



Handbook

Recommended Grass and Clover Lists for England and Wales



2016/17





Recommended Grass and Clover Lists

– who are they for?

Knowing the performance characteristics of grass and clover is immensely useful for grassland producers. It allows appropriate selection of varieties that will perform well for a particular system.

The Recommended Grass and Clover Lists for England and Wales are drawn up after rigorous testing for attributes such as yield, persistency, quality and disease resistance. The data come from trials carried out by the NIAB-TAG, Barenbrug, IBERS, DLF Trifolium, DSV, AFBI and SRUC, and are evaluated by a panel of experts.

The scheme has changed – it is no longer partially funded by merchants, which means the data are available to all. The testing is funded by plant breeders through the British Society of Plant Breeders and the ruminant levy boards AHDB Beef & Lamb, AHDB Dairy and Hybu Cig Cymru.

There are three steps to making the best use of this booklet:

- 1.** Is it on the list? – when looking at mixtures check that the varieties are listed in this booklet
- 2.** Is it right for the job? – make sure the type of grasses or clovers listed in a mixture are fit for the purpose
- 3.** Which varieties fit the job? – refinements can be made to mixtures in consultation with your merchant

This booklet is produced for use in England and Wales. Producers in other UK regions should consult publications for Scotland and Northern Ireland.





Why are grass and clover important?

The cost of production per litre of milk or kg of liveweight gain is a major consideration for all livestock producers. One of the best ways to reduce costs is to produce more feed on the farm rather than buying it in.

There is huge potential on most grassland farms in England and Wales to increase the amount and quality of the grass and clover that is grown and eaten.

As few as 1 in 20 varieties of ryegrasses tested will actually make it to full recommendation on the List

Few farmers these days would want to use bull or ram genetics from the 1950s in their livestock breeding, yet they continue to use outdated varieties in their grassland.

By relying on old varieties, farmers are missing out on millions of pounds worth of investment made by plant breeders to produce new grasses that are far superior in important aspects such as yield, digestibility and spring growth.



Is it time to re-seed?



The percentage of ryegrass (or other sown species) in a sward is a better indicator of a need for re-seeding than the age of the ley.

Pulling up a handful of grass plants allows farmers to assess how much perennial ryegrass there is by looking for any with a red base to their stem.

Weed grasses, such as annual meadow grass take every opportunity to invade sown pastures and do not have red stem bases. Weed grass species yield poorly, are of poor feed quality and do not respond well to nitrogen.

The ideal grass/clover balance across the grass growing season is 30% white clover to 70% grass – but clover content can vary widely between and within fields.

Re-seeding or over-seeding allows farmers to increase the performance of their swards by sowing improved grass and clover varieties that match individual field objectives – ie long term grazing or shorter term cutting.

Consider re-seeding if there is less than 50% sown species in the ley



Which type of grass?

Mixtures

In the UK farmers tend to re-seed with a mixture of different grasses and clover, rather than sowing a single variety.

Mixtures can produce yield benefits when compared to the same varieties sown individually. They also allow farmers to capitalise on the strengths of different species. For instance the digestibility of perennial ryegrass can be combined with the yield of a hybrid ryegrass and the superior nutrient value of white clover in one field.

Heading Dates

Grasses are classified according to heading date – which is the date on which 50% of the ears in fertile tillers have emerged.

Early varieties of ryegrass reach their heading date in the first two weeks of May; intermediate varieties head during the second half of May and late varieties reach this stage during the first two weeks of June.

In general, early heading varieties grow earlier in the spring, are more erect, tiller less freely and are easier to cut for conservation than later heading varieties, which tend to be more prostrate and persistent and give good mid-season growth.

Perennial, Italian and Hybrid ryegrasses

Ryegrass is the most important sown grass grown in the UK due to its productivity and suitability to the climate and farming systems.

Perennial ryegrasses (PRG) produce persistently good yields of high quality forage. Italian ryegrass (IRG) yields higher than PRG but has poor persistence.

Hybrid ryegrass (HRG) is a cross between perennial and Italian varieties, combining the strengths of the two parent species eg the sward density of PRG and the out-of-season growth of IRG.

For 2 year leys – use tetraploid and diploid Italian ryegrasses
For 3-4 year leys – use hybrid ryegrass and early perennial ryegrasses
For long term leys – use intermediate and late perennial ryegrasses

Choosing the right type of grass

Ryegrass

Each type of grass has different growth and quality characteristics. When re-seeding it is important to select the most appropriate grasses and clovers for the situation and to meet the objectives set for each field.

