



## Genomic testing

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### Which heifers carry the best genes to help you achieve your herd goals?

The main focus of genomic testing has been identifying high-quality sires at a young age. Young genomic bulls are widely and successfully used in the dairy industry. The same principal can also be applied to replacement heifer calves.

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 capitalizing on improved performance across a number of traits.

Testing young heifers can also help identify animals carrying poorer genetics, preventing these being passed onto future generations in the herd by breeding to beef or selling, enhancing profitability on farm. As inheritance is subject to random effects, high genetic merit matings do not necessarily produce the best offspring. Genetic testing offers a targeted and objective approach to breeding leading to an increase in genetic progress.

**CLARIFIDE® is a new UK veterinary-led genomics package that aligns genomic testing with breeding objectives and herd health goals on your farm.**

CLARIFIDE® delivers reliable predictions on a comprehensive suite of UK/US core production, type and health traits, key production indexes and parentage confirmation to accurately predict genetic merit. Additionally, data on inbreeding, genetic conditions and haplotypes helps to arm you, the producer, with the necessary material to make informed breeding decisions with your herd.

Currently accessible for Holsteins, Jerseys and Brown Swiss.



- **Armed with your herd data your CLARIFIDE® trained Oakhill Farm Vet is well placed to help set breeding objectives specific to your herd's needs.**
- **Your vet can interpret genetic evaluation data and help you understand what it means for your herd and help you to recognise where genetic potential can be better harnessed.**

## As part of the CLARIFIDE® service your vet will:

- Evaluate your herd's current genetic base.
- Work with you to set breeding objectives that are specific to your farm.
- Assess the likely response you will see from an investment in genomic testing.
- Identify the key selection criteria that will ensure you maximise genetic progress on your farm.
- Help plan and implement a clear testing strategy.
- Develop a ranking that is bespoke to your farm - this will focus on those areas where an improvement through breeding would help to improve performance on your farm.
- Present your bespoke report in a meaningful and useful format so that the predefined action plan can be implemented easily.
- Monitor ongoing performance and ensure a maximum return on your investment in genomic testing is realised.

**Please contact Sam at the practice if you would like to discuss how genetic testing can benefit your herd.**

## Summary of the first two Red Rose Dairy Discussion Group meetings:

### The Ideal Calf Building with Jamie Robertson:

#### Pneumonia

- Respiratory disease is the most common cause of death/poor performance under 1 year of age.
- Individual cost of pneumonia is between £48-£101 per animal and £500 if animal dies.
- Pneumonia in young pre-weaned animals decreases milk yield by 4% in 1st lactation and 8% in 2nd lactation.

#### Scour

- 50% of calf mortality is attributed to scours.
- Calf accommodation needs to be thoroughly cleanable.

#### Hygiene

- Disinfectants should be measured out and used according to manufacturer instructions in consultation with vet.

- Appropriate disinfection should be selected to combat the pathogens present on the farm.
- After cleaning, calf accommodation should be allowed to dry thoroughly before new calves are put in.
- Biofilms protect bacteria from disinfection and must be combated effectively using appropriate cleaning detergents.
- Housing should receive a deep clean at least annually or after an outbreak of disease to prevent infection of the next batch of calves. This is particularly important for Cryptosporidium which can survive standard cleaning throughout the year.

#### Temperature

- Jackets on calves when temperatures less than 10°C for greater than 4 hours at any time.
- Jackets must be washed at 60°C and dried thoroughly to kill off pathogens from previous calves.

## Fluke Control Strategies with Iain Richards:

- Liver fluke reduces vaccine efficacy by impairing the body's ability to produce antibodies.
- Fluke clones itself in a snail – so 1 fluke can create 1000 more
- Climate change - wet, warm winters mean fluke season is extended as fluke is active above 9.5°C.
- Only 10% of snails are affected by fluke, so reducing snail population has little impact.
- Aim to reduce host parasite interaction – fence off boggy areas where snails and fluke are likely to flourish.

#### Management:

- Prevent infected/resistant animals arriving through quarantine dosing and testing, once on farm it can be impossible to eliminate.
- Biocontainment within farm – overwintered sheep and heifers that are summered away both present a risk of increasing levels of fluke on farm.
- Reduce mud in laneways and around water courses.
- Increase biodiversity can help reduce snail numbers.
- Drainage is key – keep fields below water capacity to stop favourable environment for fluke and snails.
- Feeding – Good quality hay when stored properly has a low fluke risk, poor quality hay needs to be stored for a minimum of 6 months.
- Silage has a low fluke risk, zero grazed pasture is high risk.



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[www.redrosedairydiscussiongroup.co.uk](http://www.redrosedairydiscussiongroup.co.uk)