

Recommended Grass and Clover Lists

for England and Wales















## Introduction

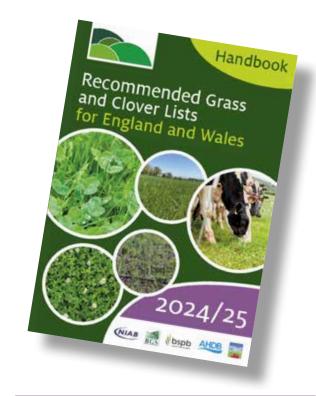
Welcome to the full Recommended Grass and Clover Lists (RGCL). This version of the RGCL is specifically for industry specialists to aid farmers in their variety selections for mixtures.

Well-managed grassland provides the most economic feed throughout the year, either as grazing or conserved forage. However, with input costs increasing, selecting the right seed mixture to suit the system is essential for efficient performance.

This booklet has the complete dataset including performance measures for seasonal growth and agronomic characters including ground cover and winter hardiness. The tables also provide information on the number of trials carried out.

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 and HCC).

Herbage trials are organised and coordinated by the NIAB on behalf of BSPB.



Both the full list and Handbook are available at britishgrassland.com/publications and ahdb.org.uk

An excel spreadsheet with the full dataset is available to download.

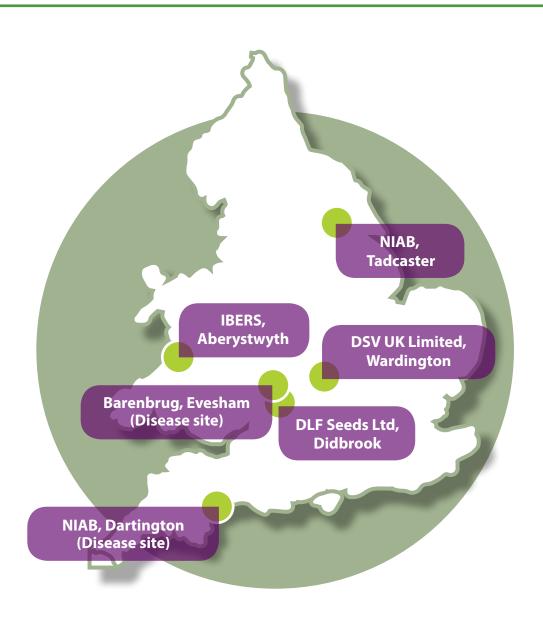
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## How to use this guide



## Frequently asked questions



### How and where is this information gathered?

Trial plots for each variety are grown across four locations in England and Wales. The performance of these plots is then compared to each other under different cutting regimes. The location of trial sites can be seen on the adjacent map. The Barenbrug and Dartington sites are only collecting disease data.

### Are the results representative of a commercial situation?

All plots are grown outdoors in areas of grassland production. Plots receive nitrogen inputs to represent well-fertilised grassland including returns of animal manures.

### What seed rates are they applied at?

Trial plot seed rates vary depending on species.

## What is the difference between conservation and grazing management?

| Species   |            | Seed rate |
|---|------------|-----------|
| Davannial Disagrass                                     | Diploid    | 25kg/ha   |
| Perennial Ryegrass                                      | Tetraploid | 37kg/ha   |
| Italian and Hybrid Ryegrasses, plus                     | Diploid    | 33kg/ha   |
| Festulolium   | Tetraploid | 50kg/ha   |
| Timothy   |            | 16kg/ha   |
| White Clover (along with 25kg/ha of companion ryegrass) |            | 3.5kg/ha  |
| Red Clover  |            | 13kg/ha   |

Conservation management applies to perennial ryegrass and timothy in their first and third year after sowing. The aim is to simulate silage cutting with the first cut at early ear emergence and then cuts are taken at six week intervals thereafter. This usually results in up to five cuts per year.

Grazing management applies to perennial ryegrass and timothy in their second year after sowing. The aim is to simulate grazing with the first cut taken at a yield of approximately 1.5t dry matter (DM)/ha and then cuts are taken at three to four week intervals thereafter.

Conservation/rotational grazing management applies to Italian and Hybrid ryegrasses and consists of an early cut followed by two conservation cuts and monthly simulated grazing cuts thereafter. White clover is cut on a monthly basis to assess yields and more frequently in separate plots to assess persistence under simulated grazing.

## How much difference is there between trial sites in terms of variety performance?

There is currently no analysis of changes in performance between the same varieties on different trial sites.

### How is disease resistance measured?

All perennial and Italian ryegrass variety trials are monitored regularly for the presence of foliar diseases. Usually, plots are inspected just before a cut is due, so that disease will have increased and effective discrimination between varieties can be made. The plot area is assessed visually and the percentage of total leaf area affected by different diseases is estimated. Records are collated at the end of the season and combined with previous years' data to give a robust estimate of the relative differences in resistance to disease. This is then expressed on a 1 to 9 scale, where 9 indicates a mean score of close to zero percent leaf area infected.

At the NIAB site at Dartington in Devon and the Barenbrug site near Evesham in Worcestershire, natural infection of disease is encouraged through late season management. This information is recorded and used to increase the accuracy of disease resistance values.

### What if I want to know the ME value?

Metabolisable energy (ME) is the amount of energy in the sample that is available for the animal (this is calculated from the D-value), whereas D-value is a measure of the digestible organic matter of the variety. So one is a measure of what is available to the animal and the other a measure of what will be digested by the animal.

### Rule of thumb

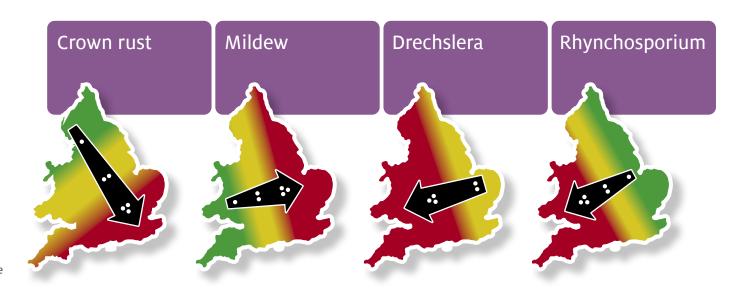
1 D-value unit = ME of 0.16

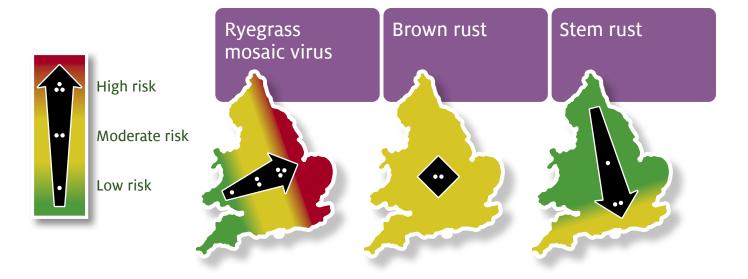
So for example a D-value of 70 would equate to an ME of 11.2 megajoules (MJ).

## Regional disease information

Records taken since the early 1980s show that the diseases illustrated on the right are the main ones to affect grasses in England and Wales. Though some fungicides are effective against grass diseases, their use is very limited, as is the product range available. Using resistant grass or clover varieties in seed mixtures for high risk areas provides a cost effective and reliable way to minimise the effects of disease.

Regional disease risks are shown in the maps. Disease severity is very dependent on overall climate in different areas of the country. Some diseases are more prevalent in the generally wetter and warmer west and south west, while others are more common in the drier east. In some areas, multiple diseases can be high risk. In these areas selecting varieties with a good combination of moderate (ratings 6 or 7) and preferably high (8 or 9) disease resistance is essential.





## **Major diseases**

**Crown rust** usually occurs in the late summer and autumn, when there are warm days with dew at night. Once largely confined to the south and south west of England, it has recently been recorded at high levels as far north as Yorkshire.

**Mildew** is an issue with warm and relatively dry conditions and is usually seen between spring and summer along eastern England. It generally does not reach high levels in wet areas.

**Drechslera** is often most severe at the start and the end of the growing season and is encouraged by cool, wet and humid conditions, although it can occur during wet summers. It can occur throughout England and Wales.

**Rhynchosporium** is a wet weather disease and is usually confined to the west and south west of England, and Wales. It occurs in the spring and normally dies away during the summer months.

**Ryegrass mosaic virus (RMV)** is the most important virus disease affecting ryegrass and the symptoms are more common in Italian than perennial ryegrass. It is transmitted by a mite that prefers dry conditions, so RMV largely appears in the drier eastern half of England.

## Less prevalent diseases

A number of other pathogens infect perennial and Italian ryegrasses. These are more sporadic than the major diseases described, but can be significant in some years.

**Brown rust** occurs early in the season, during April and May and throughout England and Wales. It only affects ryegrasses and is a different species to the brown rusts that infects wheat and barley. It can reach moderate levels in some varieties, but most have good resistance.

**Stem rust** is common in grass seed crops, but can occasionally infect leys in the far south of the country during warm autumn conditions.

**Barley yellow dwarf virus (BYDV)** may be quite widespread on leys where aphid vector species are present. However, symptoms are quite rare and the significance of the virus is difficult to establish.

Cocksfoot and timothy can be infected by several diseases.

Cocksfoot yellow rust is common, but this is not the same as yellow rust which affects wheat. Timothy can be severely affected by stem rust, particularly in hay crops. Other diseases include selenophoma and cladosporium leaf spots on timothy, and mastigosporium leaf fleck on cocksfoot and timothy. These three fungi favour wet conditions and are more common in the west and south west.

### **Effects of grass diseases**

Diseases not only affect yield but also quality and sward composition. On average, a disease can reduce yields by around 3%. However, responses to fungicide treatments have been far greater than this. The effects of grass diseases have been investigated using fungicide programmes on perennial ryegrass. On average, over the life of a three year ley, disease effects were estimated to cause a loss of just over 1t DM/ha, which is about 3% of the average yield of the varieties used. Individual site and variety effects were larger, for instance controlling Drechslera leaf spot at one site on a susceptible variety gave a yield response of nearly 1.25t DM/ha at first cut.

One of the most serious effects on quality is the reduction of water soluble carbohydrate, generally by 1–2%, when crown rust was severe in late season cuts. Lower water soluble carbohydrate levels reduce feeding value and may make grass less palatable. In grazing trials, rejection of rusted varieties in favour of cleaner material has been frequently recorded.

Leaf diseases increase the amount of dead material in a ley and will reduce D-value if they are allowed to increase. Mildew and rhynchosporium in Italian ryegrass have been shown to reduce D-value by between 1 to 2 units. Grass diseases may also affect sward composition and therefore yield and quality, if susceptible varieties become less vigorous due to infection and die out. In extreme cases, there may be an ingress of unproductive weed species although other sown species may compensate.

### Red and white clover diseases

The most significant disease of clover is **sclerotinia rot**, caused by Sclerotinia trifoliorum. Red clover is more prone to damage than white clover and the same disease can affect winter sown field beans. Symptoms are difficult to see in clover and usually the first sign of a sclerotinia problem is the disappearance of clover plants in the spring. Where infection is established, reseeding with more resistant varieties is the most effective control option.

A wide range of leaf spot diseases affect clover, as well as **powdery** and **downy mildew**. Apart from powdery mildew, most diseases tend to be more prevalent in the wetter western parts of the country. The significance of these foliar diseases is uncertain, though some loss of yield and quality is likely.

### **Managing diseases**

Selection of a proportion of resistant varieties in seed mixtures provides an effective means of suppressing diseases. However where susceptible varieties are used because of other desirable characters, then management techniques will be needed to avoid disease build-up. Generally, cutting or grazing before leaves become significantly infected will help to reduce disease build-up.

# Recommended List of Early Perennial Ryegrass varieties

|  |                        |                                     | Dipl    | oids   |         |                             | Tetra     | ploids |         |
|--|------------------------|-------------------------------------|---------|--------|---------|-----------------------------|-----------|--------|---------|
|  | Mean of G<br>varieties | Early diploid<br>mean<br>(G's only) | Genesis | Moyola | Glasker | Early<br>tetraploid<br>mean | AberTorch | Cooky  | Barwave |
| Recommended List status  |                        |                                     | G       | G      | G       |                             | G         | G      | PS      |
| Heading date   |                        |                                     | 11/05   | 14/05  | 17/05   |                             | 11/05     | 17/05  | 20/05   |
| Grazing management   |                        |                                     |         |        |         |                             |           |        |         |
| Grazing yield (% of 9.16 t/ha)                                       | 100                    | 97                                  | 96      | 97     | 97      | 94                          | 94        | 95     | 96      |
| Grazing D-value  | 76.7                   | 75.8                                | 75.5    | 75.4   | 76.6    | 76.4                        | 76.4      | 77.4   | 75.9    |
| ME yield (% of 113 000 MJ/ha)  | 100                    | 96                                  | 95      | 96     | 97      | 94                          | 94        | 96     | 95      |
| Ground cover % (grazing)   | 69                     | 68                                  | 70      | 67     | 67      | 69                          | 69        | 69     | 56      |
| Conservation management  | •                      | •                                   |         | •      |         | •                           |           |        |         |
| Total yield year 1 (% of 15.97 t/ha)                                 | 100                    | 102                                 | 105     | 100    | 102     | 101                         | 101       | 101    | 110     |
| 1st and 2nd cut ME yield, first harvest year<br>(% of 119,000 MJ/ha) | 100                    | 96                                  | 97      | 93     | 98      | 96                          | 96        | 95     | 105     |
| Total yield year 3 (% of 12.09 t/ha)                                 | 100                    | 99                                  | 100     | 99     | 97      | 95                          | 95        | 96     | 101     |
| Total yield: Mean (% of 14.14 t/ha)                                  | 100                    | 101                                 | 103     | 100    | 100     | 99                          | 99        | 99     | 106     |
| Ground cover % (conservation year 3)                                 | 66                     | 66                                  | 67      | 64     | 67      | 69                          | 69        | 68     | 54      |
| Grazing seasonal growth  |                        |                                     |         |        |         |                             |           |        |         |
| Early grazing yield (% of 1.37 t/ha)                                 | 100                    | 120                                 | 124     | 120    | 116     | 111                         | 111       | 108    | 125     |
| Spring (% of 2.45 t/ha)  | 100                    | 106                                 | 108     | 107    | 104     | 103                         | 103       | 100    | 104     |
| Early summer (% of 3.21 t/ha)  | 100                    | 88                                  | 89      | 87     | 88      | 89                          | 89        | 93     | 91      |
| Late summer (% of 2.20 t/ha)   | 100                    | 97                                  | 93      | 99     | 99      | 91                          | 91        | 92     | 94      |
| Autumn (% of 1.36 t/ha)  | 100                    | 100                                 | 96      | 99     | 105     | 95                          | 95        | 96     | 98      |

|   |                        |                                     | Dip           | oids             |                  |                             | Tetrap             | oloids         |                  |
|---|------------------------|-------------------------------------|---------------|------------------|------------------|-----------------------------|--------------------|----------------|------------------|
|   | Mean of G<br>varieties | Early diploid<br>mean<br>(G's only) | Genesis       | Moyola           | Glasker          | Early<br>tetraploid<br>mean | AberTorch          | Cooky          | Barwave          |
| Conservation seasonal growth – year     | 1                      |                                     |               |                  |                  |                             |                    |                |                  |
| 1st cut (% of 7.11 t/ha)                | 100                    | 90                                  | 95            | 88               | 88               | 88                          | 88                 | 84             | 96               |
| 1st cut D-value                         | 71.0                   | 70.6                                | 68.9          | 69.7             | 73.2             | 71.7                        | 71.7               | 73.1           | 73.3             |
| 2nd cut (% of 3.30 t/ha)                | 100                    | 95                                  | 98            | 93               | 94               | 99                          | 99                 | 101            | 109              |
| 2nd cut D-value                         | 72.9                   | 70.6                                | 69.5          | 69.0             | 73.3             | 70.5                        | 70.5               | 72.0           | 69.6             |
| 3rd cut (% of 2.66 t/ha)                | 100                    | 103                                 | 104           | 98               | 106              | 101                         | 101                | 104            | 111              |
| 4th + cut (% of 2.93 t/ha)              | 100                    | 112                                 | 109           | 110              | 116              | 109                         | 109                | 112            | 117              |
| Agronomic characters                    |                        |                                     |               |                  |                  |                             |                    |                |                  |
| Winter hardiness (1–9, 1= poor 9= good) | 7.3                    | 7.3                                 | 7.3           | 7.2              | 7.5              | 7.4                         | 7.4                | [7.4]          | [7.9]            |
| Disease resistance                      |                        |                                     |               |                  |                  |                             |                    |                |                  |
| Crown rust (1–9, 1= poor 9= good)       | 5.6                    | 5.8                                 | 6.0           | 5.8              | 5.6              | 4.0                         | 4.0                | 5.8            | 7.4              |
| Drechslera (1–9, 1= poor 9= good)       | 5.1                    | 5.8                                 | 6.0           | 5.4              | 6.1              | 6.7                         | 6.7                | 6.2            | 6.3              |
| Mildew (1–9, 1= poor 9= good)           | 6.4                    | 6.2                                 | 5.2           | 7.5              | 5.9              | 4.4                         | 4.4                | [6.7]          | [7.0]            |
| Year first listed                       |                        |                                     | 2009          | 2009             | 2016             |                             | 2000               | 2019           | 2022             |
| Breeder                                 |                        |                                     | Teagasc, Eire | AFBI, UK         | AFBI, UK         |                             | IBERS, Aberystwyth | R2n, France    | Barenbrug NZ     |
| Agent                                   |                        |                                     | DLF Seeds Ltd | Barenbrug UK Ltd | Barenbrug UK Ltd |                             | Germinal           | RAGT Seeds Ltd | Barenbrug UK Ltd |
| Number of trials for yields             |                        |                                     |               |                  |                  |                             |                    |                |                  |
| 1st harvest year                        |                        |                                     | 16            | 13               | 13               |                             | 16                 | 10             | 9                |
| 2nd harvest year                        |                        |                                     | 13            | 10               | 10               |                             | 13                 | 7              | 6                |
| 3rd harvest year                        |                        |                                     | 13            | 10               | 10               |                             | 13                 | 6              | 6                |

Note that the mean of  ${\sf G}$  varieties include all those from early, intermediate and late maturity groups.

