

## Countdown to a new dawn

By Helen Eastham

Over the last century we have witnessed great change within the dairying industry. Farms have and continue to embrace mechanisation and specialisation. The introduction of new technologies and robotics have improved on farm productivity by providing on farm solutions to improve health and welfare and thereby optimise cow performance. Precision farming has gained in popularity and this is helping farmers to improve on farm efficiency, helping farmers to meet the demands of both the processor and consumer.

Holstein genetics have advanced rapidly in the last century. As we progress within the 21<sup>st</sup> century we must embrace new technologies that offer the potential to speed genetic progress. Responsible application of these technologies will help meet the global food demands that are already imposed on the dairy industry. Good genetics are fundamental when considering the profitability of any dairy farm. Published data show that the aggregate benefit of genetic improvement in the UK dairy industry is estimated to be between £2.2 billion and £2.4 billion since 1980 (Amer, P.R. and others, 2011). After all, genetics serve as the building blocks that influence the production, type, health and fitness characteristics of the animal. As a result, genetics directly influence a number of key areas of on farm management including: production, milk quality, health, fertility, heifer management and feed efficiency.

Genomic testing is changing the way dairy products make management, selection and breeding decisions. Up until now, the major focus of genomic testing has been the benefit in identifying high quality young bulls early. However, the same power of prediction can now be used for female young stock, and female testing now represents a useful management tool available to dairy farmers. Since its introduction in the dairy sector in 2008, genomic technology has nearly doubled the rate of genetic gain on the male side (US data for the Holstein breed). Here in the UK, farmers' confidence in genomics continues to grow with young genomic bulls now accounting for over 60% of Holstein inseminations (AHDB data). The use of genomic technology has enabled farmers to access new traits (e.g. TB Advantage and Mastitis PTA's) in order to target improved health and welfare. The increasing use of genomics will continue to provide farmers with new novel traits to help target improved efficiency, carcass quality and lameness will soon be available.

The UK's impending exit from the EU represents a significant opportunity for UK dairy farmers. The potential to displace imports or grow new export markets should not be overlooked. Tariff-free access following a trade deal with the EU would likely result in an operating environment similar to that currently practised. However, if such a deal cannot be met then an import tariff imposed by the UK could provide an opportunity to substitute a number of imports with British milk.

The other key opportunity is the ever-growing global population, with increasing numbers of affluent consumers seeking dairy products. Forecasters believe that the world population will grow by over 2 billion by 2050, with milk production projected to almost double from 580 to 1043 million tonnes. Over recent years the increased consumption of dairy products

in densely populated areas such as Brazil, China and India, has demonstrated that there is no room for complacency when trying to safeguard food availability both nationally and internationally. The UK may be better able to agree favourable trade arrangements with some of these emerging marketing alone, compared with the EU.

For farmers and other stakeholders, these represent exciting times. Undoubtedly the industry must continue to capitalise on the aforementioned opportunities to ensure that the 'new dawn' of the dairy industry is realised. At the same time, we must challenge sectors of the general public who link the dairy industry with negative connotations. Perhaps the success of our countdown to the 'new dawn' should be measured on our ability to alter the public's perception and opinion of the dairy industry? A recent survey found that 46% of 16-24-year-olds are now drinking milk alternatives (Guardian, 2016).

There has been a large increase in the anti-dairy organisations and movements with strong messages worldwide that the dairy industry is an industry of systematic cruelty. In recent months you only need to look at the vegan societies' 'humane milk is a myth' campaign to see that potentially a large amount of the public's perception about the dairy industry could be based on untruths and ignorance about actual practices within the UK dairy industry. Such negative views are granted air time because many members of the general public lack direct experience or education on how milk is produced.

The UK dairy industry must work to educate and fully inform the public on how the dairy industry operates here in the UK. We must celebrate the wide range of dairying systems used in the UK (intensive vs. extensive) and rather than focus on divisive language outlining the pros and cons of grazed versus housed systems we should focus on the high standards of welfare that are practiced across the UK dairy sector as a whole. Education on the use of advanced breeding technologies (e.g. genomics) on UK dairy farms should be aligned with communication regarding the industry's improved efforts to reduce antibiotic usage and target antimicrobial resistance. The increased use of technology on farm should be highlighted to demonstrate the high degree of precision needed and measures taken by farmers to both optimise health and welfare and maintain competitiveness in the market place.

It is over 140 years since the first Herd Book of Holsteins was formed in 1872, this would be the first official record of pure blood stock that the world had seen and represented a new dawn in terms of cattle breeding. Undoubtedly dairying across the world has changed massively during this time, however it is clear though that the values that placed the Holstein cow ahead of her time then, still underpin the breed today. The next new dawn represents a new set of challenges however I believe the industry has never before been so well placed to capitalise on a new set of opportunities.