



grass & clover

varieties for Scotland

2 0 1 5 - 2 0 1 6



SRUC
Grass and Clover Varieties for Scotland

Grass Levy Scheme

The agricultural industry in Scotland is co-operating in a scheme to ensure the continuation of the SRUC List of Recommended Grasses and Clovers.



The scheme, with the support of NFUS, SSTA, AIC, FAC and BSPB involves a contribution of 3.2p per kg of herbage seed sold.

Merchants participating in the scheme, listed on the page opposite, have exclusive access to the detailed SRUC information on herbage varieties.

Participating merchants display the special SRUC logo on seed bags, invoices etc.

© Copyright 2015 SRUC

All rights reserved. No part of this publication may be reproduced, stored in retrieval system, or transmitted in any form or by any means electronic, mechanical, photocopying, recording or otherwise, without the permission of the publishers and the copyright holders.

SRUC West Mains Road, Edinburgh, EH9 3JG

List of merchants participating in the grass levy scheme (at 30/9/15)

ACT Scotland	Jamieson Bros.
Charles Acheson Adjustments	Bill Kerr, Agri Products
Advanced Agricultural Services	Laird Seeds Ltd.
Agrii Scotland	Limagrain UK Ltd.
Agscope	W. N. Lindsay Ltd.
A & I (Elgin)	McCreath, Simpson & Prentice - a trading division of Simpsons Malt Ltd.
Barenbrug UK Ltd.	McGill & Smith (Seeds) Ltd.
Germinal Seeds Ltd.	R H Miller (Agricultural) Ltd.
Caithness Livestock Breeders Ltd.	New Breed UK Ltd.
Carrs Billington Agriculture Ltd.	Nickerson UK
Clark & Weir Ltd.	Frank Nicol (Dingwall)
Clyde Agriculture Ltd.	Nutriscot Ltd.
DLF Trifolium Ltd.	NWF Agriculture Ltd.
Dods of Haddington Ltd.	Pickles Agriculture
Don Valley	Procam Robertson Crop Services
Murray Duguid Ltd.	Roadhead Farm Feeds
Murray Farmcare Ltd.	Scotgrain Agriculture Ltd.
John Dun & Co. Ltd.	Seed Logistics Ltd.
George Duncan Agri Solutions Ltd.	A & T Simpson
Germinal GB Ltd.	L S Smellie & Sons Ltd.
Duncan Grains (Fochabers)	Soil Fertility Dunns
East Coast Viners	Solway Agriculture Ltd.
East of Scotland Farmers Ltd.	Strathmore Agribusiness
C Falconer	J & W Tait Ltd.
Frontier Agriculture Ltd.	Tarff Valley Ltd.
Galloway & Macleod Ltd.	Tayside Grain Co Ltd.
W & A Geddes Ltd.	Alan Telfer (Agency)
Grampian Grain Ltd.	Openfield Ltd.
Greenland Seeds	J I Warnock - Agriculture
Harbro Ltd.	John Watson Seeds Ltd.
H F Seeds	R M Welch & Son Ltd.
John Hogarth Ltd.	R W Warnock Ltd.
Horizon Seeds	
Hubbards Seeds	
Hurrell & McLean Seeds Ltd.	

SRUC gratefully acknowledges the contribution of the Scottish Government and plant breeders through their payments for National List Trials.

The contribution from SSTA towards the costs of this publication is gratefully acknowledged.

Notes

Contents	Page
Introduction	2
Information given in SRUC Varfile	2
Source of variety	3
Maturity groups of grass varieties	3
Leaflet size grouping of white clover	5
Maturity groups of red clover	5
Performance characteristics	6
SRUC rating	6
Annual and seasonal yields	6
Ground cover	7
Winterhardiness	7
Mildew resistance	7
D-value	8
Breeder / UK Agent	8
SRUC Varfile	9
Index of varieties	10
Perennial ryegrass	10
Italian ryegrass	13
Hybrid ryegrass	14
Festulolium	14
Timothy	15
White clover	16
Cocksfoot	17
Red clover	17

Introduction

The grass and clover varieties included in this publication are classified according to their potential usefulness for agricultural purposes under Scottish conditions. The classification is based on accumulated data from the variety evaluation programmes of SRUC and is reviewed annually. Where new information becomes available or older varieties become outclassed, merit ratings are adjusted accordingly. Assessment of some species is incomplete, but interim ratings are given where available.

The lists of varieties are based on the UK National List for each species though a number of varieties now withdrawn from the National List but still marketed through the Common Catalogue are included. Varieties intended for export only and those not intended for fodder production are omitted. Information on other species not mentioned in this booklet may be available on application.

No indication is given of seed availability of individual varieties, as various factors govern seed production and demand. New varieties are often scarce until stocks are built up. Usually a satisfactory alternative of similar type is available but in case of difficulty, advice should be sought from SRUC.

Information Given in SRUC Varfile

The Index of Varieties (pp 10 - 17) lists varieties of the major species in alphabetical order with a summary of their ratings. First choice varieties are highlighted by capitals. More detailed information on the First Choice varieties is presented in the Summary of Characters Tables to which page number the reader is referred in the last column of the Index. In the Summaries perennial ryegrass varieties are divided into early, intermediate and late maturity groups according to REE (see page 3) and tetraploid varieties (indicated by (T) in the Index) are presented separately from diploid varieties. Maturity and ploidy types are tabulated together in all other species. In all cases varieties are listed in order of REE.

Information on the Seasonal Growth Patterns under appropriate management(s) for the species together with brief Descriptions outlining major strengths and weaknesses and the role for which they are best suited complete the information for the First Choice varieties.

Source of Variety

Code letters are used to indicate countries of origin in Table 1. (In most cases these are the international vehicle registration letters.)

Table 1: Code letters for countries of origin of varieties

A	Austria	IRL	Ireland
B	Belgium	NL	Netherlands
CDN	Canada	NZ	New Zealand
D	Germany	S	Sweden
DK	Denmark	CH	Switzerland
F	France	CZ	Czech Republic
GB	Great Britain		

Maturity Groups of Grass Varieties

Within each grass species, varieties are arranged in maturity groups according to their date of heading or ear emergence. Mean dates are derived from spaced plant observations and are adjusted for growth in swards under Scottish conditions. This mean date, when ears can just be seen on fifty percent of the fertile tillers (even if only the tips are visible), is known as the 50% Ear Emergence date of a variety; it is then related to the number of days from the beginning of May and from it the Relative Ear Emergence (REE) value is obtained.

Ear emergence dates vary from year to year (see Table 2) depending on the season and are later in more northerly and in upland areas. However, in all but extreme seasons, differences between varieties are fairly constant. Thus, irrespective of year, latitude, altitude, management or manuring, the late perennial ryegrass Pastour (REE 50) reaches 50% EE about 22 days after Kilrea.

Mean heading dates of Kilrea at the three Scottish Trial centres are shown in Table 2. The centre means are derived from observations over 15 years (2000 - 2014).

Table 2: Mean dates of 50% Ear Emergence of Kilrea perennial ryegrass, 2010 to 2014

	Mean date					
Centre	2000-2014	2014	2013	2012	2011	2010
Aberdeen Latitude 57° 11'N Altitude 107 m	24 May	20/05	02/06	26/05	13/05	28/05
Auchincruive Latitude 55° 29'N Altitude 46 m	21 May	14/05	28/05	28/05	11/05	25/05
Edinburgh Latitude 55° 53'N Altitude 198 m	22 May	13/05	28/05	23/05	13/05	24/05
All Centres	22 May					

Precise information on heading dates is important as a guide to cutting dates for silage and hay, because of the relationship between heading dates and herbage digestibility (a measure of feed quality often expressed as D-value). As ear emergence progresses, digestibility falls rapidly and delay in cutting will lead to a poorer quality conserved product. Knowledge of relative heading dates enables seeds mixtures for conservation to be chosen so that a succession of crops of the required digestibility can be harvested. Information on D-value for First and Second choice varieties at the main conservation cuts are included in Summary of Characters tables.

In the UK system of classification, the varieties of each species are grouped independently according to maturity. Perennial ryegrass and timothy extend over three groups, and cocksfoot over two. The groups are described in Table 3.

Table 3: REE values and maturity groups

Species	Early	Intermediate	Late
Perennial ryegrass	Up to 30	31-45	Over 45
Timothy	Up to 55	56-61	Over 61
Cocksfoot	Up to 28	-	Over 28

Italian and hybrid ryegrasses are each now considered as a single maturity group.

Earliness

Although date of ear emergence of a variety within a particular species is closely associated with earliness of spring growth, each species has a distinctive seasonal growth pattern.

Timothy has earlier spring growth than its time of heading suggests, while cocksfoot may have late spring growth associated with relatively early heading dates. Italian ryegrasses have earlier spring growth than perennial ryegrasses of corresponding dates of ear emergence.

Leaflet Size Grouping of White Clover

White clover varieties are classified by the size (length x breadth in mm) of the terminal leaflet, ranging from the small leaved AberAce (392) to the very large leaved Aran (1526). The groups are described in Table 4.

Table 4: Classification of white clover by leaflet size

S	Small	Varieties with leaflets smaller than Crusader (<819)
M	Medium	Varieties with leaflets equal to or larger than Crusader but smaller than or equal to Merwi (819-1900)
L	Large	Varieties with leaflets larger than Merwi but smaller than Triffid (1901-1220)
VL	Very Large	Varieties with leaflets equal to or larger than Triffid (>1221)

In the Summary of Characters tables (pp 45 - 46) white clover leaflet sizes are presented relative to that of Grasslands Huia.

