

Tips to help you balance variable silage this winter

Planning and analysis

Late with silage making and worrying about variable quality – and possibly low stocks? We spoke to a producer and two leading UK nutritionists for some practical advice on how to put a balanced and consistent ration in front of your cows this autumn and winter.

text Rachael Porter

“I was a month late with first cut and almost two months later than usual with second cut.” This all-too-familiar story is shared by producer Jim Kirk, who runs a 350-cow herd near Okehampton in Devon. And he’s not alone. Producers all over the UK have struggled to make silage at the ideal time, with cutting delayed on many units by up to two weeks.

The lateness of some silage cuts has been unprecedented, with second cut being taken as late as the end of July in some areas, and many herds have been re-housed at one point or another because grazing land is simply too wet.

To add insult to injury, these resulting ‘late’ silages are less than ideal quality – with some being wet and therefore acidic and others being excessively ‘stemmy’ and low in D value. So there are more feeding and management difficulties in store for some producers this coming winter.

Jim is certainly concerned about how his forage will feed out this winter. He says he’s fortunate that he’s still got enough in the clamp, even though he’s taken fewer cuts than usual this year – just three instead of the usual five.

Quality concerns

“First cut here is usually the second or third week in April and then we cut every six weeks after that throughout the summer. I should be able to get a third cut in the first week of September and then I’ll have more than enough silage in terms of quantity.

But I am concerned about quality – D value is looking low.”

He’s already feeding some first-cut silage and says that the cows are enjoying it. “Thankfully it’s not too acidic, but both the ME and D value are down so we are balancing it with a blend. And we’ll continue to monitor silage quality as we move through the



clamp to make sure that we continue to put a consistent ration in front of the cows.

“We’ll keep a close eye on things as we move into autumn and winter. We’re fortunate that we do have some silage left over from 2011 and we can feed that too, to help improve forage quality. But that’s not going to last all winter.”

On the plus side, he harvested his wholecrop wheat in July as usual. “It was a good crop, perhaps a little light in terms of yield, but good nonetheless. “Maize, however, is another matter entirely. It’s looking terrible. It’s shorter than usual – just up to my waist – but already I can see tassels are out. I usually harvest it during the first week in October, but I expect that will be delayed this year too.”

Jim says that one thing he won’t delay is seeking advice on how best to feed out his silage and how to balance rations this winter.

Feeding out

It’s all about planning when it comes to feeding out ‘variable’ silage,” according to NWF’s Tom Hough. “There will be producers out there avoiding the issues and taking a ‘last-minute’ approach and if ever there was a year when that could really land you in trouble then this is it,” he says.

The first step is to get your silage analysed. “And do it now, so you know what you’re dealing with,” he says “There are some good silages out there. It’s not all bad news, but there is huge variability and different silages will represent different feeding challenges.

“Wet acidic silages will threaten rumen health and will need careful balancing, perhaps with the inclusion of some longer drier fibre sources.

“High NDF, high DM, low ME silages will need some starch to drive production and this starch should contain a high proportion of bypass starch to

Table 1: Average grass silage results to 08.08.12 (source: Frank Wright Trouw Nutrition 2012)

	1st cut	2nd cut	wettest 20%	driest 20%
dry matter (%)	31.1	30	20.2	44
intake potential (g/kg)	102.3	98.3	89	113.5
D value (%)	67.9	65.2	66	68.3
ME (MJ/kg)	10.9	10.4	10.6	10.9
NDF (%)	46.2	48.2	49.6	45.1
sugar (%)	2.6	2.6	2.2	3.2
pH	4.1	4.1	4	4.3
lactic acid (g/kg)	68.2	65.1	96.3	40.9
VFA (g/kg)	22.6	26.8	31.9	15.5
PAL (meq/kg)	722	745	903	678
crude protein (%)	13.8	13.1	13.6	13.5

Silage results – it's not all bad news

The results of the first 455 samples analysed so far this year show that, on average, silage quality is similar to 2011, but as ever there is a huge range and wet silages in particular will present some feeding challenges.

