

Tom Hull

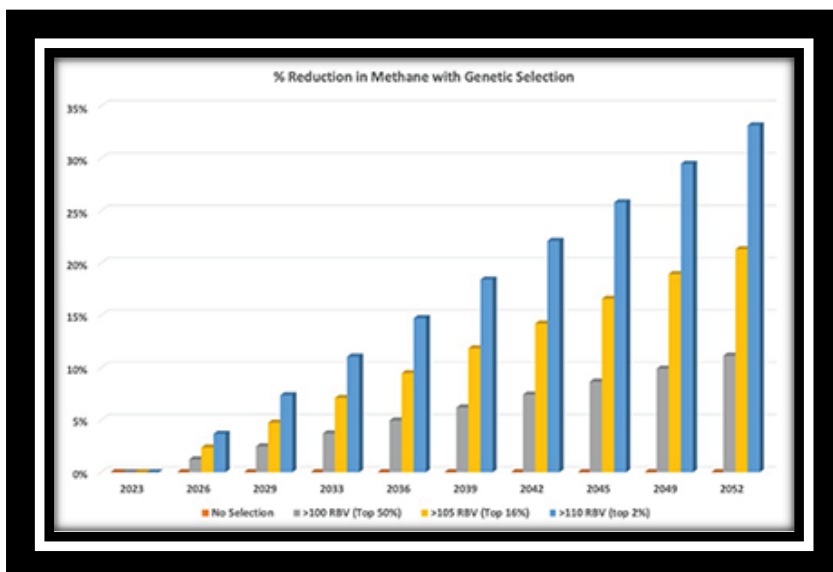
'Your Misson: With the end consumer in mind, develop a breeding strategy that keeps milk relevant'

With the constantly growing population of the United Kingdom which currently stands at 67.7 million people and which is currently increasing at 0.3% on a yearly basis. I believe that as a breeder and producer there has never been more important time to have 'the end consumer in mind' so we as an industry can 'develop a breeding strategy that keeps milk relevant'.

The farming industry faces a constant barrage of negative propaganda fuelled by vegans and animal rights activists. This is making many people animal welfare conscious and looking at alternatives to cow's milk. Research by the Grocer in 2023 found that 15% of UK consumers had cut dairy from their diet completely and a further 42% had reduced their intake. 20% said they were buying more plant based products. The main reason fuelling this statistics is down to the growing scrutiny that agriculture and particularly the cow is one of the biggest contributors of greenhouse gases. A fact that many overlooked during Covid 19 when it was noted that the ozone layer was repairing despite the fact the 42 million cows where still producing methane. The fact that air travel, motor vehicles and heavy industry had ceased production wasn't taken into account. I cannot see how vegans can justify that almond or soya milk is more sustainable than cow's milk produce in the UK when 80% of the almonds are grown in the USA and Soya is produced in South America often at the cost of the Rain Forest.

The cow as a ruminant consuming forage which is grown on farm, fertilised using manure produced on farm which in turn becomes the end product milk is certainly more sustainable, than some plant based derivatives a fact often overlooked by the consumer. We cannot deny that the cow produces methane and that 40% of global methane is produced by agriculture. With increasing pressure from the manufacturers who sell our product pushing us to reduce our carbon footprint. The AHDB and the NFU have been at the forefront of the battle to negate some of this adverse publicity. We as farmers can show that by our improving our breeding strategies and looking at genetic technology we can look to reducing our methane emissions

Genetics have a vital role to play. Semex, as one of the global leading genetic company's available to breeders, have shown that through breeding we can reduce our methane production. The recent release of the Methane Efficiency (ME) trait in April 2023 allows us as breeders to select bulls with these traits. With a reliability of 70-80% and heritability of 23% this would play a huge role to reduce methane within our herds. As a breeder who has recently started genomic testing all of heifers on our farm. I believe using Semex Elevate will be a vital trait to implement into my breeding program not only for the reduction in methane production in my herd. It will help to satisfy demands from my manufacturer that their carbon footprint requirements are being achieved and most of all improve consumer confidence that the industry. This is backed by Semex research which extends back to 2013 where



Mid-Infrared individual samples have been taken from cows which consists of 13 million records from 1.6million cows in Canada. Depending on the breeder's selection using this trait breeders will expect to see a 20-30% reduction in methane by 2050. This trait has already been approved by one of the leading air specialists Dr Frank Mitloehner of the Clear Centre at UC Davis in California. This is another ticked box to show the consumers of milk a clear path that as a producer we are keeping them in mind to

produce a sustainable product which benefits the environment we live in today.

Furthermore, the cow itself plays a vital role in keeping milk relevant to our consumers through good conformation and establishing a high herd health status. Since the introduction of genomics in 2008 we have seen a rapid improvement in key health traits. Using key genetic bulls from Company's such as Cogents Eco Feed and Semex's Immunity Plus has allowed us to improve fertility, longevity calving ease and Somatic cell counts (SCC). In a recent DutchStudy114 by Selko a cow with high SCC which shows a sign of subclinical mastitis infection as a heifer can result in a loss of production of 0.28-0.31kg of milk/day. A subclinical mastitis in a multiparous cows has an even greater effect in a loss of 0.50-0.58kg milk/day and will also have an impact on the cow's longevity.

Conformation is a major factor. We need to look at linear traits to create a balanced cow. We need to look at chest width, rear leg side, rump angle, locomotion and fore udder attachment. All traits linked to improving longevity and healthy high yielding cows. Another factor to consider is the feed to milk conversion. Using conformation we can aim to breed a more robust cow which can utilise less forage to convert into the same volume of milk. This is aimed at improving our carbon footprint and helping to protect environmental issues.

Furthermore, through breeding we can reduce antibiotic usage in our cows. There is a lot of adverse publicity that too many antibiotics are used within our industry with the risk of transference to humans and the risk of resistance occurring. Semex started the trait as mentioned earlier Immunity Plus. Semex collated data from 35 large commercial farms, from over 30,000 cows and 75,000 heifers. Showing Immunity plus sires had reduce major diseases such as mastitis and lameness from 5% -20% compared to other sires in their progeny.

Finally, one of the important traits which we must consider is the actual constituents of milk. Milk is one of the best rehydration drinks available on our market shelves. Milk contains high levels of calcium used to maintain our body's bones and teeth. Along with vitamins such as B2 and B12 which contribute highly towards reducing tiredness and fatigue. Milk being a diverse product can be made into cheese and yoghurts which are a great source of protein. With regular exercise and fitness being on the Governments list of daily requirements alongside a healthy nutritious diet. Our product Milk has a vital role to play if it is marketed and promoted as such. Just recently the famous Manchester City footballer, Erling Haaland was pictured holding 2 bottles of milk. Social media went wild at the fact the man who was the leading goal scorer in the Premier League regular drinks milk. A celebrity of this status is an outstanding ambassador for our product. Erling described it on twitter as "me and my magic Potion". This just goes to show how powerful advertisement is. For example, next time you are at your local show with a cow you have bred and are proud of and the public come round it is important to advertise what your cow has produced, the quality and most of all the benefits for the consumer. With our cows forever increasing in milk production we need to make sure we don't liquidate the product. We need to make sure we identify when breeding the next generation, we are always aiming to increase butterfat and protein to keep milk of a high quality. Again we can do this through female genomic testing of our herds to identify and breed from the best so that we can select the optimum bulls to create the best progeny.

In conclusion I believe improving the breed using technologies and genetics available to develop our breeding strategy going forward it will keep milk relevant to the consumer and lead to a brighter future for our industry.