

We weigh up the costs and benefits of reseeding and grazing tack sheep

Autumn grass decisions



Ensuring that you have good quality grass leys is one of the best ways to reduce your herd's reliance on purchased feeds. And now is the time to make some important decisions that will impact on next year's grazing and silage crops.

text Rachael Porter

Reseeding costs are on the increase, with diesel and seed and fertiliser prices all rising, and although many producers may be considering delaying reseeds, Promar's Danni Cooke still believes that there is a strong economic case for a structured reseeding programme. "While reseeding costs around £500/ha, the benefits in increased productivity will far outweigh this," Ms Cooke explains. "As swards age and the proportion of less productive species increases, so productivity declines. And this does two things. It reduces the yield achievable and also increases the cost of each kilogramme of dry matter grown."

Table 1 looks at the output and the cost of dry matter production for a medium-term cutting ley over a seven-year period.

Table 1: The output and the cost of dry matter production for a medium-term cutting ley over a seven-year period

year	yield (t DM/year)	ME (MJ/kg)	cost of prod. p/kg DM	lost MJ ('1000/ha)	concentrates to replace at £220/t
1	13.0	12.0	10.0	—	—
2	12.5	11.8	10.4	6	£110
3	11.5	11.6	11.3	18	£330
4	10.5	11.4	12.4	30	£550
5	9.5	11.2	13.7	42	£770
6	8.5	11.0	15.3	54	£1,000
7	7.0	10.8	18.0	72	£1,325

The cost of production includes annual growing costs and the write off of initial reseeding costs.

"In the first year there is plenty of high ME grass but, as the sward ages, the output in terms of dry matter production and the quality as measured as average ME of the grass both drop off. This results in an increase in the cost per kilogramme of DM grown.

"The cost of additional feed required to make up the energy shortfall must be added to this to allow a similar milk output per hectare.



Danni Cooke: "Increased productivity will outweigh reseed costs"

"By year six the cost per kilogramme of DM has increased by 50% and an additional £1,000 of concentrate per hectare is required to replace the reduced energy available from the grass. The breakeven point is around four years," she explains. "The decline in output isn't something that is usually measured, but it is something that happens naturally in all swards. So reseeding is one way to make sure that sward productivity is maintained, and purchased feed costs controlled, so I would advise against putting off the reseeding of swards that are showing their age."

Seed-bed preparation

Once the decision to reseed has been taken it is vital to do everything to make sure the new ley is well established. Ensuring good plant establishment is crucial if reseeding is going to be cost effective, according to NWF Agriculture's Leigh Berrisford.



Leigh Berrisford: "Phosphate and potash are important nutrients"

"It is important to ensure that the seed goes into a well-prepared seed bed containing the correct nutrients for root development," he says. Phosphate and potash are particularly important for establishment of both grasses and clovers and are affected by previous crop management. Unless routine fertiliser practices have maintained soil levels, the status of both P and K will have been depleted, potentially reducing the success of the reseed.

"Fields used primarily for silage often have low P and K status. New leys ideally require a soil index of 2 for both phosphate and potash. A soil analysis can help prevent problems with nutrient shortages and also save money on unnecessary applications.

"For example, if a field is at soil index 2 it will require 50kg/ha of both phosphate and potash in the seedbed. A field at soil index 1, however, requires 80kg of each nutrient. Without an updated analysis,

how do you know what to apply? "If the field is at index 1 and you only apply 50kg then initial germination will be reduced and plants will grow less vigorously, being more prone to moisture shortages due to inadequate root development. Conversely if the field was at index 2 and 60kg per nutrient were applied, this would equate to 10kg/ha of excess P and K which is a cost that could be avoided."

Mr Berrisford also recommends soil analysis as the best way to check on the pH status of the soil.

Reseeds are particularly susceptible to pH and lime should be applied if the soil pH is less than 6.4. A failure to correct pH will result in poor nutrient uptake by the plant and reduced bacterial and earthworm activity in the soil.

Soil structure

As well as ensuring the correct nutrient status, Mr Berrisford stresses the importance of seed bed preparation. "Start by looking at soil structure as poor structure will lead to waterlogging and reduced growth.

"Compaction, or soil pans, will reduce root penetration. Pans from machinery damage can be as far as 275mm below the surface.

"The key to optimum germination is ensuring good soil-to-seed contact, so prepare a fine tilth that's between 5cm and 8cm deep and then roll before seeding to ensure the surface is firm. And sow before too much moisture is lost but avoid sowing when it's too wet," he recommends. |

Good autumn/winter grazing management

If fields are not being reseeded it is important to manage them well this autumn to ensure good early season growth.

"If you want to maximise the availability of early season grass you need to leave fields in the right condition this autumn," says Promar's Paul Henderson. "Ideally fields need between 7.5cm and 10cm of vegetative growth with the minimum of stems and seed heads. Leafy growth is not affected by winter kill, but stems will be killed off, becoming unpalatable dead material in the spring sward."

He advises grazing fields hard or topping them to remove all seed heads before they are shut up with a cover of leafy growth of between 1,750 and 1,850kg/ha. Fields should be closed up in the

order they will be opened up again. This ensures that the early grazed fields have the most grass on them.

He also advises caution when considering tack sheep. "Grass will start growing at temperatures above 5°C and it is important that this early growth is there for the cows, so be prepared to move sheep off early. "If sheep are grazing cow fields then they should be gone by no later than February 1, or sooner on units where turn out may be early." While sheep may tidy up old stemmy swards, he stresses that they much prefer eating new season growth and the cost of this will far outweigh the income received.

"Most producers get about 50p/sheep/week and graze them at around five ewes/ha giving a monthly income of just

over £10/ha. Early season grass will grow at around 45kg DM per hectare per day, equivalent to 1.4 tonnes per month.

"With grass worth £50/t DM, this monthly growth is valued at £70/ha – a great deal more than the income from sheep grazing. Keeping sheep too long costs you money and will restrict early season grazing for cows."