Yields are expressed as a percentage of the mean of all fully recommended PRG varieties in trials. Grazing yields are measured in year 2, Conservation yields in years 1 & 3.

Grazing D-value is measured from a late-summer cut in year 2 and the Grazing ME yields are calculated as total yield multiplied by the D-value x 0.16.

Conservation D-value is measured from both the 1st and 2nd cuts in year 1.

Conservation ME yields are calculated as the first year first cut multiplied by its D-value x 0.16, plus the first year second cut yield multiplied by its D-value x 0.16.

[] = Only 2 trials worth of data.

# Recommended List of Intermediate Perennial Ryegrass Diploid varieties

|  | Mean of G<br>varieties | Int. diploid mean<br>(G's only) | Galgorm | Nifty | Moira | Goldwell | AberZeus | AberMagic | Alecto | AberWolf | Gosford | Agaska | AberTweed | AberGreen | Farmington |
|--|------------------------|---------------------------------|---------|-------|-------|----------|----------|-----------|--------|----------|---------|--------|-----------|-----------|------------|
| Recommended List status  |                        | •                               | G       | G     | G     | PG       | G        | G         | PG     | G        | G       | PS     | PG        | G         | PG         |
| Heading date   |                        |                                 | 22/05   | 22/05 | 23/05 | 23/05    | 25/05    | 27/05     | 27/05  | 27/05    | 28/05   | 28/05  | 29/05     | 29/05     | 29/05      |
| Grazing management   |                        |                                 |         |       |       |          |          |           |        |          |         |        |           |           |            |
| Grazing yield (% of 9.16 t/ha)                                       | 100                    | 102                             | 106     | 101   | 99    | 103      | 104      | 102       | 101    | 98       | 100     | 102    | 107       | 103       | 103        |
| Grazing D-value  | 76.7                   | 77.1                            | 76.8    | 76.8  | 75.7  | 77.1     | 77.8     | 77.3      | 76.2   | 77.5     | 77.2    | 75.6   | 79.9      | 77.3      | 77.0       |
| ME yield (% of 113,000 MJ/ha)  | 100                    | 102                             | 106     | 101   | 97    | 103      | 105      | 102       | 100    | 99       | 100     | 100    | 111       | 104       | 103        |
| Ground cover % (grazing)   | 69                     | 70                              | 65      | 69    | 67    | 69       | 76       | 68        | 70     | 74       | 68      | 67     | 70        | 71        | 70         |
| Conservation management  |                        |                                 |         |       |       |          |          |           |        |          |         |        |           |           |            |
| Total yield year 1 (% of 15.97 t/ha)                                 | 100                    | 103                             | 105     | 103   | 103   | 100      | 103      | 102       | 102    | 101      | 101     | 101    | 103       | 103       | 102        |
| 1st and 2nd cut ME yield, first harvest year<br>(% of 119,000 MJ/ha) | 100                    | 102                             | 103     | 103   | 99    | 98       | 104      | 102       | 103    | 101      | 102     | 101    | 104       | 103       | 100        |
| Total yield year 3 (% of 12.09 t/ha)                                 | 100                    | 102                             | 105     | 101   | 103   | 104      | 103      | 100       | 99     | 99       | 102     | 99     | 106       | 103       | 102        |
| Total yield: Mean (% of 14.14 t/ha)                                  | 100                    | 102                             | 105     | 102   | 103   | 102      | 103      | 101       | 101    | 100      | 101     | 100    | 104       | 103       | 102        |
| Ground cover % (conservation year 3)                                 | 66                     | 67                              | 64      | 69    | 62    | 66       | 69       | 67        | 68     | 70       | 66      | 65     | 69        | 69        | 67         |
| Grazing seasonal growth  |                        |                                 |         |       |       |          |          |           |        |          |         |        |           |           |            |
| Early grazing yield (% of 1.37 t/ha)                                 | 100                    | 106                             | 111     | 103   | 116   | 96       | 107      | 98        | 94     | 101      | 105     | 108    | 109       | 105       | 97         |
| Spring (% of 2.45 t/ha)  | 100                    | 107                             | 112     | 106   | 110   | 103      | 110      | 104       | 99     | 103      | 106     | 107    | 111       | 106       | 100        |
| Early summer (% of 3.21 t/ha)  | 100                    | 98                              | 100     | 96    | 93    | 98       | 100      | 99        | 103    | 97       | 97      | 101    | 107       | 98        | 102        |
| Late summer (% of 2.20 t/ha)   | 100                    | 99                              | 106     | 100   | 94    | 106      | 100      | 100       | 98     | 95       | 94      | 97     | 103       | 103       | 105        |
| Autumn (% of 1.36 t/ha)  | 100                    | 104                             | 106     | 104   | 100   | 109      | 106      | 106       | 102    | 97       | 105     | 104    | 107       | 109       | 105        |

|   | Mean of G<br>varieties | Int. diploid mean<br>(G's only) | Galgorm             | Nifty            | Moira               | Goldwell | AberZeus              | AberMagic             | Alecto              | AberWolf              | Gosford             | Agaska           | AberTweed             | AberGreen             | Farmington       |
|---|------------------------|---------------------------------|---------------------|------------------|---------------------|----------|-----------------------|-----------------------|---------------------|-----------------------|---------------------|------------------|-----------------------|-----------------------|------------------|
| Conservation seasonal growth – Ye       | ar 1                   |                                 |                     |                  |                     |          |                       |                       |                     |                       |                     |                  |                       |                       |                  |
| 1st cut (% of 7.11 t/ha)                | 100                    | 98                              | 101                 | 101              | 101                 | 94       | 98                    | 96                    | 94                  | 97                    | 94                  | 96               | 93                    | 97                    | 93               |
| 1st cut D-value                         | 71.0                   | 71.8                            | 71.4                | 71.0             | 69.7                | 70.8     | 72.2                  | 73.1                  | 73.6                | 71.2                  | 73.2                | 71.8             | 74.7                  | 72.2                  | 72.9             |
| 2nd cut (% of 3.30 t/ha)                | 100                    | 103                             | 100                 | 101              | 92                  | 103      | 105                   | 108                   | 109                 | 108                   | 105                 | 106              | 110                   | 108                   | 106              |
| 2nd cut D-value                         | 72.9                   | 73.1                            | 74.7                | 71.8             | 74.1                | 72.8     | 74.4                  | 71.6                  | 71.7                | 72.1                  | 73.4                | 71.7             | 74.7                  | 72.7                  | 72.5             |
| 3rd cut (% of 2.66 t/ha)                | 100                    | 103                             | 109                 | 101              | 108                 | 101      | 105                   | 100                   | 102                 | 98                    | 105                 | 101              | 104                   | 101                   | 101              |
| 4th + cut (% of 2.93 t/ha)              | 100                    | 103                             | 109                 | 105              | 104                 | 102      | 103                   | 104                   | 105                 | 96                    | 99                  | 101              | 108                   | 103                   | 108              |
| Agronomic characters                    |                        |                                 |                     |                  |                     |          |                       |                       |                     |                       |                     |                  |                       |                       |                  |
| Winter hardiness (1–9, 1= poor 9= good) | 7.3                    | 7.4                             | 7.4                 | 7.5              | 7.5                 | [6.8]    | 7.4                   | 7.3                   | [7.1]               | 7.4                   | 7.3                 | 7.4              | [7.4]                 | 7.4                   | [7.3]            |
| Disease resistance                      |                        |                                 |                     |                  |                     |          |                       |                       |                     |                       |                     |                  |                       |                       |                  |
| Crown rust (1–9, 1= poor 9= good)       | 5.6                    | 5.6                             | 5.1                 | 5.6              | 4.7                 | 6.2      | 6.3                   | 6.3                   | 6.4                 | 5.0                   | 5.9                 | 7.1              | 6.2                   | 5.9                   | 6.7              |
| Drechslera (1–9, 1= poor 9= good)       | 5.1                    | 4.6                             | 4.7                 | 5.1              | 5.3                 | -        | 4.2                   | 3.8                   | 4.6                 | 4.4                   | 4.3                 | 4.8              | 7.1                   | 5.0                   | 6.6              |
| Mildew (1–9, 1= poor 9= good)           | 6.4                    | 6.4                             | 6.4                 | 5.2              | 6.7                 | [6.5]    | 6.6                   | 6.7                   | -                   | 5.2                   | 7.3                 | 6.2              | -                     | 7.4                   | -                |
| Year first listed                       |                        |                                 | 2018                | 2014             | 2014                | 2023     | 2016                  | 2008                  | 2022                | 2014                  | 2016                | 2018             | 2024                  | 2011                  | 2024             |
| Breeder                                 |                        |                                 | AFBI, UK            | DLF Seeds<br>A/S | AFBI, UK            | DSV, UK  | IBERS,<br>Aberystwyth | IBERS,<br>Aberystwyth | DLF Seeds<br>A/S    | IBERS,<br>Aberystwyth | AFBI, UK            | DLF Seeds<br>A/S | IBERS,<br>Aberystwyth | IBERS,<br>Aberystwyth | DLF Seeds<br>A/S |
| Agent                                   |                        |                                 | Barenbrug<br>UK Ltd | DLF Seeds<br>Ltd | Barenbrug<br>UK Ltd | DSV      | Germinal              | Germinal              | Limagrain<br>UK Ltd | Germinal              | Barenbrug<br>UK Ltd | DLF Seeds<br>Ltd | Germinal              | Germinal              | DLF Seeds<br>Ltd |
| Number of trials for yields             |                        |                                 |                     |                  |                     |          |                       |                       |                     |                       |                     |                  |                       |                       |                  |
| 1st harvest year                        |                        |                                 | 17                  | 12               | 12                  | 6        | 11                    | 24                    | 9                   | 12                    | 11                  | 12               | 6                     | 10                    | 6                |
| 2nd harvest year                        |                        |                                 | 14                  | 12               | 12                  | 6        | 12                    | 23                    | 6                   | 12                    | 12                  | 11               | 6                     | 12                    | 6                |
| 3rd harvest year                        |                        |                                 | 12                  | 11               | 11                  | 6        | 11                    | 22                    | 6                   | 11                    | 11                  | 8                | 6                     | 12                    | 6                |

Note that the mean of  ${\sf G}$  varieties include all those from early, intermediate and late maturity groups.

Yields are expressed as a percentage of the mean of all fully recommended PRG varieties in trials. Grazing yields are measured in year 2, Conservation yields in years 1 & 3.

Grazing D-value is measured from a late-summer cut in year 2 and the Grazing ME yields are calculated as total yield multiplied by the D-value x 0.16.

Conservation D-value is measured from both the 1st and 2nd cuts in year 1.

Conservation ME yields are calculated as the first year first cut multiplied by its D-value x 0.16, plus the first year second cut yield multiplied by its D-value x 0.16.

<sup>[] =</sup> Only 2 trials worth of data.

# Recommended List of Intermediate Perennial Ryegrass Tetraploid varieties

|   | Mean of G<br>varieties | Int. tetraploid<br>mean (G and S) | Fintona | Seagoe | Erinvale | Banbridge | Nolwen | AberRoot<br>(Fest) | Tollymore | Ritchie | AstonVision | Chatsworth | AberSpey | Convey | Dunluce | Federer | Pensel | AstonEnergy |
|---|------------------------|-----------------------------------|---------|--------|----------|-----------|--------|--------------------|-----------|---------|-------------|------------|----------|--------|---------|---------|--------|-------------|
| Recommended List status   |                        |                                   | S       | G      | PG       | PG        | G      | PG                 | PG        | PG      | PS          | PG         | G        | PG     | S       | PG      | S      | S           |
| Heading date  |                        |                                   | 20/05   | 22/05  | 22/05    | 22/05     | 22/05  | 23/05              | 23/05     | 25/05   | 26/05       | 27/05      | 29/05    | 29/05  | 30/05   | 30/05   | 30/05  | 31/05       |
| Grazing management  |                        |                                   |         |        |          |           |        |                    |           |         |             |            |          |        |         |         |        |             |
| Grazing yield (% of 9.16 t/ha)                                    | 100                    | 99                                | 100     | 98     | 99       | 100       | 98     | 99                 | 104       | 102     | 99          | 99         | 105      | 98     | 100     | 96      | 96     | 95          |
| Grazing D-value   | 76.7                   | 77.2                              | 76.6    | 76.9   | 77.3     | 76.8      | 76.3   | 78.6               | 76.7      | 75.6    | 77.2        | 76.9       | 78.6     | 75.9   | 77.1    | 76.7    | 75.1   | 77.8        |
| ME yield (% of 113,000 MJ/ha)                                     | 100                    | 100                               | 100     | 97     | 99       | 99        | 97     | 101                | 104       | 100     | 99          | 99         | 107      | 97     | 100     | 95      | 94     | 96          |
| Ground cover % (grazing)  | 69                     | 64                                | 60      | 65     | 59       | 65        | 66     | 59                 | 60        | 70      | 66          | 64         | 66       | 64     | 61      | 66      | 62     | 63          |
| Conservation management   |                        |                                   |         | •      |          | •         |        |                    |           |         |             |            |          |        |         |         |        |             |
| Total yield year 1 (% of 15.97 t/ha)                              | 100                    | 104                               | 107     | 108    | 107      | 109       | 102    | 103                | 107       | 104     | 101         | 103        | 106      | 103    | 103     | 102     | 105    | 101         |
| 1st and 2nd cut ME yield, first harvest year (% of 119,000 MJ/ha) | 100                    | 106                               | 106     | 110    | 107      | 111       | 104    | 107                | 108       | 105     | 102         | 106        | 106      | 104    | 103     | 104     | 109    | 105         |
| Total yield year 3 (% of 12.09 t/ha)                              | 100                    | 101                               | 105     | 104    | 106      | 106       | 103    | 102                | 104       | 103     | 96          | 100        | 102      | 99     | 101     | 100     | 101    | 93          |
| Total yield: Mean (% of 14.14 t/ha)                               | 100                    | 103                               | 106     | 106    | 106      | 108       | 102    | 103                | 106       | 104     | 99          | 102        | 104      | 101    | 102     | 101     | 103    | 97          |
| Ground cover % (conservation year 3)                              | 66                     | 61                                | 60      | 62     | 59       | 63        | 65     | 59                 | 60        | 67      | 63          | 64         | 61       | 65     | 60      | 62      | 63     | 58          |
| Grazing seasonal growth   |                        |                                   |         |        |          |           |        |                    |           |         |             |            |          |        |         |         |        |             |
| Early grazing yield (% of 1.37 t/ha)                              | 100                    | 99                                | 102     | 104    | 105      | 107       | 100    | 93                 | 109       | 95      | 108         | 98         | 105      | 92     | 90      | 90      | 94     | 90          |
| Spring (% of 2.45 t/ha)   | 100                    | 103                               | 107     | 106    | 110      | 108       | 104    | 104                | 111       | 107     | 105         | 103        | 108      | 97     | 95      | 95      | 101    | 99          |
| Early summer (% of 3.21 t/ha)                                     | 100                    | 99                                | 99      | 94     | 94       | 97        | 97     | 98                 | 103       | 103     | 93          | 102        | 104      | 102    | 105     | 99      | 99     | 98          |
| Late summer (% of 2.20 t/ha)                                      | 100                    | 95                                | 97      | 93     | 92       | 93        | 91     | 95                 | 100       | 97      | 97          | 92         | 102      | 91     | 98      | 93      | 88     | 87          |
| Autumn (% of 1.36 t/ha)   | 100                    | 99                                | 97      | 97     | 98       | 100       | 98     | 97                 | 102       | 100     | 104         | 98         | 108      | 100    | 100     | 94      | 91     | 94          |

