

Variable silage means that regular analysis will be vital

Prepare for a winter feeding challenge

First-cut analysis has revealed that silage is extremely variable across the UK, compared to a more typical year. So, looking forward, what steps should producers take to ensure that forage feeds out well and that cow health, fertility and productivity are maximised this coming winter?

text **Rachael Porter**

Low D values – as well as low dry matter, ME levels and proteins – mean that this year's first-cut silage is certainly set to provide a challenge for some UK producers this winter. "Some producers managed to take first cut in early May – much of that is like rocket fuel. But wet weather in mid to late May meant that quite a

lot of first cut was taken in the second or third week of June and much of this is high-fibre, low energy forage," says Massey Feeds' nutritionist David Wilde. "The good news is that there's plenty of silage," adds Promar International's Emma Thompson. "And there needs to be, particularly on units with wet silage as they'll have

to feed more to achieve optimal dry matter intakes."

If cows eat, say, 12kg DM of silage a day in a typical ration, they will need to consume 5kg fresh weight more on average, compared to 2013, to achieve the same DMI. "For a 200-cow herd, that's an extra tonne of silage a day – or 200 tonnes for a typical winter. That's a lot of silage."

Intake potential

This year's first-cut grass silage intake potential is just 94g/kg^{0.75}, which could be one of the most significant factors to milk production this winter. This compares to a typical analysis of 100g/kg^{0.75} and a 2013 average of 105g/kg^{0.75}, where cows milked extremely well.

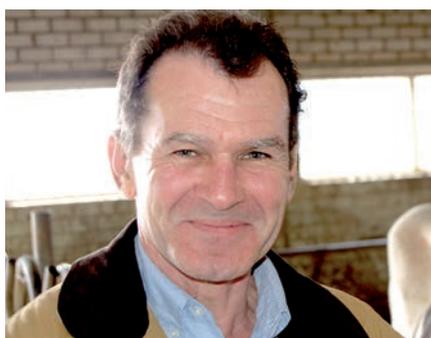
"This year's average is significantly lower, so producers really have to up

Rain delay: wet weather in May meant that many producers didn't take a first cut until mid June





David Wilde: "Analyse forage regularly – at least once a month"



Roy Eastlake: "If you want cows to eat, it's vital that you make it easy for them"



Emma Thompson: "Silage analysis is just an indicator – so monitor your cows too"

their game when it comes to removing all the obstacles that can limit DMIs," says Mrs Thompson.

Biotal's Roy Eastlake agrees. "With plenty of silage about, but with a generally poorer intake potential, producers are going to have to really focus on doing all they can to encourage high and consistent forage intakes. Cows may be reluctant to consume large quantities," he says, stressing that how the feeding process is managed will have a considerable impact on intakes.

"Feed presentation is crucial," he says. "If you want cows to eat the diet, you need to make it easy for them. Make sure they can always reach feed by pushing it up more often and ensure there is sufficient space at the feed face. You should be aiming to have 70cm per cow. Any less will mean they spend less time eating.

"And ensure that the diet is appetising. Make sure waste feed is regularly removed and the feed trough is kept clean. Cows have an acute sense of smell and will reject feed if it smells unpleasant, so don't let waste build up. Also resist the temptation to feed spoilt silage. All this will do is reduce intakes and feed values.

"Also make sure the diet is well mixed to prevent sorting, which often contributes

to poor rumen health. Feeding mixed forages and adding molasses can help produce a better, more palatable mix capable of sustaining higher intakes."

He adds that good rumen health will also be essential: "Because as soon as SARA or acidosis rear their heads then intakes can collapse. So it will be crucial to ensure that dairy diets contain sufficient fibre to develop a rumen mat and that starch and processed cereal inclusion rates are kept below levels where rapid rumen fermentation can cause pH to fall, particularly as it may be tempting to increase concentrate rates to drive total energy intakes."

Regular analysis

Almost 1,400 grass silage samples from Trouw Nutrition GB, combined with the findings of Biotal's national grass silage quantities survey, show first-cut grass silage dry matter analyses ranging from 14% to 56% and crude protein varying from 6.4% to 25%. The lowest ME was 9.3 and the highest was 12.1 (see Table 1).

"Producers certainly won't get away with using 2013 diet formulations," says Mrs Thompson. "It's vital that they analyse forage regularly – at least once a month – so they know what they're feeding. But they should also

remember that analysis is just an indicator. "Monitor your cows too – they'll soon let you know if they appreciate the ration that you're putting in front of them or not."

Second-cut silage

As for second cut, Mr Wilde says that what he's seen so far is a bit of a mixed bag. "There's a trend towards a higher fibre and high dry matter forage. In the weather conditions we've been having, the ideal would have been to cut and then pick up within four or five hours. It's been so sunny and a lot of it has been wilted for too long. It's almost like hay. "The ground was wet, so many producers delayed pick up, but the sun dried the grass out very quickly."

Mr Wilde urges producers to analyse silage regularly – at least once a month – once winter feeding starts: "Make sure you use an FAA-accredited lab. And see what's really going on in the clamp to ensure that cows milk well this winter, as well as remaining healthy and fertile. I think it could be a challenging winter for some herds and it's vital that producers pay close attention to the concentrates they're feeding to compliment this forage."

He thinks a bit of extra starch will be required on most units: "This adds a bit of 'fizz' to the ration and get the rumen working well where a high-fibre forage is being fed."

As for protein, he says it's not as simple as just adding an 18% or 20% protein concentrate to the ration. "Look at all the protein in the ration – not just the silage – and tailor your concentrate according to the level of available protein.

"Investing in forage analysis and nutritional expertise should be money well spent. It will take a little more work, on some units, to get cows milking well this winter. But it will be well worth the extra effort," he adds. |

Table 1: First-cut grass silage averages to July 2, 2014 (source: Trouw Nutrition GB)

	first cut 2013	first cut 2014	min 2014	max 2014
dry matter (%)	32.4	28.5	14.3	56.0
crude protein (%)	14.0	13.7	6.4	25.0
D value (%)	69.0	66.2	58.0	75.8
ME (MJ/kg)	11.0	10.6	9.3	12.1
pH	4.0	3.9	3.5	6.0
NH ₃ -N (%)	2.6	2.8	0.8	77.6
sugar (%)	2.8	3.1	0.2	8.9
NDF (%)	46.8	49.5	33.7	69.3
AD Lignin (g/kg)	36.7	33.1	10.0	69.4
lactic acid (g/kg)	61.4	65.1	16.8	127.9
intake potential (g/kg ^{0.75})	105.6	94.0	65.6	141.2
PAL (meq/kg)	739	765	364	1,216