The smaller leaved varieties tend to have a more prostrate, creeping growth habit and persist well under grazing. The more erect growing larger leaved varieties tend to be better suited to lenient grazing or cutting as they can compete better with the companion grass.

Maturity Groups of Red Clover

Red clover is classified into two groups based on flowering dates. The Early (E) group includes those varieties previously known as "broad leaved" while the Late (L) group includes varieties formerly termed "late flowering".

Varieties in the early group are earlier in spring growth and flower about two weeks earlier than those in the late group. Early varieties bulk up fast and produce 40 - 50% of total annual yield at the first cut compared with 50 - 60% for the lates. Varieties in the late group are more persistent.

Performance Characteristics

Varieties are classified according to their performance in relation to standard varieties. Data for each management from all three centres is combined to achieve a single SRUC Rating for the whole of Scotland. Differences in performance between centres or between managements are noted within the variety descriptions.

SRUC Rating

The main characteristics in determining SRUC Rating are total annual dry matter yield and its seasonal distribution under conservation and simulated grazing management systems, ground cover, quality as indicated by D-value, winter hardiness and susceptibility to disease.

Table 5: Interpretation of Ratings

1.	First choice
2.	Second choice - slightly poorer than Class 1 varieties in one or more characteristics.
3.	Poorer varieties acceptable only when Class 1 or 2 varieties are not available.
4.	Poor varieties considered unsuitable.

First choice recommended varieties are regularly retested with ratings subject to review.

First choice ratings may be qualified as follows:

(P) **Provisional rating.** Further trials currently in progress.

(*) **Downgrading.** Where a variety appears to be less valuable than its original rating, an (*) is added which indicates that it will probably be downgraded in a later edition.

(+) **Variety under retest.** Changes in the delineation between maturity groups or varieties on the border between groups have sometimes resulted in varieties being tested in the adjacent group. These varieties have been rated but are currently in retest in the correct group. No D-value information is presented for these varieties.

Annual and Seasonal Yields

For perennial ryegrass and timothy species the Summary of Characters tables give total mean Annual DM Yields. Data are presented both for Conservation and Grazing managements derived from an Alternating management with Conservation in harvest years 1 and 3 and Grazing in year 2.

Conservation management comprises 4-5 cuts/year (cutting height 6 cm), cuts 1 and 2 being taken as the main silage cuts at estimated 67 D-value.

Grazing management comprises cuts taken at three week intervals during the April-June period followed by monthly cutting after 1st July (cutting height 3 cm).

For Italian and hybrid ryegrasses the Combined Management comprises an early grazing cut followed by two main silage cuts, then autumn growth measured by grazing cuts. Yield information in the year of sowing is also given for these species. In white clover yields of total herbage and of clover are presented for Harvest Years 2 and 3, no harvesting of Year 1 being carried out.

For First Choice varieties differences in Seasonal Growth Distribution may be identified by reference to growth pattern presented in scaled histogram form.

Both annual and seasonal yields are expressed as a percentage of a standard variety within the maturity group. The standard varieties chosen, all of which are or were Control varieties in the National List trials, are Kilrea, Premium and Pastour for diploid perennial ryegrasses and AberTorch, Aubisque and Twymax for tetraploids. Ligrande is the standard for Italian and hybrid ryegrasses.

Clover Yields are presented for total herbage DM production and for clover yield expressed as a percentage of the standard varieties Kent Wild White, Grasslands Huia and Alice.

Ground Cover

Maintaining a good ground cover indicates the ability of a variety to survive and contribute to total yield. The ratings are based on measurement of both persistency (change in ground cover from establishment year onwards) and overall sward density. Ground cover is expressed on an A-E scale, A being highest. Each species is graded separately.

White clover ratings are given for light defoliation (5-6 cuts/year at cutting height 3 cm) and hard defoliation (17-18 cuts/year at cutting height 2 cm).

Winterhardiness

Winterhardiness is an important characteristic in hill and upland areas, particularly in the north. Winter damage is most common among the ryegrasses; other species, such as cocksfoot, may also be affected but to a lesser degree. There is a marked variation in varietal susceptibility and care should be taken in selection of varieties for areas where winter damage is prevalent.

Special trials conducted at an upland site in Banffshire (300 m above sea level), together with observations collected during routine variety testing at the three Scottish Centres, have enabled most ryegrasses to be classified. Five categories, from "A" hardest to "E" least hardy are used. Each species is graded separately and since Italian is generally less hardy than perennial ryegrass an "A" perennial is considerably harder than an "A" Italian. Hybrid ryegrass is assessed with Italian.

Mildew Resistance

Powdery mildew (*Erysiphe graminis*) mainly affects ryegrasses, especially Italian ryegrass, and is the most common disease of established grass in Scotland. A fungal disease, mildew takes time to develop so its characteristic white powdery pustules are mainly of importance in crops set up for conservation. Resistance is expressed on an A-E scale, A being most resistant.

D-value

Previously discussed on page 4, D-values at the main conservation cuts in the ryegrasses are expressed relative to the Control, a positive value indicating a higher D-value and a negative value lower. Quality under grazing management is also given, derived from the early August cut. Here data is available only for the more recently introduced varieties.

Breeder / UK Agent

The variety description within the Varfile present a brief pen picture of the variety highlighting particular strengths or weaknesses.

The description also contains the breeder, country of origin and UK Agent or Maintainer of the variety. The addresses of the UK agents/Maintainers are listed on page 51.

SRUC Varfile

Contents		Page
<i>Perennial ryegrass</i>		
Early	Index of varieties	10-12
	Summary of characters	18
	Seasonal growth patterns	19
	Variety descriptions	20
Intermediate	Index of varieties	10-12
	Summary of characters - Diploids	21
	Seasonal growth patterns	22-23
	Variety descriptions	24-25
	Summary of characters - Tetraploids	26
	Seasonal growth patterns	27
	Variety descriptions	28-29
Late	Index of varieties	10-12
	Summary of characters	30
	Seasonal growth patterns	31-32
	Variety descriptions	33-35
<i>Italian and Hybrid Ryegrass</i>	Index of varieties	13-14
	Summary of characters	36
	Seasonal growth patterns	37
	Variety descriptions	38
<i>Timothy</i>	Index of varieties	15
	Summary of characters	39
	Seasonal growth patterns	39
	Variety descriptions	40
<i>White Clover</i>	Index of varieties	16
	Summary of characters	41-42
	Seasonal growth patterns	43-44
	Variety descriptions	45-46
<i>Cocksfoot</i>	Index of varieties	17
<i>Red Clover</i>	Index of varieties	17
	Summary of Characters	47
	Seasonal growth patterns	48
	Variety descriptions	49
<i>Various</i>	Variety descriptions of Second Choice Additions 2015	50
<i>Addresses</i>	Addresses of UK Agents / Maintainers	51

Index of Varieties

Perennial Ryegrass

Table 6

Name	Source	Maturity		SRUC rating	Ground cover	Winter hardiness	See page
		REE	Group				
ABERAVON	GB	47	L	1	B	B	30
ABERBITE (T)	GB	50	L	1	C	B	30
ABERCHOICE	GB	55	L	1	A	C	30
ABERCLYDE (T)	GB	37	I	1(P)	C	-	26
ABERCRAIGS (T)	GB	47	L	1	C	A	30
ABERDART	GB	38	I	1	A	B	21
ABERFARRELL	GB	42	I	1	A	C	21
ABERGAIN (T)	GB	49	L	1(P)	C	-	30
ABERGLYN (T)	GB	32	I	1	C	A	26
ABERGREEN	GB	43	I	1	A	B	21
ABERMAGIC	GB	42	I	1(P)	A	B	21
ABERPLENTIFUL (T)	GB	53	L	1(P)	C	-	30
ABERSTAR	GB	39	I	1	A	B	21
ABERTORCH (T)	GB	20	E	1	C	A	18
ABERWOLF	GB	40	I	1(P)	A	-	21
ABERZEST	GB	46	L	1	B	A	30
Alcander	NL	51	L	3	B	-	-
ALFONSO (T)	GB	47	L	1(P)	B	-	30
ANACONDA (T)	NL	18	E	1	B	A	18
Arsenal	NL	39	I	2	A	-	-
ASPECT (T)	NL	49	L	1	C	A	30
AstonAmber (T)	GB	55	L	3	B	-	-
ASTONBONUS (T)	GB	42	I	1(P)	B	-	26
ASTONCHIEFTAIN	GB	52	L	1(P)	A	-	30
AstonDiamond (T)	GB	45	I	2	B	-	-
AstonEnergy (T)	GB	45	I	3	C	-	-
ASTONLORD	GB	43	I	1(P)	A	-	21
AstonPrincess (T)	GB	51	L	2	B	-	-
AUBISQUE (T)	NL	35	I	1	B	A	26
BIJOU (T)	F	46	L	1(P)	C	-	30
Bocage (T)	F	51	L	2	C	-	-
BOYNE	DK	33	I	1	B	C	21
BREE	NL	38	I	1	B	A	21
Cabriolet (T)	F	53	L	2	C	-	-
CALEDON (T)	GB	44	I	1(P)	C	-	26
CALIBRA (T)	DK	38	I	1	C	A	26
Calvano 1	NL	42	I	2	B	-	-
Cancan	NL	58	L	2	A	-	-
CARRAIG (T)	IRL	28	E	1(P)	B	-	18
Cavendish	DK	50	L	2	A	-	-
Citeliac (T) (H)	DK	32	I	2	C	-	-
CLANRYE	GB	49	L	1(P)	A	-	30

