

Indexes will help producers select bulls that offer easy calving

Sire selection – with 'ease'

Two new indexes, to be launched in the January 2010 bull proof run, should help producers to avoid difficult calvings. But how reliable is the data and how should producers use the indexes when looking for easy calving bulls to stock in their AI flasks?

text **Ann Hardy**

Vets, producers and breeding specialists all agree that avoiding difficult calvings should be a priority when making both breeding and management decisions. If not, the health and welfare costs to the animal and the financial costs to the producer of dystocia can be huge.

And this is why producers have been encouraged to complete a calving ease survey, as part of their milk recording, enabling the industry to gather large quantities of information that can be traced back to each animal's sire.

To date, records from some 400,000 calvings have been collected, which represents information from around

6,000 Holstein and Friesian sires. And now that these records have been assessed, DairyCo is in a position to publish the first ever official UK, independent calving ease indexes. These will be available to the industry with the general sire proof run in January 2010.

The new indexes will be expressed on a scale of between -4 and +4, with a breed average of zero, and with positive figures indicating that calvings are predicted to be easier than average and negative figures predicting more difficult calvings.

But there won't just be one calving ease index, there will be two – one for direct calving ease (dCE) and one for maternal

calving ease (mCE). And it's important to be aware of the differences between each one.

"The index for direct calving ease gives a prediction of the ease with which a calf by that sire will be born," says the director of DairyCo breeding+, Marco Winters.

"And maternal calving ease provides a prediction of the ease with which a daughter of that sire will give birth."

Complete picture

"By considering both indexes, you'll get a complete picture of each bull's 'calving performance', although it will generally be the direct calving ease that's likely to be of most interest to producers in the first instance," says Mr Winters.

"This is obviously going to be far more so when breeding maiden heifers, where choosing easy calving sires is clearly an important consideration.

"But it shouldn't be ignored in older cow matings either, where it would always be wise to avoid bulls that are likely to 'produce' very difficult calvings."

The relationship between dCE and mCE must not be overlooked either, because long-term selection for dCE without any regard to mCE could set up problems for the future.

"The two traits are negatively correlated and this means that as you select for good dCE you are likely to worsen mCE, so it's important that producers pay attention to both of these figures," says Mr Winters.

This will be logical to most cattle breeders, who are likely to associate easy calvings with smaller calves, but whose smaller calves sometimes go on to have difficult calvings themselves.

Secondary criteria

The emphasis breeders are recommended to put on each index varies according to their situation. "If you put a lot of selection pressure on calving ease you would quickly improve this trait but you are likely to lose ground in other important areas," says Mr Winters.

In reality, he recommends selecting primarily for profitable lifetime index (PLI) and using the calving ease indexes – as well as other fitness traits –

Also new in 2010



The next proof run sees analysis for Brown Swiss and Montbeliarde cattle

Other changes to look out for in the January 2010 proof run are:

- The all-breeds evaluation model, which will allow comparisons to be made between breeds. This can only be done with a conversion formula, which will be published by DairyCo breeding+.
- UK genetic analysis for two new breeds – Brown Swiss and Montbeliarde.
- The inclusion of fertility in PLI for the coloured breeds (already included for Holsteins and Friesians). This could result in some re-ranking for these breeds on PLI.
- A base change for all breeds and traits (production, fitness and type). This is necessary on a five-yearly basis as breeders make genetic progress and it will bring most numbers down.

as secondary criteria, with careful judgement made on a case-by-case basis about their relative importance.

Although the traits are not highly heritable, similar to other fitness traits such as lifespan, he says worthwhile progress can be made because there is variation between bulls, and – like all genetic improvement – this accumulates over several generations.

The industry project that got the index off the ground, which was largely funded by Defra, was undertaken by SAC and led by Mike Coffey.

“We have had proprietary indexes from Genus ABS and Cogent that many producers have used, but there has been no real appetite until now for a national programme,” says Dr Coffey, explaining why it has taken until now to develop an index.

“Now Interbull, the body responsible for international genetic evaluations, regularly publishes international calving ease indexes we need independent national figures from the UK in order to participate.

“And we’ve been very pleased with the accuracy of the UK data. There have been high correlations between our own figures and those from other key countries, so I’d like to thank producers for taking the trouble to complete their calving ease surveys and for doing it with such obvious accuracy.”

Stand-alone indexes

The calving ease indexes will, for the short term, remain as stand-alone indexes. “They may be incorporated into PLI in the future,” says Mr Winters.

“But for the time being they won’t be included and they won’t affect the overall sire rankings.

“And we don’t expect many surprises either,” he adds. “Since Genus ABS and Cogent have collected young sire calving ease data in the UK and many international bulls already have calving ease indexes, we already have an idea of how most bulls will score.”

But with this additional information now available on an on-going basis and with the backing of hundreds of thousands of calving records – thanks to milk recording producers – breeding decisions in favour of calving ease can be made with more confidence in the outcome than ever before. |

➤ *Calving ease proofs will be published on the DairyCo website from January 12, 2010, at www.dairyco.org.uk in the breeding and genetics section.*

