

Milk protein levels can attract a financial reward for producers

Grab a protein bonus

Milk processors are willing to reward producers that have the ability to buck the spring trend and improve their milk quality. We spoke to a milk processor, a producer and a nutritionist to find out what can be done and if the premium stacks up.

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Testing times: efforts made to improve milk protein levels during the spring 'dip' can be rewarded with a milk-price premium

Many producers may begin to see the size of their milk cheque fall in March and April – the result of lower milk constituent levels. Lower forage and dry matter intakes, resulting in a negative energy balance, mean that butterfat and protein will both be under pressure for the next few months. And reduced milk protein percentage will be the big issue for producers in terms of lost revenue.

So one Northern Ireland-based group of producers, from County Tyrone, is focusing hard on producing high protein milk. “The motivation behind our farm meetings, trips and leaflets is to provide our producers with as much information as possible on how milk quality can be improved – in relation to both milk protein and somatic cell counts,” says Fivemiletown Creamery’s Maimie Neill.

She explains that elevated somatic cell count (SCC) levels break down the cheese-making protein, known as casein, in the milk. “So we are determined to help them to maintain the group’s low SCC of less than 200,000cells/ml.

“As an award winning cheese producer high protein is required to give a good cheese yield – the higher the protein the more kilogrammes of cheese we can produce per litre of milk processed,” she adds.

Quality cheese

Ms Neill explains how the dairy ensures it has good quality milk available to allow it to maintain its growth as a manufacturer of quality cheese. “As a milk processor, we ask our producers to focus on getting three elements right: breeding, using protein positive bulls; improving forage quality; and targeting concentrate feeding.

“The next battle is SCC, which is ongoing for most producers. But with the correct milking routine and careful monitoring of cows with persistently high cell counts, a bonus can easily be achieved. Our payment structure rewards these two elements, encouraging our producers to ensure that milk quality continues to be better than average.

“We pay 0.4ppl for every 0.05% above 3.15% – this is at least 2.5 times more than any other milk buyer in Northern Ireland. For SCCs less than 200,000cells/ml we reward our producers with another 0.4ppl. The purity and quality of our milk is at the core of how we market our cheeses. Consumer expectations are high and we intend to keep meeting and



Maimie Neill: “We pay 0.4ppl for every 0.05% above 3.15% for milk protein”

exceeding them as we move forward,” adds Ms Neill.

Producer Lesley O’Malley has been supplying Fivemiletown with milk for many years, but how does he maintain his current milk protein level of 3.35%, which is 0.2% points above the dairy’s bonus target.

Brilliant bonus

“A breeding programme that uses high protein percentage bulls has kept us right over the years. We have stuck by our choices, even though at times we have scratched our heads and wondered if it was all worth it,” he says.

“There is no doubt about the value that Fivemiletown’s bonus system provides. It is a brilliant bonus and we endeavour in several ways to ensure that we continue to exceed the targets and qualify for the additional payment. “Alongside our breeding guidelines, we maintain the condition score of cows at approximately three. Our feed company has tailored a blend for us, which is high in energy and provides good quality starch. This keeps a good covering of flesh on the cows, which we maintain well into late lactation. And we make sure that they calve down in the good condition by sustaining feed rates at a maintenance level,” adds Mr O’Malley. When producers’ income is reduced due

Richard Moore: “Protein dip is usually the result of a negative energy balance”



to poor milk protein levels, prompt corrective action is key, according to Thompsons’ nutritionist Richard Moore. “Producers have the ability to control feed rates, ration selection and management and, although milk protein is less sensitive to dietary changes than milk butterfat, with the appropriate focus increases can be achieved,” he says.

“March and April usually see a dip in milk protein levels. This can be attributed, in the main, to a negative energy balance in early lactation cows that are producing milk from their own body reserves.”

This needs immediate attention by firstly assessing dry matter intakes.

“Look first at rumen fill, forage intakes and quality, and space at the feed barrier. And then ask yourself what the calculated fresh weight intakes of forage and concentrate in the total mixed ration are.

“Once you know this, it is critical that changes are made to ensure that the energy requirements of the herd are met.

“Concentrate feed rate is by far the most effective way of improving the energy balance rather than just moving to a higher energy dairy compound at the same feed rate.

“If feed levels are to be increased then it is vital that this is carried out on a selective basis,” says Mr Moore.

“Failure to manage this effectively may improve milk protein percentage, but will over-feed the staler proportion of the herd with significant economic loss.”

Starch levels

He adds that ration selection and the quality of the energy source are also key factors when trying to improve milk protein yield.

“Starch levels in the diet are an important driver of propionate production in the rumen, which will improve the milk protein percentage. The use of glucogenic starch sources, such as maize, will also help.”

Maimie Neill is confident about the future. “The aim is for a protein level of 3.3% and a somatic cell count of fewer than 150,000cells/ml for the group. When our producers supply us with quality milk the process of making cheese becomes very efficient. This provides benefits for the consumer, the processor and the producer – it’s a ‘win-win’ situation.” |