Perennial ryegrass

- Most effort by plant breeders has been concentrated on PRG
- Establishes rapidly, even from autumn sowing
- High yields in first harvest year
- High sugar content makes it good for silage-making
- Produces dense and persistent swards so useful for long term leys and establishing permanent pasture

Good for all types of management eg silage or hay production, extensive or intensive grazing.

Italian ryegrass

- Produces heavy crops of silage or hay
- Useful for short term leys of one to three years
- Long growing season gives opportunity for 'early-bite' grazing followed by leafy hay or silage cut

Good for cutting, but can also be used for intensive spring grazing.

Hybrid ryegrass

- Better ground cover and longer lived than IRG
- Good winter hardiness and disease resistance
- Mid-season digestibility better than IRG, but poorer than PRG
- First year yields lower than IRG, but yield improves in second and third year
- More drought resistant than IRG

Good for silage production and cattle rotational grazing.

Diploids and Tetraploids

Tetraploids have twice the number of chromosomes of diploid varieties, which makes all their cells bigger. This means they have larger seeds and leaves and tend to establish quickly. They are more able to compete when used for over-seeding.

Tetraploids have a more upright growth habit and are suited to drier growing conditions. In some cases they have better digestibility and palatability than diploids.

Diploids tend to be more persistent and tiller more freely and are generally better suited to wetter growing conditions. Well-managed diploid leys will usually produce denser swards.



Choosing the right type of Timothy and clover

Timothy

- Grows at lower temperatures than ryegrass so can be good for early season grazing, especially in cold, late springs
- Good mid-season growth can fill the gap when ryegrass growth falters
- Good winter hardiness and ground cover
- Can be slow to establish and yields are likely to be lower than PRG
- Best utilised in cooler, wetter areas

Good for extensive grazing and hay production.

White clover

- High nutritional value, particularly protein and mineral content
- High palatability
- Good animal performance
- Can provide 150kg/ha (120 units/acre) of nitrogen for grass growth
- Match leaf size to stock (small for continuous, hard sheep grazing; medium for frequent cutting and rotational grazing; and large for cutting and cattle grazing)

Good for grazing and cutting.

Red clover

- High protein content up to 19% in silage depending on percentage in sward
- High yields, even with no or low N fertiliser
- Early red clovers produce two main cuts and a small autumn cut
- Generally only lasts for three years

Good for cutting and finishing stock in autumn.

Key information on each of the different grass and clover species is contained in the tables on pages 9 to 19.

The data provided has been extracted from the full Recommended Grass and Clover Lists. The full Lists are available to all and can be found on the British Grassland Society website www.britishgrassland.com/rgcl



Tips for re-seeding

Once the decision to re-seed has been made, it is important to follow some key steps:

Preparation

- Spring or autumn re-seeding are equally advantageous and the choice will depend on the farming system plus when the field is available and conditions are good

Remember that any mixture containing red clover needs to be in by August and white clover needs to be in by September.

- Take a soil sample at a depth of 15cm – deeper than soil sampling in established swards as cultivation will disturb the soil
- Check for any soil structure issues – a plough may sort some of them out, but if the issue is deeper a sub-soiler may be needed
- Aim to deal with major weed problems in the old sward
- Correct any nutrient deficiencies

For lime

Apply before ploughing so it can be mixed in during cultivations and remember that it can take nine to twelve months for pH to increase so planning ahead is important.

These guidelines are based on material with neutralising value of 54 and fineness of 40% – products with lower neutralising value or coarser will need a heavier dose. This is a simplified version as it has combined recommendations for different soil types. Look at the website (address below) or speak to your contractor for more details.

Adapted from www.aglime.org.uk/technical05.htm

Guidelines for lime application

pH	Tonnes per ha	Tonnes per acre
6.1 - 6.4	2	0.8
5.8 - 6.0	3	1.2
5.6 - 5.7	4	1.6
5.5	5	2.0
5.3 - 5.4	6	2.4
< 5.3	7	2.8

To calculate from tonnes/ha to tonnes/acre multiply by 0.4046

Apply no more than 7t/ha at one time.

The Fertiliser Manual (RB209) provides recommendations for grass establishment:

- For nitrogen – autumn sown and grass/clover swards do not need any nitrogen, while the recommendation for spring sown swards is 60kg per ha (48 units per acre)
- For phosphate and potash

P or K index	Phosphate (P ₂ O ₅) kg/ha	Potash (K ₂ O) kg/ha
0	120	120
1	80	80
2	50	60 (2-) 40 (2+)
3	30	0
>3	0	0

- Manures can be used very effectively to provide the necessary nutrients but need to be well incorporated before sowing begins

Remember to deduct any nutrients applied in the seedbed from the first season's grazing or silage/hay requirements.

Full re-seed

- For a full re-seed, spray the old sward using a product containing glyphosate

Ensure there is enough leaf area remaining to take up the product and manufacturer's instructions are followed.

