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CRV Forward

Magazine for a healthy and efficient herd

CRV launches Herd report of HerdOptimizer Bisterne Farms



FDITORIAL



Dear reader,

Welcome to the first edition of CRV Forward, a proud moment for CRV as we reach out to you to share the latest news of CRV, which we trust will connect you further with our great UK breeding advisors team, and our leading products and services.

From our strong heritage as a cooperative for 150 years, we look to the future to continue to bring to you leading edge breeding solutions, focussed on our brand of health and efficiency – literally translating to Better Cows and a Better Life - not just for the cows but also you as a farmer. Today, we meet the challenge of sustainability by seeking solutions for you to meet the demands of productivity, animal welfare and climate change, and we look to do this with people who understand your needs and challenges and deliver a level of service and connection that stands us, as CRV, apart from others.

Our international breeding programs gives you some of the

best options from which to choose your farm management system, from grass-fed genetics through to full mixed ration feeding, sexed or conventional, to breed high value replacements for your herd, or terminal sires for beef options.

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These options come through a deep focus on high quality research and development, an area of continual investment into the key areas such as feed efficiency and methane. At CRV we look forward to strengthening your herd with our breeding and data solutions such as Herd Optimizer, but most of all we look forward to a strong relationship where quality of advice and service ensures CRV's name is a valuable part of your farming operation.

On behalf of our UK team, I trust you will enjoy CRV Forward and we look forward to bringing you the latest from CRV in future editions.

Angus Haslett | CEO CRV

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Cover photo The pasture season has started. These cows are happy to go outside again. (photo: Els Korsten)

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All eyes on Vision PP

Lots of milk, 100 percent polled offspring and good calving ease – that is what Delta Vision PP offers. This red-and-white bull is the first UK available son of Ananas, who has produced more than 300 embryos. "This is a cow family that we will hear a lot about in the coming years."

"She had an international pedigree, she was polled and had a very high breeding value at the time." Sire analyst Marcel Fox sums up the reasons why CRV purchased the 3.5-month-old calf Ananas P (Gywer x Mission P x Silver) in 2019. With a price of 40,000 euros, the redand-white Gywer daughter was the auction topper at the German VOST Select Sale. CRV did not regret that purchase. "Ananas grew into a long and very correct heifer and was a great embryo producer. She has produced more than 300 embryos. The impact of Ananas on CRV's breeding programme is enormous," says Fox. "This is a cow family which we will hear a lot about in the coming years." Ananas comes from a German

cow family that originated in Italy and traces back to brood cow Zani Formation Minny EX92. This cow family also produced the bull Zani Bolton Mascalese, the former number one bull in Italy with thousands of daughters milking worldwide.

Zani is also the herd with the most 100-tonne cows in Italy. So far, more than a hundred cows in this herd produced 100,000 kg of milk.

Impressive offspring

In the Netherlands, Ananas left an impressive legacy in recent years. The Dairy Breeding Center in Wirdum, the home to CRV's nucleus herd, has seen eight of Ananas's daughters, the first of whom have already left for test farms. The next generation is also already in

Anna (s. Gywer), full sister to the dam of Vision PP



- High milk production
- PP and A2A2

Calving ease

the breeding programme within CRV, as several of Ananas's granddaughters are now housed in Wirdum. In the male line, CRV currently has four of Ananas's sons available: three redand-white and one black-and-white, all of whom are polled. CRV also has a number of grandsons of Ananas in rearing units. "That's the advantage when an animal has so many offspring; you really have a choice," says Marcel Fox. "The red-and-white Vision, Seltzer and Scrambler as well as the blackand-white Tycho are among the bestselling PP bulls at the moment." For the UK market, Delta Vision PP (Kitami x Gywer) is the first member of the Ananas family to become available. Vision PP is A2A2, transmits +703 kg of milk and 50 kg of fat and protein. His offspring also score above average for fertility (104), hoof health (103) and persistency (110). They will grow into well-developed cows with well attached udders. Vison is also suitable for use on heifers and he can be used broadly thanks to his outcross pedigree. All Vision calves are born polled.



