

Global dairy industry is expected to follow Europe's lead

Europe will set the standard for the global dairy industry in the future. This is just one of the predictions expressed by international dairy expert Dr Ynte Hein Schukken at a recent meeting hosted by Pfizer Animal Health in Brussels.

“Most of the milk produced throughout the developed world will be following the same standards as those set in the EU,” he said.

“Already the USA is bracing itself for implementation of the stricter interpretation of the milk and milk product import rules from the EU. My prediction is that other countries will follow this example.”

Access to the world market

According to Dr Schukken, who is Professor of Epidemiology and Herd Health at Cornell University in the USA, other major markets such as India and China will follow suit. This will make access to the world market for milk more equal for all players in the market.

“I have travelled onto farms in many countries across the EU and have seen that not all countries enforce the EU milk quality standards in an equally rigorous fashion. I hope and predict that the enforcement of the EU somatic cell standard will become similar across all current and future members of the EU.

“It is very difficult to enforce higher quality standards on imported milk if the members of the European Union are not enforcing their own standards. Europe will not only be in the forefront of milk quality, it will also

Table 1. Average herd sizes and milk production.

Area	Average herd size	Milk (kg/cow/year)
Western France	125	8,000
Southern France	100	8,000
Spain	1,000	12,000
Germany	320	9,500
Italy	550	9,000
UK	250	



lead the way in animal welfare standards on dairy farms,” he added.

“Reducing pain events in cows will certainly need to include a reduction in clinical mastitis cases and an increase in pain-control medication. I also expect that use of antibiotics as one of the main components of curative and preventative programmes will be further scrutinised.”

Universally available testing

Bulk tank somatic cell count testing is now universally available to EU dairy farmers and many also have access to SCC data at an individual cow or quarter level – but are they making the most of the data that is available?

Dr Ynte Schukken pointed out that somatic cells are a crucial part of the normal function of a healthy cow and so the objective should not be simply to reduce levels as far as possible.

“Cows can not live without somatic cells. A fully healthy cow will have approximately 50,000 cells per milliliter of milk and this number varies between 5,000 and 200,000 in fully healthy and normal cows.”

The number of cells changes during different stages of lactation and increases as the cow gets older.

The use of cell counts as a diagnostic tool

at individual or herd level was discussed by Dr Francis Sériey's – an agronomist engineer at Filière Blanche, France. “Dairy somatic cell counts provide a good diagnostic tool for identifying individual cows that are persistently infected by major pathogens,” he said.

Management decisions

“This data can be used for management decisions. For example, cows with SCC >100,000 during the last month of lactation

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Table 2. The estimated cost of clinical mastitis (per case).

Country	Cost (€)
Netherlands	211
Spain	74*
France	93**
Portugal	249**
UK	236
Germany	471
Denmark	347

*includes only treatment products and discarded milk **cost/lactating cow/year/ including all mastitis cases

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should be selected for antibiotic treatment at drying off – followed immediately by a teat sealant if this is to be used to prevent environmental infections throughout the dry period.

“Dairy SCC can also be used at the herd level to assess the prevalence of infected cows at different times (after calving, before drying off) or in different groups of animals (primiparous, multiparous). It is, therefore, also an efficient tool to monitor the progress against mastitis and to continuously adapt the control plan.”

The subject of high SCC cows was also addressed by mastitis expert Andrew Biggs, from the Vale Veterinary Group in the UK, who highlighted some of the pitfalls of interpreting SCC data.

Focusing on wrong cows?

“Where SCC data is available at an individual cow level, dairymen may be tempted to pay most attention to those with very high levels, as these are the ones that tend to have the most impact on bulk tank SCC,” he told the meeting. “As a result, cows with moderately elevated SCC (200-500,000) may be largely ignored.”

According to Andrew, a more effective strategy is to concentrate on the moderate SCC cows and actively intervene to stop



them becoming high cell count cows. By adopting an earlier intervention, it should be possible to stop more cows moving up the SCC ‘escalator’ and thus reduce the number of chronics that need to be culled, and improve the overall herd performance.

Dr Marion Tischer, a veterinary consultant on herd management from Berlin, then discussed the limitations of antibiotic dry cow therapy and the implementation of a strategic approach to dry cow management in order to avoid loss of revenue.

Achieving high cure rates through good diagnosis and treatment of appropriate cases should be supported by a reduction in new infections. The latter is achieved by good hygiene, optimal nutrition and the use of a teat sealant.

Absence of residues

Dr Marco Nocetti, head of Laboratory of the Consorzio del Formaggio Parmigiano-Reggiano in Italy, highlighted the importance of low SCC milk and the absence of antibiotic residues to specialist cheese makers.

“High cell counts are linked to higher percentages of positive samples for antibiotic residues. For us this is a particularly relevant problem because one of the pillars of our unique process is the use of a natural autochthonous/indigenous whey starter that is a mix of hundreds of strains of thermophilic lactobacilli. Because these bacteria

are extremely sensitive to antibiotics, even very low levels are able to inhibit them and compromise the whole production process.”

Alberto Salvaneschi from Pfizer Animal Health then introduced a number of activities that the company is introducing to help farmers deal with mastitis.

“Mastitis has a unique ability to create a stressful working environment by creating a fear of what will be found at the next milking and, of course, the fact that milk has to be thrown away does not help either.

Recent research has suggested the incidence of clinical mastitis is on the increase. Despite these problems, Alberto said he remained positive about the future of udder health, as disease rates remain under control.

“The challenge we face is encouraging all farming clients to adopt as many of the effective management practices as possible in a way that is targeted to their specific problem. The Pfizer udder health team objective is to play our part in helping European veterinarians and farmers achieve that goal.”

Four pillar approach

The Pfizer approach is based on four basic pillars: innovative medicines, continued research, knowledge transfer and unrivalled field support. The last two factors are fundamental to the company’s approach.

“No matter how good a product is, if it is used incorrectly or improvements in husbandry are not made then we will not achieve all that is possible.

“We have to be realistic: do not expect to find the cure-all panacea in a tube or a bottle. Udder health problems are multifactorial – it is very rare to find just one aspect of husbandry responsible for a problem.

Alongside correct medicine usage there has to be improvements in animal management and husbandry.”

Pfizer has a number of new initiatives in the pipeline but has already released an ‘Essential Guide to Mastitis’, which is designed to be a useful reference for farmers and veterinarians.

It is not intended to be a comprehensive ‘text book’ for mastitis control, but does provide some key information on the various areas of dairy cow management pertinent to udder health. ■

Table 3. Some interesting mastitis statistics.

- Over 1.5 million cows were dried off using OrbeSeal across Europe in 2008.
- >10% of cows calve with SCC > 200,000 cells/ml.
- >10% of cows have a positive CMT at four days in milk.
- >1 in 12 cows develop clinical mastitis in the first 30 days of lactation.
- Up to 60% of all clinical mastitis may be acquired in the dry period. Up to 75% on some farms.