Name	Source	Maturity		SRUC rating	Ground cover	Winter hardiness	See page
		REE	Group				
CONTRAST	NL	43	I	1	B	B	21
Cooper (T)	DK	51	L	2	C	A	-
COPELAND	GB	42	I	1	B	B	21
Delgado	NL	46	L	2	A	-	-
Delphin (T)	GB	46	L	2	C	B	-
DENVER	NL	46	L	1	B	B	30
DRIFT (T)	NL	47	L	1	C	A	30
Dromore	GB	59	L	2	B	A	-
DRUMBO	GB	50	L	1	B	B	30
DUNDRUM (T)	GB	48	L	1(*)	C	A	30
DUNLOY (T)	GB	53	L	1	C	A	30
DUNLUCE (T)	GB	43	I	1	C	A	26
Elgon (T)	NL	48	L	2	C	A	-
Elital (T)	F	46	L	3	B	-	-
ELYRIA	DK	43	I	1(P)	A	-	21
Ensilvio	DK	47	L	2	B	-	-
EUROSTAR (T)	NL	37	I	1	B	A	26
Fennema	D	39	I	2	B	A	-
FINTONA (T)	GB	32	I	1(P)	C	-	26
Fornido (T)	NL	52	L	2	B	A	-
FOXTROT	NL	49	L	1	B	B	30
Foyle (H) (T)	GB	34	I	3	C	-	-
GANDALF	NL	39	I	1	A	B	21
GENESIS	IRL	23	E	1	B	B	18
Gladio	NL	50	L	2	A	-	-
GLENARIFF	GB	39	I	1(P)	A	-	21
Glenarm	UK	49	L	2	B	-	-
GLENCAR (T)	IRL	46	L	1	C	A	30
GLENROYAL	IRL	50	L	1	A	C	30
GLENSTAL (T)	IRL	34	I	1	C	A	26
GLENVALE	IRL	30	E	1(P)	B	-	18
GLENVEAGH	IRL	47	L	1	A	B	30
Godali 1	NL	38	I	3	C	-	-
Herbal (T)	F	53	L	2	C	-	-
Herbie	NL	51	L	3	A	B	-
Hercules	NL	56	L	3	A	B	-
HURRICANE(T)	F	48	L	1(P)	B	-	30
Ideal (T)	F	55	L	2	B	-	-
Inoval	F	49	L	2	A	-	-
Irondal (T)	F	49	L	3	B	-	-
KILREA	GB	28	E	1	B	B	18
KIMBER	DK	30	E	1	B	B	18
KINTYRE (T)	IRL	52	L	1	C	A	30
Laguna	NL	41	I	2	A	B	-
LEENANE	IRL	32	I	1(P)	B	-	21

Name	Source	Maturity		SRUC rating	Ground cover	Winter hardiness	See page
		REE	Group				
MAGICIAN (T)	IRL	32	I	1	C	B	26
Majestic	IRL	46	L	2	A	-	-
MALONE (T)	GB	31	I	1	C	B	26
Masai (T)	NL	51	L	3	C	-	-
Matiz	NL	56	L	3	A	-	-
Maurice (T)	DK	60	L	2	B	-	-
MEIDUNO (T)	NL	47	L	1(P)	C	-	30
MEZQUITA	NL	50	L	1	A	A	30
MOIRA	GB	38	I	1(P)	B	-	21
Montagne (T)	NL	48	L	3	C	A	-
MONTOVA (T)	NL	44	I	1	B	A	26
MOYOLA	GB	25	E	1	B	C	18
NAVAN (T)	GB	49	L	1	C	A	30
Niagara (T)	NL	31	I	3	B	-	-
NIFTY	DK	38	I	1(P)	A	-	21
NOVELLO (T)	NL	49	L	1(+)	C	A	30
ORANTAS	NL	40	I	1	A	A	21
Orion (T)	GB	44	I	2	C	-	-
Pastoral (T)	F	52	L	3	C	-	-
PASTOUR	DK	50	L	1	B	C	30
PENSEL (T)	NL	44	I	1(P)	C	-	26
Polim (T)	NL	50	L	2	C	-	-
Portrush	GB	56	L	3	A	-	-
Portstewart	GB	52	L	2	B	B	-
PREMIUM	NL	41	I	1	B	B	21
Quadriga (T)	D	47	L	3	B	-	-
RAMORE(T)	GB	36	I	1(P)	C	-	26
RODRIGO	NL	41	I	1	B	B	21
Roe	GB	43	I	3	B	-	-
Romark	NL	49	L	2	B	B	-
Rorqual (T)	F	49	L	2	C	-	-
Rosalin (T)	NL	32	I	2	B	A	-
Santana (T)	NL	31	I	3	B	-	-
SEAGOE (T)	GB	35	I	1	C	B	26
Solas (T)	IRL	53	L	2	B	-	-
SOLOMON	IRL	31	I	1	A	B	21
Soriento	NL	48	L	3	B	-	-
SPELGA	GB	31	I	1	B	B	21
Stefani	DK	48	L	2	A	-	-
Timing	DK	50	L	2	A	-	-
Tivoli (T)	DK	55	L	2	C	A	-
TODDINGTON	DK	49	L	1(P)	B	-	30
Tribal (T)	F	35	I	2	B	-	-
Trintella (T)	NL	33	I	2	B	-	-
TWYMAX (T)	GB	51	L	1	B	A	30
Twystar	GB	60	L	2	B	B	-
Tyrconnell	IRL	51	L	2	B	B	-
TYRELLA	GB	48	L	1	B	B	30
Xanthus (T)	D	51	L	2	B	-	-
Xenon (T)	NL	52	L	2	B	-	-
Youpi (T)	F	52	L	2	C	-	-

(P) Provisional rating
(*) Downgrading

See page 6

Index of Varieties

Italian Ryegrass

Table 7

Name	Source	Maturity REE	SRUC rating	Ground cover	Winter hardiness	See page
ALAMO	NL	34	1	A	-	36
Avensyl	F	32	3	A	-	-
Barelli	NL	37	2	A	-	-
Barmega (T)	NL	30	2	B	-	-
Barmultra II (T)	NL	30	2	C	-	-
Barprisma	NL	33	3	A	-	-
Bartali (T)	NL	31	3	B	A	-
Bartrento (T)	NL	30	3	B	-	-
Bartissimo	NL	31	2	A	B	-
BELLUNA	B	36	1	A	-	36
Clorofyl	FR	32	3	B	-	-
Danakyl	FR	38	3	B	-	-
Danergo (T)	DK	34	2	B	B	-
DAVINCI	B	36	1	A	-	36
Dietro	FR	39	3	C	-	-
DORIKE (T)	NL	29	1	C	-	36
Edison (T)	NL	31	2	A	-	-
Fabio (T)	NL	28	2	B	-	-
Fox	NL	32	2	A	-	-
GEMINI (T)	B	30	1	B	-	36
Gordo	NL	32	2	A	B	-
Howard	NL	38	2	A	B	-
Hunter (T)	D	30	2	B	-	-
Inducer	FR	30	2	B	-	-
Itaka	DK	33	2	B	-	-
Itarzi	DK	28	3	B	-	-
JAVORIO	NL	36	1	B	-	36
Kigezi (T)	DK	30	3	B	-	-
Kuri 1	NL	36	2	B	-	-
Lemtal RvP	B	35	2	A	C	-
Ligrande	D	33	2	A	-	-
Limeta	D	34	2	A	-	-
Litonio (T)	D	33	2	B	-	-
Luciano	NL	35	2	A	-	-
Macho (T)	NL	28	3	C	A	-
MERIBEL	B	32	1	A	C	36
Multimo (T)	NL	30	2	C	A	-
Muriello	B	32	2	B	-	-
Romeldo	B	34	3	A	-	-
Salome (T)	B	31	2	C	-	-
Shakira	D	29	3	B	-	-
Steel	FR	32	3	B	-	-
Subito	NL	40	2	A	-	-
Udine (T)	DK	29	3	B	-	-
Virgyl (T)	FR	29	2	B	-	-

Index of Varieties

Hybrid Ryegrass

Table 8

Name	Source	Maturity REE	SRUC rating	Ground cover	Winter hardiness	See page
ABERECHO (T)	GB	27	1	A	B	36
ABEREVE (T)	GB	34	1	A	-	36
AberExcel (T)	GB	31	2	A	A	-
Acrobat (T)	F	28	3	A	-	-
ALLIANCE (T)	NL	31	1	B	B	36
Amalgam (T)	NL	37	3	A	-	-
AstonCavalier (T)	GB	40	3	A	-	-
ASTONCRUSADER (T)	GB	32	1	A	-	36
Bahial (T)	F	34	3	A	-	-
Barsilo	NL	37	3	A	D	-
Citeliac (T)	DK	32	2	A/C†	-	-
Drumlin (T)	GB	32	2	A	-	-
Enduro (T)	F	30	2	A	-	-
Foyle (T)	GB	34	3	A/C†	-	-
Holesome	DK	39	3	A	-	-
HYMER (T)	B	33	1	A	A	36
Istria	DK	34	3	A	-	-
Kirial (T)	F	34	3	A	-	-
Lampard (T)	DK	28	2	A	-	-
Mondelo (T)	NL	42	3	B	A	-
Novial (T)	F	31	3	A	-	-
Palmata (T)	CH	20	2	A	-	-
PIROL	D	33	1	A	-	36
Radon (T)	DK	35	3	A	-	-
Roslea (T)	GB	38	3	A	-	-
Scapino (T)	NL	37	2	A	-	-
Solid (T)	DK	29	2	A	A	-
Storm (T)	DK	39	2	A	A	-
Tetragraze (T)	DK	31	3	A	-	-
Tirna (T)	NL	35	2	A	A	-