For more information about CRV bulls check our website

"We do lots of basic things quite well"

Producing milk from grazed grass. That is what the young team at Bisterne Farms is focusing on. New Zealand genetics helps the Gold Cup award winners to reach their goals. The target is a 550 kg cow which produces 550 kg of milk solids.

Together with his team of five full-time employees and two part-time employees George Brown runs the 620-cow herd of Bisterne Farms, located in Sandford, Hampshire. George didn't grow up on a dairy farm and his team members don't have a dairy background either.

Young team

Despite that Bisterne Farms won the 2023 NMR/RABDF Gold Cup competition. "We have a young team, aged 23 on average, which is quite unusual in the UK. That might be one of the reasons for the judges to select us," says George Brown. "We are not doing anything special at this farm. But we do lots of basic things quite well. In fact, dairying is quite simple. Thanks to our block calving system we can focus on one thing at a time. That makes things a lot easier." The focus on the farm is on producing milk from grazed grass. The main reason for choosing a grazing system is that it is cheaper, explains George. "The biggest cost on our farm is feed. Grazing grass is the cheapest way to produce milk. Besides that, I think grazing cows is enjoyable. Also, our team is well trained in using this system and a grazing system is less capital intensive because we can have much less machinery."

About one third of the herd is spring calving, two third is autumn calving. "We calve six weeks in autumn and six weeks in spring. Originally the herd was predominantly spring calving and out-wintered on fodder beet. But we have a very dry soil at our farm, so grazing in summer could

The average production is 6,282 kg of milk with 5.06%% fat and 3.84% protein







Company information

Farm name Location Herd size Average yield Bisterne Farms Sandford, Hampshire 620 cows 550 kg of milk solids (6,282 kg of milk, 5.06% butterfat and 3.84% protein) 509 ha

Land managed for dairy 509 ha

be quite tricky. We are now feeding the autumn calving cows maize and grass silage on a self-feed system with an electrical wire during winter. In summer we graze them on the river meadows."

550 kg cow with 550 kg of milk solids

The herd grazes from early February until the middle of December. The average production is 6100 to 6200 kg of milk with 9% fat and protein, with cows getting 1.5 tonne concentrates per cow per year. "That is 550 kg of milk solids per year," adds George. 'Our target is a 550 kg cow which produces 550 kg of milk solids. We like cows with high milk solids, which are very efficient, not too big, good at walking and get back in calf easily."

George mostly uses New Zealand Friesian bulls from CRV. "We like the New Zealand genetics, because of the good size and the pedigrees. When we select bulls, we strive for good milk solids. Our target is 5% fat and 4% protein. We also look for moderate stature, strength, well attached udders, good fertility, and excellent management traits." Roadster, Alias, and Overdraft are Friesian bulls that George has used quite extensively, as well as the crossbred bull Koromiko. "Our bull team consists of daughter-proven bulls. That works well for us. They have been doing a good job for us. But we might change to genomic bulls in future," says George. He has not genomic tested his cows yet. "I do think that could be a good option to improve the next generation further, but unfortunately genomic testing for crossbred cows is not available in the UK right now."

George mainly chooses sexed semen. "We like to make the



The team at Bisterne Farms is quite young and does not have a dairy background

next generation better. Besides that, the conception rate of sexed semen has improved." On lower-production cows British Blue and Aberdeen Angus straws are used.

Bring genetics of the herd forwards

The main goals for the next couple of years are clear. "I would like to do a little bit of herd improvement and bring the genetics of the herd forwards. Also, I would like to save money on the cost of production," George says. The herd is now producing 3,500 to 3,600 kg milk from forage, but George likes to push that to 4,000 kg. "The last couple of years this figure has been impacted by drought. But we do try to improve it by re-seeding grassland and incorporating more clover. Another challenge is not to feed too much concentrates."

George is also keen on his carbon footprint, which currently is below 1.0 kg CO₂ E per kg FCPM. He skipped soya from the menu to reduce the footprint. "We are now growing a lot more red clover. We also reduced the crude protein percentages in our winter diets. Year round we have a milk urea of less than 200."

