

Uniformity: producers want to consistently breed cows that are both easy to manage and milk well



Breeding tools will help producers to milk a healthier and more efficient herd

Health and efficiency

Dutch AI company CRV has introduced two new breeding tools: Better Life Efficiency and Better Life Health. Both will help producers to breed a healthy and efficient herd with a high lifetime production.

text **Alice Booij**

When producers are trying to breed problem-free cows with a high lifetime and efficient production many traits are important.

For a sharper focus on health and efficiency, CRV has developed two new breeding tools: Better Life Efficiency and Better Life Health. They sum up all the

important traits to one just one single figure.

These new tools fit into CRV's vision to help producers breed a healthy cow that lives a year longer. The goal is to lower the cases of mastitis by 10%, reduce the CO₂ emission per kilogramme of milk by 10% and increase lifetime production by 30%. Ambitious targets, but the company believes that these two tools will help producers to achieve this.

CRV launched the breeding indicators for Holstein bulls and MRI dual-purpose bulls with the new index run in December 2013. Other breeds will follow

René van der Linde: "Every producer wants a problem-free herd that produces milk efficiently"

"We have developed these two indicators to support producers," says René van der Linde from CRV's Innovation Department. "Health and efficiency are characteristics with increasing importance on dairy units." René explains that producers' wishes are put together in the new tools. "Every producer feels that body weight and yield, in terms of kilogrammes of fat and protein, say something about the cow's efficiency. However, longevity is important as well," he adds. "During rearing the animal does nothing

but eat and the longer she keeps producing milk the more litres there are to offset this cost. Calving interval also has an influence on efficiency." Lots of the traits summed up in Better Life Health have a low heritability, says René. "Producers can improve health with management, but breeding makes a contribution as well. You don't want any negative health influence in your herd. With Better Life Health, producers can rule out bulls with extreme negative scores and by selecting on this total



health index they will, over time, definitely breed a herd with fewer problems."

Harry Janssen: “We take Better Life Efficiency and Better Life Health into account when selecting bulls”

While their herd has expanded during the past few years to 110 cows, Dutch producers Harry and his son Hans Janssen have focused on optimisation. “We have our farm in balance so the challenge is to convert the feed we grow into as much milk as possible,” says Harry. Father and son regularly calculate the feed efficiency of their herd. A short calving interval, an even calving pattern and a high average age helps to improve feed utilisation, is Hans’ experience. “I am convinced that there are differences

between individual cows. Small, high-yielding cows will be more efficient than large, low yielding animals. Yes, I certainly take Better Life Efficiency into account when selecting bulls from the bull chart.”

They feel the same about the new tool Better Life Health. “Things don’t always run smoothly,” Harry says. He thinks back to a time when their cows had poor udder health. “We also want to improve herd fertility. Of course management is very important when you want to



improve health, but breeding also can make a contribution.”



Newhouse Banker: +8% for Better Life Health and +5% for Better Life Efficiency

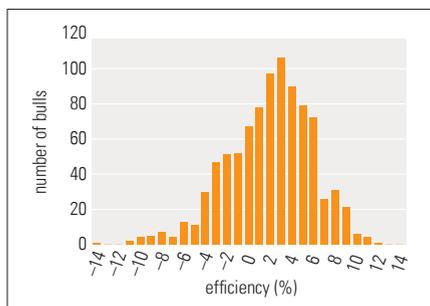


Figure 1: Efficiency of black-and-white CRV bulls, born 2004-2007

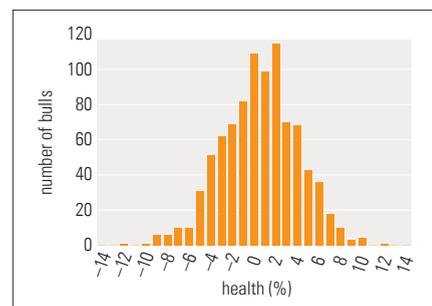


Figure 2: Health of black-and-white CRV bulls, born 2004-2007

at a later stage. Better Life Efficiency and Better Life Health are expressed as percentages, which makes it easy to see the effect that producers can expect from a given bull.

Efficient production

Better Life Efficiency can be used to breed a herd that converts the available feed into milk more efficiently. This should reduce feed costs and, at the same time, improve utilisation of every unit’s natural resources. This means that throughout a cow’s life – including the

rearing period – a higher percentage of the energy in the feed she eats is converted into kilogrammes of fat, protein and lactose. Better Life Efficiency incorporates the following breeding values:

- Milk yield
- Persistency
- Late maturity
- Longevity
- Calving interval
- Body weight.

Selecting for efficiency will result in a herd producing higher yields and greater longevity at a lower body weight.

The indicator is expressed as a percentage, with the top animals scoring more than 10%. It means that the offspring of the bull are 5% more efficient – an economic advantage of £207 during a cow’s lifetime.

CRV expects breeding for efficiency to produce a 10% increase in feed efficiency across a few generations.

Trouble-free cows

The breeding indicator Better Life Health was developed to make it easier for producers to breed a problem-free herd. Many different breeding values are

calculated for health traits and this tool sums them up.

The new indicator is based on the following breeding values:

- Udder health
- Hoof health
- Calving ease
- Maternal calving ease
- Calf vitality
- Daughter fertility.

No weighting is applied to the different breeding values. A high score means that a bull’s progeny will have a low rate of health issues such as mastitis, lameness, difficult calvings or poor fertility.

Selecting on Better Life Health makes herds easier to manage and means that cows age more healthily, fewer medicines are used and welfare is improved.

The top animals for Better Life Health score around +10%, which means that a bull will pass on 10% fewer health problems to its progeny.

If the bull is mated with an average cow, 5% fewer problems can be expected in his daughters – an extra profit of £58 during a cow’s life. |

Table 1: Bull chart: Efficiency and Health, NVI

| name | efficiency (%) | health (%) | NVI |
|-----------|----------------|------------|-----|
| Atlantic | 4 | 10 | 301 |
| Banker | 5 | 8 | 242 |
| Jeroen | 7 | 4 | 239 |
| Gofast | 3 | 6 | 235 |
| Astro | 3 | 6 | 234 |
| Pilot | 6 | 6 | 230 |
| Silky | 8 | 6 | 220 |
| Blitz | 10 | 2 | 217 |
| Cricket | 2 | 9 | 201 |
| Paramount | 7 | -3 | 182 |
| Navarro | 3 | 2 | 140 |