|   | Mean of G<br>varieties | Int. tetraploid<br>mean (G and S) | Fintona                  | Seagoe                   | Erinvale                 | Banbridge                | Nolwen              | AberRoot<br>(Fest)         | Tollymore                | Ritchie                  | AstonVision | Chatsworth       | AberSpey                   | Convey              | Dunluce                  | Federer                  | Pensel                   | AstonEnergy |
|---|------------------------|-----------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|---------------------|----------------------------|--------------------------|--------------------------|-------------|------------------|----------------------------|---------------------|--------------------------|--------------------------|--------------------------|-------------|
| Conservation seasonal growth –          | year 1                 |                                   |                          |                          |                          |                          |                     |                            |                          |                          |             |                  |                            |                     |                          |                          |                          |             |
| 1st cut (% of 7.11 t/ha)                | 100                    | 100                               | 105                      | 110                      | 108                      | 108                      | 98                  | 99                         | 105                      | 98                       | 97          | 100              | 97                         | 99                  | 92                       | 96                       | 102                      | 97          |
| 1st cut D-value                         | 71.0                   | 72.9                              | 70.8                     | 70.6                     | 70.0                     | 72.4                     | 73.0                | 72.2                       | 71.3                     | 71.6                     | 72.6        | 72.6             | 73.4                       | 71.7                | 74.5                     | 73.1                     | 72.9                     | 74.9        |
| 2nd cut (% of 3.30 t/ha)                | 100                    | 107                               | 105                      | 106                      | 104                      | 107                      | 105                 | 110                        | 109                      | 116                      | 102         | 111              | 111                        | 108                 | 115                      | 110                      | 122                      | 102         |
| 2nd cut D-value                         | 72.9                   | 73.5                              | 73.8                     | 72.9                     | 72.4                     | 71.9                     | 73.1                | 73.2                       | 73.6                     | 70.3                     | 74.8        | 72.2             | 74.2                       | 72.5                | 72.6                     | 73.2                     | 70.0                     | 74.5        |
| 3rd cut (% of 2.66 t/ha)                | 100                    | 108                               | 115                      | 106                      | 105                      | 107                      | 103                 | 103                        | 106                      | 98                       | 98          | 100              | 113                        | 103                 | 108                      | 106                      | 97                       | 104         |
| 4th + cut (% of 2.93 t/ha)              | 100                    | 100                               | 102                      | 98                       | 101                      | 107                      | 98                  | 97                         | 103                      | 103                      | 103         | 97               | 108                        | 97                  | 102                      | 97                       | 93                       | 94          |
| Agronomic characters                    |                        |                                   |                          |                          |                          |                          |                     |                            |                          |                          |             |                  |                            |                     |                          |                          |                          |             |
| Winter hardiness (1–9, 1= poor 9= good) | 7.3                    | 7.4                               | 7.5                      | 7.2                      | 7.1                      | [7.4]                    | 7.4                 | 7.0                        | [7.2]                    | 7.1                      | 7.4         | 7.2              | 7.6                        | 7.4                 | 7.3                      | 7.3                      | 7.1                      | 7.2         |
| Disease resistance                      |                        |                                   |                          |                          |                          |                          |                     |                            |                          |                          |             |                  |                            |                     |                          |                          |                          |             |
| Crown rust (1–9, 1= poor 9= good)       | 5.6                    | 5.0                               | 1.7                      | 6.2                      | 4.9                      | 5.4                      | 8.0                 | 3.5                        | 5.0                      | 5.7                      | 7.0         | 3.7              | 4.8                        | 5.7                 | 2.6                      | 6.3                      | 6.0                      | 6.7         |
| Drechslera (1–9, 1= poor 9= good)       | 5.1                    | 6.1                               | 6.7                      | 5.1                      | 6.7                      | -                        | 5.2                 | 6.3                        | 6.1                      | 5.5                      | 4.3         | 6.9              | 6.6                        | 5.8                 | 6.4                      | 6.1                      | 6.2                      | 6.8         |
| Mildew (1–9, 1= poor 9= good)           | 6.4                    | 6.5                               | 6.8                      | 7.6                      | 4.9                      | [7.1]                    | 7.5                 | 5.5                        | -                        | 5.9                      | 5.6         | 6.8              | 4.5                        | 5.9                 | 6.5                      | 7.6                      | 6.7                      | 5.8         |
| Year first listed                       |                        |                                   | 2014                     | 2011                     | 2021                     | 2023                     | 2017                | 2021                       | 2022                     | 2021                     | 2018        | 2020             | 2017                       | 2020                | 2005                     | 2017                     | 2013                     | 2006        |
| Breeder                                 |                        |                                   | AFBI, UK                 | AFBI, UK                 | AFBI, UK                 | AFBI, UK                 | R2n,<br>France      | IBERS,<br>Aber-<br>ystwyth | AFBI, UK                 | DLF<br>Seeds<br>A/S      | DSV, UK     | Teagasc,<br>Eire | IBERS,<br>Aber-<br>ystwyth | DLF<br>Seeds<br>A/S | AFBI, UK                 | DLF<br>Seeds<br>A/S      | DLF<br>Seeds<br>A/S      | DSV, UK     |
| Agent                                   |                        |                                   | Baren-<br>brug<br>UK Ltd | Baren-<br>brug<br>UK Ltd | Baren-<br>brug<br>UK Ltd | Baren-<br>brug<br>UK Ltd | DLF<br>Seeds<br>Ltd | Germinal                   | Baren-<br>brug<br>UK Ltd | Lim-<br>agrain<br>UK Ltd | DSV         | DSV              | Germinal                   | DLF<br>Seeds<br>Ltd | Baren-<br>brug<br>UK Ltd | Lim-<br>agrain<br>UK Ltd | Lim-<br>agrain<br>UK Ltd | DSV         |
| Number of trials for yields             |                        |                                   |                          | ,                        |                          |                          |                     |                            |                          |                          |             | ,                |                            |                     |                          |                          |                          |             |
| 1st harvest year                        |                        |                                   | 12                       | 15                       | 11                       | 6                        | 13                  | 11                         | 9                        | 11                       | 15          | 11               | 13                         | 11                  | 29                       | 12                       | 15                       | 10          |
| 2nd harvest year                        |                        |                                   | 12                       | 15                       | 8                        | 6                        | 14                  | 8                          | 6                        | 8                        | 14          | 11               | 14                         | 11                  | 30                       | 13                       | 14                       | 10          |
| 3rd harvest year                        |                        |                                   | 11                       | 14                       | 6                        | 6                        | 12                  | 6                          | 6                        | 6                        | 12          | 9                | 12                         | 9                   | 28                       | 11                       | 13                       | 10          |

Note that the mean of  ${\sf G}$  varieties include all those from early, intermediate and late maturity groups.

Yields are expressed as a percentage of the mean of all fully recommended PRG varieties in trials. Grazing yields are measured in year 2, Conservation yields in years 1 & 3.

Grazing D-value is measured from a late-summer cut in year 2 and the Grazing ME yields are calculated as total yield multiplied by the D-value x 0.16.

Conservation D-value is measured from both the 1st and 2nd cuts in year 1.

Conservation ME yields are calculated as the first year first cut multiplied by its D-value x 0.16, plus the first year second cut yield multiplied by its D-value x 0.16.

<sup>[] =</sup> Only 2 trials worth of data.

# Recommended List of Late Perennial Ryegrass Diploid varieties

|  | Mean of G varieties | Late diploid mean (G's only) | Wetherby | Kendal | AberSevern | Callan | AberTest | Harrenhal | Graphic | Bandon | Toddington | Ballyvoy | Dundrod | Bomium | AstonKing | Crossgar | Oakpark | AberAvon | Drumbo | Glenarm | Gleneagle | Zorgue | Timuco | Timing | AberBann | Charlfield | AberThames | Swan  | AberLee | Delika | AberChoice | Cancan | AberDon | Bowie |
|--|---------------------|------------------------------|----------|--------|------------|--------|----------|-----------|---------|--------|------------|----------|---------|--------|-----------|----------|---------|----------|--------|---------|-----------|--------|--------|--------|----------|------------|------------|-------|---------|--------|------------|--------|---------|-------|
| Recommended List status  |                     |                              | PG       | PG     | PG         | G      | PG       | PG        | PG      | PG     | G          | PS       | S       | PG     | PS        | PG       | G       | G        | G      | G       | PG        | PG     | PG     | S      | G        | PG         | PG         | PS    | G       | PG     | S          | G      | PG      | PS    |
| Heading date   |                     |                              | 29/05    | 29/05  | 30/05      | 31/05  | 31/05    | 31/05     | 31/05   | 31/05  | 31/05      | 01/06    | 01/06   | 01/06  | 01/06     | 01/06    | 02/06   | 02/06    | 02/06  | 02/06   | 03/06     | 03/06  | 04/06  | 04/06  | 04/06    | 05/06      | 05/06      | 05/06 | 05/06   | 06/06  | 08/06      | 09/06  | 10/06   | 15/06 |
| Grazing management   |                     |                              |          |        |            |        |          |           |         |        |            |          |         |        |           |          |         |          |        |         |           |        |        |        |          |            |            |       |         |        |            |        |         |       |
| Grazing yield (% of 9.16 t/ha)                                       | 100                 | 99                           | 101      | 97     | 111        | 102    | 102      | 101       | 97      | 106    | 95         | 99       | 102     | 104    | 99        | 99       | 98      | 99       | 96     | 98      | 99        | 97     | 104    | 98     | 105      | 103        | 109        | 99    | 97      | 102    | 103        | 101    | 108     | 101   |
| Grazing D-value  | 76.7                | 76.4                         | 77.4     | 76.2   | 79.0       | 75.7   | 78.8     | 76.1      | 76.4    | 76.6   | 75.3       | 77.0     | 74.8    | 75.7   | 75.4      | 76.1     | 76.3    | 77.5     | 76.8   | 76.4    | 75.8      | 76.4   | 75.5   | 74.9   | 77.3     | 75.4       | 76.2       | 74.7  | 78.7    | 76.6   | 76.6       | 75.3   | 78.7    | 75.1  |
| ME yield (% of 113,000 MJ/ha)  | 100                 | 99                           | 102      | 97     | 115        | 101    | 105      | 99        | 97      | 107    | 94         | 100      | 100     | 103    | 97        | 97       | 97      | 101      | 96     | 98      | 98        | 97     | 101    | 96     | 106      | 102        | 108        | 96    | 99      | 101    | 103        | 100    | 112     | 99    |
| Ground cover % (grazing)   | 69                  | 71                           | 73       | 75     | 67         | 69     | 71       | 71        | 77      | 64     | 71         | 72       | 64      | 71     | 66        | 70       | 70      | 74       | 69     | 71      | 72        | 76     | 65     | 74     | 69       | 67         | 66         | 74    | 76      | 71     | 67         | 70     | 65      | 74    |
| Conservation manager   | men                 | t                            |          |        |            |        |          |           |         |        |            |          |         |        |           |          |         |          |        |         |           |        |        |        |          |            |            |       |         |        |            |        |         |       |
| Total yield year 1 (% of 15.97 t/ha)                                 | 100                 | 94                           | 100      | 96     | 101        | 97     | 98       | 95        | 94      | 102    | 94         | 99       | 100     | 101    | 94        | 98       | 96      | 94       | 90     | 98      | 95        | 93     | 97     | 93     | 98       | 95         | 97         | 92    | 90      | 93     | 96         | 92     | 95      | 91    |
| 1st and 2nd cut ME yield, first<br>harvest year (% of 119,000 MJ/ha) | 100                 | 95                           | 102      | 97     | 104        | 96     | 99       | 96        | 97      | 106    | 94         | 101      | 101     | 103    | 95        | 99       | 96      | 94       | 90     | 101     | 95        | 97     | 97     | 96     | 99       | 95         | 96         | 91    | 92      | 93     | 100        | 92     | 95      | 89    |
| Total yield year 3 (% of 12.09 t/ha)                                 | 100                 | 97                           | 104      | 102    | 99         | 101    | 97       | 98        | 101     | 105    | 96         | 102      | 104     | 105    | 96        | 99       | 100     | 95       | 94     | 100     | 97        | 95     | 102    | 97     | 98       | 99         | 106        | 97    | 91      | 98     | 99         | 95     | 96      | 92    |
| Total yield: Mean (% of 14.14 t/ha)                                  | 100                 | 95                           | 101      | 98     | 100        | 99     | 98       | 97        | 97      | 103    | 95         | 100      | 102     | 103    | 95        | 99       | 98      | 95       | 92     | 99      | 96        | 94     | 99     | 95     | 98       | 97         | 100        | 94    | 90      | 94     | 98         | 93     | 95      | 92    |
| Ground cover % (conservation year 3)                                 | 66                  | 67                           | 70       | 67     | 63         | 65     | 66       | 68        | 70      | 62     | 67         | 69       | 63      | 67     | 62        | 66       | 67      | 72       | 62     | 65      | 67        | 72     | 64     | 68     | 63       | 63         | 62         | 69    | 72      | 67     | 63         | 67     | 64      | 68    |
| Grazing seasonal grow  | rth                 |                              |          |        |            |        |          |           |         |        |            |          |         |        |           |          |         |          |        |         |           |        |        |        |          |            |            |       |         |        |            |        |         |       |
| Early grazing yield (% of 1.37 t/ha)                                 | 100                 | 87                           | 92       | 88     | 97         | 103    | 86       | 86        | 90      | 98     | 81         | 104      | 100     | 90     | 97        | 91       | 80      | 94       | 88     | 89      | 82        | 77     | 87     | 76     | 92       | 92         | 107        | 85    | 80      | 83     | 94         | 84     | 93      | 80    |
| Spring (% of 2.45 t/ha)  | 100                 | 90                           | 100      | 94     | 101        | 102    | 95       | 91        | 93      | 100    | 86         | 102      | 101     | 95     | 99        | 92       | 86      | 96       | 88     | 92      | 86        | 84     | 92     | 84     | 94       | 91         | 104        | 88    | 83      | 87     | 96         | 85     | 94      | 80    |
| Early summer (% of 3.21 t/ha)  | 100                 | 105                          | 99       | 100    | 113        | 104    | 106      | 106       | 104     | 107    | 101        | 97       | 101     | 107    | 100       | 105      | 106     | 102      | 99     | 100     | 109       | 107    | 111    | 107    | 113      | 107        | 112        | 106   | 104     | 110    | 109        | 111    | 115     | 113   |
| Late summer (% of 2.20 t/ha)   | 100                 | 103                          | 105      | 99     | 122        | 102    | 103      | 108       | 96      | 117    | 101        | 99       | 104     | 107    | 100       | 102      | 101     | 100      | 100    | 102     | 102       | 99     | 110    | 102    | 108      | 112        | 113        | 102   | 100     | 108    | 107        | 109    | 118     | 108   |
| Autumn (% of 1.36 t/ha)  | 100                 | 97                           | 101      | 97     | 109        | 96     | 105      | 97        | 90      | 101    | 90         | 100      | 102     | 109    | 97        | 96       | 96      | 100      | 94     | 97      | 92        | 94     | 98     | 96     | 105      | 103        | 104        | 96    | 98      | 98     | 99         | 95     | 105     | 99    |