In addition to the grazing system and the genetics, there is another New Zealand aspect that was introduced at the farm. George has a contract farming partnership with the estate owner Hallam Mills. "The estate owner provides the land, infrastructure, and buildings where I provide machinery and labour. We share the ownership of the herd," George explains. "The advantage for the landowner is that he has a highly motivated person who is in charge of the herd. For me it is an excellent opportunity to get access to dairying."



SERIES: 150 YEARS LIVESTOCK IMPROVEMENT

2024 marks the 150th anniversary of CRV in the Netherlands and Flanders. The world changed in that time and so has CRV. In a three-part series we will dive into 150 years of innovation. Part 1: History Part 2: CRV's bull stars Part 3: CRV goes international

From small organisation to global player

During the last 150 years, CRV has experienced a revolutionary development. From a small herdbook that only managed herdbook registration in the Netherlands to a leading global player. Innovation and reliability run like a thread through CRV's DNA.

It was the commercial drive of leading Dutch breeders that was behind the establishment of NRS, now known as CRV, in Amsterdam 1874. The first chairman of the herdbook spoke about "outstanding financial consequences for dairy producers" and "maintaining a good reputation abroad". The export of black and white cattle to the United States was on the rise and the American dairy producers wanted to know where to find the best animals. Moreover, they wanted proof of breed purity for the animals they purchased. Herdbook registration was the main duty of the newly





established NRS. In the early years, herdbooks were thick, heavy books that were stored in herdbook safes. Later, a sketcher carefully recorded the unique markings of each individual animal. In 1991 all dairy producers were obliged to provide their calves with ear tags with a unique number.

Tremendous progress

In the years after the Second World War, exporters of Dutch cattle experienced golden times. The membership of the herdbook also grew. In 1956, the NRS called itself the largest herdbook in the world with 58,000 members.

Gradually the herdbook expanded tasks. The launch of the herd book for registration was followed by the introduction of milk recording. This led to a tremendous progress in the milk production of the Dutch and Flemish cows. Around 1900, the several hundred milk recorded cows annually produced approximately 4,000 kg of milk with around 3.15% fat. The current data for more than 1.3 million milk recorded cows show an annual average of 9,346 kg of milk with 4.45% fat and 3.61% protein in the Netherlands.

The introduction of artificial insemination (AI) was another major milestone in the history of CRV. In 1935 the first AI calf was born, but shortly after the Second World War there was a rapid growth in the use of AI. It didn't take long before the majority of the Dutch cows were bred by AI.

To distinguish between bulls, CRV started to calculate



breeding values, for which the milk recording data had laid the foundation. Initially, dairy producers could only breed for production traits, first for milk and fat, but later also for protein. Breeding values for conformation were also introduced at a later point in time.

High participation milk recording

The high level of participation in milk recording and classification is typical Dutch. Currently, nine out of ten dairy producers participate in milk recording and type classification has more than 4,500 participants, which ensures that the breeding values for production and conformation show high reliability.

All those breeding values also made it possible to develop the mating programme SireMatch. In numerous countries SireMatch helps dairy producers to effortlessly breed cows that suit their particular farming conditions and to avoid inbreeding.

From the mid-nineties, breeding for health and longevity became popular. And in 2008 CRV introduced the first genomic breeding values. After that introduction the number of breeding values kept expanding. For example, as the first breeding organization worldwide CRV introduced breeding values for feed efficiency. These breeding values ultimately led to FeedExcel, the breeding strategy for feed efficiency with a highly productive herd and more milk and the way to higher margins and lower emission. A breeding value for methane reduction is in the pipeline. The common thread in all these developments? CRV continues to innovate.

Innovative power

HerdOptimizer is another example of the innovative power of CRV. As of 2024 dairy producers worldwide can use this genetic management programme to select their best animals for breeding and to realise their breeding goals faster. It combines genomic testing, personalised breeding goals, and easy-to-use test results. In other words: precision breeding.

How would the founders of the herdbook look at CRV anno 2024? Over the past 150 years, CRV has evolved into a leading international company, that is active in more than 60 countries. The pioneers of CRV would undoubtedly be proud. After those 150 years, the reliability of the registered data still counts as the trademark of Dutch and Flemish cattle breeding. In the next 150 years, CRV wants to keep on serving dairy producers in the best possible way to create better cows for their herds and a better life for themselves and for society.