† Rated C in PRG tables

Festulolium*

Table 8a

Name	Source	Maturity REE	SRUC rating	Ground cover	Winter hardiness	See page
AberNiche	GB	37	2	B	-	-

* Festulolium (= crosses between Fescues & Ryegrasses)

Index of Varieties

Timothy

Table 9

Name	Source	Maturity REE	SRUC Group	SRUC rating	Ground cover	See page
Aberystwyth S48	GB	68	L	3	A	-
Barrett	GB	64	L	3	A	-
Climax	CDN	55	E	3	-	-
COMER	B	53	E	1	A	39
COMTAL	NL	55	E	1	B	39
DOLINA	B	53	E	1	B	39
ERECTA RvP	B	54	E	1	B	39
Goliath	NL	54	E	2	B	-
Mewati 1	DK	63	L	3	A	-
Motim	NL	61	I	2	A	-
Moverdi	NL	57	I	2	B	-
Narnia	DK	60	I	3	A	-
Odenwalder	D	45	E	2	C	-
Presto	NL	53	E	2	B	-
PROMESSE	NL	54	E	1	A	39
SCOTS	GB	51	E	1	C	39
Winnetou	DK	56	I	3	A	-

Index of Varieties

White Clover

Table 10

Name	Source	Leaflet size	SRUC rating	Ground cover		See page
				L	H	
AberAce	GB	S	2	B	A	-
AberConcord	GB	M	3	B	C	-
ABERCREST	GB	M	1*	B	B	41
ABERDAI	GB	M	1	A	B	41
ABERHERALD	GB	M	1	A	C	41
ABERPEARL	GB	S	1	A	A	41
ABERVANTAGE	GB	M	1	A	B	41
ABERYSTWYTH S184	GB	S	1	B	A	41
ALICE	GB	L	1	A	C	42
ARAN	IRL	VL	1	B	C	42
Avalon	NZ	S	2	B	B	-
AVOCA	IRL	M	1	A	A	41
BARBLANCA	NZ	L	1	B	C	42
BUDDY	IRL	M	1(P)	A	B	41
BRIANNA	DK	VL	1(P)	B	B	42
CHIEFTAIN	IRL	L	1	A	B	42
CRUSADER	NZ	M	1	A	B	41
Galway	IRL	S	2	A	A	-
GRASSLANDS BOUNTY	NZ	M	1*	A	B	41
GRASSLANDS DEMAND	NZ	S	1	A	A	41
Grasslands Huia	NZ	M	2	B	B	-
Grasslands Pitau	NZ	L	3	B	B	-
Grasslands Tribute	NZ	M	2	B	B	-
IONA	IRL	M	1	A	B	41
KATY	NZ	L	1(P)	A	C	42
Kersey	GB	L	3	C	D	-
Klondike	DK	L	2	B	B	-
MAKURI	NZ	L	1	B	C	42
MENNA	GB	M	1*	A	B	41
MERWI	B	M	1	B	C	41
MILKANOVA	DK	L	1*	B	B	42
Olwen	GB	L	3	C	D	-
Riesling	NL	L	2	B	C	-
RIVENDEL	DK	S	1	B	B	41
RONNY	DK	S	1	A	A	41
Saracen	NZ	M	2	A	A	-
VIOLIN	DK	M	1	A	B	41

(P) Provisional rating, p6

Index of Varieties

Cocksfoot

Table 11

Name	Source	Maturity		SRUC	Ground	First
		REE	Group	rating	cover	listed
ABERTOP	GB	28	E	1	A	2001
Athos	F	-	L	-	-	1991
Cambria	GB	31	L	2	A	1977
Dactus	S	24	E	2	C	1982
LIDACTA	D	31	L	1	A	1990
Ludovic	F	-	L	-	-	2003
PRAIRIAL	F	29	L	1	A	1973
SPARTA	DK	29	L	1	A	1982

No further information is presented for cocksfoot varieties.

Index of Varieties

Red Clover

Table 12

Name	Source	Group	Rating	First listed
Altaswede	CDN	L	2	1978
BRITTA	S	L	1	1973
Essex Broad Red	GB	E	6	1973
MERVLOT	B	E	1	1980
SARA (T)	S	L	1	1983

The following varieties comprise a Descriptive List

Name	Source	Group	Status	see page
AberClaret	GB	E	DL	48
AberChianti	GB	E	DL	48
Amos (T)	CZ	E	DL	48
Atlantis (T)	D	E	DL	48
Avisto	B	E	DL	48
Diplomat	D	E	DL	48
Harmonie	D	E	DL	48
Global	B	E	DL	48
Lemmon	B	E	DL	48
Magellan (T)	D	E	DL	48
Merula	CH	E	DL	48
Milvus	CH	E	DL	48

PRG - First choice early diploids - *Summary of Characters*

Variety	Genesis	Moyola	Kilrea	Kimber	Glenvale
REE	23	25	28	30	30
Conservation Yield (<i>Yields expressed as % Kilrea</i>)					
Year 1	108	105	100	101	104
3	113	112	100	99	107
Mean 1 + 3	110	108	100	100	105
Grazing Yield					
Year 2	109	114	100	100	104
Ground Cover	B	B	B	B	B
Winterhardiness	B	C	B	B	-
Mildew Resistance	A	A	A	A	B
D-value cut 1	-2.7	-2.7	=	-1.6	-0.1
\pm Kilrea cut 2	+0.1	-0.8	=	+0.5	+0.1
grazing	+0.7	+0.8	=	-0.8	-0.9
Source	IRL	GB	GB	DK	IRL
First listed	2009	2009	2005	2004	2012 (P)

PRG - First choice early tetraploids - *Summary of Characters*

Variety	Anaconda	AberTorch	Carraig
REE	18	20	28
Conservation Yield (<i>Yields expressed as % AberTorch</i>)			
Year 1	100	100	100
3	98	100	100
Mean 1 + 3	99	100	100
Grazing Yield			
Year 2	99	100	109
Ground Cover	B	C	B
Winterhardiness	A	A	-
Mildew Resistance	A	B	A
D-value cut 1	+1.5	=	+1.5
\pm AberTorch cut 2	-2.8	=	+0.1
grazing	-	=	-0.1
Source	NL	GB	IRL
First listed	1992	2000	2013 (P)

PRG First Choice Early Diploids
Seasonal Growth under Conservation

	1st cut		2nd cut		3rd cut	Aftermath	Total yield % Kilrea
		"D"		"D"			
<i>Kilrea</i>	6.0t	66.3	3.0t	70.7	2.9t	2.5t	14.6t DM/ha
<i>Genesis</i>	116	63.4	106	70.8	107	103	110
<i>Moyola</i>	112	63.6	101	69.9	107	109	108
<i>Kilrea</i>	100	66.3	100	70.7	100	100	100
<i>Kimber</i>	102	64.7	102	71.2	98	96	100
<i>Glenvale (P)</i>	109	66.4	103	70.9	100	103	105

PRG First Choice Early Diploids
Seasonal Growth under Grazing

	- May	May/June	July/Aug	Sept -	Grazing "D"	Total yield %Kilrea
<i>Kilrea</i>	2.0t	3.8t	2.5t	1.1t	73.1	9.5t DM/ha
<i>Genesis</i>	121	105	107	105	73.8	109
<i>Moyola</i>	123	104	117	121	73.9	114
<i>Kilrea</i>	100	100	100	100	73.1	100
<i>Kimber</i>	106	98	100	98	72.3	100
<i>Glenvale (P)</i>	105	100	107	107	72.2	104

PRG First Choice Early Tetraploids
Seasonal Growth under Conservation

	1st cut		2nd cut		3rd cut	Aftermath	Total yield % Abertorch
		"D"		"D"			
<i>AberTorch</i>	6.7t	65.9	3.0t	71.4	2.9t	2.2t	14.9tDM/ha
<i>Anaconda</i>	98	67.4	97	68.6	104	98	99
<i>AberTorch</i>	100	65.9	100	71.4	100	100	100
<i>Carraig (P)</i>	92	67.4	107	71.5	105	108	100

PRG First Choice Early Tetraploids
Seasonal Growth under Grazing

	- May	May / June	July / Aug	Sept -	Grazing "D"	Total yield %Abertorch
<i>AberTorch</i>	2.3t	3.7t	2.5t	1.1t	74.4	9.6t DM/ha
<i>Anaconda</i>	85	101	107	108	-	99
<i>AberTorch</i>	100	100	100	100	74.4	100
<i>Carraig (P)</i>	97	109	118	112	74.3	109

Variety Descriptions - Early Varieties

Diploid

Genesis *Teagasc (IRL) / DLF Trifolium*

Exceptionally high yielding under both managements with very good early spring growth. Will require cutting early to achieve good quality silage.

Moyola *AFBI (GB) / Barenbrug UK*

Again exceptionally high yielding under both managements with very good growth both early and late in the season. Will require cutting early to achieve good quality silage.

Kilrea *AFBI (GB) / Barenbrug UK*

Outstanding variety heading towards the later end of the group. Provides two good silage cuts of high quality with good autumn regrowth. Even better under grazing with excellent growth of high quality from spring through to autumn.

Kimber *DLF Trifolium A/S (DK) / DLF Trifolium*

Useful variety at the later end of the group with good yield especially under conservation. Good quality overall.

