Heavy reliance on silage demands an 'arable' approach

Treating grass as a crop

Growing grass, just as he would any other crop on his Somerset-based unit, is helping Simon Bendall produce top quality silage – and plenty of it – to maintain his herd's high milk yields. We spoke to him to find out more

text **Rachael Porter**

Good silage is key to success of any dairy business, but for Simon Bendall's 190-cow herd it's absolutely vital.

With a farm that simply isn't suited to anything more than a 'compressed' grazing season, he relies heavily on silage and, more importantly, on the best quality grass silage that he can make. This is fed, all year round, as part of a mixed ration with any grazed grass effectively substituting some of the grass silage in the ration.

The all-year-round calving herd is NMR recorded and averaging close to 9,500 litres, with contented and healthy cows producing consistently – as required – for the Tesco milk contract. So it's a system that is clearly working well.

"Much of our ground around the dairy unit is very steep, and the farm is dry and stony," explains Simon. "We can manage about eight weeks of 'sensible' grazing in a typical season, but this needs to be monitored carefully because if we lose yields it is very difficult to get them back."

Later lactation cows normally go out onto a set stocked grazing area by day towards the end of April or early May, with the high yielders only going outside for a short grazing stint from around the end of May. Cows will typically go outside after morning milking, from around 7.30am, and will come back in themselves by about 11am.

The attraction is a light and airy cubicle shed with a mixed ration, fed once a day at around 6am, which is available all day long. This is shifting from a 60:40 grass-to-maize ratio to a 70:30 ratio, in favour of more grass silage, and typically also includes rape and soya meal, crimped barley, chopped straw, molasses and minerals.

"We're upping the grass silage component because it is a better balance nutritionally," adds Simon.

"We're increasing our first cut to 68 hectares this year, and reducing our maize from 40 hectares down to 28 hectares. We are focused on making the best quality grass silage as it is such an important part of the overall ration."

The silage analysis shown in Table 1 is testament to the success of this policy, and – perhaps not surprising for a mixed farm with a significant arable acreage – Simon is demonstrating the merits of treating grass as he would an arable crop.

Reseeding policy

With such reliance on conserved forage, it's hardly surprising that Simon makes his own silage, sharing machinery and labour with his brother in law, and that he treats it just as he would any crop grown on the 365-hectare unit.

The drive for quality begins with a disciplined reseeding policy and selection of Aber high sugar grasses (HSGs) in both his two-year and four-to-five year leys.

The two-year leys actually provide a useful grass break in the farm's arable rotation, comprising of the hybrid Aber HSGs, AberEcho and AberEve and red clover.

"We have red clover in all of our short-term leys. Because we're on Cotswold brash over limestone, we're quite prone to drought so when it's dry the red clover helps bulk out the silage. Good protein levels also mean we can reduce the level of bought-in protein going through the mixer wagon," adds Simon.

This red-clover silage typically analyses with a dry matter of 27.2%, 67.2 D value, 10.8ME and 16.5% protein.

The longer term leys, which may only be cut once before providing aftermath grazing, are again exclusively Aber HSG, plus white clover, with current mixtures including a combination of the diploid intermediate perennial ryegrasses AberMagic, AberStar and AberDart along with the late heading diploid AberAvon.

These longer-term leys are usually direct drilled with a power harrow drill

Table 1: Manor Farm first-cut silage analysis (AberEcho/AberEve/red clover)

indicator	value
dry matter (%)	38
crude protein (%)	16
D-value	79.8
ME (MJ/kg)	12.8

Perfect timing: making your own silage means that you can do the job when conditions are optimal

Simon Bendall: "Controlling weeds in new leys is vital"

combination – no later than the end of August – following tight grazing, a glyphosate desiccation of the old ley and treatment for leatherjackets.

"Spraying with glyphosate is crucial to reduce competition from weeds," says Simon, adding that weed control is a fundamental to producing quality silage – be it in new or established swards.

"If you don't control weeds they will stifle grass growth. We frequently see chickweed and broadleaf weeds in new leys. We'll determine whether weed control is needed on a field-by-field basis and go in with the sprayer in early April. Permanent pastures will also be sprayed for docks and thistles if necessary.

Timely application

"Timing is crucial to ensure everything is growing. You've got to knock out weeds or you won't make good silage," Simon explains. "After sowing we then roll with a three-metre, five-tonne roller to help consolidate and drive stones under the ground."

Generally these new leys will be shut up until the spring; although sheep may graze them during the winter should there be a flush of growth.

Fertiliser is applied at the end of February. This will include one application of 375kg/ha of 20:8:14, followed by 140kg/ha of straight nitrogen for the first cut. Second cut receives 370kg/ha of 24:0:15 plus sulphur. For third cut Simon applies 250kg/ha of straight nitrogen.

Apart from the high sugar content of the Aber HSG, these grass varieties are all outstanding for yield on the Recommended Lists, and all have exceptional D-value. The combination of the right quality of sward and timely harvesting practice is resulting in some exceptional silage quality.

"We don't rely on a contractor so we can do the job at the right time and make the best of the conditions," says Simon. "We have a three-metre conditioner on our mower, so this avoids the need to spread the crop – we want to avoid stones getting in the swath. We'll wilt it for as long as needed to achieve high dry matter silage, which could be up to 48 hours for first cut. We don't use an additive, unless we are caught out by the weather, in which case we'd use an acid.

"And we clamp most silage, but we will take round bales off steep ground if there is excess grass. We may also take a fourth cut as round bales to mop up grass," adds Simon. |