New grazing stud for 2024

No fewer than nine new bulls strengthen CRV's grazing portfolio in the UK. CRV has new bulls on offer not only for Friesian but also for crossbred and Jersey. Meet the new CRV grazing team for 2024.

Three new Friesian bulls have entered the line-up of CRV's grazing portfolio. Of this trio, Lightburn Gold Getafix has the highest breeding values with 532 NZMI and 568 BW. He transmits plenty of milk with 1,502 kg with 142 kg of fat and protein. His daughters have stature, a lot of capacity and strongly attached fore udders. Getafix also has a gestation length of -5.7 and a positive OAD index.

Meander Max Anchor scores NZMI 531 and BW 491 respectively and is trait leader for CRV Efficiency with +8%. He transmits 105 kg of fat and protein with 1,027 kg of milk. He has great capacity and rump width, high scores for front and rear udder attachment and teat placement, as well as scoring positive for fertility. Given his functional survival (+3.2), the daughters of this Maxima son are expected to stay in the herd for a long time

Middlevale Top Mozart is the third new Friesian addition to CRV's portfolio. With +4% the Topnotch son is one of the trait leaders for CRV Health, with amongst others,

Lightburn Gold Getafix



Paynes Hayloft F11J5

0.68 for SCS. Mozart daughters will produce a lot of milk (+1,350 kg) and will last (+2.6 for functional survival). This daughter proven bull is increasing capacity, has strong udder traits, positive fertility and is suited to OAD milking,

Quartet of crossbred bulls

Four new crossbred bulls join the CRV team. Three of them are A2A2, including two young Pitcairns sons. Paynes Hayloft F11J5 transmits 77 kg fat and protein, is an easy calving bull with a shorter gestation (–5.4). He increases capacity, fertility and scores highly for CRV Efficiency with +11%.

Half-brother Taramont Shipyard F10J6 transmits 85 kg of fat and protein. He shortens gestation length (–7.5), increases capacity and rump width whilst maintaining stature and showing positive udder traits and teat length. He's recommended for OAD.

Daughter proven Campbell F8J8 is A2A2 and scores BB for kappa casein. Campbell reduces stature whilst increasing capacity and rump width. He has positive udder scores with a big positive for teat length. Campbell has above average fertility, a shorter gestation (–6.1) and below average calving ease. This Triplestar son has 80 kg fat and protein and CRV Efficiency +8%.

Howards Matakana F11J5 is producing average size daughters with capacity. He also scores better than average for heifer calving difficulty. This daughter proven bull transmits quite a bit of milk +675 and 76 kg fat and protein, with good overall udder scores and a shorter gestation length with –5.6 days.

Two new Jersey additions

The Jersey line up has also been reinforced. Daughter proven bull Ellison Integrity Kaka increases capacity and scores well with strong udder traits. His gestation length of

Ellison Integrity Kaka



-8.5 is above breed average fertility. He transmits 65 kg fat and protein and scores no less than +9% for CRV Efficiency and +6% for CRV Health.

Glen Kaycee Sherlock is the second daughter proven addition to the Jersey portfolio. His NZMI (528) and BW (629) are two of the strong points of this Walker son. Sherlock transmits 362 kg of milk and 101 kg of fat and protein. He is an udder improver, scores BB for kappa casein and A2A2 for beta casein and is suitable for once-a-day milking.



Scan the QR code to view the new grazing catalogue

BW and fertility BV got an update

In the December index run a few changes have been made to the breeding value estimation. Among others, the economic weights of BW have had an update. The value of fat relative to protein is decreasing (see table). That means high protein bulls will get a lift in BW.

Also a structural change has been made to the model. Feed price is now estimated relative to the milk price. This makes the model more robust to inflation effects on feed costs.

Besides that the fertility BV has undergone some changes. The new BV definition is the percentage of cows pregnant in the first 42 days from planned start of mating. This change will result in a more accurate breeding value. The new BV is also better at predicting whether a cow will be culled for fertility.

