

Selecting for type can be skin deep, so focus on fitness traits to increase longevity

Plain Janes offer lifespan gains

When is breeding for longevity not breeding for longevity? When it's breeding for type.

It seems there's some confusion among producers who are looking to breed cows that last longer, but are selecting for show type, rather than 'functional' traits.

text Rachael Porter

Long-life cows – that's something that most, if not all, producers want. But are they using the right selection criteria when choosing bulls to sire the next generation of long-life milkers? In many cases the answer is 'no', according to Genus ABS's breeding programme manager Andy Rutter. "Producers are still selecting for type, but they should be looking at fitness or 'durability' traits, such as fertility and somatic cell count when selecting bulls if they want to breed cows with increased longevity. The tools are there but not all producers are using them."



Marco Winters: "O Man is the perfect example of a bull with good durability traits"

The 'confusion' among producers comes about for historical reasons, according to DairyCo's Marco Winters. "A decade ago, when we had little data on longevity, or what we now call the fitness traits, type was what breeders used by proxy in a bid to breed cows that would last longer in the herd."

Whole story

"Cows with better type, such as good feet and legs, will last longer but that's not the whole story. Now we have indexes for longevity or durability traits, such as fertility and somatic cell count. These are the true 'longevity' or fitness traits that the producer should be breeding for and they're not necessarily going to result in the prettiest and highest 'type' cows," Mr Winters says.

And herein lies the problem. Producers, quite rightly, are still drawn by aesthetics and they associate a good looking cow with longevity. "It's the good looking heifers that command the top prices in the sale ring – producers still select by eye," says Mr Rutter. "And we have to try to change that but it's indoctrinated. If cows and heifers walked around with their fertility index freeze

branded onto their backs, then even the plainest cow may start to look like a real beauty."

He says that some 'desirable' body type traits are actually negatively associated with longevity and stresses that type traits themselves are calculated using two-year-old heifers. "They may be listed as taller, more angular and powerful, but that's not necessarily a long-life cow," he says.

Positive correlation

"That said, we also know that good feet, legs and udders are essential to longevity, as are fertility and udder health. These

traits have positive correlations with longevity and we will turn a corner with longevity if we select for it," adds CRV's breeding manager Alfred de Vries.

He and Mr Rutter want to see more producers looking at the paperwork when assessing cows and heifers in the sale ring. "Don't be swayed entirely by what you see – all may not appear as it seems," says Mr Rutter.

His 'eureka moment' happened years ago when he was on a US-based dairy unit. "The producer pointed out two cows, which were nothing to look at, and said that they were his best cows. He said he wanted a herd of cows just like them – they

always got back in calf first time and they were making him money. And that's when the penny dropped for me."

That said, he admits that he doesn't like ugly cows. But the good news is that it is possible to breed good looking cows that also last within the herd. "It's not easy to breed them at the moment, but there will be bull dams and sires out there that can offer that, so that's what we're striving for now – the best of both worlds.

"After all, producers spend much of their day looking at cows and who can blame them for wanting to look at something that's easy on the eye. Milking good looking cows gives many producers a huge amount of pleasure. But think how much more satisfying it would be to milk cows that look nice and put plenty of milk in the tank for many lactations," adds Mr Rutter.

Mr Winters says that O Man is the perfect example of a bull with good durability traits, who is not so hot on type. "He's got excellent fertility and SCC scores. He's functional but not fancy and that's why his daughters are lasting in dairy herds and it's also why he's proving so popular, despite scoring less than +2 on type."

There are bulls out there with higher type, but their daughters don't last as long. O Man is a commercial producers' bull – his daughters are those that go unnoticed. "They're plain, but they're trouble-free cows and they last. And they're productive and profitable," says Mr Winters.

'Rugged' daughters

Mr Rutter agrees that O Man produces 'rugged' daughters that milk well over several lactations, but he cites Semex bull Rudolph as his perfect example of a top longevity bull.

"His daughters are slow to mature and he scores very high on daughter fertility and lifespan. He sires the kind of daughters that I hear producers saying that they want to milk in their herds. Many are already doing so and want more of the same," he says.

So producers should look at milk production and fitness traits first and then look at type.

"Type is still important for producers who are looking to show cattle or sell surplus stock, since heifers and cows are still judged in the show and auction ring by their appearance and not just what's on paper.



J.S. Belinda 9, a daughter of the popular sire O Man



Alfred de Vries: "Good feet, legs and udders are essential to longevity"

Taking a balanced view

Dorset-based producer Tom King takes a balanced view when selecting sires for use on his 260-cow pedigree Holstein herd, which is currently averaging 11,660kg of milk at 3.92% butterfat and 3.07% protein.

“Prior to the launch of indexes, such as that for SCC, we generally used high indexing bulls on our herd. But we now pay much more attention to lifespan and fitness traits and focus less on type,” Tom says.

The turnaround came when he began milking the daughters of a bull with a good SCC index at the same time as those

of a bull with a poor score for this ‘fitness’ trait.

“The latter group had a very high incidence of mastitis and this really brought it home to us that selecting for low SCC, high fertility and overall lifespan was the way to go.”

Tom says that the main reasons for culling cows from the Vortex herd are poor fertility, mastitis and high SCC and lameness. “Careful bull selection, for fitness and lifespan, can go a long way towards reducing the number of culls. And, likewise, ignoring these fitness traits in favour of type can compound

these issues and make matters worse,” he explains.

“So we take a balanced approach – we avoid extremes. And we still get to milk attractive cows that would do well in the sale ring.”

Tom doesn’t ignore linear type traits: “We use bulls’ linear scores to try to improve each individual cow’s conformation weakness. But we’re not religiously selecting sires that are +3 on type and ignoring everything else either. It’s important to remember that a linear score of 0 is average, and not a bad score, for type.”

Tita, a daughter of durability specialist Rudolph



“And producers looking to correct type defects related to feet and legs and udders, for example, should also consider type. But not before looking at durability traits.”

He says that PLI is still a good guide to use. “Half the bulls available in the UK have a PLI of more than £70, so why go for anything less?”

“If it’s below that then you know that there’s a weakness in some area and if it’s high then you can be pretty sure you’re using a good all rounder,” he adds.

The right balance

And it’s good all rounders that should be the goal of most, if not all, commercial producers and breeders.

“It’s about getting the balance right,” says Mr Rutter.

“If something is wrong within a herd, say lameness for example, then breeding choices tend to go too far the other way and feet and legs are selected for at the expense of everything else. Producers need to breed down the middle and try to look at everything and avoid the extremes. And that’s what these durability or fitness traits and indexes allow them to do.”

“Don’t worry too much about feet and legs if you’re selecting for durability. It goes without saying that if you’re breeding for fitness and longevity then part of that is good feet and legs. You can’t have one without the other – it’s already in the mix,” adds Mr De Vries.

“But you can have good feet and legs and poor fertility. So treat type as secondary and remember that primary ‘fitness’ traits are what you need for longevity and, ultimately, profitability.” |