So says Frank Wright Trouw Nutrition's John Allen, adding that the average grass silage has a dry matter content of 31.6%, only 1% lower than 2011. "ME is slightly down by 0.2MJ/kgDM at 11.1 MJ/kgDM, and crude protein, averaging more than 14%, is similar to 2011."

The fermentation quality of these initial samples is good with lactic acid, VFAs, pH and ammonia nitrogen levels all within the normal range.

"The problem this year is that the average masks a wider range than usual which makes it even more important that producers get clamps

analysed accurately before they start planning winter rations."

"The wettest 20% of silages have an average dry matter of just 20.7% and will certainly be the most difficult to feed," he continues. "They will have a negative impact on rumen activity, cow performance and health and will need very careful balancing."

Dr Allen points out that there is a greater risk of rumen acidosis with wet silages as they are higher in lactic acid and potential acid load. Saliva production is much lower when feeding wet silages so the cows natural buffering against acidosis is reduced.

To overcome this it will be necessary to add some rumen active fibre from either straw or drier forages and to consider adding rumen buffers or yeast.

preserve rumen health. "And with very dry silages considering including molasses in the diet to improve intakes and boost rumen performance, particularly where silage proteins are low.

"The sooner you know that the quality, the sooner you can get some advice and plan how you're going to balance rations."

He stresses the need to monitor performance closely and to change diets gradually "If ration changes are imminent and silage stocks from one clamp are running low then pick up the phone to your nutritionist as soon as possible. The rumen needs time to adjust and gradual changes to the ration will help to avoid any drop in milk yield or digestive upsets."

Mixing silage

Some producers will have first and second-cut silage in separate clamps, while others will have one on top of the other. "Whatever you have, it may be worth considering mixing both silages within the ration. I know producers hate having two clamps open at the same time, but this is an exceptional year and may require things to be done differently," says Mr Hough.

"It could help to balance poor silages to some degree, particularly if your first cut is wet and your second cut is stemmy. And it may also help you to put a consistent ration in front of your cows for the entire winter."

"Assess silage stocks and as you move through a clamp, or change to a different one, make sure you know exactly what you're feeding and how it should be balanced. |



Fertiliser trial helped to boost silage yields

Another thing that's stood Devon-based producer Jim Kirk in good stead in a tough year is his policy of reseeded at least 25 hectares of grassland each year, following wholecrop wheat, and his involvement in a fertiliser trial in the spring.

Yara has recently conducted a grassland trial on the farm to demonstrate the potential of grassland and the role that fertilisers can play.

For the Yara 'grass challenge', one of his fields was selected, which was reseeded in August 2011. A soil test taken prior to reseeded revealed a pH of 6.5, P index 3.3, K index 1.5, Mg index 5.7, and a low sulphur status.

Slurry was applied in late December at a rate of 40m³/ha, which was tested to reveal higher N, but lower P and K content than standard values. So a fertiliser programme was then devised with a recommendation of 470kg/ha of Sulphurcut 22-4-14+7.5%SO₃, which was applied on March 10.

A yield improvement of more than 8% was seen with the NPKS application – 27.56tDM/ha compared to 25tDM/ha for the nitrogen-only application.

"This response came from additional N, K and S applied to meet the crop requirement. Often the amount of manure applied is unknown, and the majority of producers do not

analyse their manure," says Yara's Nigel Hester.

The overall first-cut yield for the trial field was measured at 27.6tDM/ha, and showed a 4% increase in D value and ME, and an impressive 37% increase in crude protein.

"In a year like this, following best practice when applying fertiliser is more important than ever, both in terms of maximising yield and quality. The true potential of grass is largely untapped throughout the UK. Yet it offers great opportunities to producers in good grass growing areas, when all the main limiting factors are addressed," he adds.