

Increase milk from home-grown forage with high yielding, short-term leys

'Seriously fast' grass



Growing grass mixtures purely for cutting can provide tonnes of top-class silage in no time at all and help to keep winter feed costs in check. We spoke to an agronomist and a producer, who is growing short-term leys with considerable success, to find out more.

text **Sara Gregson**

Grass has continued to grow, albeit slowly, in many places across the UK during the mild winter. Indeed, some herds have already been out grazing for several weeks and there are signs that first-cut silage could be early this year.

Perhaps 2016 will be the year to reverse the declining trend of milk from forage figures, which have hovered around the 2,500 litres per cow per year for the past decade but fell to 2,266 litres per cow in 2015. Regardless of their herd management system, producers should be aiming to produce around 4,000 litres per cow from forage every year to help maximise efficiency.

For silage, yield is the overriding

consideration. Maximum output will come from young leys filled with new varieties that have been bred specifically to produce large crops of highly nutritious herbage.

Short-term leys

"Grass silage is more expensive than grazed grass to feed, but it is still more than half the price of an 18% concentrate feed," explains Oliver Seeds' Rod Bonshor. "Short-term silage leys can deliver 37t DM/ha per year across two years, compared to perhaps 30t DM/ha across two years for longer term, dual-purpose swards. That is a lot of extra expensive cake to buy to make up the shortfall in energy and protein."

Producers have, indeed, taken note of

this and there is a growing trend towards reseeding with short-term but higher yielding – in terms of quality and quantity – grass mixtures and varieties. Westerwold is providing popular. It is an annual ryegrass, which is quick to establish and produces forage within eight to 10 weeks of seeding. It is the only grass to produce a stem and seed-head from a spring sowing and should be cut before it heads, to encourage regrowth for second or subsequent cuts.

Mr Bonshor says that Westerwold ryegrass makes excellent silage and has higher sugar levels than perennial ryegrass, which aids fermentation. It is also leafy and palatable and can provide useful early-bite grazing.

"Mixtures of Westerwold and Italian ryegrasses, such as Tornado, have to be managed carefully," he adds. "Their relatively open nature calls for regular cutting or rotational grazing to gain full yield potential. Trials show that an extra £148 worth of silage can be produced in just six months, based on gaining an additional 3.7 tonnes of 25% dry matter silage priced at £40 per tonne.

"While cash flow is tight, putting in a short-term Westerwold-based ley costing £2.35 per kilogramme, compared to a



Rod Bonshor: "Westerwold ryegrass makes excellent grass silage"

longer term perennial ryegrass at £4.10 per kilogramme, may be a more cost-effective solution for boosting grass yields for this year and 2017."

Westerwold varieties

Seed rates are typically 35kg per hectare. Drilling in the autumn can result in a sward that's taller than ideal to go through the winter, so young stock or sheep can be used to graze it down to between 10cm and 15cm. Spring-sown swards, drilled in the first week of March, may be ready for cutting by mid-May. To achieve the highest yields, Westerwold mixtures need feeding – up to 300kg per hectare of nitrogen per year, with added phosphate and potash where soil indices are inadequate.

"There was limited interest in Westerwolds 20 years ago and the available varieties were of poor persistence and quality. But this is now changing," says Mr Bonshor. "There is currently no recommended list for Westerwold varieties in the UK. We cross-reference independent data from France and Germany with plots we grow



Terry Miller: "Tornado shows very aggressive growth"

at our trials ground in Gloucestershire – so we know the ones in our mixtures will do well in UK conditions."

Silage benefits

One producer who knows, first hand, about the benefits of 'seriously fast' grass is Somerset-based producer Terry Miller. He aims to maximise his 220-cow herd's milk yield from forage and is currently achieving 2,876 litres out of a total annual yield of 9,159 litres per cow. The farm covers 364 hectares overlooking the Bristol Channel.

The pedigree Holstein Friesian herd is housed for the first 200 days of lactation and fed a 50:50 mix of maize and high quality grass silage in a TMR, which also comprises soya, oilseed rape, home-grown wheat and sugar beet nuts. Individual cows eat 40kg fresh weight.

"We take five cuts of Tornado, a Westerwolds and Italian ryegrass short-term cutting ley. This is grown in rotation with winter wheat or winter barley," explains Mr Miller. "This mix really suits our ground, which is in the rain shadow of the Quantock Hills, so it can dry up in

summer. Tornado seems to keep going. Everyone can get big cuts for their first cut, but we get three or four additional big cuts of high quality forage throughout the season."

Table 1 shows the impressive 2015 silage analysis for the short-term ley.

Terry and his two sons, Paul and Simon, replaced their silage making equipment seven years ago, and now pick up the wilted mown grass with a Strautmann forage wagon rather than a forage harvester. The system is slower, but suits the three-man family-labour unit, and, according to Terry, the longer chop of the grass is better for rumen health.

Multiple cuts

"We aim to take first cut during the third week of April – well before the grass has headed – and then come back and cut again at six-week intervals. It is amazing how quickly it grows back."

The farm is in an NVZ and fertiliser applications are kept to a maximum, with a 75kg/ha dressing of N applied after each cut, apart from 50kg/ha after fifth cut.

The short-term leys are sown after cereal stubble is min-tilled after harvest. A flush of weeds allowed to come through, before being sprayed off with herbicide. The Tornado is then drilled at a rate of 35kg per hectare with a Tive six-metre air drill, after the desiccated stubble has been min-cultivated with a Väderstad TopDown cultivator.

"The grass comes up incredibly quickly – within 10 days," says Mr Miller. "It shows very aggressive growth at all stages of its life and it provides a valuable two-year break in the rotation, as well as producing top quality forage for the cows." |

Table 1: Silage analysis results for second year Tornado Westerwold/Italian ryegrass crop in 2015

	first-cut silage	second-cut silage	fourth-cut silage
dry matter (%)	33.9	32.6	24.8
crude protein (%)	16.6	11.1	13.5
D value (%)	75.5	72.9	72.2
metabolisable energy (ME) (MJ/kg)	12.1	11.7	11.6