Table 1: Changes in BW economic weights

trait	2023	2024
fat	5.18	4.85
protein	5.21	6.83
milk	-0.09	-0.10
live weight	-1.38	-1.59
SCC	-42.89	-46.21
fertility	6.24	5.77
gestation length	-0.82	-1.89
functional survival	2.65	1.88
BCS	116.9	164.1
udder overall	17.31	62.94

CRV launches HerdOptimizer

Combining genomic testing with a personalised breeding goal: that is what CRV's new programme HerdOptimizer promises to do. It helps producers make better breeding decisions, so they can work more quickly towards the herd that they have in mind.

Which are the best cows and heifers to breed replacements from? And what are the most important traits to focus on when matching sires to cows and heifers? These are questions that every producer faces at some point. To help producers to answer these questions CRV has developed HerdOptimizer, a genetic management programme that combines genomic testing with personalised breeding goals, trait selection, and

Genomic testing enhances farm profitability



breeding recommendations to deliver quick, efficient herd improvement. "The demand for genomic testing is increasing," says CRV's Maaike de Vries. "Producers seek clear insights into the genetic potential of their female animals. Genomic testing supports the health and productivity of herds, but also enhances farm profitability."

Digital application

The term HerdOptimizer is already familiar to UK producers. HerdOptimizer GO has been available to genomic test their animals. "This service provided test results on paper. But users of the new programme will find all the results of the genomic tests in one digital application," says Ms de Vries. "And the results of the animals not genomically tested are shown based on their parental averages. So the application offers direct insight in the genetic level and potential of the whole herd."

A new feature in HerdOptimizer is that it ranks the animals within the herd based on the herd's own personalised breeding goal. "Users can immediately see which cows and heifers are the most valuable from a breeding point of view. This application helps to make objective breeding decisions and speed up genetic progress," adds Ms de Vries.

Over 50 breeding values

So, how does it work? Producers can take a tissue sample from their cows and youngstock and submit it for analysis. The lab determines the DNA profile and producers typically have the results within four weeks. More than 50 breeding values per animal are shown in the HerdOptimizer application, related to milk production, health, and conformation. They are either based on the Dutch/Flemish (NVI) or the United States (TPI) base. CRV also provides the breeding indicators for CRV Health and CRV Efficiency. These breeding values give producers the opportunity to make selection and breeding decisions based on



Figure 1: Genomic testing supports next-generation breeding

solid data. "By using the outcomes of the genomic tests, producers can decide to rear only their best calves, resulting in a higher rate of genetic gain. It also enables them to use sexed semen on their genetically superior heifers, and beef sires on the remainder. And since only the best animals are reared for replacements, producers can save costs by rearing fewer replacements."

Improved matings

The results of HerdOptimizer are automatically entered into SireMatch which uses the results of genomic testing to provide bull recommendations, avoid inbreeding and ensure more precise and reliable matings. "Using these two tools guarantees maximum genetic progress toward individual breeding goals, resulting in higher returns for dairy herds," says Ms de Vries.

The reliability of the genomic breeding values is much higher than the breeding values based on parent average. For production and conformation traits, the reliability of genomic breeding values is already 65 to 70 percent. That is almost double the reliability of a breeding value based on parent averages. And it corresponds to the reliability of a typical breeding value of a third-calved cow. The genomic test also gives insight in the presence of

specific genetic traits, such as A2 and polledness. HerdOptimizer offers producers the possibility to request various overviews. A good example is a report of their herd's overall genetic progress. Figure 1 shows the development of the average breeding values of young animals. "The line in this graph shows the development of the average breeding values of the young animals," explains Ms de Vries. "Cattle below the line score worse than average on their own breeding goal, and those that sit above the line score better."

Breeding from the best

Lancashire-based producer Richard Barton from Lupton Hall in Carnforth has used HerdOptimizer for the past two years. "I started using because we have quite a lot of heifer calves and I wanted to make sure that we are only rearing and breeding replacements from the best," says Richard. His breeding goal is to try and improve milk yield and longevity. "HerdOptimizer allows us to focus on those traits and use sexed semen only on our best heifers. It also highlighted that we had a set of twins that were completely different on their genomic proof. So it allowed us to serve one with dairy sexed semen and the other one with beef semen. You can't gauge calf potential just by eye."



Meet the team!

Do you want to know who is your regional Breeding Advisor? Please find below all the necessary information.



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