Consider how pests like leather jackets can be controlled – without chlorpyrifos.

- For a full re-seed, plough, press and work down to a firm and reasonable fine seedbed
- Drill or broadcast the seed on to the rolled seedbed, to place it no deeper than 1cm
- Ring roll or light harrow to ensure maximum contact between seed and soil, but avoid burying the seed below 1cm, especially small seeded species such as clovers and timothy

Over-sowing

- Over-sowing or stitching-in can be a way to rejuvenate old or damaged grass without the cost of a full re-seed
- As existing grass or weeds can out-compete the new seedlings, good soil structure and nutrients is still important
- The best time is summer as the existing grass is less vigorous and soil temperatures will be high, although soil moisture may be a limiting factor
- The seedlings need light so 40% of bare ground should be seen before over-sowing is considered – harrowing in two directions may help
- The seed can be broadcasted or direct drilled and the existing sward can be sprayed off beforehand or “checked” by hard grazing or cutting
- Seed to soil contact is still important, so roll after sowing or allow sheep to graze the field for 7-10 days to tread the seed in
- Seed rate will change depending on sward conditions – a minimum of 8kg per acre and up to 15kg for badly damaged swards
- Do not apply nitrogen as it will only boost the growth of the existing sward (if it has not been sprayed off)

Post-establishment

- Once the grass is established (after five to six weeks), graze lightly with sheep or young stock when the grass reaches 8-10cm to firm in roots and encourage tillering. Do not graze it down lower than 4cm
- Weed control in a new ley is usually necessary to ensure good establishment and to avoid variable ground cover
- If significant weed problems are expected, consider establishing the ley without clover and introduce it once the weed problems have been solved

All grass and clover species can be successfully established by following the above guidelines, however, tetraploid ryegrasses are likely to establish quicker and easier than diploids as they have larger seeds and are more competitive against the existing grasses.

How to use the Recommended Grass and Clover Lists

The tables on the following pages contain data extracted from the Recommended Grass and Clover Lists for 2016/17. They are provided to help producers to check and formulate seed mixtures in conjunction with their merchant.

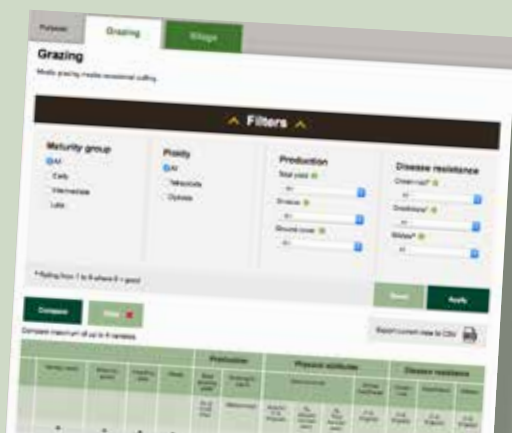
The data produced are based on cutting trials in North Yorkshire, Shropshire, Oxfordshire, Gloucestershire, Devon and Ceredigion, plus additional information from Northern Ireland and Scotland. Each variety is sown for two or more seasons.

The cost of grass seed is a small proportion of the expense of re-seeding – yet taking time to select the right varieties will reap productivity and lifespan benefits.



Your grass seed merchant will have a more in-depth booklet with more information about each variety on the Recommended Grass and Clover Lists. It can be found at www.britishgrassland.com/rgcl

An online tool is available at dairy.ahdb.org.uk. It can be used to compare perennial ryegrasses for various traits to help choose the correct varieties for the job.



Recommended List of Early Perennial Ryegrass Varieties 2016/2017

**OK for short term cutting and grazing leys.
Can lose quality quickly as head early.**

Variety	Heading date	Simulated grazing management		Conservation management		Ground cover	Crown rust	Drechslera	Suitable for my farm ✓
		Total annual yield	D-value	Total annual yield	D-value				
		Average = 100 at 10.40t DM/ha	Midsummer	Average = 100 at 15.48t DM/ha	2nd conservation cut				
Diploids									
Genesis	10 May	101	75.8	106	73.3	6.5	8	6	<input type="checkbox"/>
Moyola	12 May	104	75.8	105	72.7	6.3	7	6	<input type="checkbox"/>
Kilrea	13 May	97	75.5	99	72.7	6.9	5	6	<input type="checkbox"/>
Kilian	15 May	102	75.9	102	73.2	6.9	8		<input type="checkbox"/>
Kimber	16 May	98	75.1	100	72.6	6.6	5	6	<input type="checkbox"/>
Glenvale	16 May	101	76.0	(102)	72.4	(6.3)	5	6	<input type="checkbox"/>
Glasker	17 May	103	76.3	103	73.1	6.4	8		<input type="checkbox"/>
Tetraploids									
Anaconda	7 May	99	76.5	102	73.0	6.4	7	7	<input type="checkbox"/>
AberTorch	7 May	96	76.4	99	72.5	6.1	4	9	<input type="checkbox"/>
Carraig	14 May	101	76.2	(103)	(72.8)	(6.4)	2		<input type="checkbox"/>

Yield

For yield figures, 100 equals the average yield for the varieties on the Recommended Lists. For example, if a variety has a yield of 105, it is above average. If it has a yield of 95, it is below average. It is measured in tonnes of dry matter per hectare.