Glenvale *Teagasc (IRL) / DLF Trifolium*

Good grazing yields especially early in the season with good quality. Conservation yields similar to other later heading varieties in the early group.

Tetraploid

Anaconda (T) *DLF Trifolium A/S (NL) / Limagrain UK*

The earliest heading recommended variety on the list and provides a good yield of high quality at the first cut. Surprisingly under grazing main strength lies in excellent autumn growth.

AberTorch (T) *IBERS (GB) / Germinal Seeds*

In a group with limited choice provides excellent yields under both managements. Outstanding spring growth under grazing and good first conservation cut of good quality. Slightly susceptible to mildew and more open than Bastion.

Carraig (T) *Teagasc (IRL) / DLF Trifolium*

Later heading within the group. Good yields under conservation at the second and third cuts. Very good grazing yields and quality throughout the season..

PRG - First choice intermediate diploids - Summary of Characters

Variety	Spelga	Solomon	Leenane	Boyne	Nifty	Moira	AberDart	Bree	AberStar	Glenariff	Gandalf	AberWolf	Orantas	Rodrigo	Premium	AberMagic	AberFarrell	Copeland	Elyria	AstonLord	AberGreen	Contrast
REE	31	31	32	33	38	38	38	38	39	39	39	40	40	41	41	42	42	42	43	43	43	43
Conservation Yield (Yields expressed as % Premium)																						
Year 1 3 Mean 1 + 3	98	101	104	105	100	104	97	96	100	99	99	102	100	105	100	100	96	100	100	99	106	100
	107	106	104	107	100	108	103	99	100	102	96	102	98	101	100	104	97	104	102	99	102	101
	102	103	104	106	100	106	100	97	100	101	98	102	99	103	100	102	96	102	101	99	104	100
Grazing Yield Year 2	103	103	104	106	109	110	104	103	106	105	97	114	96	103	100	111	104	102	103	106	109	106
Ground Cover	B	A	B	A	A	B	A	B	A	A	A	A	A	B	B	A	A	B	A	A	A	B
Winterhardiness	B	B	-	C	-	-	B	A	B	-	B	-	A	B	B	B	C	B	-	-	B	B
Mildew Resistance	A	A	A	A	B	A	A	A	B	A	A	B	A	B	B	B	A	A	B	A	B	B
D-value cut 1 ± Premium cut 2 grazing	-	-1.7	-1.7	-2.1	+1.1	-1.1	+3.3	+1.7	+4.3	+0.9	+1.1	+1.7	+3.5	+0.7	=	+4.5	+4.3	+0.5	+1.6	+1.7	+3.6	+2.4
	-	-0.3	+0.5	-2.6	+0.1	+0.7	+1.7	+2.3	+2.6	-0.3	+2.8	+2.0	+0.5	+1.5	=	-0.1	+3.7	+0.8	+1.0	+0.4	+2.0	-0.6
	-	-0.2	+0.4	-0.3	+1.1	+0.2	+5.7	+0.3	+4.9	+1.0	+2.0	+2.7	+0.1	+1.1	=	+3.2	+3.1	-0.5	+1.9	+1.5	+2.1	+0.4
Source	GB	IRL	IRL	DK	DK	GB	GB	NL	GB	GB	NL	GB	NL	NL	NL	GB	GB	GB	DK	GB	GB	NL
First listed	1995	2009	2015 (P)	2010	2014 (P)	2014 (P)	1999	2000	2005	2012 (P)	2005	2014 (P)	2005	2010	1998	2008	2009	2010	2015 (P)	2014 (P)	2011	2009

PRG First Choice Intermediate Diploids
Seasonal Growth under Conservation

	1st cut		2nd cut		3rd cut	Aftermath	Total yield % Premium
	"D"		"D"				
<i>Premium</i>	7.2t	66.0	3.0t	71.9	3.0t	2.1t	15.3t DM/ha
Spelga	102	-	98	-	103	109	102
Solomon	105	64.3	100	71.6	102	104	103
Leenane (P)	107	64.3	100	72.4	97	109	104
Boyne	105	63.9	111	69.3	102	107	106
Nifty (P)	95	67.1	104	71.9	100	109	100
Moirá (P)	103	64.9	103	72.6	108	116	106
AberDart	98	69.3	107	73.6	97	100	100
Bree	95	67.7	103	74.2	97	98	97
Aberstar	100	70.3	103	74.5	96	103	100
Glenariff (P)	91	66.9	108	71.6	108	114	101
Gandalf	98	67.1	96	74.7	101	95	98
AberWolf(P)	97	67.7	108	73.9	104	109	102
Orantas	98	69.5	107	72.4	98	94	99
Rodrigo	103	66.7	104	73.4	102	102	103
Premium	100	66.0	100	71.9	100	100	100
AberMagic	94	70.5	113	71.8	101	112	102
AberFarrell	86	70.3	108	75.6	99	108	96
Copeland	102	66.5	101	72.7	104	102	102
Elyria (P)	99	67.6	106	72.9	98	105	101
AstonLord (P)	93	67.7	111	72.3	99	104	99
AberGreen (P)	97	69.6	116	73.8	104	113	104
Contrast	95	68.4	110	71.3	98	106	100

PRG First Choice Intermediate Diploids
Seasonal Growth under Grazing

	- May	May/June	July/Aug	Sept -	Grazing "D"	Total yield % Premium
<i>Premium</i>	2.0t	3.9t	2.7t	1.1t	73.6	9.8t DM/ha
Spelga	109	101	100	106	-	103
Solomon	111	96	106	105	73.4	103
Leenane (P)	110	101	105	104	74.0	104
Boyne	109	103	106	106	73.2	106
Nifty (P)	105	105	113	116	74.7	109
Moir (P)	120	103	110	113	73.8	110
AberDart	106	104	103	108	79.3	104
Bree	95	107	103	103	73.9	103
AberStar	104	105	109	107	78.5	106
Glenariff (P)	94	104	112	116	74.6	105
Gandalf	94	98	96	99	75.6	97
AberWolf (P)	110	110	122	115	76.3	114
Orantas	83	103	97	96	73.7	96
Rodrigo	108	103	102	98	74.7	103
Premium	100	100	100	100	73.6	100
AberMagic	90	109	121	128	76.7	111
AberFarrell	83	104	112	118	76.6	104
Copeland	108	100	101	104	73.1	102
Elyria (P)	97	104	105	103	75.5	103
AstonLord (P)	101	106	108	111	75.1	106
AberGreen (P)	97	104	121	116	75.6	109
Contrast	103	105	106	113	74.0	106

Variety Descriptions - Intermediate Diploid Varieties

Diploid

Spelga AFBI (GB) / Barenbrug UK

Outstanding early intermediate, yielding well under both managements though conservation D-values are below average. Good late season growth.

Solomon Teagasc (IRL) / DLF Trifolium

Very good yields under both managements with very good first cut yields. Very good early spring growth under grazing and again later in the season.

Leenane Teagasc (IRL) / DLF Trifolium

NEW

Good yields under conservation along with good early spring growth. Good mid-season digestibility for an early heading intermediate.

Boyne DLF Trifolium A/S (DK) / DLF Trifolium

Very good yields under both managements with very good early spring growth and over the grazing season as a whole. Will require cutting early to maintain quality at 1st Cut.

Nifty DLF Trifolium A/S (DK) DLF Trifolium

Good grazing yields throughout the season

Moir AFBI (GB) / Barenbrug UK

Good yields under both cutting and grazing. Good early spring growth under grazing and good first cut yields under conservation.

AberDart IBERS (GB) / Germinal Seeds

Although yield at the first cut can be a little disappointing, it is of very high quality and AberDart shows excellent seasonal distribution thereafter. Good ground cover and outstanding quality under grazing.

Bree Innoseeds BV (NL) / DLF Trifolium

Good all round variety with excellent mid and late season growth. Good second cut D-Value.

AberStar IBERS (GB) / Germinal Seeds

Good yields under both managements coupled with very good quality. Good early spring growth under grazing. Excellent ground cover but may be susceptible to drechslera.

Glenariff AFBI (GB) / Barenbrug UK

Good grazing yields especially in the second half of the season. Good conservation yields later in the season but first cut yields modest. Good ground cover. Breeder claims good resistance to Dreschlara leaf spot.

Gandalf DLF Trifolium A/S (NL) / Limagrain UK

Better suited to grazing than cutting with excellent spring and autumn growth of quality material.

AberWolf *IBERS (GB) / Germinal Seeds*

Good yields under cutting. Very good yields under grazing throughout the season coupled with good grazing quality.

Orantas *Innoseeds BV (NL) / DLF Trifolium*

High yielding variety under both managements with good seasonal growth distribution. Good first cut D - value.

Rodrigo *DSV (NL) / Germinal Seeds*

Very good yields under both managements. Very good early spring growth under grazing for a later heading variety within this group.

Premium *Innoseeds BV (NL) / DLF Trifolium*

Performs well under both managements though moderately susceptible to mildew.

AberMagic *IBERS (GB) / Germinal Seeds*

Outstanding variety for yield and quality under both cutting and grazing. Later heading within the group so first silage cut is moderate though of high quality. Excellent second and later cuts. Sets new standards under grazing, particularly in autumn growth with good quality and ground cover.

AberFarrell *IBERS (GB) / Germinal Seeds*

Good yields under grazing coupled with very good quality under both grazing and conservation. Good late season growth but first conservation yields are modest.

Copeland *AFBI (GB) / Barenbrug UK*

Very good yields under both managements. Very good early spring growth under grazing for a later heading variety within this group.

