

# How to get the most out of a grassland reseed this spring

After several difficult growing seasons for grassland, many dairy farmers are looking to reseed this spring. British Dairying hears how experts recommend a systematic approach to planning, establishment and management, to reap the biggest benefits.

The best starting point for a successful reseed is to focus on the end point and establish what you want to achieve over the period your reseed is designed for. That's according to Adam Simper, Agrii's Grass, Root and Environmental Seeds Manager.

"You need to focus on your end goal and make decisions based on this," he stresses. "So, first of all, decide how long you want the mix to last, then what you want to use it for.

"If you want to both cut and graze, for example, choose a mix containing diploids and tetraploid perennial ryegrass (PRG). If predominantly cutting, choose a mix with a higher proportion of tetraploid, as these will yield better, regrow quicker and are naturally higher in water soluble carbohydrates, which will aid the fermentation process.

"If your plan is rotational grazing, then choose a mix that can cope with this style of management and provide good ground cover and quick regrowth. If intensively tight grazing, then use a mix with a high diploid PRG content."

Most reseed mixes in the UK contain both diploid and tetraploid PRG but there are also other types of ryegrass and species used like clovers, herbs, Timothy, cocksfoot,



When reseeding, it's important to consider the desired use and duration of the ley: Grazing, silage, or both?

and, in recent years, festuloliums, he points out. "Each of these species has different growth and quality characteristics, so it is important to select the most appropriate one for your ground and situation. Talk to your grassland adviser at an early stage," says Adam.

"Whatever the mix you decide on, it's important to make sure the grass and clover varieties within it are on the latest Grass and Clover Recommended List.

"This will ensure higher yields, better digestibility (D) values, improved disease resistance,

increased ground cover, improved winter hardiness and a better return on investment compared to non-listed varieties."

## Soil type, duration and purpose

The next thing to consider is soil type, with festuloliums being particularly useful on dry land.

"They've got increased stress tolerance from the fescue in them. A higher proportion of deep-rooting tetraploids may also help as they have an extensive rooting system that can scavenge for moisture very effectively," says Adam.

"On heavier soils, diploid PRG may be better as they tiller out more and provide a dense base, which will help prevent poaching.

"But you'll need to think about how long you want the ley to last, and make sure varieties within the mix will go the full distance. A mix containing early PRG varieties, for example, will only last four to five years, so these varieties would not suit a long-term mixture lasting seven years.

"A three- to four-year cutting mix should not contain any Italian ryegrass as they only last two years. It may cheapen the mix, but the production would drop dramatically in years three and four, meaning the

ley isn't fit for purpose." If grazing, and early spring growth is important for an early turnout, then intermediate PRG should be used, he suggests.

"They will last longer than early PRG and still produce early spring growth, which would suit medium and long term grazing, cutting and dual-purpose mixtures.

"If your soil type and location don't allow you to turn out early, then a mixture containing all late PRG should be considered as it will start growing slightly later in the growing season, so less grass is wasted in the sward.

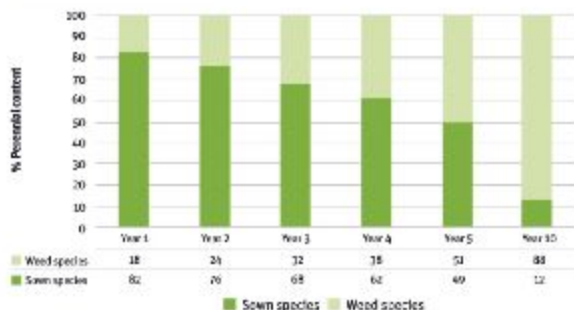
## Field location

"You also need to factor in field location as this will affect whether you want to cut or graze the sward. Also, if a field is close to the farm and gets used a lot, you may then want to use a mix with a high diploid PRG content which will provide greater ground cover."

Choosing whether to include clover or not is another option that needs consideration, Adam says.

"If significant weed problems are expected then a zero clover mixture is wise. You can consult your agronomist about an appropriate herbicide strategy and once the weed issues are addressed, the

## WEED GRASS INGRESSION



Over time, weed species start to outcompete sown species like PRG

clover can be introduced at a later date." Once the basic decisions have been made, it's time to get the reseed under way, and tackling the practical issues in a logical manner will make the task simpler and lead to better results, he says.

