Making the most of your silage

written by Trish Lewis

Is silage making on your farm carefully thought out, and incorporated into your long term plans? Or do you grab the opportunity to make silage when you have a feed surplus and decide what to do with it at a later stage? Selecting which crops to grow for silage, when to cut and when to feed can have a major effect on how much extra performance you get from that silage.

The first question to ask yourself is "when is the feed gap?". The nutrient levels in pasture vary significantly through the year and at different stages of maturity. Knowing what type of pasture the silage will be fed alongside helps pinpoint the nutrient levels needed in the silage to improve the balance of the diet. It is also important to consider what stage of lactation the cows will be at when the silage is fed, and what their requirements will be.

The first limiting factor is usually a shortage of energy, as in terms of priority, energy comes first, followed by protein and fibre. Energy is important for production, maintaining body condition and also fertility. If a diet contains too much protein, ammonia levels build up in the rumen, and it takes energy to convert this ammonia into urea in the liver, to be excreted in the urine. Cows in early lactation on very high protein diets usually continue to milk, but lose more body condition, and are harder to get back in calf due to their negative energy balance. If cows are on a diet with too little protein in relation to the energy content, yields usually drop and the cows put on body condition.

Fibre is important for good rumen function, both the total fibre level and the amount of physical fibre or 'scratch factor'. It is also important to ensure mineral requirements are met, and cereal silages have low levels of the major minerals and trace elements. A competent mineral nutritionist can provide a mineral programme to ensure the cows' mineral requirements are met when silage is fed out.

If feeding silage enhances the balance of the diet through improving the protein to energy ratio, or by providing fibre when it is needed, then the benefits from using silage will be greater. On the other hand, if the silage makes the balance worse, such as feeding low protein silage alongside low protein summer grass, performance will be disappointing.

Spring pasture usually has a high protein level, and a low fibre level, particularly during the second and third rounds. In contrast, summer grass usually has higher fibre levels, lower energy levels and significantly lower protein levels. Autumn re-growth is usually closer to spring grass. Pasture sampling will give you a more accurate guide to the nutrient levels in the pasture on your farm.

A low protein silage such as maize or whole crop is beneficial in the spring and autumn, along with a source of long fibre, such as hay or straw for second and third round grass. Baled silage made from fairly mature grass is also a good source of fibre, although lower in energy than cereal silages. In the summer a higher protein, lower fibre silage such as early cut grass or lucerne silage fits in well.

If you make baled silage at different times of the year, make sure you know which bales are which. You can then use your more mature grass bales if you need to supplement in the spring or autumn when the grass is young and lush. Young, leafy silage can be used in the summer when the pasture is hardening up.

If you want advice on selecting the right silage to balance your diets, contact the Nutrition team **Toll Free on 0800 REMEDY (0800 736 339)**