D-value

D-value is a measure of quality and refers to the percentage of the dry matter that can be digested by an animal. A higher number is better.

Crown rust and Drechslera

Score relates to resistance.

() Some data derived from intermediate trials. [] Limited data.

Recommended List of Intermediate Perennial Ryegrass Varieties 2016/2017

Variety	Heading date	Simulated grazing management		Conservation management		Ground cover	Crown rust	Drechslera	Suitable for my farm ↙
		Total annual yield <i>Average = 100 at 10.40t DM/ha</i>	D-value Midsummer	Total annual yield <i>Average = 100 at 15.48t DM/ha</i>	D-value 2nd conservation cut				
						1 = poor 9 = good			
Diploids									
Solomon	18 May	98	75.7	102	72.6	6.6	7	7	<input type="checkbox"/>
Boyne	19 May	101	75.2	105	70.5	7.1	7	6	<input type="checkbox"/>
Nifty	23 May	103	77.2	100	72.2	6.6	8	4	<input type="checkbox"/>
Moira	23 May	98	75.4	104	74.3	6.2	8	7	<input type="checkbox"/>
AberDart	24 May	98	77.7	97	74.2	7.5	6	4	<input type="checkbox"/>
Glenariff	26 May	102	74.9	100	73.2	6.9	8	5	<input type="checkbox"/>
AberStar	26 May	102	77.5	97	73.0	7.0	7	3	<input type="checkbox"/>
AberZeus	26 May	106	77.5	102	74.8	7.6	8		<input type="checkbox"/>
AberWolf	27 May	103	77.9	103	73.5	7.4	7	4	<input type="checkbox"/>
Premium	27 May	96	75.3	97	73.1	6.8	5	7	<input type="checkbox"/>
AberFarrell	28 May	98	77.3	96	75.9	6.5	7	6	<input type="checkbox"/>
AberMagic	28 May	105	76.9	100	72.3	6.5	8	4	<input type="checkbox"/>
Gosford	28 May	100	76.6	101	73.9	6.7	8		<input type="checkbox"/>
Elyria	29 May	101	76.3	99	73.3	7.3	7	[6]	<input type="checkbox"/>
AberGreen	29 May	104	77.5	102	73.7	7.2	8	6	<input type="checkbox"/>

**Diploids – Good for long term grazing and cutting leys.
Good for ground cover.**

Tetraploids – Good for medium term cutting leys.


Variety	Heading date	Simulated grazing management		Conservation management		Ground cover	Crown rust	Drechslera	Suitable for my farm
		Total annual yield <i>Average = 100 at 10.40t DM/ha</i>	D-value Midsummer	Total annual yield <i>Average = 100 at 15.48t DM/ha</i>	D-value 2nd conservation cut				
						1 = poor 9 = good			

Tetraploids									
Trintella	19 May	95	76.7	100	74.1	5.7	8	8	<input type="checkbox"/>
AberGlyn	20 May	97	76.2	103	71.9	5.9	7	7	<input type="checkbox"/>
Fintona	20 May	103	76.9	107	74.3	5.4	6	8	<input type="checkbox"/>
Malone	20 May	97	76.8	102	75.1	5.6	5	7	<input type="checkbox"/>
Glenstal	21 May	100	75.7	102	73.0	5.5	5	7	<input type="checkbox"/>
Seagoe	22 May	100	76.4	107	72.9	5.7	8	7	<input type="checkbox"/>
Aubisque	22 May	96	76.4	99	73.4	6.4	7	8	<input type="checkbox"/>
Ramore	23 May	100	75.8	107	73.8	6.0	5	[8]	<input type="checkbox"/>
AberClyde	24 May	99	77.5	101	73.7	6.7	8	7	<input type="checkbox"/>
Eurostar	25 May	98	76.5	100	73.9	6.3	6	8	<input type="checkbox"/>
AstonBonus	29 May	101	75.8	101	74.4	5.3	7	7	<input type="checkbox"/>
Dunluce	29 May	101	77.2	103	73.5	5.6	4	7	<input type="checkbox"/>
Caledon	30 May	106	76.3	(105)	(71.5)	(5.1)	-	[8]	<input type="checkbox"/>
Pensel	30 May	101	75.6	105	71.3	5.6	8	8	<input type="checkbox"/>
Diwan	30 May	98	76.5	103	73.1	5.5	8		<input type="checkbox"/>
Montova	30 May	100	75.4	103	72.0	6.4	6	7	<input type="checkbox"/>
AstonEnergy	31 May	99	77.8	98	76.1	4.8	8	8	<input type="checkbox"/>

[] Limited data. () Data derived from late trials.