"Firstly, you'll need to address any compaction or drainage issues within the field, and clear drainage ditches to ensure all outflows are working correctly.

"Destroy the old sward using a product containing glyphosate. Sufficient new growth is required for this to be most effective and you should always ensure the appropriate rate is applied under correct conditions," he adds.

### Grass nutrition

"Nutrition is going to be important too. Walk in a 'W' pattern around the field taking soil samples to a depth of 15cm if ploughing or 7.5cm if only cultivating the surface, to analyse the pH, phosphorous and potash indices.

"Put on any farmyard manure and then plough and press before applying seedbed fertiliser as suggested from the soil sample results. Apply any lime to achieve 6.5 pH at a maximum of 5t/ha and split dress if more is required.

"You can then work the soil down to prepare a fine, firm seedbed before ring rolling and drilling the seed onto the rolled seedbed to a depth of 1cm.

"If broadcasting, lightly harrow and then roll; if drilling you can just roll to ensure maximum seed-to-soil

### Benefits v reseeding costs / ha

	Av kg DM yield / ha	Av ME	MJ ME/ha
Old field	7,000	10.5	73,500
New field	8,750	11.5	100,625
Extra MJ ME			27,125

Extra MJ ME	MJ ME to produce 1 litre of milk	Extra litres/ha
27,125	5.4	5,000

Extra litres/ha	Pence per litre	Extra income/ha
5000	0.35	£1,750

Cost of full reseed/ha	Extra income/ha	Profit minus reseeding cost/ha
£680	£1,750	£1,070

The return on investment when reseeding is significant, when considering the extra grass and milk yields

contact. Rolling will also help to reduce moisture loss. Temperatures need to rise to achieve satisfactory germination and growth. Perennial ryegrass will not germinate until the average daily soil temperatures are above 5°C and clovers above 8°C. Once visually established, pull at the grass blades with your thumb and finger, and if the root system is pulled out then delay grazing. If the roots stay in the ground and the grass blades rip off, then you can graze periodically from 8-12cm down to 4-6cm," notes Adam.

"This will encourage tillering and a dense leafy sward. Gentle first grazings also allow sunlight to reach and stimulate the grass tiller buds and the clover's growing points."

### Cost benefits and ROI from reseeds

On average, reseeded grassland is likely to produce a modest yield of around 8,750kg DM/ha compared to 7,000kg DM/ha from tired pasture, plus you can expect a metabolisable energy (ME) of 11.5MJ/kg DM from the reseed, compared to 10.5 MJ/kg DM for old grass, says Adam.

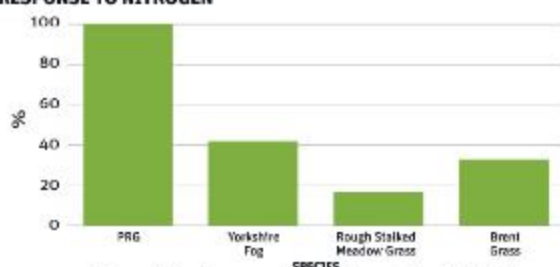
"All together, that's going to result in an extra 27,125MJ/kg ME/ha, which at 5.4MJ ME/litre, will deliver 5,000 litres more milk/ha.

"The cost of your reseed is probably going to be around £680/ha, so an extra income of around £1,750/ha will produce an extra income of £1,070/ha once reseed costs are taken into account.

"That's a sizeable return on investment and clearly illustrates why hanging on to grass leys beyond their useful life is always a false economy."

(See table above)

### RESPONSE TO NITROGEN



Perennial ryegrass has a much greater response to N than other grasses

### Why it's important to reseed regularly

Worn out swards have a very different species make-up and lack the ability to utilise nitrogen efficiently compared to fresh reseeds, Adam points out.

"Within a few years of establishing a new ley, weed grasses will ingress into a sward, especially after a hard winter or if the land has been poached, and these will produce significantly lower yields and lower quality forage.

"The palatability and digestibility will also be poorer, which will all result in a reduction in animal performance and profitability.

"These weed grasses also don't respond to nitrogen fertiliser inputs as efficiently as ryegrasses, so you'll also be wasting valuable nutrition resources, which is something few producers can afford to do in the present circumstances."

(See tables above and left)



Good establishment is key, so take time to get the seedbed right