|   | Mean of G varieties | Late diploid mean (G's only) | Wetherby            | Kendal               | AberSevern                 | Callan                   | AberTest                   | Harrenhal            | Graphic             | Bandon                | Toddington          | Ballyvoy                 | Dundrod                  | Bomium                   | AstonKing | Crossgar                 | Oakpark               | AberAvon                   | Drumbo                   | Glenarm                  | Gleneagle             | Zorgue              | Timuco              | Timing                   | AberBann                   | Charlfield            | AberThames                 | Swan                | AberLee                    | Delika        | AberChoice                 | Cancan              | AberDon                    | Воwie               |
|---|---------------------|------------------------------|---------------------|----------------------|----------------------------|--------------------------|----------------------------|----------------------|---------------------|-----------------------|---------------------|--------------------------|--------------------------|--------------------------|-----------|--------------------------|-----------------------|----------------------------|--------------------------|--------------------------|-----------------------|---------------------|---------------------|--------------------------|----------------------------|-----------------------|----------------------------|---------------------|----------------------------|---------------|----------------------------|---------------------|----------------------------|---------------------|
| Conservation seasonal                   | gro                 | wth -                        | - yea               | ar 1                 |                            |                          |                            |                      |                     |                       |                     |                          |                          |                          |           |                          |                       |                            |                          |                          |                       |                     |                     |                          |                            |                       |                            |                     |                            |               |                            |                     |                            |                     |
| 1st cut (% of 7.11 t/ha)                | 100                 | 99                           | 109                 | 107                  | 104                        | 106                      | 106                        | 102                  | 104                 | 110                   | 100                 | 108                      | 114                      | 107                      | 103       | 105                      | 102                   | 103                        | 90                       | 111                      | 99                    | 101                 | 100                 | 98                       | 101                        | 99                    | 98                         | 90                  | 91                         | 93            | 99                         | 90                  | 87                         | 81                  |
| 1st cut D-value                         | 71.0                | 70.0                         | 69.8                | 67.9                 | 71.7                       | 68.1                     | 70.7                       | 68.5                 | 69.0                | 70.7                  | 68.6                | 69.1                     | 67.4                     | 69.0                     | 69.0      | 68.6                     | 69.1                  | 68.7                       | 70.4                     | 69.2                     | 69.3                  | 70.9                | 69.1                | 70.5                     | 70.8                       | 70.0                  | 70.3                       | 70.5                | 73.3                       | 70.7          | 71.8                       | 71.4                | 73.5                       | 73.0                |
| 2nd cut (% of 3.30 t/ha)                | 100                 | 93                           | 94                  | 88                   | 101                        | 88                       | 89                         | 92                   | 90                  | 98                    | 93                  | 94                       | 90                       | 101                      | 87        | 96                       | 94                    | 85                         | 93                       | 88                       | 97                    | 91                  | 100                 | 95                       | 102                        | 95                    | 99                         | 98                  | 89                         | 98            | 104                        | 99                  | 106                        | 109                 |
| 2nd cut D-value                         | 72.9                | 73.4                         | 72.9                | 73.6                 | 76.3                       | 73.5                     | 76.0                       | 73.4                 | 72.8                | 75.8                  | 72.6                | 74.8                     | 72.0                     | 74.1                     | 73.0      | 73.4                     | 73.0                  | 73.9                       | 74.8                     | 73.9                     | 72.5                  | 74.1                | 73.3                | 72.7                     | 72.5                       | 72.7                  | 72.1                       | 72.8                | 74.0                       | 73.4          | 72.5                       | 73.0                | 74.8                       | 71.7                |
| 3rd cut (% of 2.66 t/ha)                | 100                 | 96                           | 98                  | 91                   | 107                        | 97                       | 106                        | 91                   | 88                  | 100                   | 94                  | 99                       | 93                       | 95                       | 93        | 96                       | 99                    | 94                         | 95                       | 94                       | 96                    | 92                  | 98                  | 93                       | 99                         | 99                    | 100                        | 98                  | 93                         | 98            | 95                         | 100                 | 103                        | 99                  |
| 4th + cut (% of 2.93 t/ha)              | 100                 | 94                           | 99                  | 91                   | 102                        | 96                       | 101                        | 94                   | 88                  | 97                    | 93                  | 96                       | 94                       | 101                      | 90        | 97                       | 93                    | 92                         | 92                       | 93                       | 93                    | 89                  | 95                  | 91                       | 98                         | 97                    | 102                        | 94                  | 95                         | 93            | 93                         | 93                  | 103                        | 100                 |
| Agronomic characters                    |                     |                              |                     |                      |                            |                          |                            |                      |                     |                       |                     |                          |                          |                          |           |                          |                       |                            |                          |                          |                       |                     |                     |                          |                            |                       |                            |                     |                            |               |                            |                     |                            |                     |
| Winter hardiness (1–9, 1= poor 9= good) | 7.3                 | 7.2                          | 7.6                 | 7.2                  | [7.1]                      | 7.3                      | 7.3                        | [7.5]                | [7.6]               | [7.1]                 | 7.1                 | 7.5                      | [7.2]                    | [7.2]                    | 7.2       | [7.4]                    | 7.0                   | 7.5                        | 7.0                      | 7.3                      | 7.0                   | 7.3                 | [7.0]               | 7.0                      | 7.5                        | [6.9]                 | 7.4                        | 7.2                 | 7.5                        | 7.1           | 7.3                        | 7.1                 | [7.5]                      | 7.0                 |
| Disease resistance                      |                     |                              |                     |                      |                            |                          |                            |                      |                     |                       |                     |                          |                          |                          |           |                          |                       |                            |                          |                          |                       |                     |                     |                          |                            |                       |                            |                     |                            |               |                            |                     |                            |                     |
| Crown rust (1–9, 1= poor 9= good)       | 5.6                 | 5.7                          | 6.5                 | 7.2                  | 5.1                        | 4.3                      | 6.4                        | 7.2                  | 6.5                 | 4.9                   | 6.8                 | 2.9                      | 6.8                      | 6.3                      | 7.0       | 6.1                      | 4.9                   | 5.8                        | 4.9                      | 6.4                      | 4.5                   | 6.7                 | 6.1                 | 6.9                      | 5.4                        | 5.5                   | 7.0                        | 6.9                 | 6.4                        | 8.0           | 4.1                        | 4.9                 | 5.7                        | 5.1                 |
| Drechslera (1–9, 1= poor 9= good)       | 5.1                 | 4.5                          | 4.8                 | 5.3                  | -                          | 4.2                      | 4.1                        | -                    | -                   | -                     | 4.6                 | 4.2                      | 4.3                      | 4.9                      | 4.0       | 4.8                      | 4.9                   | 3.7                        | 4.8                      | 4.3                      | 5.4                   | 5.1                 | 4.4                 | 4.6                      | 4.8                        | 5.1                   | 5.5                        | 4.6                 | 4.6                        | 4.7           | 2.6                        | 4.5                 | 3.8                        | 3.6                 |
| Mildew (1–9, 1= poor 9= good)           | 6.4                 | 6.6                          | -                   | 6.7                  | -                          | 7.1                      | [6.7]                      | -                    | -                   | -                     | 6.4                 | [6.5]                    | 6.7                      | -                        | 7.0       | -                        | 6.3                   | 6.3                        | 6.0                      | 7.2                      | 6.4                   | -                   | -                   | 6.4                      | 6.7                        | -                     | -                          | [6.7]               | -                          | -             | 7.1                        | 6.6                 | -                          | 7.2                 |
| Year first listed                       |                     |                              | 2021                | 2019                 | 2023                       | 2018                     | 2020                       | 2023                 | 2023                | 2023                  | 2010                | 2020                     | 2019                     | 2024                     | 2019      | 2022                     | 2018                  | 2001                       | 2009                     | 2015                     | 2019                  | 2021                | 2022                | 2015                     | 2018                       | 2022                  | 2021                       | 2020                | 2017                       | 2021          | 2009                       | 1998                | 2022                       | 2018                |
| Breeder                                 |                     |                              | DLF<br>Seeds<br>A/S | R2n,<br>France       | IBERS,<br>Aberyst-<br>wyth | AFBI,<br>UK              | IBERS,<br>Aberyst-<br>wyth | R2n,<br>France       | DLF<br>Seeds<br>A/S | Tea-<br>gasc,<br>Eire | DLF<br>Seeds<br>A/S | AFBI,<br>UK              | AFBI,<br>UK              | DLF<br>Seeds<br>A/S      | DSV, UK   | AFBI,<br>UK              | Tea-<br>gasc,<br>Eire | IBERS,<br>Aberyst-<br>wyth | AFBI,<br>UK              | AFBI,<br>UK              | Tea-<br>gasc,<br>Eire | DLF<br>Seeds<br>A/S | DLF<br>Seeds<br>A/S | DLF<br>Seeds<br>A/S      | IBERS,<br>Aberyst-<br>wyth | Tea-<br>gasc,<br>Eire | IBERS,<br>Aberyst-<br>wyth | DLF<br>Seeds<br>A/S | IBERS,<br>Aberyst-<br>wyth | GIE<br>Grass  | IBERS,<br>Aberyst-<br>wyth | DLF<br>Seeds<br>A/S | IBERS,<br>Aberyst-<br>wyth | DLF<br>Seeds<br>A/S |
| Agent                                   |                     |                              | DLF<br>Seeds<br>Ltd | RAGT<br>Seeds<br>Ltd | Germi-<br>nal              | Baren-<br>brug<br>UK Ltd | Germi-<br>nal              | RAGT<br>Seeds<br>Ltd | DLF<br>Seeds<br>Ltd | Gold-<br>crop<br>Ltd  | DLF<br>Seeds<br>Ltd | Baren-<br>brug<br>UK Ltd | Baren-<br>brug<br>UK Ltd | Lim-<br>agrain<br>UK Ltd | DSV       | Baren-<br>brug<br>UK Ltd | Gold-<br>crop<br>Ltd  | Germi-<br>nal              | Baren-<br>brug<br>UK Ltd | Baren-<br>brug<br>UK Ltd | DSV                   | DLF<br>Seeds<br>Ltd | DLF<br>Seeds<br>Ltd | Lim-<br>agrain<br>UK Ltd | Germi-<br>nal              | Gold-<br>crop<br>Ltd  | Germi-<br>nal              | DLF<br>Seeds<br>Ltd | Germi-<br>nal              | Germi-<br>nal | Germi-<br>nal              | DLF<br>Seeds<br>Ltd | Germi-<br>nal              | DLF<br>Seeds<br>Ltd |
| Number of trials for yie                | lds                 |                              |                     |                      |                            |                          |                            |                      |                     |                       |                     |                          |                          |                          |           |                          |                       |                            |                          |                          |                       |                     |                     |                          |                            |                       |                            |                     |                            |               |                            |                     |                            |                     |
| 1st harvest year                        |                     |                              | 11                  | 14                   | 6                          | 14                       | 11                         | 6                    | 6                   | 6                     | 10                  | 12                       | 8                        | 6                        | 14        | 9                        | 14                    | 10                         | 27                       | 12                       | 14                    | 11                  | 9                   | 12                       | 14                         | 9                     | 11                         | 12                  | 12                         | 11            | 29                         | 10                  | 9                          | 14                  |
| 2nd harvest year                        |                     |                              | 8                   | 13                   | 6                          | 13                       | 9                          | 6                    | 6                   | 6                     | 10                  | 11                       | 7                        | 6                        | 13        | 6                        | 13                    | 10                         | 25                       | 11                       | 13                    | 8                   | 6                   | 11                       | 13                         | 6                     | 8                          | 11                  | 11                         | 8             | 27                         | 10                  | 6                          | 13                  |
| 3rd harvest year                        |                     |                              | 6                   | 12                   | 6                          | 12                       | 9                          | 6                    | 6                   | 6                     | 10                  | 9                        | 6                        | 6                        | 12        | 6                        | 12                    | 10                         | 24                       | T 10                     | 12                    | 6                   | 6                   | 10                       | 12                         | 6                     | 6                          | 9                   | 10                         | 6             | 26                         | 10                  | 6                          | 12                  |

Note that the mean of  ${\sf G}$  varieties include all those from early, intermediate and late maturity groups.

Yields are expressed as a percentage of the mean of all fully recommended PRG varieties in trials. Grazing yields are measured in year 2, Conservation yields in years 1 & 3.

Grazing D-value is measured from a late-summer cut in year 2 and the Grazing ME yields are calculated as total yield multiplied by the D-value x 0.16.

Conservation D-value is measured from both the 1st and 2nd cuts in year 1.

Conservation ME yields are calculated as the first year first cut multiplied by its D-value x 0.16, plus the first year second cut yield multiplied by its D-value x 0.16.

[] = Only 2 trials worth of data.

# Recommended List of Late Perennial Ryegrass Tetraploid varieties

|   | Mean of<br>G varieties | Late tetraploid<br>mean (G and S) | Ballintoy | Bijou | AberForth | Meiduno | Weldone | Richhill | Gracehill | Aspect | AberGain | Nashota | AstonGlory | Thegn | Норі  |
|---|------------------------|-----------------------------------|-----------|-------|-----------|---------|---------|----------|-----------|--------|----------|---------|------------|-------|-------|
| Recommended List status   |                        |                                   | G         | S     | PS        | S       | PG      | PG       | PG        | G      | G        | G       | PS         | PG    | PG    |
| Heading date  |                        |                                   | 30/05     | 01/06 | 01/06     | 01/06   | 01/06   | 01/06    | 01/06     | 03/06  | 03/06    | 03/06   | 04/06      | 05/06 | 08/06 |
| Grazing management  |                        |                                   |           |       |           |         |         |          |           |        |          |         |            |       |       |
| Grazing yield (% of 9.16 t/ha)                                    | 100                    | 104                               | 104       | 100   | 101       | 104     | 102     | 102      | 103       | 100    | 107      | 103     | 105        | 102   | 99    |
| Grazing D-value   | 76.7                   | 77.1                              | 77.0      | 75.3  | 78.0      | 76.4    | 76.7    | 76.7     | 76.1      | 76.8   | 77.9     | 77.2    | 78.4       | 77.4  | 76.3  |
| ME yield (% of 113,000 MJ/ha)                                     | 100                    | 105                               | 105       | 98    | 102       | 103     | 102     | 102      | 103       | 100    | 109      | 103     | 107        | 103   | 98    |
| Ground cover % (grazing)  | 69                     | 65                                | 65        | 66    | 57        | 63      | 68      | 64       | 65        | 67     | 66       | 68      | 64         | 68    | 67    |
| Conservation management   |                        |                                   |           |       |           |         |         |          |           |        |          |         |            |       |       |
| Total yield year 1 (% of 15.97 t/ha)                              | 100                    | 104                               | 105       | 101   | 102       | 101     | 100     | 107      | 102       | 99     | 105      | 104     | 99         | 97    | 96    |
| 1st and 2nd cut ME yield, first harvest year (% of 119,000 MJ/ha) | 100                    | 108                               | 109       | 105   | 106       | 104     | 103     | 113      | 104       | 104    | 110      | 109     | 102        | 99    | 98    |
| Total yield year 3 (% of 12.09 t/ha)                              | 100                    | 105                               | 106       | 102   | 100       | 104     | 100     | 109      | 102       | 101    | 108      | 102     | 104        | 99    | 99    |
| Total yield: Mean (% of 14.14 t/ha)                               | 100                    | 104                               | 106       | 101   | 101       | 102     | 100     | 108      | 102       | 100    | 106      | 103     | 101        | 98    | 97    |
| Ground cover % (conservation year 3)                              | 66                     | 61                                | 60        | 62    | 52        | 58      | 63      | 59       | 60        | 63     | 63       | 63      | 57         | 65    | 63    |
| Grazing seasonal growth   |                        |                                   |           |       |           |         |         |          |           |        |          |         |            |       |       |
| Early grazing yield (% of 1.37 t/ha)                              | 100                    | 102                               | 102       | 91    | 111       | 99      | 83      | 89       | 92        | 91     | 106      | 100     | 95         | 83    | 82    |
| Spring (% of 2.45 t/ha)   | 100                    | 102                               | 104       | 97    | 110       | 99      | 89      | 99       | 97        | 94     | 106      | 99      | 97         | 89    | 86    |
| Early summer (% of 3.21 t/ha)                                     | 100                    | 108                               | 106       | 106   | 100       | 108     | 112     | 106      | 106       | 107    | 108      | 108     | 111        | 111   | 110   |
| Late summer (% of 2.20 t/ha)                                      | 100                    | 104                               | 104       | 100   | 94        | 103     | 101     | 101      | 107       | 97     | 106      | 104     | 105        | 107   | 97    |
| Autumn (% of 1.36 t/ha)   | 100                    | 101                               | 102       | 89    | 99        | 101     | 98      | 101      | 103       | 99     | 107      | 94      | 106        | 100   | 98    |