Recommended List of Late Perennial Ryegrass Varieties 2016/2017

Good for cutting, but can also be used for intensive spring grazing.


Variety	Heading date	Simulated grazing management		Conservation management		Ground cover	Crown rust	Drechslera	Suitable for my farm 
		Total annual yield <i>Average = 100 at 10.40t DM/ha</i>	D-value Midsummer	Total annual yield <i>Average = 100 at 15.48t DM/ha</i>	D-value 2nd conservation cut				
						<i>1 = poor 9 = good</i>			
Diploids									
AberAvon	2 Jun	100	77.3	96	75.5	7.1	7	4	<input type="checkbox"/>
Toddington	2 Jun	98	75.9	96	73.5	6.6	8	6	<input type="checkbox"/>
Glenarm	3 Jun	100	76.7	102	74.7	6.2		[4]	<input type="checkbox"/>
Romark	3 Jun	100	76.6	94	75.0	6.5	5	5	<input type="checkbox"/>
Pastour	4 Jun	99	75.7	95	73.1	6.1	6	5	<input type="checkbox"/>
Foxtrot	4 Jun	99	75.5	95	72.2	6.5	6	6	<input type="checkbox"/>
Drumbo	4 Jun	101	77.1	95	75.8	6.0	7	5	<input type="checkbox"/>
Clanrye	4 Jun	98	75.3	100	71.5	6.4	7	6	<input type="checkbox"/>
Cavendish	5 Jun	98	75.3	98	74.9	6.7		[3]	<input type="checkbox"/>
Timing	5 Jun	101	75.9	100	73.2	6.0		[6]	<input type="checkbox"/>
AberChoice	9 Jun	104	77.2	97	73.2	6.1	5	3	<input type="checkbox"/>
Matiz	11 Jun	98	77.1	93	74.7	6.4	7	6	<input type="checkbox"/>
Cancan	12 Jun	101	76.3	95	74.0	6.7	5	6	<input type="checkbox"/>

Variety	Heading date	Simulated grazing management		Conservation management		Ground cover	Crown rust	Drechslera	Suitable for my farm
		Total annual yield <i>Average = 100 at 10.40t DM/ha</i>	D-value Midsummer	Total annual yield <i>Average = 100 at 15.48t DM/ha</i>	D-value 2nd conservation cut				
						1 = poor 9 = good			
Tetraploids									
Bijou	1 Jun	100	76.0	(103)	(72.9)	(5.9)	7	7	☐
Alfonso	1 Jun	100	77.2	100	73.8	5.9	7	6	☐
Drift	1 Jun	100	75.6	101	72.4	6.0	8	7	☐
Meiduno	2 Jun	105	76.6	103	75.0	4.6	7	8	☐
Hurricane	3 Jun	99	77.0	103	73.9	5.7		[7]	☐
Dundrum	3 Jun	99	77.2	102	73.5	5.5	4	7	☐
Aspect	4 Jun	101	77.1	101	74.4	5.9	7	7	☐
Novello	4 Jun	103	76.8	97	73.9	5.9	7	8	☐
AberGain	4 Jun	108	78.2	107	73.0	5.6	8	7	☐
Irondal	4 Jun	100	77.2	99	74.6	6.3	8	7	☐
AberBite	5 Jun	103	77.6	100	74.4	5.5	8	7	☐
Twymax	6 Jun	101	77.3	100	74.8	6.3	6	7	☐
Youpi	6 Jun	102	76.8	100	74.4	5.8		[9]	☐
AstonPrincess	6 Jun	103	77.0	100	74.7	5.9	7	7	☐
Herbal	7 Jun	100	76.8	97	74.8	6.8	7	7	☐
Xenon	7 Jun	103	77.0	97	74.2	6.5	6	7	☐
AberPlentiful	7 Jun	102	77.2	98	73.8	5.4	8	6	☐
Solas	8 Jun	104	77.1	101	74.0	5.8	4	7	☐
Ideal	9 Jun	98	77.1	97	75.3	6.3	7	7	☐

() Data derived from intermediate trials. [] Limited data.