Elyria *DLf Trifolium A/S (DK) / Limagrain UK*

NEW

Good mid-season growth and digestibility under grazing. Conservation values are good without being exceptional.

AstonLord *DSV(GB) / DSV*

Better under grazing with good yields throughout the season.

AberGreen *IBERS (GB) / Germinal Seeds*

A broadly similar variety to AberMagic, good conservation and grazing yields especially mid season onwards. Good quality and ground cover.

Contrast *DLF Trifolium A/S (NL) / Limagrain UK*

Good yields under both managements but more especially under grazing. Very good early spring growth for a later heading variety within this group.

PRG - First choice intermediate tetraploids - *Summary of Characters*

Variety	Malone	Magician	AberGlyn	Fintona	Glenstal	Seagoe	Aubisque	Ramore	AberClyde	Eurostar	Calibra	AstonBonus	Dunluce	Caledon	Montova	Pensel
REE	31	32	32	32	34	35	35	36	37	37	38	42	43	44	44	44
Conservation Yield (<i>Yields expressed as % Aubisque</i>)																
Year 1	107	101	102	112	101	108	100	108	107	104	98	102	103	108	101	105
3	107	104	102	110	101	105	100	108	105	106	100	97	101	105	100	100
Mean 1 + 3	107	103	102	111	101	107	100	108	106	105	99	100	102	106	100	103
Grazing Yield Year 2	104	101	99	114	101	107	100	108	109	102	98	104	109	104	103	106
Ground Cover	C	C	C	C	C	C	B	C	C	B	C	B	C	C	B	C
Winterhardiness	B	B	A	-	A	B	A	-	-	A	A	-	A	-	A	-
Mildew Resistance	A	A	A	A	B	A	A	A	A	A	A	A	A	A	A	A
D-value cut 1	+1.9	-4.0	-1.5	-1.8	-0.2	-1.4	=	+2.0	+0.5	+3.7	+0.7	+2.1	+3.1	+1.5	+3.2	+2.7
± Aubisque cut 2	+1.7	-1.2	+0.3	+2.1	-0.4	=	=	+1.1	+2.1	-0.9	+1.2	+1.5	-0.2	-1.0	-1.2	-1.7
grazing	+1.7	-	-3.7	-1.0	-2.7	-0.5	=	-0.3	+0.6	-1.8	+3.0	-1.9	+1.1	-0.6	-2.3	-1.4
Source	GB	IRL	GB	GB	IRL	GB	NL	GB	GB	NL	DK	GB	GB	GB	NL	NL
First listed	2006	1998	2004	2014 (P)	2004	2011	1993	2015 (P)	2013 (P)	2002	1999	2013 (P)	2005	2015 (P)	2004	2013 (P)

PRG First Choice Intermediate Tetraploids
Seasonal Growth under Conservation

	1st cut		2nd cut		3rd cut	Aftermath	Total yield % Aubisque
		"D"		"D"			
<i>Aubisque</i>	7.0t	67.7	3.3t	73.1	3.0t	2.1t	15.4t DM/ha
Malone	108	69.6	100	74.8	107	113	107
Magician	106	63.7	102	71.9	97	105	103
AberGlyn	111	66.2	98	73.4	90	94	102
Fintona (P)	107	65.9	110	75.2	114	122	111
Glenstal	103	67.5	101	72.7	99	101	101
Seagoe	110	66.3	101	73.1	104	110	107
Aubisque	100	67.7	100	73.1	100	100	100
Ramore (P)	103	69.7	113	74.2	108	119	108
AberClyde (P)	106	68.2	106	75.2	106	105	106
Eurostar	105	71.4	105	72.2	102	109	105
Calibra	103	68.4	95	74.3	91	101	99
AstonBonus (P)	97	69.8	98	74.6	103	109	100
Dunluce	90	70.8	117	72.9	108	113	102
Caledon (P)	100	69.2	117	72.1	109	107	106
Montova	96	70.9	111	71.9	97	105	100
Pensel (P)	99	69.8	109	71.4	103	103	103

PRG First Choice Intermediate Tetraploids
Seasonal Growth under Grazing

	- May	May/June	July/Aug	Sept-	Grazing "D"	Total yield % Aubisque
<i>Aubisque</i>	1.9t	4.0t	2.8t	1.1t	75.6	9.8t DM/ha
Malone	110	100	102	111	77.3	104
Magician	107	99	100	104	-	101
AberGlyn	116	95	95	93	71.9	99
Fintona (P)	112	113	114	116	74.6	114
Glenstal	109	99	99	106	72.9	101
Seagoe	110	100	113	107	75.1	107
Aubisque	100	100	100	100	75.6	100
Ramore (P)	108	107	108	114	75.3	108
AberClyde (P)	111	110	109	107	76.2	109
Eurostar	98	105	101	100	73.8	102
Calibra	92	101	96	100	78.6	98
AstonBonus (P)	97	102	106	118	73.7	104
Dunluce	101	110	113	112	76.7	109
Caledon (P)	96	105	106	110	75.0	104
Montova	89	105	108	102	73.3	103
Pensel (P)	102	104	111	106	74.2	106

Variety Descriptions - Intermediate Tetraploid Varieties

Tetraploid

Malone (T) *AFBI (GB) / Barenbrug UK*

Good yields under both managements matched by high quality throughout. Outstanding spring growth under grazing.

Magician (T) *Teagasc (IRL) / DLF Trifolium*

Yields well under both managements, but especially under conservation. Good seasonal distribution with useful autumn growth under grazing.

AberGlyn (T) *IBERS (GB) / Germinal Seeds*

Outstanding first cut though of only moderate quality. Excellent spring growth under grazing.

Fintona (T) *AFBI (GB) / Barenbrug UK*

Exceptional performance under both cutting and grazing, setting new standards in this group.

Glenstal (T) *Teagasc (IRL) / DLF Trifolium*

Yields consistently well under both managements with good seasonal growth distribution. Good midseason digestibility.

Seagoe (T) *AFBI (GB) / Barenbrug UK*

Good conservation yields especially at first cut and in the first harvest year. Very good grazing yields for an intermediate tetraploid variety with very good early and late season growth.

Aubisque (T) *DLF Trifolium A/S (NL) / Limagrain UK*

A consistent variety with good seasonal distribution. Good spring growth under grazing. Good ground cover for a tetraploid.

Ramore (T) *AFBI (GB) / Barenbrug UK*

NEW

A relatively high yielding variety, particularly for 2nd cut conservation and later in the season under grazing.

AberClyde (T) *IBERS (GB) / Germinal Seeds*

Very good yields under both cutting and grazing throughout the season.

Eurostar (T) *DLF Trifolium A/S (NL) / Limagrain UK*

Particularly well suited to cutting with two good cuts of excellent D-value. Good seasonal distribution of growth.

Calibra (T) *DLF Trifolium A/S (DK) / DLF Trifolium*

Only moderate yields, though of good quality, under conservation. Yields holding better under grazing with excellent grazing D-value.

AstonBonus (T) *DSV (GB) / DSV*

Good yields under both managements. Good quality under cutting especially at the second cut. Good ground cover.

Dunluce (T) *AFBI (GB) / Barenbrug UK*

Good yields under both managements with good quality under grazing. Excellent in late summer and autumn though tends to be open in growth habit.

Caledon (T) *AFBI (GB) / Barenbrug UK*

NEW

Good yields under both cutting and grazing.

Montova (T) *DLF Trifolium A/S (NL) / Limagrain UK*

Later heading in the intermediate tetraploid group. Originally tested as a late. Excellent yields under both managements with outstanding late season growth.

Pensel (T) *DLF Trifolium A/S (NL) / Limagrain UK*

Good early season growth under both cutting and grazing for a variety heading at the end of the Group. Good quality at first cut.

PRG - First choice late diploids - Summary of Characters

Variety	AberZest	Denver	Glenveagh	AberAvon	Tyrella	Toddington	Foxtrot	Clanrye	Pastour	Mezquita	Glenroyal	Drumbo	Aston Chiefain	AberChoice
REE	46	46	47	47	48	49	49	49	50	50	50	50	52	55
Conservation Yield (Yields expressed as % Pastour)														
Year 1	103	102	103	97	106	102	105	100	100	100	99	97	104	102
3	97	101	100	95	102	101	93	102	100	97	101	95	100	98
Mean 1 + 3	100	102	101	96	104	102	100	101	100	99	100	96	102	100
Grazing Yield Year 2	104	99	98	104	102	100	97	101	100	97	103	99	106	108
Ground Cover	A	B	A	A	B	B	A	A	B	A	A	A	A	A
Winterhardiness	A	B	B	B	B	-	B	-	C	A	C	B	-	C
Mildew Resistance	A	A	A	B	A	-	A	A	A	A	B	B	A	A
D-value cut 1	-1.3	-1.1	+1.2	+2.7	+0.4	+0.6	+0.1	-0.6	=	+3.3	+1.3	+3.4	+0.3	+5.2
± Pastour cut 2	+0.2	-1.3	+1.9	+1.6	+1.5	+1.1	-1.2	+0.7	=	-0.2	+0.6	+3.9	+1.0	+1.2
grazing	+1.8	-2.8	+0.5	+3.2	-0.2	-0.1	-	+0.4	=	-1.7	-0.5	+1.9	-1.1	+1.3
Source	GB	NL	IRL	GB	GB	DK	NL	GB	NL	NL	IRL	GB	GB	GB
First listed	2003	2002	2010	2001	2006	2012 (P)	1997	2012 (P)	2001	2004	2011	2009	2013 (P)	2009

