



Five-step approach to draw up a plan to suit your unit

Breed cows to suit your system

CRV has introduced a system to help producers breed the right cow to suit their management system. We spoke to a breeding specialist to find out more about this tailored approach.

text **Rachael Porter**

To get the best performance from any dairy management set up, breeding cows to suit a particular system is the way to go. And, recognising this, CRV has introduced its 'farming systems navigator'. This outlines a five-step approach to help producers draw up a breeding plan that fits their specific farming system. It recognises four different systems: grazing, semi grazing, semi mixed ration and mixed ration.

So what is the ideal cow for each dairy management system? "Let's start with grazing, where cows produce milk from a ration of almost exclusively grass and forage," says CRV's breeding specialist Peter van Elzakker. "As the cows are predominantly kept and grazed outside,

supplement feeding is kept to a minimum. And production efficiency and the lowest costs of production are the main focus. The aim is to maximise output, be that milk volume or milk solids, per hectare of grassland and to also reduce cost of production and increase efficiency."

The ideal 'grazing' cow, which best suits this system offers, among other attributes, high output (solids or litres) per kilogramme of body weight (see box on page 45).

Semi-grazing system

The second of the four systems outlined by CRV's farming systems navigator is the semi-grazing system, which is probably most applicable to the UK.

"Cows produce milk from a ration of predominantly grass that is supplemented, usually all year round, by silage and other bought-in feeds," says Mr van Elzakker. "Units managed on this system have the infrastructure for feeding and housing and production efficiency and flexible cost of production the main focus. And producers are aiming for a balanced output per hectare and production per cow – be that milk volume or fat and protein."

This system also has built-in flexibility, to increase farm output when milk prices are high and decrease costs when milk prices are low. "It's designed to weather market volatility, which is vital if the business is to remain viable and sustainable in the long term."

The ideal 'semi grazing' cow, to suit this management system, offers high yields and is relatively trouble free or 'invisible' within the herd.

The third system option is the semi-mixed-ration system. In this system, cows produce high volumes of milk or solids, from a predominantly total mixed



Peter van Elzakker

weather conditions are conducive. “Producers managing their herd on this system are aiming for maximum feed efficiency, resulting in a positive margin over feed and optimum cow health. The system also tries to optimise grazing utilisation, when available, without sacrificing output,” adds Mr van Elzakker. The ideal ‘semi mixed ration’ cow has a high lifetime production and offers good feed efficiency.

Feed efficiency

The fourth option – the mixed ration system – sees cows producing high volumes of milk or solids from a carefully formulated ration while permanently housed.

“This system has become increasingly popular in the UK during the past few years, as average herd size has expanded and land available has stayed the same,” explains Mr van Elzakker.

He adds that producers managing cows on this system are looking to maximise feed efficiency, which results in a positive margin over feed and optimum cow performance.

“It also allows cows to realise their genetic potential.”

Again, the ideal ‘mixed ration’ cow has a high lifetime production yield and good feed efficiency.

Once producers have identified the type of cow that best suits their management system CRV’s farm system navigator then highlights the breeding goals and traits, which require attention and selection, to produce the different cows that are suited to each of the four management systems.

“For grazing systems, for example, the navigator outlines three breeding schemes: Friesian, Jersey and crossbreed. The latter mixes Friesian and/or grazing Jersey bloodlines with Holstein Friesian,” explains Mr van Elzakker.

“For mixed ration systems, at the other end of the herd management scale, three breeding schemes using Holstein and US Jersey bloodlines are most suitable for producing cows and heifers, which will thrive and produce milk efficiently in a high-input situation.”

This navigation tool is designed to help producers breed cows that will perform best in their particularly management system – and the type of cows that they prefer to milk. Not all producers will want to go down the Jersey route – even if they’re running a grazing-based system. “This development from CRV is about offering choice, without compromise. And, with many decades of breeding expertise, and experience on a variety of dairy units in both the UK and the rest of the world, we think that our knowledge and technical tools can do just that.” |

ration (TMR), which can also include grazed pasture. Cow are predominantly housed but are grazed when field and

Cow characteristics to suit the four different herd management systems typically seen in the UK

Grazing

- High output (milk yield or constituents) per kg of body weight
- Trouble free and easy calving
- Robust and good feet and legs
- Aggressive grazer – eat a lot of grass and quickly
- Fertility – to calve within a block each year
- Relatively low body weight of less than 500kg LW

Semi grazing

- High output (milk yield or constituents) per kg of body weight
- Trouble free
- Easy calving
- Good longevity and fertility
- Good udder – particularly fore and rear attachment
- Medium body weight or less than 550kg LW

Semi-mixed ration

- High lifetime production
- Good feed efficiency
- Flexibility when it comes to feed intake (TMR or grazing)
- Robust, good feet and legs and good udder quality
- Good disease resistance
- Medium to high body weight of more than 500kg LW

Mixed ration

- High lifetime production
- Good feed efficiency
- Good udder, strong feet and legs, robust
- Good health/strong immune system (trouble free)
- Higher body weight (more than 550kg LW) compared to cows bred to suit other management systems