Recommended List of Italian Ryegrass Varieties 2016/2017

Good for silage production and cattle rotational grazing.


Variety	Heading date	Total annual yield <i>Average = 100 at 18.24t DM/ha</i>	D-value 2nd conservation cut	Early spring growth 1st harvest year <i>Average = 100 at 1.90t DM/ha</i>	1st Conservation cut <i>Average = 100 at 6.72t DM/ha</i>	Ground cover	Ryegrass mosaic virus resistance	Mildew resistance	Suitable for my farm 
<i>1 = poor 9 = good</i>									
Diploids									
Shakira	16 May	100	66.2	101	104	3.2	6	6	<input type="checkbox"/>
Muriello	18 May	101	66.7	107	92	3.9	3	7	<input type="checkbox"/>
Meribel	19 May	98	67.0	100	96	3.4	4	7	<input type="checkbox"/>
Fox	19 May	99	66.3	98	96	3.9	4	7	<input type="checkbox"/>
Steel	20 May	99	66.6	102	102	3.9	7	5	<input type="checkbox"/>
Alamo	20 May	101	67.1	101	98	4.4	5	7	<input type="checkbox"/>
Abys	20 May	99	66.2	103	96	3.9	4	7	<input type="checkbox"/>
Davinci	22 May	101	66.9	96	96	4.0	5	6	<input type="checkbox"/>
Belluna	22 May	100	66.8	98	92	4.0	6	6	<input type="checkbox"/>
Javorio	23 May	100	66.7	98	102	3.3	6	6	<input type="checkbox"/>

Variety	Heading date	Total annual yield <i>Average = 100 at 18.24t DM/ha</i>	D-value 2nd conservation cut	Early spring growth 1st harvest year <i>Average = 100 at 1.90t DM/ha</i>	1st Conservation cut <i>Average = 100 at 6.72t DM/ha</i>	Ground cover	Ryegrass mosaic virus resistance	Mildew resistance	Suitable for my farm
						<i>1 = poor 9 = good</i>			

Tetraploids									
Itarzi	16 May	100	100	66.7	106	4.1	6	6	<input type="checkbox"/>
Dorike	16 May	97	100	67	104	2.9	4	7	<input type="checkbox"/>
Udine	16 May	100	99	67.4	108	4.0	6	6	<input type="checkbox"/>
Hunter	17 May	101	102	66.3	106	3.4	5	6	<input type="checkbox"/>
Kigezi 1	18 May	100	98	66.3	108	3.8	4	7	<input type="checkbox"/>
Barmultra II	19 May	100	103.0	66.5	106	3.8	4	7	<input type="checkbox"/>
Cazzano	19 May	101	99.0	67.7	104	3.9	[5]	7	<input type="checkbox"/>
Gemini	19 May	102	102	67.1	103	3.0	4	7	<input type="checkbox"/>
Litonio	21 May	96	96	68	102	3.4	2	8	<input type="checkbox"/>
Danergo	22 May	99	93	66.8	104	3.5	5	7	<input type="checkbox"/>

[] Limited data.

Recommended List of Hybrid Ryegrass Varieties 2016/2017

Variety	Heading date	Total annual yield <i>ave. = 100 at 16.5t DM/ha</i>	D-value 2nd conservation cut	Early spring growth 1st harvest year <i>Average = 100 at 1.66t DM/ha</i>	Ground cover	Ryegrass mosaic virus resistance	Mildew resistance	Suitable for my farm 
Diploids								
Pirol	21 May	101	66.6	120	3.8	4	4	<input type="checkbox"/>
Barsilo	24 May	99	69.2	119	3.3	4	8	<input type="checkbox"/>
Tetraploids								
Palmata	07 May	101	72.3	108	4.5	7	7	<input type="checkbox"/>
AberEcho	15 May	102	72.2	105	4.2	5	7	<input type="checkbox"/>
Solid	16 May	97	71.5	79	4.8	7	7	<input type="checkbox"/>
AstonCrusader	18 May	102	70.7	108	4.2	6	8	<input type="checkbox"/>
Enduro	19 May	101	71.0	100	4.3	6	7	<input type="checkbox"/>
Tetragraze	19 May	99	70.9	76	4.7	6	7	<input type="checkbox"/>
Novial	20 May	101	71.4	98	4.3	7	7	<input type="checkbox"/>
Citeliac	20 May	96	72.3	79	4.0	7	8	<input type="checkbox"/>
AberEve	21 May	98	71.8	97	3.8	7	8	<input type="checkbox"/>
Kirial	22 May	102	71.6	101	4.1	8	8	<input type="checkbox"/>
Foyle	22 May	93	72.7	65	4.1	8	7	<input type="checkbox"/>
Bahial	22 May	100	70.9	100	4.4	7	6	<input type="checkbox"/>
Amalgam	23 May	99	71.3	80	4.8	7	6	<input type="checkbox"/>
Scapino	23 May	96	70.3	110	3.6	4	7	<input type="checkbox"/>
AberNiche #	23 May	101	67.3	115	3.5	6	8	<input type="checkbox"/>
Storm	26 May	94	72.1	77	4.6	5	7	<input type="checkbox"/>

[] Limited data. # Festulolium type variety.

