum (there was a drought in 09-10 and it was also dry at the time of the visit) and pastures typically yielded 10t DM/ha/yr (and increasing) under the maximum nitrogen applications permitted of 200kg/ha/yr.



The winter diet comprised grass and maize silage, kiwifruit, brewers grains and palm kernel (fed through a mixer wagon) providing 12.6 kg DM, with a further 5kg DM coming from winter grazing. This production was not typical of a Kiwi system as demonstrated by the farm's performance of 1416 kg/MS/ha compared with a district average of 761 kg/MS/ha. At the time of the visit in late spring, the autumn herd was averaging 22 litres/day and the spring herd 26 litres/day.

Cows were still being milked when we arrived, through a new GEA 50-point rotary and we stayed on farm until the milk had been collected.

From a farmer's perspective, there were small but interesting points of difference with European systems. All tails had been docked on this farm although this is becoming less common. Although the dairy had a plate cooler, the groundwater was around 20 degrees C (due to location in a geothermal area) so contributed very little to milk cooling, but water heating costs would also be lower. As the milk was all destined for powder, milk cooling was less important than in the UK and depending how soon after milking the tanker arrived, could be sent as warm as 18 degrees C without penalty.

Milk samples were taken from the tanker in a closed system (see right) which eliminates all potential for contamination, tampering or inaccurate sampling technique on the part of the tanker driver.



We then 'followed the tanker' to nearby **Fonterra Te Rapa**, which is Fonterra's fourth largest NZ dairy, with a maximum daily intake of 8.5m litres of milk and an annual manufacturing capacity of 185,000t of milk powders (20% of NZ output), 12,000t of cream cheese for export to Japan and 65,000t of butter. Approximately 60,000t of the powder is SMP, the rest WMP, all for human consumption.



A CHP plant had been constructed on site to reduce the operational inefficiencies which used to result from 8-10 power interruptions per annum and an aerobic treatment site for waste water. The plant has 12 different resource consents for discharges to air, water, etc and is in a high profile area next to a main road and close to the Waikato River and it is regarded as one of Fonterra's four 'backbone' sites which in total process 70% of their milk intake and must be kept operational.

South Auckland Independent Testing Laboratory (SAITL) is located at the same site but has been independent of Fonterra since 1985. SAITL undertakes 97% of raw milk testing for the NZ dairy industry, processing around 25,000 samples each day, of which half are tested for quality and half for hygiene. Individual farm SCCs/bactoscans are randomly tested within 10 day windows and antibiotic testing takes place randomly within 7-day windows. Constituents are tested daily and on their daily milk collection tickets, farmers will receive the constituent analysis of the previous day's collection from SAITL.

With such a key role within the supply chain, the laboratory forms contingency plans with its main competitor, the laboratory operated by **Livestock Improvement Company**, (LIC), to cover the possibilities of major service interruptions or other emergencies. LIC undertakes subscription milk testing for farmers for herd recording (for management and breeding information) as well as for animal health management (Johnes, BVD etc).

Lunch was provided nearby at the premises of RML Engineering which provides automation solutions to a range of food handling and testing applications.

We then had a brief visit to **LIC and Dairy NZ** at their shared Newstead campus. LIC is a farmer owned co-operative founded in 1909 which offers a range of farmer services including herd testing, animal health and milk analysis, farm advice and animal DNA analysis. It is probably best known for its artificial breeding. LIC bulls sire 80% of the NZ herd and over the years, breeding has focused on meeting the country's requirements for seasonal block calving herds producing high milk solids from pasture.

Dairy NZ has an annual budget of 50m NZ\$ per annum, generated by a farmer levy on milk sales and it is tasked with improving the international competitiveness of NZ dairy farming, including enhancing its reputation, attracting skilled people to the industry and increasing farm profits.

Individual research projects discussed included

- evaluating the genetic basis of differences in energy utilisation, feed conversion ratios and emissions within the cow and integrating the results into breeding programmes.
- commercial effects of once a day milking on a range of parameters including milk solids, somatic cell counts, lameness, fertility, diffuse pollution, profitability
- developing and using the genomic database – LIC has genotyped 8,500 sires and 15,000 cows since the 1980s and there have been 1.4m inseminations from bulls selected on genomics.

Although the farm visited was not typical of New Zealand and was an interesting contrast to the units visited as part of the Farm Management Conference, this was an excellent chance to look at several aspects of the NZ supply chain in the heart of the North Island's dairying region.

Technical Tour - 11th November
South Island Dairying Development Centre / Synlait

Kevin Beaty – DairyCo Board Member/UK Nuffield Scholar 2010

There has been incredible growth in Dairy farming in South Island New Zealand (SI) in the last 10 years mainly in Canterbury and Southland.

South island now represents around 32% of the milk solids produced in NZ from about 34% of NZ's cows.

There are some key differences to dairy in dairy production in SI:

- Average herd size is 546 opposed to 366 in NI
- Feeding supplements is more prevalent
- Irrigation is essential on a large percentage of farms
- Most farms are newly converted

The development of large scale dairy farms in SI has been mainly through conversion of sheep and arable farms to dairy and the widespread use of water has caused resentment among the wider population, who see large irrigation units and low water flow in rivers and private boreholes. There is a perception that this is caused by the dairy farms, along with nitrates in water and perceived carbon imbalance. This has resulted in tighter legislature and the formation of Anti-dairy Campaign Groups (such as the Dirty Dairy Campaign)

In 2001 a consortium of stakeholders in Dairy Farming in SI including supply, research, KT providers and farmers themselves formed **South Island Dairying Development Centre (SIDDC)** based on a working large scale dairy farm at Lincoln University in Canterbury. The IDF visited this centre as part of the WDS 2010.