|   | Mean of<br>G varieties | Late tetraploid<br>mean (G and S) | Ballintoy           | Bijou             | AberForth             | Meiduno             | Weldone             | Richhill            | Gracehill           | Aspect              | AberGain              | Nashota          | AstonGlory | Thegn            | Норі             |
|---|------------------------|-----------------------------------|---------------------|-------------------|-----------------------|---------------------|---------------------|---------------------|---------------------|---------------------|-----------------------|------------------|------------|------------------|------------------|
| Conservation seasonal growth – year 1   |                        |                                   |                     |                   |                       |                     |                     |                     |                     |                     |                       |                  |            |                  |                  |
| 1st cut (% of 7.11 t/ha)                | 100                    | 112                               | 116                 | 113               | 108                   | 108                 | 104                 | 122                 | 108                 | 107                 | 114                   | 110              | 104        | 95               | 99               |
| 1st cut D-value                         | 71.0                   | 70.1                              | 69.4                | 68.4              | 72.4                  | 70.4                | 70.8                | 68.0                | 69.8                | 70.4                | 70.0                  | 70.7             | 69.5       | 72.1             | 70.7             |
| 2nd cut (% of 3.30 t/ha)                | 100                    | 106                               | 105                 | 101               | 100                   | 100                 | 105                 | 104                 | 103                 | 102                 | 110                   | 109              | 101        | 106              | 104              |
| 2nd cut D-value                         | 72.9                   | 73.4                              | 72.8                | 71.7              | 74.5                  | 74.1                | 73.6                | 74.4                | 72.7                | 73.3                | 72.6                  | 74.3             | 75.7       | 73.3             | 72.3             |
| 3rd cut (% of 2.66 t/ha)                | 100                    | 99                                | 99                  | 90                | 92                    | 99                  | 100                 | 104                 | 100                 | 94                  | 96                    | 102              | 101        | 102              | 98               |
| 4th + cut (% of 2.93 t/ha)              | 100                    | 97                                | 97                  | 90                | 100                   | 95                  | 93                  | 90                  | 98                  | 91                  | 99                    | 96               | 92         | 95               | 92               |
| Agronomic characters                    |                        |                                   |                     |                   |                       |                     |                     |                     |                     |                     |                       |                  |            |                  |                  |
| Winter hardiness (1–9, 1= poor 9= good) | 7.3                    | 7.4                               | 7.5                 | 7.3               | [7.3]                 | 7.2                 | 7.2                 | [7.3]               | 6.9                 | 7.4                 | 7.4                   | 7.4              | [6.7]      | 7.3              | 7.3              |
| Disease resistance                      |                        |                                   |                     |                   |                       |                     |                     |                     |                     |                     |                       |                  |            |                  |                  |
| Crown rust (1–9, 1= poor 9= good)       | 5.6                    | 5.3                               | 3.0                 | 7.1               | 5.9                   | 5.8                 | 6.7                 | 5.5                 | 6.8                 | 4.4                 | 5.8                   | 6.6              | 5.8        | 6.8              | 6.6              |
| Drechslera (1–9, 1= poor 9= good)       | 5.1                    | 6.3                               | 6.5                 | 6.0               | 6.5                   | 6.3                 | 6.3                 | 5.9                 | 6.8                 | 6.6                 | 5.8                   | 6.4              | 6.3        | 6.4              | 6.5              |
| Mildew (1–9, 1= poor 9= good)           | 6.4                    | 6.7                               | -                   | 6.8               | -                     | 6.6                 | 6.5                 | -                   | [6.9]               | 6.6                 | 7.2                   | 6.4              | -          | 6.1              | 6.7              |
| Year first listed                       |                        |                                   | 2017                | 2014              | 2024                  | 2014                | 2019                | 2024                | 2020                | 2011                | 2012                  | 2018             | 2024       | 2018             | 2019             |
| Breeder                                 |                        |                                   | AFBI, UK            | R2n,<br>France    | IBERS,<br>Aberystwyth | DLF Seeds<br>A/S    | DLF Seeds<br>A/S    | AFBI, UK            | AFBI, UK            | DLF Seeds<br>A/S    | IBERS,<br>Aberystwyth | DLF Seeds<br>A/S | DSV        | DLF Seeds<br>A/S | DLF Seeds<br>A/S |
| Agent                                   |                        |                                   | Barenbrug<br>UK Ltd | RAGT<br>Seeds Ltd | Germinal              | Limagrain<br>UK Ltd | Limagrain<br>UK Ltd | Barenbrug<br>UK Ltd | Barenbrug<br>UK Ltd | Limagrain<br>UK Ltd | Germinal              | DLF Seeds<br>Ltd | DSV        | DLF Seeds<br>Ltd | DLF Seeds<br>Ltd |
| Number of trials for yields             |                        |                                   |                     |                   |                       |                     |                     |                     |                     |                     |                       |                  |            |                  |                  |
| 1st harvest year                        |                        |                                   | 12                  | 13                | 6                     | 18                  | 14                  | 6                   | 12                  | 10                  | 15                    | 14               | 6          | 14               | 14               |
| 2nd harvest year                        |                        |                                   | 11                  | 12                | 6                     | 15                  | 13                  | 6                   | 11                  | 10                  | 13                    | 13               | 6          | 13               | 13               |
| 3rd harvest year                        |                        |                                   | 10                  | 11                | 6                     | 13                  | 12                  | 6                   | 9                   | 10                  | 11                    | 12               | 6          | 12               | 12               |

Note that the mean of G varieties include all those from early, intermediate and late maturity groups.

Yields are expressed as a percentage of the mean of all fully recommended PRG varieties in trials. Grazing yields are measured in year 2, Conservation yields in years 1 & 3.

Grazing D-value is measured from a late-summer cut in year 2 and the Grazing ME yields are calculated as total yield multiplied by the D-value x 0.16.

Conservation D-value is measured from both the 1st and 2nd cuts in year 1.

Conservation ME yields are calculated as the first year first cut multiplied by its D-value x 0.16, plus the first year second cut yield multiplied by its D-value x 0.16.

<sup>[] =</sup> Only 2 trials worth of data.

# Recommended List of Italian Ryegrass Diploid varieties

|  | Mean of G varieties | Diploid mean<br>(G's only) | Shakira | Syntilla | Doluga | Muriello | Fox   | Bigdyl | Alamo | Jaccar | Pinaco | Sendero | Abys  | Exotyl | Melprimo |
|--|---------------------|----------------------------|---------|----------|--------|----------|-------|--------|-------|--------|--------|---------|-------|--------|----------|
| Recommended List status  |                     |                            | G       | PG       | PG     | G        | G     | PG     | G     | PG     | PG     | G       | G     | PG     | PG       |
| Heading date   |                     |                            | 21/05   | 21/05    | 22/05  | 22/05    | 22/05 | 22/05  | 23/05 | 23/05  | 23/05  | 23/05   | 23/05 | 24/05  | 25/05    |
| Total annual yields  |                     |                            |         |          |        |          |       |        |       |        |        |         |       |        |          |
| 1st harvest year (% of 17.11 t/ha)                                   | 100                 | 100                        | 100     | 99       | 104    | 100      | 100   | 101    | 101   | 101    | 100    | 103     | 100   | 102    | 98       |
| 2nd harvest year (% of 14.26 t/ha)                                   | 100                 | 100                        | 101     | 102      | 99     | 99       | 100   | 105    | 100   | 101    | 101    | 101     | 102   | 104    | 100      |
| Total yield: Mean (% of 15.66 t/ha)                                  | 100                 | 100                        | 101     | 100      | 101    | 100      | 100   | 103    | 100   | 101    | 101    | 102     | 101   | 103    | 99       |
| 1st and 2nd cut ME yield, first harvest year<br>(% of 112,000 MJ/ha) | 100                 | 99                         | 100     | 96       | 101    | 97       | 98    | 99     | 99    | 99     | 100    | 101     | 99    | 100    | 95       |
| Year of sowing (% of 1.86 t/ha)                                      | 100                 | 94                         | 92      | 99       | 99     | 97       | 102   | -      | 92    | 91     | 97     | 101     | 88    | -      | 96       |
| Conservation seasonal growth (1st ha                                 | arvest ye           | ear)                       |         |          |        |          |       |        |       |        |        |         |       |        |          |
| Early spring growth (% of 1.78 t/ha)                                 | 100                 | 102                        | 102     | 109      | 101    | 99       | 105   | 101    | 98    | 107    | 93     | 109     | 105   | 103    | 104      |
| 1st conservation cut (% of 6.18 t/ha)                                | 100                 | 98                         | 101     | 96       | 100    | 95       | 99    | 101    | 96    | 101    | 97     | 97      | 97    | 100    | 93       |
| 1st conservation cut D-value   | 71.9                | 71.6                       | 71.1    | 71.2     | 70.6   | 71.9     | 71.1  | 70.7   | 72.0  | 70.6   | 71.8   | 71.8    | 71.7  | 71.5   | 71.2     |
| 2nd conservation cut (% of 4.02 t/ha)                                | 100                 | 100                        | 101     | 98       | 107    | 100      | 98    | 98     | 103   | 99     | 104    | 106     | 100   | 101    | 100      |
| 2nd conservation cut D-value   | 64.7                | 64.4                       | 63.8    | 63.7     | 64.2   | 64.6     | 64.5  | 63.3   | 64.9  | 64.3   | 64.4   | 64.7    | 64.2  | 64.4   | 64.0     |
| Monthly cuts (% of 5.14 t/ha)  | 100                 | 102                        | 98      | 100      | 108    | 105      | 100   | 103    | 107   | 100    | 102    | 104     | 100   | 104    | 102      |

|  | Mean of G varieties | Diploid mean<br>(G's only) | Shakira        | Syntilla          | Doluga | Muriello | Гох                | Bigdyl            | Alamo            | Jaccar                | Pinaco | Sendero | Abys                | Exotyl            | Melprimo            |
|--|---------------------|----------------------------|----------------|-------------------|--------|----------|--------------------|-------------------|------------------|-----------------------|--------|---------|---------------------|-------------------|---------------------|
| Agronomic characters                         |                     |                            |                |                   |        |          |                    |                   |                  |                       |        |         |                     |                   |                     |
| Ground cover % (1st harvest year)            | 59                  | 62                         | 60             | 64                | 62     | 61       | 61                 | 66                | 64               | 61                    | 63     | 62      | 62                  | 66                | 63                  |
| Ground cover % (2nd harvest year)            | 51                  | 53                         | 45             | 56                | 52     | 54       | 54                 | 61                | 56               | 54                    | 55     | 55      | 57                  | 59                | 52                  |
| Winter hardiness (1–9, 1= poor 9= good)      | 7.4                 | 7.4                        | 7.3            | [7.3]             | [7.6]  | 7.4      | 7.0                | -                 | 7.4              | [7.7]                 | -      | [7.4]   | 7.8                 | -                 | 7.6                 |
| Disease resistance                           |                     |                            |                |                   |        |          |                    |                   |                  |                       |        |         |                     |                   |                     |
| Ryegrass mosaic virus (1–9, 1= poor 9= good) | 4.8                 | 4.3                        | 6.2            | -                 | -      | 3.3      | 3.8                | -                 | 4.6              | -                     | -      | -       | 3.8                 | -                 | -                   |
| Mildew (1–9, 1= poor 9= good)                | 6.7                 | 6.9                        | 6.8            | 6.7               | [6.7]  | 6.8      | 6.9                | -                 | 7.1              | [7.0]                 | 6.9    | 7.1     | 6.9                 | -                 | 7.2                 |
| Brown rust (1–9, 1= poor 9= good)            | 6.3                 | 6.1                        | 6.3            | 6.6               | [6.7]  | 5.9      | 6.0                | [6.4]             | 5.3              | [7.0]                 | [4.9]  | 5.0     | 7.1                 | [7.1]             | 6.8                 |
| Crown rust (1–9, 1= poor 9= good)            | 6.8                 | 7.0                        | 6.5            | 7.9               | 6.7    | 6.6      | 7.5                | 8.0               | 6.6              | 6.4                   | 6.5    | 6.9     | 7.7                 | 8.0               | 7.6                 |
| Year first listed                            |                     |                            | 2012           | 2020              | 2022   | 2006     | 2004               | 2024              | 2001             | 2022                  | 2021   | 2020    | 2004                | 2024              | 2019                |
| Breeder                                      |                     |                            | DSV,<br>France | R2n,<br>France    | DSV    | ILVO/DSV | Force<br>Limagrain | R2n,<br>France    | Innoseeds,<br>NL | Semences<br>de France | DSV    | DSV     | R2n,<br>France      | R2n,<br>France    | ILV0                |
| Agent  |                     |                            | DSV            | RAGT<br>Seeds Ltd | DSV    | Germinal | DLF Seeds<br>Ltd   | RAGT<br>Seeds Ltd | DLF Seeds<br>Ltd | Germinal              | DSV    | DSV     | Barenbrug<br>UK Ltd | RAGT<br>Seeds Ltd | Limagrain<br>UK Ltd |
| Number of trials for yields                  |                     |                            |                |                   |        |          |                    |                   |                  |                       |        |         |                     |                   |                     |
| Year of sowing                               |                     |                            | 9              | 4                 | 3      | 14       | 9                  | -                 | 15               | 3                     | 3      | 4       | 10                  | -                 | 7                   |
| 1st harvest year                             |                     |                            | 10             | 12                | 9      | 26       | 10                 | 5                 | 26               | 9                     | 11     | 12      | 10                  | 5                 | 11                  |
| 2nd harvest year                             |                     |                            | 11             | 11                | 6      | 26       | 10                 | 5                 | 28               | 6                     | 8      | 11      | 10                  | 5                 | 12                  |

Yields are expressed as a percentage of the mean of all fully recommended italian ryegrass varieties in trials.

Conservation D-value is measured from both the 2nd and 3rd cuts in year 1.

Conservation ME yields are calculated as the first year 2nd cut multiplied by its D-value x 0.16, plus the first year 3rd cut multiplied by its D-value x 0.16.

<sup>[] =</sup> Only 2 trials worth of data.

