

Avoid inbreeding and get a better return on your 'AI flask' investment

Match.com – for cows

A computerised breeding tool is taking the time and hassle out of sire selection and a genetic profiling service is also now available that can help to speed your herd's rate of genetic gain. CowManagement finds out how.

text **Rachael Porter**



It's never been easier to find the perfect partner for your cows and heifers – and avoid inbreeding. And you don't have to be a fanatical breeder who likes nothing better than browsing bulls semen catalogues or pouring over the latest proof-run rankings. Thanks to the increasing availability – and accessibility – of computerised programs, all producers can now benefit from 'tailored' breeding. CRV Avoncroft's SireMatch was developed, more than 15 years ago, to help producers select the most suitable sires for individual cows, heifers and different management systems.

"It has now evolved into a web-based program and all breeding value bases can be used, and all sires in the world can be included, in a tailor-made bull package," explains the breeding organisation's David Matthews.

"And you can create bull packages for sexed semen and genomic selection. The program is extremely flexible and allows producers to exclude inbreeding and genetic defects, while at the same time focusing on their customised breeding goals. You can even make several cow groups within one herd and mate them to specific bull packages," he adds.

Web-based tool

The program has three levels. The web-based SireMatch 'GO' module is easy to use and flexible. "It is particularly suitable for farms without any official herd data," explains Mr Matthews. "The user can fill in known pedigrees and, based on the customised breeding goal, reliable advice is given. Inbreeding can be restricted and genetic defects will be excluded. This level of the program can also take care of problem traits within the herd."

'SELECT' is the second level and results in so-called 'pedigree matings'. Based on the users' customised breeding goals and

problem traits, advice will be given that's based on the animal data (from the management system or herdbook), which is uploaded into the system.

'PRO', the most advanced module of SireMatch, combines the pedigree information with linear scoring traits. Scoring can be carried out using a hand-held PDA application and CRV Avoncroft can send a technician out to score your cows, if you prefer. "We really can take a lot of the guesswork and hassle out of matching the best bulls to your individual cows," says Mr Matthews. "In the web-based PRO module, a customised breeding goal can be set and problem traits are taken into account."

'Ideal' sires

Mating advice is presented in report format, with three possible 'ideal' sires, and the producer can also access a list of sires that should not be used. The program supports the use of InSire genomically selected young sires and SiryX sexed semen. And it also offers reliable advice and can include bulls from multiple suppliers – not just CRV Avoncroft's sires.

In every version of the program, producers can use one of the six standard breeding goals comprising: all round, production functional type, show type, longevity and health, or pasture based. Or they can add their own customised breeding goal. Five traits that require specific attention can be added and the program focuses on and improve these traits, making corrective mating simple.

"The program makes selecting bulls more accurate for individual cows and herd – and far less time consuming for me," says Andrew Pounder. He runs a 200-cow pedigree herd at Stainton Hill Farm, in County Durham, and time pressures and a fear of inbreeding led him to try the program 15 years ago.

"We had a lot of AI trained employees, which was good for herd fertility because cows and heifers were inseminated at the optimum time. But I was worried about what they were serving them with – it was all a little ad-hoc.

Simple system

"If you carefully match a bull to a cow, the resulting calf will be genetically superior and grow into a productive and profitable animal. And when you also factor in the cost of semen, it's important to utilise this investment wisely."

Today there's a list that staff can refer to when serving a cow. "Using SireMatch PRO means that we've simplified our breeding programme. We've de-mystified it all and we know that we're getting the best return on our investment in semen," says Andrew, who admits that he's not really into breeding.

CRV Avoncroft's Iain Brown scores the cows and inputs the results into the program. This then generates a list of potential matches, which Iain and Andrew 'whittle down' over a cup of coffee.

"At any one time there are four bulls in our AI flask – two daughter proven and two genomic InSires. Again, this helps to keep things simple, but avoids putting all our eggs in one basket."

After 15 years, Andrew is pleased with the results. "Our fertility has improved and we're calving heifers at two years old. A few years ago it was closer to 30 months old and the heifers tended to be too fat and udder quality was sometimes poor. And I think our cows are lasting longer too.

"I'd recommend SireMatch to all producers, particularly those who are not interested in breeding or are strapped for time. When you're making decisions about, and investing in, tomorrow's milkers, it's vital to get it right." |

Tool speeds up rate of genetic gain

A genetic profiling tool for cows and heifers is now available from CRV. InSire TalentScan offers greater insight into the heritability of young female animals and more certainty about their genetic qualities. It is an innovative tool that producers can use to literally scan, for themselves, the most promising animals in their herd for their 'talents'.

Using an advanced marker test, where a 10,000 chip is used, it reveals the genetic heritability for key traits including

longevity, health, fertility, production and conformation.

It can be used to test both young stock and cows. CRV Avoncroft supplies sample containers to producers who then take hair samples and send them off for analysis. Results come back between four and five weeks later.

Using the results effectively can speed up genetic progress, because the breeding values of young animals are known earlier and animals with the

highest genetic potential can be used directly.

"Using TalentScan means that the highest and lowest genetic merit animals on a herd can be easily identified and this helps producers to make the best breeding decisions," says David Matthews. "This will also result in fewer 'disappointing' heifers and producers could also achieve higher revenues, from milk production and also through selling breeding or surplus stock."