PRG - First choice late tetraploids - Summary of Characters

Variety	Bijou	Glencar	Drift	Alfonso	AberCraigs	Meiduno	Hurricane	Dundrum	AberCain	Novello	Aspect	Navan	AberBile	Twymax	Kintyre	AberPlentiful	Dunloy
REE	46	46	47	47	47	47	48	48	49	49	49	49	50	51	52	53	53
Conservation Yield (Yields expressed as % Twymax)																	
Year 1	105	104	100	105	106	97	104	100	105	95	97	99	99	100	100	97	96
3	103	102	104	102	99	103	101	103	107	98	101	99	102	100	105	103	100
Mean 1 + 3	104	103	102	103	103	100	103	101	106	96	99	99	100	100	103	100	98
Grazing Yield Year 2	100	96	99	102	96	100	98	96	108	102	100	98	106	100	102	106	98
Ground Cover	C	C	B	B	C	C	B	C	C	C	B	C	C	B	C	C	C
Winterhardiness	-	A	A	-	A	-	-	A	-	A	A	A	B	A	A	-	A
Mildew Resistance	A	A	A	A	A	A	A	A	A	A	A	A	B	A	A	A	A
D-value cut 1	-2.6	-1.2	+0.1	-0.1	-4.6	+0.2	-1.5	-0.6	+0.1	-0.7	+0.8	-2.8	+1.0	=	+0.4	+0.6	+1.6
± Twymax cut 2	+1.2	-3.8	-1.4	+1.2	-2.7	-0.5	+0.1	-1.5	-0.7	-1.2	-0.8	-0.1	+0.4	=	-0.8	+0.1	-0.6
grazing	-1.1	-3.7	-1.9	=	-	-1.1	-0.8	-0.5	+2.0	-1.4	+0.4	-0.3	+0.6	=	-1.5	+0.1	+0.4
Source	F	IRL	NL	GB	GB	NL	F	GB	GB	NL	NL	GB	GB	GB	IRL	GB	GB
First listed	2014 (P)	2003	2011	2013 (P)	1998	2014 (P)	2015 (P)	2010 *	2012 (P)	2010 *	2011	1999	2009	2004	2008	2012 (P)	2005

PRG First Choice Late Diploids
Seasonal Growth under Conservation

	1st cut		2nd cut		3rd cut	Aftermath	Total yield % Pastour
		"D"		"D"			
<i>Pastour</i>	6.7t	68.9	3.4t	70.8	3.1t	2.2t	15.3t DM/ha
AberZest	101	67.6	95	71.1	107	98	100
Denver	107	67.8	103	69.6	99	91	102
Glenveagh	104	70.1	98	72.7	102	100	101
AberAvon	97	71.5	94	72.4	100	97	96
Tyrella	114	69.3	92	72.3	100	98	104
Toddington (P)	106	69.5	98	71.9	99	97	102
Foxtrot	104	69.0	101	69.6	96	89	100
Clanrye (P)	100	68.3	106	71.5	102	96	101
Pastour	100	68.9	100	70.8	100	100	100
Mezquita	102	72.2	102	70.7	93	95	99
Glenroyal	99	70.1	103	71.4	98	101	100
Drumbo	93	72.3	100	74.8	100	97	96
AstonChieftain (P)	100	69.1	103	71.8	106	101	102
AberChoice	95	74.0	111	72.0	101	100	100

PRG First Choice Late Diploids
Seasonal Growth under Grazing

	- May	May/June	July/Aug	Sept-	Grazing "D"	Total yield % Pastour
<i>Pastour</i>	1.6t	4.1t	2.9t	1.3t	73.9	9.9t DM/ha
AberZest	116	98	103	109	75.8	104
Denver	97	100	98	89	71.2	99
Glenveagh	96	100	98	97	74.5	98
AberAvon	104	105	102	110	77.1	104
Tyrella	117	99	101	95	73.7	102
Toddington (P)	100	99	104	96	73.8	100
Foxtrot	94	98	97	99	-	97
Clanrye (P)	98	103	103	93	74.3	101
Pastour	100	100	100	100	73.9	100
Mezquita	95	99	97	97	72.3	97
Glenroyal	96	103	107	102	73.5	103
Drumbo	97	98	100	103	75.8	99
AstonChieftain (P)	109	107	103	104	72.9	106
AberChoice	109	108	107	109	75.3	108

PRG First Choice Late Tetraploids
Seasonal Growth under Conservation

	1st cut	"D"	2nd cut	"D"	3rd cut	Aftermath	Total yield % Twymax
<i>Twymax</i>	6.3t	71.9	3.6t	72.1	3.1t	2.2t	15.2t DM/ha
Bijou (P)	107	69.3	102	73.3	101	102	104
Glencar	112	70.6	104	68.4	88	96	103
Drift	106	72.0	98	70.8	100	97	102
Alfonso (P)	110	71.8	94	73.3	100	105	103
AberCraigs	110	67.2	102	69.4	93	98	103
Meiduno (P)	102	72.0	96	71.6	97	103	100
Hurricane (P)	104	70.4	102	72.2	101	102	103
Dundrum *	103	71.2	99	70.6	99	102	101
AberGain (P)	109	72.0	99	71.4	104	109	106
Novello *	92	71.2	99	70.9	100	99	96
Aspect	96	72.7	99	71.4	100	105	99
Navan	93	69.0	98	72.0	102	112	99
AberBite	96	72.9	99	72.5	104	109	100
Twymax	100	71.9	100	72.1	100	100	100
Kintyre	96	72.3	103	71.3	106	115	103
AberPlentiful (P)	93	72.5	99	72.2	106	113	100
Dunloy	87	73.4	106	71.5	103	107	98

PRG First Choice Late Tetraploids
Seasonal Growth under Grazing

	- May	May/June	July/Aug	Sept-	Grazing "D"	Total yield % Twymax
<i>Twymax</i>	1.7t	4.4t	2.9t	1.1t	75.9	10.1t DM/ha
Bijou (P)	102	95	101	106	74.8	100
Glencar	109	87	101	99	72.2	96
Drift	103	94	104	97	74.0	99
Alfonso (P)	106	95	106	109	75.9	102
AberCraigs	90	89	106	106	-	96
Meiduno (P)	95	97	100	114	74.9	100
Hurricane (P)	98	92	103	103	75.1	98
Dundrum *	86	97	99	103	75.4	96
AberGain (P)	121	99	109	115	78.0	108
Novello *	90	99	111	110	74.6	102
Aspect	95	99	102	108	76.4	100
Navan	82	94	107	107	75.6	98
AberBite	100	103	111	115	76.5	106
Twymax	100	100	100	100	75.9	100
Kintyre	93	100	106	116	74.4	102
AberPlentiful (P)	102	100	111	121	76.0	106
Dunloy	86	97	101	115	76.5	98

Variety Descriptions - Late Varieties

Diploid

AberZest *IBERS (GB) / Germinal Seeds*

Particularly suited to grazing with good digestibility, AberZest shows good spring and autumn growth. May be susceptible to Drechslera leafspot.

Denver *DLF Trifolium A/S (NL) / Limagrain UK*

One of the earliest heading of the late varieties with good yields under both managements and good seasonal distribution.

Glenveagh *Teagasc (IRL) / DLF Trifolium*

Good yields under both managements, more especially under conservation. Good ground cover with good mid and late season growth under grazing.

AberAvon *IBERS (GB) / Germinal Seeds*

Outstanding high quality yields under grazing with excellent spring growth. Silage cuts only average but of very high D-value.

Tyrella *AFBI (GB) / Barenbrug UK*

Particularly well suited to grazing with exceptional early growth. Good first cut yield under conservation.

Toddington *DLF Trifolium A/S (DK) / DLF Trifolium*

Good yields under both conservation and grazing with good quality. Good second cut yields under conservation and good late summer growth under grazing. Good Crown Rust resistance and probably good Dreschlara resistance.

Foxtrot *DLF Trifolium A/S (DK) / DLF Trifolium*

Excellent variety under both managements with good seasonal growth distribution.

Clanrye *AFBI (GB) / Barenbrug UK*

Good yields under grazing especially mid-season coupled with good conservation yields especially at second cut. Good ground cover.

Pastour *DLF Trifolium A/S (DK) / DLF Trifolium*

Excellent yields with good growth distribution under both managements. No obvious weaknesses, though less dense than some others.

Mezquita *DSV (NL) / DSV*

Yields well under both managements with excellent second silage cut. Good ground cover.

Glenroyal *Teagasc (IRL) / DLF Trifolium*

Good yields under both conservation and grazing with particularly good growth in the second half of the season under grazing. Good ground cover.

Drumbo *AFBI (GB) / Barenbrug UK*

Good yields under grazing coupled with very good quality under both grazing and conservation. Good late season growth. Good yields at second cut but first cut yields are modest.

AstonChieftain *DSV (GB) / DSV*

Good yields under both cutting and grazing. First cut yields under conservation are relatively good for a later heading variety within this Group. Good seasonal production under grazing.

AberChoice *IBERS (GB) / Germinal Seeds*

Good yields and quality under both conservation and grazing with very good quality at first cut. Good growth both early and late in the season under grazing.

Tetraploid

Bijou (T) *R2N (F) / RAGT*

Good yields under both cutting and grazing. Good early spring growth under grazing and good first cut yields under conservation.

Glencar (T) *Teagasc (IRL) / DLF Trifolium*

Early heading in the late group, Glencar shows excellent spring growth and an outstanding first cut of moderate D-value.

Drift (T) *DLF Trifolium A/S (NL) / Limagrain UK*

Very good first cut yields under conservation coupled with good quality at both first and second cuts. Good yields under grazing with very good early spring growth.