# Recommended List of Italian Ryegrass Tetraploid varieties

|  | Mean of G varieties | Tetraploid mean<br>(G's only) | Udine | Melsprinter | Kigezi 1 | Hunter | Melsitra | Arman | Messina | Barmultra II | Barimax |
|--|---------------------|-------------------------------|-------|-------------|----------|--------|----------|-------|---------|--------------|---------|
| Recommended List status  |                     | •                             | G     | PS          | G        | G      | PS       | S     | G       | G            | G       |
| Heading date   |                     |                               | 20/05 | 20/05       | 20/05    | 20/05  | 21/05    | 21/05 | 22/05   | 22/05        | 23/05   |
| Total annual yields  | •                   |                               |       |             |          |        |          |       | •       |              |         |
| 1st harvest year (% of 17.11 t/ha)                                   | 100                 | 100                           | 98    | 104         | 99       | 101    | 103      | 101   | 100     | 100          | 102     |
| 2nd harvest year (% of 14.26 t/ha)                                   | 100                 | 100                           | 101   | 93          | 102      | 97     | 95       | 96    | 100     | 99           | 99      |
| Total yield: Mean (% of 15.66 t/ha)                                  | 100                 | 100                           | 99    | 97          | 100      | 99     | 99       | 98    | 100     | 100          | 101     |
| 1st and 2nd cut ME yield, first harvest year<br>(% of 112,000 MJ/ha) | 100                 | 101                           | 98    | 102         | 98       | 103    | 101      | 101   | 100     | 102          | 103     |
| Year of sowing (% of 1.86 t/ha)                                      | 100                 | 104                           | 113   | 120         | 108      | 99     | 110      | 111   | 108     | 108          | 97      |
| Conservation seasonal growth (1st harvest                            | year)               |                               |       |             |          |        |          |       |         |              |         |
| Early spring growth (% of 1.78 t/ha)                                 | 100                 | 99                            | 98    | 113         | 100      | 98     | 105      | 104   | 106     | 102          | 89      |
| 1st conservation cut (% of 6.18 t/ha)                                | 100                 | 101                           | 102   | 98          | 101      | 103    | 98       | 102   | 99      | 103          | 103     |
| 1st conservation cut D-value   | 71.9                | 72.0                          | 70.8  | 72.6        | 70.8     | 71.5   | 72.3     | 71.6  | 73.2    | 72.2         | 72.5    |
| 2nd conservation cut (% of 4.02 t/ha)                                | 100                 | 100                           | 95    | 106         | 96       | 105    | 106      | 98    | 98      | 99           | 104     |
| 2nd conservation cut D-value   | 64.7                | 64.9                          | 64.9  | 64.5        | 64.3     | 63.9   | 64.5     | 64.9  | 65.4    | 65.6         | 64.0    |
| Monthly cuts (% of 5.14 t/ha)  | 100                 | 99                            | 93    | 108         | 98       | 96     | 106      | 101   | 101     | 97           | 103     |

|  | Mean of G varieties | Tetraploid mean<br>(G's only) | Udine               | Melsprinter             | Kigezi 1      | Hunter        | Melsitra      | Arman | Messina             | Barmultra II        | Barimax             |
|--|---------------------|-------------------------------|---------------------|-------------------------|---------------|---------------|---------------|-------|---------------------|---------------------|---------------------|
| Agronomic characters                         |                     |                               |                     |                         |               |               |               |       |                     |                     |                     |
| Ground cover % (1st harvest year)            | 59                  | 57                            | 58                  | 57                      | 58            | 57            | 59            | 61    | 59                  | 58                  | 58                  |
| Ground cover % (2nd harvest year)            | 51                  | 50                            | 52                  | 42                      | 52            | 48            | 45            | 47    | 51                  | 51                  | 46                  |
| Winter hardiness (1–9, 1= poor 9= good)      | 7.4                 | 7.4                           | 7.7                 | [7.6]                   | 7.3           | 7.5           | [7.4]         | [7.3] | 7.6                 | 7.3                 | 7.4                 |
| Disease resistance                           |                     |                               |                     |                         |               |               |               |       |                     |                     |                     |
| Ryegrass mosaic virus (1–9, 1= poor 9= good) | 4.8                 | 5.2                           | 6.0                 | -                       | 4.4           | 5.2           | -             | -     | [6.9]               | 4.1                 | -                   |
| Mildew (1–9, 1= poor 9= good)                | 6.7                 | 6.5                           | 6.7                 | [6.8]                   | 6.4           | 6.6           | 6.9           | 6.8   | 6.5                 | 6.2                 | 6.5                 |
| Brown rust (1–9, 1= poor 9= good)            | 6.3                 | 6.5                           | 6.3                 | [6.0]                   | 6.9           | 7.0           | 5.8           | 6.7   | 7.1                 | 6.4                 | 5.0                 |
| Crown rust (1–9, 1= poor 9= good)            | 6.8                 | 6.7                           | 7.5                 | 7.5                     | 7.4           | 5.6           | 7.7           | 7.4   | 7.3                 | 7.5                 | 7.3                 |
| Year first listed                            |                     |                               | 2012                | 2022                    | 2010          | 2008          | 2020          | 2020  | 2017                | 2009                | 2018                |
| Breeder                                      |                     |                               | DLF Seeds A/S       | ILV0                    | DLF Seeds A/S | DSV, Germany  | ILV0          | DSV   | ILV0                | Barenbrug, NL       | Barenbrug, NL       |
| Agent  |                     |                               | Limagrain UK<br>Ltd | Freudenberger<br>UK Ltd | DLF Seeds Ltd | DLF Seeds Ltd | DLF Seeds Ltd | DSV   | Limagrain UK<br>Ltd | Barenbrug<br>UK Ltd | Barenbrug<br>UK Ltd |
| Number of trials for yields                  |                     |                               |                     |                         |               |               |               |       |                     |                     |                     |
| Year of sowing                               |                     |                               | 9                   | 3                       | 10            | 11            | 4             | 4     | 8                   | 11                  | 7                   |
| 1st harvest year                             |                     |                               | 10                  | 9                       | 10            | 20            | 12            | 12    | 11                  | 10                  | 12                  |
| 2nd harvest year                             |                     |                               | 11                  | 6                       | 10            | 18            | 11            | 11    | 12                  | 10                  | 13                  |

Yields are expressed as a percentage of the mean of all fully recommended italian ryegrass varieties in trials.

Conservation D-value is measured from both the 2nd and 3rd cuts in year 1.

Conservation ME yields are calculated as the first year 2nd cut multiplied by its D-value x 0.16, plus the first year 3rd cut multiplied by its D-value x 0.16.

<sup>[] =</sup> Only 2 trials worth of data.

# Recommended List of Hybrid Ryegrass varieties

|  |                     |                        |           | Diplo | oids    |          |                            |         |           |          |                |         |        |          | Tetra      | ploids  |                  |             |          |            |        |                |           |
|--|---------------------|------------------------|-----------|-------|---------|----------|----------------------------|---------|-----------|----------|----------------|---------|--------|----------|------------|---------|------------------|-------------|----------|------------|--------|----------------|-----------|
|  | Mean of G varieties | Diploid mean (G and S) | Barlaunch | Pirol | Barsilo | Barclamp | Tetraploid mean (G's only) | Kubicek | AberSheen | AberEcho | Aston Crusader | Utopial | Enduro | Bannfoot | Tetragraze | Perkins | AberNiche (Fest) | RGT Cordial | Aber0pal | AberGarnet | Kirial | Perseus (Fest) | Aberlmage |
| Recommended List status  |                     |                        | PG        | G     | S       | S        |                            | PS      | PS        | G        | G              | PG      | G      | G        | S          | PG      | S                | PG          | PG       | PG         | G      | S              | PS        |
| Heading date   |                     |                        | 21/05     | 23/05 | 26/05   | 27/05    |                            | 15/05   | 18/05     | 19/05    | 21/05          | 22/05   | 22/05  | 22/05    | 22/05      | 22/05   | 23/05            | 23/05       | 23/05    | 24/05      | 24/05  | 25/05          | 28/05     |
| Total annual yields  |                     |                        |           |       |         |          |                            |         |           |          |                |         |        |          |            |         |                  |             |          |            |        |                |           |
| 1st harvest year (% of 17.14 t/ha)                                   | 100                 | 104                    | 98        | 104   | 104     | 103      | 99                         | 80      | 103       | 102      | 101            | 101     | 98     | 97       | 96         | 96      | 102              | 98          | 103      | 98         | 99     | 97             | 99        |
| 2nd harvest year (% of 12.89 t/ha)                                   | 100                 | 96                     | 99        | 98    | 94      | 96       | 100                        | 105     | 105       | 101      | 101            | 106     | 99     | 100      | 99         | 103     | 99               | 104         | 102      | 104        | 102    | 101            | 105       |
| 3rd harvest year (% of 11.93 t/ha)                                   | 100                 | 93                     | 98        | 97    | 92      | 90       | 101                        | 103     | 107       | 96       | 101            | 106     | 100    | 101      | 99         | 100     | 100              | 104         | 104      | 102        | 105    | 104            | 100       |
| Total yield: Mean (% of 14.02 t/ha)                                  | 100                 | 98                     | 99        | 100   | 96      | 97       | 100                        | 96      | 105       | 100      | 101            | 104     | 99     | 99       | 98         | 100     | 101              | 101         | 103      | 102        | 102    | 101            | 101       |
| 1st and 2nd cut ME yield, first harvest<br>year (% of 114 000 MJ/ha) | 100                 | 101                    | 92        | 101   | 101     | 102      | 100                        | 71      | 100       | 103      | 100            | 100     | 100    | 98       | 100        | 94      | 101              | 97          | 107      | 98         | 98     | 98             | 99        |
| Agronomic characters   |                     |                        |           |       |         |          |                            |         |           |          |                |         |        |          |            |         |                  |             |          |            |        |                |           |
| Ground cover % (2nd harvest year)                                    | 62                  | 58                     | 56        | 60    | 55      | 60       | 63                         | 82      | 55        | 62       | 62             | 67      | 63     | 65       | 70         | 63      | 57               | 67          | 61       | 60         | 61     | 59             | 58        |
| Ground cover % (3rd harvest year)                                    | 58                  | 48                     | 48        | 48    | 49      | 47       | 60                         | 84      | 50        | 58       | 58             | 69      | 60     | 66       | 63         | 62      | 52               | 65          | 56       | 60         | 59     | 56             | 58        |
| Year of sowing (% of 1.62 t/ha)                                      | 100                 | 90                     | [119]     | 95    | 90      | 83       | 101                        | -       | 78        | 93       | 101            | [95]    | 105    | 88       | 89         | 83      | 94               | 87          | 93       | [100]      | 118    | 102            | 90        |
| Conservation seasonal growth   | h (1st              | harve                  | est yea   | ar)   |         |          |                            |         |           |          |                |         |        |          |            |         |                  |             |          |            |        |                |           |
| Early spring growth (% of 1.55 t/ha)                                 | 100                 | 108                    | 112       | 115   | 110     | 99       | 97                         | 66      | 92        | 99       | 110            | 107     | 94     | 83       | 83         | 106     | 112              | 93          | 86.6     | 93         | 100    | 101            | 97        |
| 1st conservation cut (% of 6.23 t/ha)                                | 100                 | 96                     | 95        | 96    | 94      | 98       | 101                        | 63      | 96        | 99       | 102            | 101     | 103    | 102      | 106        | 95      | 94               | 98          | 99       | 94         | 99     | 98             | 96        |
| 1st conservation cut D-value   | 72.1                | 72.5                   | 68.8      | 71.8  | 72.9    | 72.8     | 72.2                       | 71.0    | 71.7      | 73.2     | 71.8           | 70.7    | 72.6   | 72.0     | 71.8       | 72.6    | 73.0             | 72.6        | 75.0     | 73.1       | 71.5   | 72.5           | 73.5      |

|  |                     |                        |                          | Dipl                          | oids                     |                          |                            |                     |                            |                            |                |                     |                          |                          | Tetra               | oloids  |                            |                      |                            |                            |                      |                     |                            |
|--|---------------------|------------------------|--------------------------|-------------------------------|--------------------------|--------------------------|----------------------------|---------------------|----------------------------|----------------------------|----------------|---------------------|--------------------------|--------------------------|---------------------|---------|----------------------------|----------------------|----------------------------|----------------------------|----------------------|---------------------|----------------------------|
|  | Mean of G varieties | Diploid mean (G and S) | Barlaunch                | Pirol                         | Barsilo                  | Barclamp                 | Tetraploid mean (G's only) | Kubicek             | AberSheen                  | AberEcho                   | Aston Crusader | Utopial             | Enduro                   | Bannfoot                 | Tetragraze          | Perkins | AberNiche (Fest)           | RGT Cordial          | Aber0pal                   | AberGarnet                 | Kirial               | Perseus (Fest)      | Aberlmage                  |
| 2nd conservation cut (% of 3.80 t/ha)      | 100                 | 115                    | 98                       | 115                           | 114                      | 114                      | 97                         | 87                  | 108                        | 107                        | 99             | 101                 | 93                       | 89                       | 90                  | 94      | 117                        | 95                   | 112                        | 103                        | 96                   | 99                  | 102                        |
| 2nd conservation cut D-value               | 69.1                | 65.4                   | 65.5                     | 65.1                          | 66.0                     | 65.1                     | 69.9                       | 68.7                | 68.6                       | 70.1                       | 68.8           | 70.1                | 69.3                     | 72.1                     | 69.5                | 68.2    | 66.3                       | 70.2                 | 70.6                       | 69.5                       | 69.4                 | 67.1                | 67.7                       |
| Monthly cuts ( % of 5.69 t/ha)             | 100                 | 103                    | 98                       | 102                           | 106                      | 103                      | 100                        | 97                  | 110                        | 103                        | 98             | 99                  | 97                       | 101                      | 93                  | 97      | 100                        | 103                  | 105                        | 102                        | 99                   | 93                  | 100                        |
| Agronomic characters                       |                     |                        |                          |                               |                          |                          |                            |                     |                            |                            |                |                     |                          |                          |                     |         |                            |                      |                            |                            |                      |                     |                            |
| Winter hardiness (1–9, 1=poor 9=good)      | 7.4                 | 7.5                    | [7.5]                    | 7.6                           | 7.3                      | 7.6                      | 7.4                        | [7.7]               | [7.3]                      | 7.2                        | 7.4            | [7.9]               | 7.4                      | 7.5                      | 7.4                 | 7.7     | 7.5                        | [7.6]                | [7.3]                      | [7.6]                      | 7.5                  | 7.5                 | 7.4                        |
| Disease resistance                         |                     |                        |                          |                               |                          |                          |                            |                     |                            |                            |                |                     |                          |                          |                     |         |                            |                      |                            |                            |                      |                     |                            |
| Ryegrass mosaic virus (1–9, 1=poor 9=good) | 6.4                 | 4.7                    | -                        | 3.9                           | 3.7                      | [6.7]                    | 7.0                        | -                   | -                          | 5.7                        | 6.8            | -                   | 6.8                      | 7.8                      | 6.7                 | -       | 6.6                        | -                    | -                          | -                          | 7.9                  | 7.1                 | -                          |
| Mildew (1–9, 1=poor 9=good)                | 6.3                 | 5.6                    | 5.9                      | 4.4                           | 6.9                      | 5.5                      | 6.7                        | -                   | 7.8                        | 6.3                        | 7.0            | 6.4                 | 6.4                      | 7.0                      | 6.4                 | 7.5     | 6.6                        | 6.3                  | 6.8                        | 7.2                        | 6.9                  | 5.9                 | 6.6                        |
| Brown rust (1–9, 1= poor 9=good)           | 6.1                 | 5.9                    | [7.0]                    | 5.8                           | 4.9                      | 7.0                      | 6.1                        | [7.2]               | 1.9                        | 3.1                        | 7.3            | [7.7]               | 6.7                      | 7.1                      | 7.0                 | 7.0     | 7.2                        | 7.2                  | [7.4]                      | [7.3]                      | 6.5                  | 7.1                 | 7.1                        |
| Crown rust (1–9, 1= poor 9= good)          | 6.0                 | 6.0                    | 7.4                      | 6.2                           | 5.1                      | 6.7                      | 6.0                        | 7.7                 | 4.8                        | 4.4                        | 6.4            | 7.6                 | 7.0                      | 5.8                      | 4.4                 | 6.0     | 5.6                        | 7.3                  | 5.1                        | 3.8                        | 6.4                  | 6.7                 | 2.4                        |
| Year first listed                          |                     |                        | 2023                     | 2005                          | 1998                     | 2017                     |                            | 2024                | 2021                       | 2002                       | 2014           | 2023                | 2005                     | 2018                     | 2008                | 2020    | 2011                       | 2021                 | 2022                       | 2023                       | 2012                 | 2018                | 2020                       |
| Breeder                                    |                     |                        | Baren-<br>brug,<br>NL    | Steinach,<br>Germany<br>/ DSV | Baren-<br>brug,<br>NL    | Baren-<br>brug,<br>NL    |                            | DLF<br>Seeds<br>A/S | IBERS,<br>Aber-<br>ystwyth | IBERS,<br>Aber-<br>ystwyth | DSV, UK        | R2n,<br>France      | R2n,<br>France           | AFBI, UK                 | DLF<br>Seeds<br>A/S | DSV     | IBERS,<br>Aber-<br>ystwyth | R2n,<br>France       | IBERS,<br>Aber-<br>ystwyth | IBERS,<br>Aber-<br>ystwyth | R2n,<br>France       | DLF<br>Seeds<br>A/S | IBERS,<br>Aber-<br>ystwyth |
| Agent                                      |                     |                        | Baren-<br>brug UK<br>Ltd | Germi-<br>nal                 | Baren-<br>brug UK<br>Ltd | Baren-<br>brug UK<br>Ltd |                            | DLF<br>Seeds<br>Ltd | Germi-<br>nal              | Germi-<br>nal              | DSV            | DLF<br>Seeds<br>Ltd | Lim-<br>agrain<br>UK Ltd | Baren-<br>brug<br>UK Ltd | DLF<br>Seeds<br>Ltd | DSV     | Germi-<br>nal              | RAGT<br>Seeds<br>Ltd | Germi-<br>nal              | Germi-<br>nal              | RAGT<br>Seeds<br>Ltd | DLF<br>Seeds<br>Ltd | Germi-<br>nal              |
| Number of trials for yields                |                     |                        |                          |                               |                          |                          |                            |                     |                            |                            |                |                     |                          |                          |                     |         |                            |                      |                            |                            |                      |                     |                            |
| Year of sowing                             |                     |                        | 2                        | 14                            | 6                        | 6                        |                            | -                   | 4                          | 12                         | 6              | 2                   | 8                        | 4                        | 6                   | 4       | 8                          | 4                    | 4                          | 2                          | 7                    | 4                   | 4                          |
| 1st harvest year                           |                     |                        | 6                        | 28                            | 10                       | 11                       |                            | 6                   | 11                         | 28                         | 18             | 6                   | 10                       | 12                       | 10                  | 12      | 10                         | 11                   | 9                          | 6                          | 10                   | 12                  | 12                         |
| 2nd harvest year                           |                     |                        | 6                        | 28                            | 10                       | 12                       |                            | 6                   | 8                          | 28                         | 15             | 6                   | 10                       | 13                       | 10                  | 11      | 10                         | 8                    | 6                          | 6                          | 11                   | 13                  | 11                         |
| 3rd harvest year                           |                     |                        | 6                        | 27                            | 11                       | 12                       |                            | 6                   | 6                          | 27                         | 14             | 6                   | 11                       | 13                       | 11                  | 9       | 10                         | 6                    | 6                          | 6                          | 11                   | 13                  | 9                          |

 $Yields\ are\ expressed\ as\ a\ percentage\ of\ the\ mean\ of\ all\ fully\ recommended\ hybrid\ ryegrass\ varieties\ in\ trials.$ 

Conservation D-value is measured from both the 2nd and 3rd cuts in year 1.

