

Genetic planning – now's the time to add weight to breeding decisions

'Smart' selection in 2017

Breeding decisions are increasingly becoming the focus for many producers who are looking to sure up their herds and businesses after an exceptionally difficult couple of years. We spoke to a genetics expert to find out more.

text **Karen Wright**

December 2016 marks the end of a turbulent year – both politically and economically. After a rough ride for most dairy producers, those committed to the industry are looking ahead and focusing on long-term planning. When it comes to the latter, breeding decisions are at the core, according to Bullsemen.com's genetics expert John Foster. "We've seen more beef semen used in dairy herds and less sexed semen during the past 18 months. This was – I would say – entirely due to the low milk prices, which have meant struggling cash flows

for many. The net effect of this could well be a shortage of dairy heifers."

Stocktake

He says that although there's still some way to go before the market recovers, 2017 is the time to plan for the next few years with genetics.

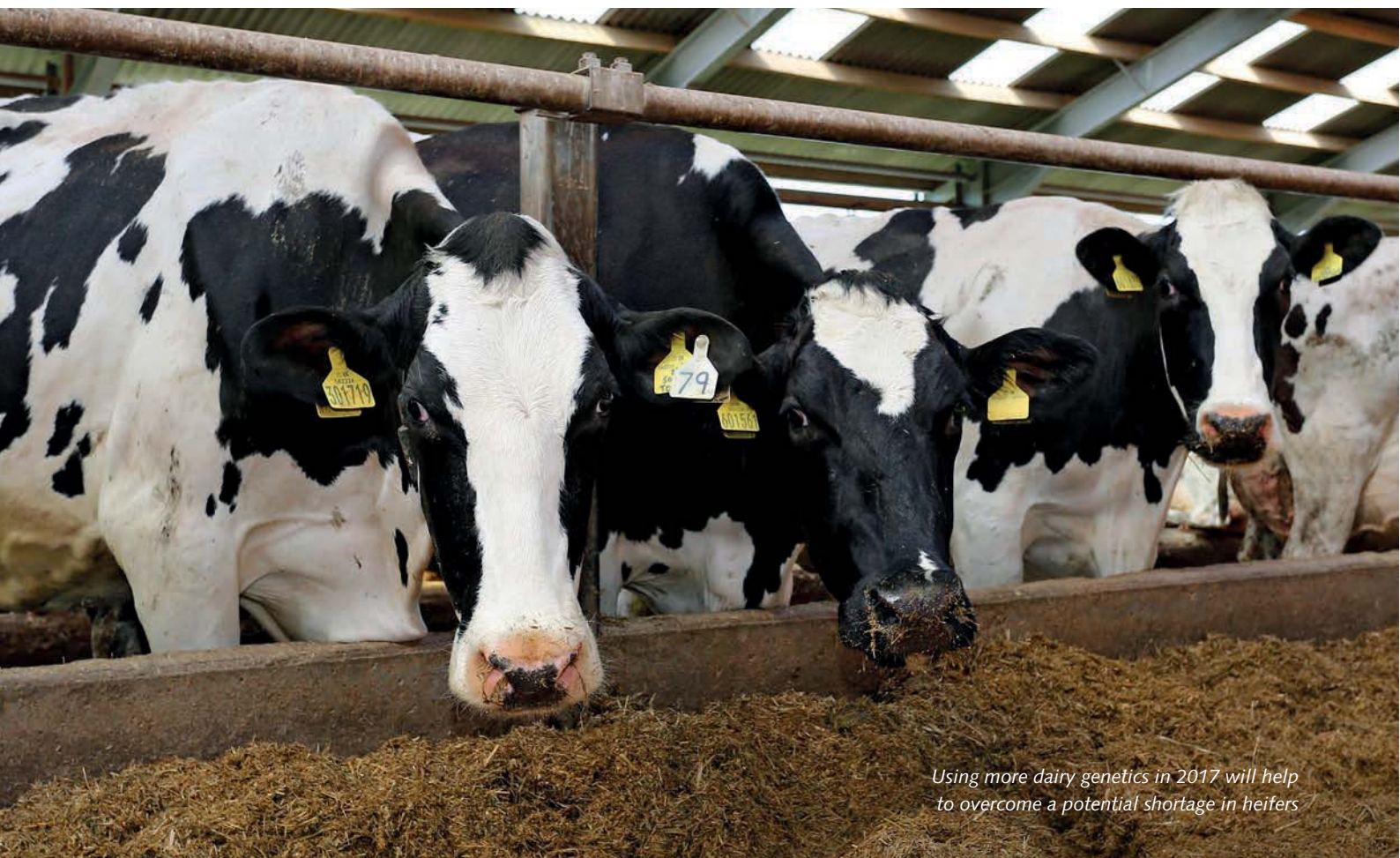
"Ask yourself, what's in the heifer yard now? Are there enough replacements or is there some catching up to do? And are these replacements likely to be able to move the herd forward in the right direction?"



