Clarifide – One Year On

Rose Jackson BVSc DBR MRCVS



Genomic testing is changing the way we make management, selection and breeding decisions on farm.

It is now a year since we launched Clarifide, the veterinary led genomics package for dairy farmers.

We caught up with Richard and Val Wedd who were quick to realise the benefits of using genomics on their dairy heifers. The Wedds milk 150 cows which give an average lactation yield of 10,000kg and have an average calving interval of 380 days. The main management objectives are to expand the herd and also to convert to robots in the near future. Fertility index and udder traits were identified as important breeding objectives to build into the strategy as well as lifespan, locomotion and butter fat. Heifers were initially ranked on PLI (Profitable Lifetime Index) and FI (Fertility Index) so that the top 90% are served to sexed semen and the bottom 10% to beef. As they only use sexed Holstein semen across the herd (50% of the cows are served to sexed semen if their £PLI is >200), it is important to be selective at £25 per straw (vs £10 for a triple blue beef straw).

The Wedds were already using genomic bulls so they were confident with the technology. As the bulls are only half of the equation, they wanted to be able to pick and choose their heifers in terms of who to serve to black and white and who to serve to beef. The Clarifide report gives a meaningful set of results to select from.

The Wedds are already happy with choosing their own bull semen and now it is nice to have individual proofs for the heifers too.

The Wedds have been pleasantly surprised by some of the results so far – there are some high £PLI heifers that were out of not particularly good looking cows that wouldn't normally have been served to Holstein. Conversely, there have



To date, we have sampled 52 heifers and produced the following notable results:

Trait/Index	Best heifer	Worst heifer	Potential difference in performance between best and worst
£PLI	+491	-14	£1010
Lactation yield (kg)	+669	-26	1390kg
£FI			Equivalent to 12 days off calving interval

been some quite nice looking heifers that have come back as low £PLI!

These gains are additive over each generation as the £1010 difference in lifetime profit between the best and worst heifers will translate to a £505 difference, on average, between their daughters.

In addition to the production and health traits, Clarifide will identify carriers of a number of genetic recessive defects (Holstein Haplotypes 1-5 and Holstein Cholesterol Deficiency). Semen companies are obliged to publish whether their bulls are carriers of these defects but, until now, we didn't know which heifers or cows were carriers. If you were to serve a carrier female to a carrier bull, early embryonic death would result from the majority of these matings which would have a detrimental effect

on pregnancy rates. To give you an idea of how common these defects are, 10 out of the 52 heifers sampled were carrying one of these traits. This information can be put into a breeding program to make sure that the appropriate bulls are used on these heifers so that the highest pregnancy rates can be achieved. Clarifide will also assess the degree of inbreeding in each individual which again, helps us to choose the most appropriate bull.

Using genomics, a heifer's genetic potential is revealed early in life, genetic progress can be accelerated with confidence and herd profitability is enhanced by capitalising on improved performance across a number of traits. Get in touch to find out how we can use Clarifide to create a bespoke and comprehensive breeding package for your farm.













Live to Dead

Emily Sycamore BVetMed MRCVS



On 26th July, vets Robert and Emily went along with four of our beef farmer clients to a 'Live to Dead' event run by AHDB at Elliot's Slaughterhouse near Chesterfield

The day comprised a mixture of lectures and practical sessions and, despite the typical British summer weather, everyone thoroughly enjoyed the day.

We were lucky enough for one of the farmers attending to have brought two of his own cattle with him to be slaughtered that day, allowing us to view the animals while alive and make our own judgments as to what carcass grade the animals would achieve at slaughter (on the EUROP scale) and what weight they would kill out at. Being able to judge accurate bodyweights is obviously of huge importance as almost all veterinary medicines are dosed to the bodyweight of the animal - accuracy is therefore vital if we want the drugs to work effectively.

> the tube to close, whereas closure is inhibited by stress and irregular feeding patterns.



The calf models her oesophagus (light green), rumen (dark green), reticulum (light green) and abomasum (yellow). The black dotted lines show the position of the oesophageal groove.

It was great to see so many farmers at UK Dairy Day in Telford on 13th September.

Carolyn and two final year vet students were busy in the calf rearing zone, demonstrating anatomical painting. One of the points for discussion was the oesophageal groove, a gutter lying on the inside wall of the rumen that closes into a tube when a calf drinks milk. This tube takes milk directly from the oesophagus into the abomasum, bypassing the rumen and reticulum. If the tube doesn't close properly, milk gets into the rumen and ferments, which can cause indigestion, bloat and nutritional scour. Warm milk and sucking from a teat rather than a bucket help stimulate

The after-lunch session consisted of a talk on how the requirements for meat have changed over the years (a move from large family-sized joints to smaller, quicker-to-cook cuts of meat) and how this has affected farmers' production systems (depending on what market farmers are selling into, there may be a requirement for smaller carcass sizes with penalties being issued for animals which are too large). We were also able to go into the abattoir (in the very fetching outfits seen in the photo!) to view the highly efficient production line and also have a look at the carcasses of the animals that we had attempted to grade ourselves that morning – some of us were more accurate than others on our estimations!

All in all, a very enjoyable and informative day was had by all. We hope to be able to organise more of these events for our levy-paying clients in conjunction with AHDB, so if you would be interested in attending such an event please contact us at the practice and we can put you on a waiting list.



Herdsman Certificate October/November 2017

FarmSkills

Module 1: Wednesday 25th October 2017

The Whats, Whys, Whens and Hows of Medicines

Presented by Emily Sycamore

Module 2:

Mastitis

Presented by Carolyn Baguley

Module 3: Wednesday 8th November 2017

Wednesday 1st November 2017

Getting Ahead with Genetics and Genomics: A Practical approach to Improving your Herd's Potential

Presented by Rose Jackson

Module 4: Wednesday 15th November 2017

Heifer Rearing Presented by Fay Pooley

Please call our team on 01332 294929 to book your place. Alternatively, you can email farmandequine@scarsdalevets.com

These are small group practical workshops, with most sessions taking place at the Markeaton Lane practice and some on farm

Modules are £75.00 + VAT per person, with all 4 modules being £280.00 per person



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PARK FARM

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DUFFIELD

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