 $Conservation \ ME \ yields \ are \ calculated \ as \ the \ first \ year \ first \ cut \ multiplied \ by \ its \ D-value \ x \ 0.16, \ plus \ the \ first \ year \ second \ cut \ yield \ multiplied \ by \ its \ D-value \ x \ 0.16.$ 

Hybrid diploids have more secondary heading than hybrid tetraploids.

<sup>[] =</sup> Only 2 trials worth of data.

# Recommended List of Timothy varieties

|  | Mean of<br>G varieties | Presto | Comer | Dolina | Promesse | Comtal | Winnetou | Baronaise |
|--|------------------------|--------|-------|--------|----------|--------|----------|-----------|
| Recommended List status                              |                        | G      | G     | G      | S        | G      | G        | PG        |
| Heading date   |                        | 07/06  | 07/06 | 07/06  | 08/06    | 09/06  | 09/06    | 12/06     |
| Grazing management                                   |                        |        |       |        |          |        |          |           |
| Grazing yield (% of 9.14 t/ha)                       | 100                    | 100    | 100   | 103    | 96       | 100    | 97       | 101       |
| Grazing D-value                                      | 72.0                   | 72.2   | 71.4  | 71.2   | 72.5     | 71.7   | 73.7     | 73.7      |
| ME yield (% of 106,000 MJ/ha)                        | 100                    | 101    | 99    | 102    | 97       | 100    | 99       | 104       |
| Ground cover % (grazing)                             | 74                     | 74     | 73    | 72     | 76       | 75     | 77       | 73        |
| Conservation management                              |                        |        |       |        |          |        |          |           |
| Total yield year 1 (% of 13.95 t/ha)                 | 100                    | 101    | 99    | 101    | 96       | 98     | 101      | 96        |
| ME yield of 1st + 2nd cut year 1 (% of 98,000 MJ/ha) | 100                    | 101    | 99    | 101    | 97       | 97     | 103      | 99        |
| Total yield year 3 (% of 12.51 t/ha)                 | 100                    | 100    | 100   | 102    | 97       | 100    | 98       | 101       |
| Total yield: Mean (% of 13.28 t/ha)                  | 100                    | 101    | 100   | 101    | 96       | 99     | 100      | 98        |
| Ground cover % (conservation year 3)                 | 71                     | 72     | 71    | 70     | 72       | 70     | 73       | 67        |
| Grazing seasonal growth                              |                        |        |       |        |          |        |          |           |
| Early grazing yield (% of 1.31 t/ha)                 | 100                    | 107    | 100   | 106    | 80       | 96     | 91       | 114       |
| Spring (% of 2.56 t/ha)                              | 100                    | 102    | 94    | 106    | 94       | 98     | 99       | 108       |
| Early summer (% of 3.35 t/ha)                        | 100                    | 99     | 103   | 100    | 99       | 102    | 97       | 97        |
| Late summer (% of 2.39 t/ha)                         | 100                    | 100    | 101   | 103    | 95       | 100    | 96       | 99        |
| Autumn (% of 1.06 t/ha)                              | 100                    | 100    | 100   | 106    | 92       | 99     | 95       | 104       |

|   | Mean of<br>G varieties | Presto           | Comer            | Dolina        | Promesse      | Comtal           | Winnetou      | Baronaise        |
|---|------------------------|------------------|------------------|---------------|---------------|------------------|---------------|------------------|
| Conservation seasonal growth – year 1   |                        |                  |                  |               |               |                  |               |                  |
| 1st cut (% of 6.12 t/ha)                | 100                    | 104              | 99               | 99            | 96            | 96               | 102           | 98               |
| 1st cut D-value                         | 65.8                   | 65.5             | 66.0             | 65.4          | 66.9          | 65.3             | 66.8          | 68.2             |
| 2nd cut (% of 3.28 t/ha)                | 100                    | 99               | 100              | 104           | 96            | 100              | 97            | 93               |
| 2nd cut D-value                         | 65.1                   | 64.8             | 64.8             | 64.5          | 66.0          | 64.1             | 67.0          | 68.3             |
| 3rd cut (% of 2.37 t/ha)                | 100                    | 97               | 102              | 103           | 97            | 99               | 100           | 95               |
| 4th + cut (% of 2.18 t/ha)              | 100                    | 98               | 96               | 103           | 95            | 101              | 102           | 100              |
| Agronomic characters                    |                        |                  |                  |               |               |                  |               |                  |
| Winter hardiness (1–9, 1= poor 9= good) | 6.8                    | 7.0              | 6.9              | 7.0           | 6.8           | 6.7              | 6.6           | -                |
| Year first listed                       |                        | 2005             | 2001             | 2003          | 1990          | 1989             | 2003          | 2020             |
| Breeder                                 |                        | DSV, Netherlands | ILV0             | ILV0          | Innoseeds, NL | DLF Seeds A/S    | DLF Seeds A/S | Barenbrug, NL    |
| Agent                                   |                        | Germinal         | Limagrain UK Ltd | DLF Seeds Ltd | DLF Seeds Ltd | Limagrain UK Ltd | DLF Seeds Ltd | Barenbrug UK Ltd |
| Number of trials for yields             |                        |                  |                  |               |               |                  |               |                  |
| 1st harvest year                        |                        | 12               | 12               | 12            | 12            | 12               | 12            | 10               |
| 2nd harvest year                        |                        | 11               | 11               | 11            | 11            | 11               | 11            | 7                |
| 3rd harvest year                        |                        | 10               | 12               | 10            | 10            | 10               | 10            | 7                |

Yields are expressed as a percentage of the mean of all fully recommended timothy varieties in trials. Grazing yields are measured in year 2, Conservation yields in years 1 & 3. Grazing D-value is measured from a late-summer cut in year 2 and the Grazing ME yields are calculated as total yield multiplied by the D-value x 0.16. Conservation D-value is measured from both the 1st and 2nd cuts in year 1.

Conservation ME yields are calculated as the first year first cut multiplied by its D-value x 0.16, plus the first year second cut yield multiplied by its D-value x 0.16.

<sup>[] =</sup> Only 2 trials worth of data.

## Recommended List of White Clover varieties

|   | AberAce  | Aberystwyth<br>S.184 | Coolfin | AberHerald | Quartz | lona | AberSwan | Dublin | AberSirius | Violin | Barblanca | Clodagh | Legacy | Kakariki | Aran | Brianna |
|---|----------|----------------------|---------|------------|--------|------|----------|--------|------------|--------|-----------|---------|--------|----------|------|---------|
| Recommended List status                             | G        | G                    | G       | G          | PG     | G    | G        | G      | PS         | G      | G         | PG      | PG     | PG       | G    | G       |
| Leaf area (length x breadth mm²)                    | 405      | 599                  | 731     | 733        | 741    | 793  | 890      | 913    | 928        | 1012   | 1036      | 1038    | 1080   | 1250     | 1286 | 1389    |
| Light defoliation (cutting or rotational ca         | ttle gra | zing)                | •       |            |        | •    |          | •      | •          |        | •         | •       |        |          |      |         |
| 2nd harvest year                                    |          |                      |         |            |        |      |          |        |            |        |           |         |        |          |      |         |
| Total clover yield (% of 4.76 t/ha) #               | 78       | 86                   | 92      | 100        | 91     | 93   | 106      | 109    | 101        | 105    | 105       | 110     | 101    | 111      | 110  | 112     |
| Total yield of grass + clover (% of 10.52 t/ha) #   | 92       | 98                   | 97      | 100        | 97     | 97   | 102      | 102    | 100        | 103    | 101       | 103     | 103    | 99       | 103  | 103     |
| % clover  | 38       | 40                   | 43      | 45         | 42     | 43   | 47       | 48     | 46         | 46     | 47        | 49      | 44     | 50       | 49   | 49      |
| 3rd harvest year                                    |          |                      |         |            |        |      |          |        |            |        |           |         |        |          |      |         |
| Total clover yield (% of 4.14 t/ha) #               | 69       | 75                   | 95      | 108        | 93     | 98   | 112      | 111    | 120        | 108    | 110       | 132     | 108    | 114      | 105  | 113     |
| Total yield of grass + clover (% of 9.72 t/ha) #    | 89       | 93                   | 97      | 102        | 101    | 97   | 104      | 105    | 110        | 102    | 103       | 110     | 107    | 103      | 101  | 102     |
| % clover  | 33       | 34                   | 42      | 45         | 39     | 43   | 46       | 45     | 46         | 45     | 45        | 51      | 43     | 48       | 44   | 47      |
| Autumn ground cover                                 |          |                      |         |            |        |      |          |        | •          |        |           |         |        |          |      |         |
| Light defoliation ground cover % (3rd harvest year) | 49       | 51                   | 55      | 57         | 57     | 55   | 57       | 54     | 58         | 58     | 58        | 65      | 53     | 53       | 53   | 55      |
| Hard defoliation ground cover % (3rd harvest year)  | 60       | 57                   | 59      | 52         | 71     | 55   | 56       | 54     | 48         | 56     | 65        | 57      | 57     | 57       | 45   | 51      |
| Spring ground cover                                 |          |                      |         |            |        |      |          |        |            |        |           |         |        |          |      |         |
| Hard defoliation ground cover% (3rd harvest year)   | 52       | 49                   | 52      | 50         | 56     | 50   | 50       | 48     | 44         | 48     | 50        | 48      | 48     | 44       | 42   | 46      |

|                      |                                      | AberAce                    | Aberystwyth<br>S.184       | Coolfin             | AberHerald                 | Quartz                          | lona             | AberSwan                   | Dublin           | AberSirius                 | Violin              | Barblanca                          | Clodagh          | Legacy                          | Kakariki                       | Aran             | Brianna          |
|----------------------|--------------------------------------|----------------------------|----------------------------|---------------------|----------------------------|---------------------------------|------------------|----------------------------|------------------|----------------------------|---------------------|------------------------------------|------------------|---------------------------------|--------------------------------|------------------|------------------|
| Light de             | efoliation (cutting or rotational ca | ttle gra                   | zing)                      |                     |                            |                                 |                  |                            |                  |                            |                     |                                    |                  |                                 |                                |                  |                  |
| 2nd har              | vest year                            |                            |                            |                     |                            |                                 |                  |                            |                  |                            |                     |                                    |                  |                                 |                                |                  |                  |
| Clover yield         | l: First cut (% of 0.58 t/ha) #      | 75                         | 82                         | 103                 | 96                         | 95                              | 97               | 114                        | 110              | 105                        | 102                 | 109                                | 113              | 126                             | 112                            | 106              | 107              |
| Clover yield         | l: Last cut (% of 0.55 t/ha) #       | 62                         | 63                         | 87                  | 95                         | 91                              | 90               | 105                        | 111              | 101                        | 112                 | 123                                | 128              | 100                             | 123                            | 124              | 123              |
| 3rd harv             | vest year                            |                            |                            |                     |                            |                                 |                  |                            |                  |                            |                     |                                    |                  |                                 |                                |                  |                  |
| Clover yield         | l: First cut (% of 0.57 t/ha) #      | 61                         | 67                         | 104                 | 111                        | 95                              | 97               | 122                        | 113              | 136                        | 106                 | 116                                | 127              | 124                             | 135                            | 112              | 111              |
| Clover yield         | l: Last cut (% of 0.41 t/ha) #       | 69                         | 68                         | 91                  | 104                        | 122                             | 92               | 110                        | 108              | 126                        | 100                 | 125                                | 151              | 115                             | 141                            | 115              | 121              |
| Autumr               | ground cover                         |                            |                            |                     |                            |                                 |                  |                            |                  |                            |                     |                                    |                  |                                 |                                |                  |                  |
| Light<br>defoliation | Ground cover % (1st harvest year)    | 49                         | 57                         | 50                  | 53                         | 56                              | 52               | 53                         | 53               | 55                         | 54                  | 56                                 | 51               | 55                              | 52                             | 53               | 50               |
|                      | Ground cover % (2nd harvest year)    | 45                         | 52                         | 56                  | 62                         | 59                              | 52               | 56                         | 60               | 58                         | 59                  | 66                                 | 67               | 66                              | 55                             | 56               | 59               |
| Hard<br>defoliation  | Ground cover % (1st harvest year)    | 61                         | 61                         | 63                  | 55                         | 64                              | 57               | 56                         | 56               | 52                         | 59                  | 60                                 | 59               | 58                              | 54                             | 54               | 54               |
| Ha<br>defoli         | Ground cover % (2nd harvest year)    | 67                         | 69                         | 69                  | 61                         | 69                              | 61               | 65                         | 62               | 53                         | 64                  | 68                                 | 69               | 68                              | 58                             | 56               | 60               |
| Spring               | ground cover                         |                            |                            |                     |                            |                                 |                  |                            |                  |                            |                     |                                    |                  |                                 |                                |                  |                  |
| Hard<br>defoliation  | Ground cover % (1st harvest year)    | 36                         | 36                         | 35                  | 29                         | 30                              | 29               | 33                         | 30               | 26                         | 29                  | 27                                 | 25               | 29                              | 23                             | 27               | 25               |
| Ha<br>defoli         | Ground cover % (2nd harvest year)    | 59                         | 64                         | 58                  | 49                         | 53                              | 51               | 51                         | 53               | 42                         | 56                  | 51                                 | 50               | 44                              | 48                             | 48               | 48               |
|                      | Year first listed                    | 2001                       | 1969                       | 2019                | 1994                       | 2021                            | 2011             | 2018                       | 2015             | 2021                       | 2009                | 2001                               | 2022             | 2022                            | 2021                           | 1981             | 2015             |
|                      | Breeder                              | IBERS,<br>Aberyst-<br>wyth | IBERS,<br>Aberyst-<br>wyth | Teagasc,<br>Eire    | IBERS,<br>Aberyst-<br>wyth | Grasslands<br>Innovation<br>Ltd | Teagasc,<br>Eire | IBERS,<br>Aberyst-<br>wyth | Teagasc,<br>Eire | IBERS,<br>Aberyst-<br>wyth | DLF Seeds<br>A/S    | AgResearch<br>Ltd (New<br>Zealand) | Teagasc,<br>Eire | Grasslands<br>Innovation<br>Ltd | Grasslanz<br>Technology<br>Ltd | Teagasc,<br>Eire | DLF Seeds<br>A/S |
|                      | Agent                                | Germinal                   | Barenbrug<br>UK Ltd        | Limagrain<br>UK Ltd | Germinal                   | DLF Seeds<br>Ltd                | DLF Seeds<br>Ltd | Germinal                   | DLF Seeds<br>Ltd | Germinal                   | Limagrain<br>UK Ltd | Barenbrug<br>UK Ltd                | Goldcrop<br>Ltd  | PGG Wright-<br>son Seeds        | Limagrain<br>UK Ltd            | Germinal         | DLF Seeds<br>Ltd |
|                      | r of trials for clover yields        |                            |                            |                     |                            |                                 |                  |                            |                  |                            |                     |                                    |                  |                                 |                                |                  |                  |
| 2nd harves           | ·*                                   | 25                         | 10                         | 10                  | 10                         | 8                               | 11               | 12                         | 12               | 8                          | 14                  | 10                                 | 5                | 5                               | 8                              | 25               | 12               |
| 3rd harvest          | year                                 | 23                         | 10                         | 9                   | 12                         | 5                               | 10               | 11                         | 11               | 5                          | 14                  | 10                                 | 5                | 5                               | 5                              | 23               | 11               |