John Foster: "Take advantage of new selection tools"

Although there's no one blueprint to fit all – something producers know all too well – Mr Foster suggests that producers should opt to use more dairy bulls, particularly if heifer replacements look short or if heifer sales are a possible extra income stream.

"And get to know what you have in the herd so the choice of sire is as accurate as possible. There are good sire mating programs that take account of the current herd and business parameters." One example, SireConnect, is soon to be



Using more dairy genetics in 2017 will help to overcome a potential shortage in heifers



GeneTracker calves: genomic tests for heifers



A daughter of leading PLI and lifespan sire Erdman

out on farms, which brings benefits to NMR users in that the web-based service has direct access to the herd's NMR data and any available genomic data. Like any good mating program, SireConnect uses the pedigree history for each animal to minimise the risk of any inbreeding. With the increase in the number of bulls available – daughter-proven sires, young sires and genomically-tested sires – this aspect of dairy cow breeding has never been so important.

“I’ve seen plenty of new genomically tested bulls on the list with sires I haven’t heard of, but then see a familiar name just another generation back. Even outcross sires can have a recognisable name in their not too distant history. Do use an outcross sire, just don’t sacrifice too much PLI and double-check the ancestry,” says Mr Foster.

“And bear in mind that a genomic proof is calculated using both the pedigree and genotype information so there is a lot of data used here. I’m a big believer in this technology and the progress it is affording our dairy industry.”

Faith in genomics

Mr Foster has faith in the technology and he’s encouraging producers to think about genomic tests, such as GeneTracker, for young heifers to predict their likely contribution to the herd. “The question is: is she worth rearing? Using this technology means that the best heifers can be bred to top sexed-semen sires and the lowest genetic merit ones can be either sold or bred to beef.

“I am confident that this will have a long-term payback for those prepared to invest in the technology. Daughter genomics is not an elitist option but one for the progressive commercial dairy unit.”

But what about the details of sire selection? “Firstly, look at the best bulls for the job. The price differential is not much between the top and the average compared with 10 years ago. The only exception might be a young sire that commands an inflated price due to limited availability.

“On farm, I will recommend that producers divide up their cows into ‘performance’ groups – best, average and poor. The more information they have on each animal the more accurately they can do this.”

Mr Foster says that the best cows may be worth breeding with sexed semen, with the average cows in the herd bred to top ranked bulls – female offspring here will also make up the next generation of heifers. The poorer cows are those to earmark for culling or to breed to a beef bull.

“PLI, or Profitable Lifetime Index, remains a starting point in bull selection. Remember that PLI takes account of factors affecting the expected profitability of offspring,” he says.

“I’m then keen to encourage producers to look at some key components of PLI – lifespan being one as it’s an important contributor to the efficient dairy cow of today.”

In fact, lifespan and fertility contribute more weight to PLI than production (14.4% and 20.3% respectively compared with 32.2% for production).

“Take Erdman,” says Mr Foster. “He’s the highest scoring lifespan bull available in the UK. While he may not score highly on linear traits like foot angle – which could put some of the show ring purists off – his lifespan score of 0.9 means that his daughters are expected to contribute nearly an extra lactation above the average sire on the list.”

With a current list price of £10.95 a straw and a PLI of £645, he says that producers should be confident that selecting bulls of this ilk, and above the average for the breed, is worthwhile.

SCC importance

The somatic cell count (SCC) index also needs some attention as the pressure on antibiotic use increases. “We need to breed healthier cows that are less reliant on medicines. SCC data contributes 9.1% to the PLI so it plays a clear role in the economics.

“The new genomic sire Black Jack gets a tick in a lot of boxes here. A Supershot son, he has a high PLI score of £687 and scores 0.6 for lifespan. He carries excellent health trait scores with –19 for SCC and 9.9 for fertility. This is the sort of sire that will maintain production while underpinning lifetime profitability through improved udder health and fertility.”

Linear traits, particularly those that could impact on performance, also play an important part particularly to help overcome any type-related problems within the herd. One area that may require closer attention is teat length.

“There are a lot of bulls on the list with the potential to breed cows with short teat length and this can create problems in the parlour, particularly with the increase in the use of robotic milking machines. This factor also highlights why we need to consider herd management systems in the choice of individual sires.

“There’s plenty to consider ahead of 2017. Sire choice can be complex, but we’re in the fortunate position of having new and improved selection tools and advice to make the right decisions.” |