Recommended List of Timothy Varieties 2016/2017

*Good for extensive grazing and hay production.
Good for wetter soils.*

Variety	Heading date	Simulated grazing management		Conservation management		Ground cover	Winter hardiness	Suitable for my farm 
		Total annual yield <i>Average = 100 at 11.44t DM/ha</i>	D-value Midsummer	Total annual yield <i>Average = 100 at 14.00t DM/ha</i>	D-value 2nd conservation cut			
		1 = poor 9 = good						
Presto	08 Jun	101	72.9	102	65.5	5.1	7.1	<input type="checkbox"/>
Comer	09 Jun	103	70.8	104	64.1	4.8	7.2	<input type="checkbox"/>
Dolina	09 Jun	102	71.6	101	63.6	3.3	7.1	<input type="checkbox"/>
Promesse	10 Jun	96	73.4	96	65.4	6.6	6.7	<input type="checkbox"/>
Comtal	10 Jun	102	71.7	98	65.0	5.1	6.9	<input type="checkbox"/>
Winnetou	11 Jun	97	73.1	99	65.3	5.1	6.5	<input type="checkbox"/>
Moverdi	11 Jun	101	72.8	100	66.4	2.7	[6.3]	<input type="checkbox"/>
Narnia	16 Jun	97	72.4	97	64.9	8.6	[7.3]	<input type="checkbox"/>
Motim	17 Jun	96	72.5	98	63.8	7.6	6.7	<input type="checkbox"/>
Barrett	18 Jun	98	72.6	97	63.9	6.9		<input type="checkbox"/>

[] Limited data.

Recommended List of White Clover Varieties 2016/2017

Good for grazing and cutting.

Variety	Leaf area (mm ²)	Total yield of clover	Total yield of grass + clover	Autumn ground cover 1 = poor, 9 = good		Suitable for my farm 
		3rd harvest year ave. = 100 at 3.94t DM/ha	3rd harvest year ave. = 100 at 12.01t DM/ha	After light defoliation	After hard defoliation	
AberAce	356	75	96	4.9	8.2	<input type="checkbox"/>
Galway	507	78	94	4.2	7.3	<input type="checkbox"/>
Aber S.184	586	77	95	4.8	8.1	<input type="checkbox"/>
AberPearl	702	74	97	4.8	7.3	<input type="checkbox"/>
G Demand	720	90	98	6.2	7.3	<input type="checkbox"/>
AberHerald	763	121	103	7.5	6.0	<input type="checkbox"/>
Saracen	769	91	97	4.9	6.2	<input type="checkbox"/>
Crusader	777	95	100	6.9	6.5	<input type="checkbox"/>
Iona	780	103	100	5.2	7.5	<input type="checkbox"/>
Avoca	803	91	100	5.8	7.4	<input type="checkbox"/>
Buddy	807	109	104	6.0	8.5	<input type="checkbox"/>
G Bounty	822	101	100	6.5	7.9	<input type="checkbox"/>
AberDai	835	111	102	6.4	6.6	<input type="checkbox"/>
Violin	997	123	107	7.8	7.4	<input type="checkbox"/>
Katy	1011	108	102	5.9	6.2	<input type="checkbox"/>
Dublin	1026	117	105	6.7	6.0	<input type="checkbox"/>
Alice	1026	116	102	6.3	5.8	<input type="checkbox"/>
Barblanca	1059	122	103	7.0	6.8	<input type="checkbox"/>
Aran	1396	127	104	6.5	4.7	<input type="checkbox"/>
Brianna	1549	120	104	6.2	6.1	<input type="checkbox"/>

Descriptive List of Red Clover Varieties 2016/2017

Good for cutting and finishing stock in the autumn.



Red clover

Red clover has a Descriptive List, which means there are not as many sowings as for Recommended Lists.

Lucerne and Cocksfoot also have Descriptive Lists which are available at www.britishgrassland.com/rgcl.

More data are currently being gathered on red clover varieties so a Recommended List may be produced by 2017/2018.