The farm itself has 700 cows and produces milk on a profitable basis but conducts research projects for the consortium. Current research is designed to inform farm management systems but is also helping to mitigate some of the misconceptions presented as fact in anti-farming campaigns. The centre is a fine example of collaborative work at its best and is supported wholeheartedly by all involved.

Current projects are

- Effects of fertiliser and other inputs on groundwater
- Effects of eco-n (a product which does not leach nitrates) on nitrate leaching and pasture production
- Pasture growth rates
- Role of nutrition on lameness
- Resource inventory and greenhouse gas footprint

Moisture measuring and effective use of irrigation to control grass growth has a cost of about 2ppl (UK) and has seen SI Dairy sustain production through drought conditions when NI Dairy has depressed production.

The IDF also visited **Synlait** which is a 14,000 cow dairy farm on Canterbury plain formed as a company by a number of dairy farmers. They utilise all the new technologies in irrigation and grass growth control researched at SIDDC to produce milk for their own milk drying plant.

Dairy Farmers in NZ have recently seen credit facilities tightening through their local banking system and to overcome this and still maintain growth within the business Synlait have recently sold 51% of the milk drying factory to Bright Dairy from Shanghai in China. The plant now produces 50,000t of dried powder and will expand to produce double that, procuring from 85 local farmers directly. An interesting development is the production of colostrum powder which is sold as a human health product in China, from colostrum collected separately from contracted farmers.

In summary the IDF WDS 2010 trip to South Island showed us that NZ dairy has a keen focus on Asian markets while working together as an industry to address management and image issues through research and knowledge transfer. The South Island dairy industry has a go-getting entrepreneurial spirit which is refreshing, and I fully expect they will rise to the challenges that face them.

I would like to thank DairyCo and IDF for allowing me to include WDS 2010 in my Nuffield Study into "Consumer attitudes to how milk is produced"

RECENT IDF PUBLICATIONS

All IDF publications can be ordered from the UK-IDF office.

Bulletin of the IDF No. 447/2010

New Applications of Mid Infra-Red Spectrometry for the Analysis of Milk and Milk Products - Saturated and unsaturated fatty acids

This article on saturated and unsaturated fatty acids is the next one in a series of papers about new applications of mid infra-red spectrometry in the analysis of milk and milk products.

Pages: 17 - Paper: 25.00€ - Electronic: 20.00€

Bulletin of the IDF No. 446/2010
The World Dairy Situation 2010

Production, consumption, trade and price figures from dairy sector and other sources. Largest dairy companies by turnover and/or milk intake. Comments and prognoses on the situation in different countries and analysis of the whole, covering all major producing and consuming countries. Review of various forecasts of dairy trade.

Pages: 206 Electronic: 125.00€

Bulletin of the IDF No. 445/2010

A common carbon footprint approach for dairy - The IDF guide to standard lifecycle assessment methodology for the dairy sector - E-form

The IDF guide is the first international consensus document describing a common carbon footprint approach for dairy products including addressing the common LCA challenges of allocation to co-products and land use change.

Pages: 40 - **Free of charge**. To download a copy please [click here](#)

Bulletin of the IDF No. 444/2010

Feed-associated Mycotoxins in the Dairy Chain: Occurrence and Control - E-form

Review of current scientific knowledge about the major mycotoxins of concern to dairy cattle and dairy products,

Pages: 25 - Paper: 28.00€ - Electronic: 25.00€

Bulletin of the IDF No. 443/2010

Environmental issues at dairy farm level

The papers in this IDF Bulletin provide an overall review of the interaction between milk production and the environment and possible measures to minimize the impact of each on the other.

Pages: 40 - **Free of charge**. To download a copy please [click here](#)

Bulletin of the IDF No. 442/2010

Current situation & compilation of commercially available screening methods for the detection of inhibitors/antibiotic residues in milk - E-form

This compilation brings together recent information on the screening tests that are available commercially for the presence or absence of residues of antibiotics and microbial growth inhibitors in milk.

Pages: 164 - Price: 94€

IDF EVENTS IN 2011

IDF/ISO Analytical Week, 23-27 May, Lyon, France

The IDF/ISO Analytical Week is the annual topical event for experts in the field of standardisation of methods of analysis and sampling for milk and milk products.

A symposium entitled "How Can Analysis Promote Sustainability in the Dairy Chain" will be held on the morning of the 25th with a Technical visit in the afternoon. The symposium is embedded in a series of business meetings of ISO/IDF Project Groups and the six IDF Standing Committees in the field of Analytical Methods of Sampling and Analysis, which are by invitation only.

WEBSITE: <http://www.idf-iso-analytical-week.org>

IDF World Dairy Summit, 15-19 October 2011 (Summilk), Parma, Italy

The theme of this year's event is "Sustainable Food Security" and the Summit will feature a World Dairy Leaders Forum and a number of conferences covering all the work areas that IDF is involved with, including: Dairy Policies and Economics, Nutrition and Health, Dairy Farming, Animal Feeding, Environment, Marketing, Dairy Science & Technology and Methods & Analysis. In addition, there is a Farmer's Dinner and a number of technical and social tours to complement the business meetings.

This is an excellent chance to establish new contacts, find out about the latest methods and practices that are being used around the world and find out more about the work of the IDF so please make the effort to attend what should be a very interesting and rewarding Summit.

WEBSITE: <http://www.wds2011.com/>