| Recomm                   | nended List of                          |                        |                     |                     |                         | Diploids            |                  |               |                     |                              | Tetraploids         |                     |
|--------------------------|---|------------------------|---------------------|---------------------|-------------------------|---------------------|------------------|---------------|---------------------|------------------------------|---------------------|---------------------|
| Red Clov                 | ver varieties                           | Mean of G<br>varieties | Merviot             | Lemmon              | AberClaret              | Harmonie            | Sinope           | Fearga        | Ganymed             | Amos                         | Atlantis            | Magellan            |
|                          | Recommended List status                 |                        | S                   | G                   | G                       | G                   | G                | G             | PG                  | G                            | G                   | G                   |
| Conservation ma          | anagement                               |                        |                     |                     |                         |                     |                  |               |                     |                              |                     |                     |
| Total yield 1st harvest  | year (% of 12.26 t/ha)                  | 100                    | 104                 | 99                  | 101                     | 97                  | 101              | 99            | 102                 | 99                           | 102                 | 101                 |
| Total yield 2nd harvest  | t year (% of 13.39 t/ha)                | 100                    | 97                  | 97                  | 100                     | 98                  | 98               | 99            | 104                 | 99                           | 101                 | 102                 |
| Total yield 3rd harvest  | year (% of 10.24 t/ha)                  | 100                    | 85                  | 96                  | 101                     | 98                  | 100              | 103           | 108                 | 97                           | 100                 | 102                 |
| Total yield: Mean (% of  | of 12.06 t/ha)                          | 100                    | 96                  | 98                  | 101                     | 98                  | 100              | 100           | 104                 | 98                           | 101                 | 102                 |
| Protein content          | %                                       |                        |                     |                     |                         |                     |                  |               |                     |                              |                     |                     |
| 1st cut — 1st harvest ye | ear                                     | 17.7                   | 17.1                | 17.6                | 17.0                    | 18.3                | 17.8             | 17.1          | 16.6                | 18.1                         | 17.8                | 18.0                |
| 2nd cut — 2nd harvest    | year                                    | 19.0                   | 18.6                | 19.1                | 18.0                    | 19.3                | 18.8             | 17.9          | 17.6                | 19.3                         | 19.7                | 19.5                |
| 2nd cut — 3rd harvest y  | ,                                       | 19.4                   | 18.8                | 19.2                | 18.5                    | 20.0                | 19.4             | 18.5          | 18.7                | 19.7                         | 19.7                | 19.9                |
| Agronomic char           |   |                        |                     |                     |                         |                     |                  |               |                     |                              |                     |                     |
| Ground cover % (1st ha   | ·                                       | 69                     | 69                  | 70                  | 68                      | 72                  | 67               | 66            | 70                  | 71                           | 69                  | 70                  |
| Ground cover % (2nd h    | ·                                       | 61                     | 52                  | 62                  | 59                      | 66                  | 61               | 60            | 63                  | 60                           | 61                  | 62                  |
| Ground cover % (3rd h    | narvest year)                           | 48                     | 36                  | 48                  | 46                      | 55                  | 47               | 46            | 50                  | 45                           | 47                  | 47                  |
| Conservation se          |   |                        |                     |                     |                         |                     |                  |               |                     |                              |                     |                     |
| 1st harvest year         | 1st cut (% of 5.25 t/ha)                | 100                    | 107                 | 102                 | 98                      | 100                 | 105              | 94            | 104                 | 101                          | 105                 | 102                 |
| 13t Hai vest year        | Protein yield: 1st cut (% of 0.93 t/ha) | 100                    | 103                 | 101                 | 94                      | 104                 | 106              | 90            | 97                  | 103                          | 105                 | 104                 |
| 2nd harvest year         | 2nd cut (% of 3.81 t/ha)                | 100                    | 97                  | 92                  | 102                     | 96                  | 97               | 101           | 101                 | 100                          | 100                 | 101                 |
| Zila ilai vest year      | Protein yield: 2nd cut (% of 0.72 t/ha) | 100                    | 95                  | 93                  | 97                      | 97                  | 96               | 96            | 94                  | 102                          | 104                 | 103                 |
| 3rd harvest year         | 2nd cut (% of 3.19 t/ha)                | 100                    | 87                  | 92                  | 103                     | 95                  | 92               | 104           | 103                 | 100                          | 98                  | 101                 |
| Sta tiai vest year       | Protein yield: 2nd cut (% of 0.62 t/ha) | 100                    | 85                  | 91                  | 98                      | 98                  | 92               | 99            | 99                  | 101                          | 100                 | 103                 |
|                          | Year first listed                       |                        | 1980                | 2003                | 2010                    | 2012                | 2018             | 2018          | 2022                | 2005                         | 2011                | 2014                |
|                          | Breeder                                 |                        | ILV0                | ILV0                | IBERS, Aber-<br>ystwyth | Nord. Pflan/<br>DSV | DLF Seeds<br>A/S | Teagasc, Eire | DLF Seeds<br>A/S    | Slechtitelskà<br>stanice, CZ | Nord. Pflan/<br>DSV | Nord. Pflan/<br>DSV |
|                          | Agent                                   |                        | Limagrain<br>UK Ltd | Barenbrug<br>UK Ltd | Germinal                | DSV                 | DLF Seeds<br>Ltd | Goldcrop Ltd  | Limagrain<br>UK Ltd | DLF Seeds<br>Ltd             | DSV                 | DLF Seeds<br>Ltd    |
| Number of trials         | for yields                              |                        |                     |                     |                         |                     |                  |               |                     |                              |                     |                     |
| 1st harvest year         |   |                        | 18                  | 18                  | 18                      | 18                  | 12               | 15            | 9                   | 18                           | 18                  | 18                  |
| 2nd harvest year         |   |                        | 15                  | 15                  | 15                      | 15                  | 9                | 12            | 6                   | 15                           | 15                  | 15                  |
| 3rd harvest year         |   |                        | 13                  | 13                  | 13                      | 13                  | 7                | 10            | 6                   | 13                           | 13                  | 13                  |

# Descriptive List of Lucerne varieties

|  | Daisy         | Cigale        | Andantino     |
|--|---------------|---------------|---------------|
| Descriptive list status                        | DL            | DL            | DL            |
| Conservation management                        |               |               |               |
| Total yield 1st harvest year (% of 10.16 t/ha) | 100           | 105           | 99            |
| Total yield 2nd harvest year (% of 14.42 t/ha) | 100           | 101           | 96            |
| Total yield: Mean (% of 12.29 t/ha)            | 100           | 103           | 98            |
| Seasonal growth (1st harvest year)             |               |               |               |
| 1st cut (% of 3.89 t/ha)                       | 100           | 107           | 103           |
| Protein content %: 1st cut                     | 18.0          | 17.8          | 18.5          |
| Agronomic characters                           |               |               |               |
| Ground cover % (1st harvest year)              | 61            | 63            | 61            |
| Ground cover % (2nd harvest year)              | 63            | 61            | 59            |
| Year first listed                              | 2003          | 2024          | 2024          |
| Breeder  | DLF Seeds A/S | DLF Seeds A/S | DLF Seeds A/S |
| Agent  | DLF Seeds Ltd | DLF Seeds Ltd | DLF Seeds Ltd |
| Number of trials for yields                    |               |               |               |
| 1st harvest year                               | 4             | 2             | 2             |
| 2nd harvest year                               | 4             | 2             | 2             |

# Descriptive List of Cocksfoot varieties

|  | Mean of<br>escriptive list<br>varieties | Sparta | Lidacta | RGT Lovely |  |  |
|--|---|--------|---------|------------|--|--|
| Descriptive list status                        |   | DL     | DL      | DL         |  |  |
| Grazing management #                           |   |        |         |            |  |  |
| Grazing yield (% of 9.30 t/ha)                 | 100                                     | 97     | 97      | 106        |  |  |
| Grazing D-value (minus 65)                     | 67.1                                    | 66.5   | 67.0    | 67.9       |  |  |
| Ground cover % (grazing)                       | 72                                      | 75     | 72      | 70         |  |  |
| Conservation management                        |   |        |         |            |  |  |
| Total yield 1st harvest year (% of 14.34 t/ha) | 100                                     | 95     | 100     | 106        |  |  |
| Ground cover % (conservation year 1)           | 70                                      | 69     | 72      | 70         |  |  |
| Grazing seasonal growth #                      |   |        |         |            |  |  |
| Early grazing yield (% of 1.80 t/ha)           | 100                                     | 103    | 88      | 109        |  |  |
| Spring (% of 3.48 t/ha)                        | 100                                     | 103    | 94      | 103        |  |  |
| Early summer (% of 2.96 t/ha)                  | 100                                     | 91     | 98      | 111        |  |  |
| Late summer (% of 2.04 t/ha)                   | 100                                     | 99     | 96      | 104        |  |  |
| Autumn (% of 0.82 t/ha)                        | 100                                     | 91     | 103     | 106        |  |  |

|   | Mean of<br>escriptive list<br>varieties | Sparta        | Lidacta      | RGT Lovely     |  |  |  |
|---|---|---------------|--------------|----------------|--|--|--|
| Conservation seasonal growth – year 1   |   |               |              |                |  |  |  |
| 1st cut (% of 5.32 t/ha)                | 100                                     | 97            | 101          | 102            |  |  |  |
| 1st conservation cut D-value            | 63.5                                    | 63.8          | 63.1         | 63.8           |  |  |  |
| 2nd cut (% of 2.62 t/ha)                | 100                                     | 93            | 98           | 110            |  |  |  |
| 2nd conservation cut D-value            | 70.4                                    | 70.6          | 70.6         | 69.9           |  |  |  |
| 3rd cut (% of 2.98 t/ha)                | 100                                     | 94            | 103          | 104            |  |  |  |
| 4th + cut (% of 3.41 t/ha)              | 100                                     | 93            | 97           | 110            |  |  |  |
| Agronomic characters                    |   |               |              |                |  |  |  |
| Winter hardiness (1–9, 1= poor 9= good) | 5.8                                     | 6.1           | 5.4          | -              |  |  |  |
| Disease resistance                      |   |               |              |                |  |  |  |
| Mildew (1–9, 1= poor 9= good)           | 7                                       | 7             | 7            | -              |  |  |  |
| Mastigosporium (1–9, 1= poor 9= good)   | 4                                       | 6             | 5            | [2]            |  |  |  |
| Yellow rust (1–9, 1= poor 9= good)      | 5                                       | 3             | 6            | -              |  |  |  |
| Year first listed                       |   | 1982          | 1991         | 2021           |  |  |  |
| Breeder                                 |   | DLF Seeds A/S | DSV, Germany | R2n, France    |  |  |  |
| Agent                                   |   | DLF Seeds Ltd | DSV          | RAGT Seeds Ltd |  |  |  |
| Number of trials for yields             |   |               |              |                |  |  |  |
| 1st harvest year                        |   | 6             | 6            | 6              |  |  |  |
| 2nd harvest year                        |   | 2             | 2            | 2              |  |  |  |

## Useful contacts



## What's different in this year's RGCL?

## Aberystwyth University (IBERS)

Gogerddan Aberystwyth Ceredigion SY23 3EE 01970 823000

### Agri-Food and Biosciences Institute

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

### **Barenbrug UK Ltd**

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

### **Semences de France**

Activité fourragère et gazon 62 rue Léon Beauchamp 59930 La chapelle d'Armentières France 0033 320 48 41 41

### **Goldcrop Ltd**

Carrigtwohill Co. Cork Ireland T45 F685 00353 214882800

### Germinal

Camp Road Witham St Hughs Lincolnshire LN6 9QJ 01522 868714

#### **DLF Seeds Ltd**

10, Westerton Road East Mains Industrial Estate Broxburn West Lothian EH52 5AU 01506 674800

### **DSV**

Wardington Road Wardington Banbury Oxfordshire OX17 1FE 01295 758800

### Feldsaaten Freudenberger GmbH & Co. KG

Magdeburger Straße 2 47800 Krefeld Germany

### **Grasslanz Technology Ltd**

Grasslands Research Centre Tennent Drive Private Bag 11008 Palmerston North 4442 New Zealand 0064 6 351 8255

### **ILVO Plant**

Caritasstraat 39 9090 Melle Belgium 0032 9 272 28 59

### INRA Chez Agri-Obtentions S.A.

Chemin de la Petite Miniere 78280 Guyancourt France 0033 130482300

### **Limagrain UK Ltd**

Rothwell Market Rasen Lincolnshire LN7 6DT 01472 371471

### **PGG Wrightson Seeds**

PO Box 69132 Lincoln, Canterbury 7640, New Zealand M +64 27 555 3349 D +64 3 966 9394

#### **RAGT Seeds Ltd**

Grange Road Ickleton Essex CB10 1TA 01799 533700

#### Teagasc

Animal and Grassland Research and Innovation Centre, Oakpark Carlow Co. Carlow R93 XE12 Ireland 00353 599170200

#### NIAB

Headley Hall Spen Common Lane Tadcaster North Yorkshire LS24 9NT

### **New varieties**

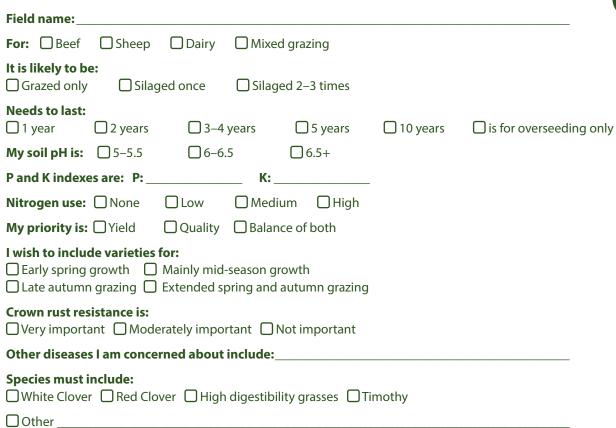
On the 2024/25 RGCL, 11 new varieties have been added.

The challenge with new varieties is that seed availability may not be high enough for them to be in many mixtures, but they are ones to watch.



| Name       | Туре                                    | Page |
|------------|---|------|
| Bigdyl     | IRG Dip                                 | 18   |
| Exotyl     | IRG Dip                                 | 18   |
| Kubicek    | Festulolium Hexaploid<br>(Hybrid table) | 22   |
| AberTweed  | Inter PRG Dip                           | 10   |
| Farmington | Inter PRG Dip                           | 10   |
| Bomium     | Late PRG Dip                            | 14   |
| AberForth  | Late PRG Tet                            | 16   |
| AstonGlory | Late PRG Tet                            | 16   |
| Richhill   | Late PRG Tet                            | 16   |
| Cigale     | Lucerne                                 | 29   |
| Andantino  | Lucerne                                 | 29   |

## What do I want?



Other requirements:

# Complying with latest spray legislation at a glance

## These measures now apply to grassland weedkillers

- Demonstrate Integrated Pest Management (IPM) is followed on your farm
- The sprayer operator on your farm must hold a Recognised Certificate; Grandfather rights are no longer valid
- All pesticide application equipment (excluding handheld equipment) in use must have a valid National Sprayer Testing Scheme (NSTS) Certificate.

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

## H2OK? Think Water – Keep it Clean

Many grassland weedkillers are detected in drinking water sources, take extra care to protect water when filling and washing the sprayer and avoid over-spraying ditches and streams.

For more advice visit www.voluntaryinitiative.org.uk





Detailed descriptions of each variety are available from NIAB. They are listed within their Forage Variety Advantage publication, which can be purchased by non-members from niab.com

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