Variety	Conservation management				Suitable for my farm ✓
	Yield of 1st cut in 1st harvest year <i>ave. = 100 at 5.60t DM/ha</i>	Total annual yield <i>Average = 100 at 13.97t DM/ha</i>	Crude protein <i>% in 1st cut of 1st harvest year</i>	Ground cover <i>% (2nd harvest year)</i>	
Merviot	105	101	16.8	46	<input type="checkbox"/>
Lemmon	103	102	16.5	48	<input type="checkbox"/>
AberRuby	99	93	16.1	35	<input type="checkbox"/>
AberClaret	101	103	16.2	51	<input type="checkbox"/>
AberChianti	88	96	15.5	53	<input type="checkbox"/>
Avisto	99	101	15.9	44	<input type="checkbox"/>
Harmonie	100	98	17.3	54	<input type="checkbox"/>
Metis	108	101	17.0	52	<input type="checkbox"/>
Discovery	106	98	16.9	40	<input type="checkbox"/>
Amos*	106	101	16.5	49	<input type="checkbox"/>
Maro*	107	102	16.1	50	<input type="checkbox"/>
Atlantis*	103	101	16.9	55	<input type="checkbox"/>
Magellan*	102	103	16.4	59	<input type="checkbox"/>

* Tetraploid



Useful Contacts

Aberystwyth University (IBERS)

Gogerddan
Aberystwyth
Ceredigion
SY23 3EB
01970 823000

Agri-Food and Biosciences Institute

Manor House
Loughgall
Co Armagh
Northern Ireland
BT61 8JB
02838 892344

Barenbrug UK Ltd

33 Perkins Road
Rougham Industrial Estate
Bury St Edmunds
Suffolk
IP30 9ND
01359 272000

Semences de France

21 Zac Carrière Dorée BP 20008
59358 Orchies Cedex
France
0033 320 718305

Germinal GB Ltd

Camp Road
Witham St Hughes
Lincolnshire
LN6 9QJ
01522 868714

DLF Seeds Ltd

Thorn Farm
Evesham Road
Inkberrow
Worcestershire
WR7 4LJ
01386 791101

DSV

Weissenburgerstr.5
59557 Lippstadt
Germany
0049 2941 2960

AgResearch Ltd. NZ

Tennent Drive
Palmerston North 4474
New Zealand
0064 6 351 8255

ILVO-Seeds

Caritasstraat 39
9090 Melle
Belgium
0032 9 272 28 59

INRA Chez Agri-Obtentions S.A.

La Minière BP 46
F-78042 Guyan Court
Cedex
France
0033 130 482314

LSPB

North Barn
Manor Farm
Milton Road
Impington
Cambridge
CB24 9NG
01223 236808

Limagrain UK Ltd

Rothwell,
Market Rasen,
Lincolnshire,
LN7 6DT
01472 371471

RAGT Seeds Ltd

Grange Road
Ickleton
Essex
CB10 1TA
01799 533700

Teagasc

Animal and Grassland
Research and
Innovation Centre
Oak Park
Carlow
Co. Carlow
Ireland
00353 59 9170200

Pasture Improvement Flow Chart



What do I want?

Field name: _____

For: Beef Sheep Dairy Mixed grazing

It is likely to be:

Grazed only Silaged once Silaged 2-3 times

Needs to last:

1 year 2 years 3-4 years 5 years
 10 years is for overseeding only

My soil pH is: 5 - 5.5 6 - 6.5 6.5+

P and K indexes are: P: _____ K: _____

Nitrogen use: None Low Medium High

My priority is: Yield Quality Balance of both

I wish to include varieties for:

Early spring growth Mainly mid-season growth
 Late autumn grazing Extended spring and autumn grazing

Crown rust resistance is:

Very important Moderately important Not important

Other diseases I am concerned about include: _____

Species must include:

White clover Red Clover High digestibility grasses
 Timothy Other _____

Other requirements: _____



Recommended Grass and Clover Lists are funded by plant breeders through the British Society of Plant Breeders and the ruminant levy boards (AHDB Beef & Lamb, AHDB Dairy and Hybu Cig Cymru).

The full Lists can be found at www.britishgrassland.com/rgcl



Do you use weed killers?

Key changes to spray legislation at a glance

From 2015 – Demonstrate Integrated Pest Management (IPM) is followed on your farm.

From 26 Nov 2015 – The sprayer operator on your farm must hold a Recognised Certificate, and Grandfather's rights are no longer valid.

From 26 Nov 2016 – Working application equipment must have a National Sprayer Testing Scheme (NSTS) Certificate and have a schedule for re-testing.

Why does this matter?

These measures will be legal requirements for the UK and its farmers through the EU Sustainable Use Directive. Non-compliance could lead to prosecution and threaten your Single Farm Payment. They will also feature in Red Tractor standards.

www.voluntaryinitiative.org.uk/grassland
for more information.