How do producers feeding variable silage improve intakes and productivity?

Maximise your herd's DMI

Milk price is a hot topic and forage quality is much more variable than in previous years. So, as producers get into the swing of winter feeding, we spoke to some dairy consultants to find out the best way to weather the storm.

text **Allison Matthews**

Many management decisions are based on historical knowledge and a 'that worked last time' approach can get producers out of predicaments on a daily basis.

But financial consultant Jason McMinn warns that taking that attitude this winter might not work. "If we look back to when milk price has fallen in the past, many producers reduced their concentrate feed rates in an effort to cut costs. This may have worked in some cases where forage was able to fill the gap, but on many units the cows became thin and there were issues with fertility. Crucially, some of these producers were also unable to quickly take advantage when the milk price recovered," he says.

To compound the milk price issue, there has been a significant drop in silage quality on many units this year. Silage is extremely variable and this is resulting in a loss of up to three litres per cow in some cases.

But Trouw's Jim Uprichard points out that a better understanding of the figures on the silage analysis sheet can make sure that producers make the best use of the forage available to them.

"Although ME and protein are often considered as the main drivers of milk, it is the production of glucose that influences the volume of milk in the udder and this is dependent on the nutrients the cow has consumed. To

maximise glucose production we must first optimise dry matter intake and this is where the other figures on your silage analysis sheet may help.

"Cows will always eat drier silage and an extra 1kg of dry matter from a 10.5 MJ silage will produce twice as much milk as the same intake of an 11MJ silage. The intake factor is important as it gives a good indication of how much cows will eat.

The average figure for first cuts this year is between 90g and 95g/kg metabolic live weight, which would indicate about 1kg of dry matter intake less than 2013.

Energy density

This equates to two litres of milk," adds Mr Uprichard. The main priority here is to maximise the overall energy density of the diet but, as Thompsons' dairy specialist Denise Rafferty explains, this can be problematic. "Palatability of some first-cut silages may become an issue and so feeding a TMR will be of great benefit," she says.

Denise Rafferty: "Rumen passage rate impacts on energy levels"

Jason McMinn: "Cow health and fertility can suffer when corners are cut"

"A TMR allows for larger amounts of concentrates to be fed during a 24-hour period, increasing the energy content of the diet, improving palatability and decreasing the risk of sub-acute ruminal acidosis.

"The wet nature of some of this year's silages indicates that it will be high in lactic acid and this can exacerbate the problem. The use of molasses will increase the sugar content and encourage higher intakes.

"Adding between 300g and 350g of protected fats per head each day to increase the overall energy density of the diet is also crucial where early lactation and high yielding cows are fed on poorer quality first-cut silages. Where better quality second-cut silage is available, mixing this with first cuts may create a suitable solution and help with intakes," she explains.

"Rumen outflow rate also has a huge impact on dry matter intake," adds Mr Uprichard.

"The high NDF level of this year's first cuts indicates that we should expect the formation of a good rumen mat, which is critical if we want to establish a good cudding profile and the growth of fibre digesting bacteria, which contribute to good milk fat levels.

"These bacteria can be easily set back if rumen pH drops and, because they take 15 times longer to reproduce than starch digesters, it is better to keep high levels rather than trying to repopulate after a bout of sub clinical acidosis."

Maintaining DMIs: The intake factor of silage gives a good indication of how much cows will eat

Rumen fermentation

"The crude protein content of the silage is above average and reducing the protein content of dairy blends can increase the glucogenic content of the diet by increasing the cereal level," says Ms Rafferty.

"Using equal amounts of maize and wheat allows for both rapidly and slowly fermentable carbohydrates to be available for absorption. Where the passage rate through the rumen is slow, wheat and maize will supply a good balance of energy to the cow and optimise rumen fermentation and passage rate."

When a tough winter is anticipated, Ms Rafferty emphasises just how important it is that cow health is not moved down the priority list. "Reducing feed rates may only cut a corner that leads to less milk, lower milk components and a damaged body condition score. All will impact on cow fertility.

"By increasing the overall energy density of the diet and maximising dry matter intakes, performance should not become a casualty this winter." |