Alfonso (T) *DSV (GB) / DSV*

Very good yields under both cutting and grazing overall. Very good first cut yields under conservation and very good early spring growth under grazing. Good ground cover for a tetraploid variety.

AberCraigs (T) *IBERS (GB) / Germinal Seeds*

Very high yielding under conservation with excellent first cut though of moderate digestibility. Less dense than Condesa.

Meiduno (T) *DLF Trifolium A/S (NL) / DLF Trifolium*

Good conservation yields at first cut. Good autumn growth under grazing.

Hurricane (T) *S.A.Carneau (F)*

NEW

Good overall conservation yields and good ground cover.

Dundrum (T) *AFBI (GB) / Barenburg UK*

Good yields under conservation especially at first cut.

AberGain (T) *IBERS (GB) / Germinal Seeds*

An outstanding addition to the recommended list. Very good yields and quality under both conservation and grazing, with very good first cut yields and remarkably good early spring growth under grazing. Ground cover rather open but good vigour.

Novello (T) *DLF Trifolium A/S (NL) / Limagrain UK*

Good yields under grazing especially mid season onwards.

Aspect (T) *DLF Trifolium A/S (NL) / Limagrain UK*

Good first cut yields under conservation coupled with very good quality at both first and second cut. Good performance sustained throughout the season under grazing coupled with good quality.

Navan (T) *AFBI (GB) / Barenbrug UK*

Very high yielding under both managements and good early growth but D-values are lower than average. Ground cover is only moderate.

AberBite (T) *IBERS (GB) / Germinal Seeds*

Good first cut yields and very good yields under grazing with a good seasonal pattern of growth over the grazing season.

Twymax (T) *DLF Trifolium A/S (DK) / Limagrain UK*

Excellent variety, particularly under grazing management with good early growth. Good ground cover and midseason digestibility.

Kintyre (T) *Teagasc (IRL) / DLF Trifolium*

Outstanding under both managements with excellent seasonal growth. Good quality at both main stage cuts. Can produce a rather open sward so would be an excellent companion in white clover swards.

AberPlentiful (T) *IBERS (GB) / Germinal Seeds*

Broadly very similar to AberBite although slightly later heading with good first cut yields and quality and a good seasonal pattern of growth under grazing.

Dunloy (T) *AFBI (GB) / Barenbrug UK*

Provides high quality silage cuts but more suited to grazing with good seasonal growth distribution of high digestibility grass.

IRG - First choice varieties - Summary of Characters

Variety	Dorike (T)	Gemini (T)	Meribel	Alamo	Davinci	Javorio	Belluna
REE	29	30	32	34	36	36	36
Annual Yield (Yields expressed as % Ligrande)							
Year 1	103	103	104	102	105	102	105
2	103	104	103	101	105	104	102
Mean 1 + 2	103	103	104	102	105	103	103
Sowing Year	104	102	102	105	100	98	102
Ground Cover	C	B	A	A	A	B	A
Winterhardiness	-	-	C	-	-	-	-
Mildew Resistance	A	A	A	A	A	-	A
D-value cut 2	+1.3	+2.7	+1.8	+0.6	+0.5	+1.1	+1.7
± Ligrande cut 3	+1.5	+3.5	+0.7	+3.0	+2.2	+1.6	+1.8
Source	NL	B	B	NL	B	NL	B
First listed	2007	2000	1991	2001	2005	2013	2005

Hybrid ryegrass - First choice varieties

- Summary of Characters

Variety	AberEcho (T)	Alliance (T)	AstonCrusader (T)	Hymner (T)	Pirol	AberFive (T)
REE	27	31	32	33	33	34
Annual Yield (Yields expressed as % Ligrande)						
Year 1	101	98	94	93	101	97
2	106	101	103	104	105	100
3	100	97	99	98	98	93
Mean 1 + 2	103	100	98	98	103	98
Sowing Year	92	100	101	99	100	99
Ground Cover	A	B	A	A	A	A
Winterhardiness	B	B	-	A	-	-
Mildew Resistance	A	A	-	A	B	A
D-value cut 2	+2.9	+2.8	+0.7	+3.0	+0.7	+1.0
± Ligrande cut	+5.1	+3.1	+4.6	+1.4	+1.4	+5.3
Source	GB	NL	GB	B	D	GB
First listed	2003	2003	2014	2002	2005	2005

Italian and Hybrid Ryegrass First Choice Varieties - *Seasonal Growth*

	Early grazing	Main cut		2nd cut		Aftermath	Total yield % <i>Ligrande</i>
			"D"		"D"		
<i>Ligrande</i>	1.4t	5.7	67.4	3.4	65.3	4.9	15.4t DM/ha
Dorike (T)	109	105	68.7	101	66.8	102	103
Gemini (T)	95	102	70.1	109	68.8	105	103
Meribel	85	101	69.2	103	66.0	110	104
Alamo	97	100	68.0	103	68.5	105	102
Davinci	105	97	67.9	118	67.5	106	105
Javorio	103	96	68.5	105	66.9	109	103
Belluna	109	95	69.4	114	67.1	106	103
AberEcho (H) (T)	97	109	70.3	97	70.4	103	103
Alliance (H) (T)	93	105	70.2	100	68.4	95	100
AstonCrusader (H) (T)	83	112	68.1	87	69.9	93	98
Hymer (H) (T)	82	113	70.4	84	67.3	96	98
Pirol (H)	98	100	68.1	109	66.7	104	103
AberEve (H) (T)	74	109	68.4	90	70.6	100	98

Variety Descriptions - Italian and Hybrid Ryegrasses

Italian

Dorike (T) DSV (NL) / *Germinal Seeds*

Excellent spring growth and an outstanding main silage cut of good D-value for the heading date.

Gemini (T) ILVO (B) / *Limagrain UK*

Excellent tetraploid variety with good seasonal distribution of yield. High D-values at both main silage cuts. Good mildew resistance.

Meribel ILVO (B) / *Limagrain UK*

High yielding in first and second harvest years, with very good late summer and autumn growth. Good D-values. Very good ground cover, but may be prone to winter damage.

Alamo Innoseeds BV (NL) / *DLF Trifolium*

Good all round variety with good yields in year of sowing. Good second cut D-value.

Davinci ILVO (B) / *Limagrain UK*

Excellent variety with particularly good second silage cut. Good ground cover.

Javorio DSV (NL) / *DSV*

Good all round variety. Good performance in the second harvest year. Good quality in the main silage cuts.

Belluna ILVO (B) / *Limagrain UK*

Good yields in year of sowing and in first harvest year. Main silage cut only moderate but good seasonal growth distribution.

Hybrid

AberEcho (H) (T) IBERS (GB) / *Germinal Seeds*

Outstanding variety with no apparent weaknesses. Excellent spring and autumn growth with high yield of good quality at main silage cut.

Alliance (H) (T) DLF Trifolium A/S (NL) / *Limagrain UK*

Yields consistently well with good spring growth. High quality at second silage cut.

AstonCrusader (H) (T) DSV (GB) / *DSV*

Like Hymer, good yields at the first conservation cut leading to good yields overall. Good second cut D value.

Hymer (H) (T) ILVO (B) / *Limagrain UK*

Yields particularly well at the first silage cut, giving excellent production overall. Good spring growth, though more open than some.

Pirol (H) Steinach (D) / *Germinal Seeds*

Good spring growth. Moderate first cut but good second cut and aftermath.

AberEve (H) (T) IBERS (GB) / *Germinal Seeds*

Slow in spring but good main silage cut of moderate D - value. Good second cut D - value.

Timothy - First choice varieties - Summary of Characters

Variety	Scots	Dolina	Comer	Promesse	Erecta RvP	Comtal
REE	51	53	53	54	54	55
Conservation Yield (Yields expressed as % Erecta RvP)						
Year 1	106	98	107	98	100	107
3	110	107	111	104	100	103
Mean 1 + 3	108	102	109	101	100	105
Grazing Yield Year 2	103	104	105	102	100	109
Ground Cover	B	B	A	B	A	B
Source	GB	B	B	NL	B	NL
First listed	1973	2003	2001	1990	1973 (*)	1988

Timothy First Choice Varieties Seasonal Growth under Conservation

	1st Cut	2nd Cut	3rd Cut	Aftermath	Total yield % Erecta RvP
<i>Erecta RvP</i>	5.0t	2.7t	2.4t	1.3t	11.4t DM/ha
Scots	111	106	105	104	108
Dolina	101	106	99	104	102
Comer	113	113	97	107	109
Promesse	103	99	94	110	101
Erecta RvP	100	100	100	100	100
Comtal	108	106	95	110	105

Timothy First Choice Varieties Seasonal Growth under Grazing

	- May	May/June	July/Aug	Sept -	Total yield % Erecta RvP
<i>Erecta RvP</i>	1.6t	3.1t	3.0t	0.6t	8.3t DM/ha
Scots	116	100	103	86	103
Dolina	113	98	105	102	104
Comer	122	100	101	99	105
Promesse	99	103	100	107	102
Erecta RvP	100	100	100	100	100
Comtal	114	108	106	114	109

Variety Descriptions - Timothy Varieties

Scots *STSGA (GB) / STSGA*

Yields well under conservation in early years after establishment but only moderate ground cover and persistence.

Dolina *ILVO (B) / DLF Trifolium*

Good spring and autumn growth in plot trials especially under grazing management.

Comer *ILVO (B) / Limagrain UK*

Good yields under both managements. Good early spring growth under grazing and good ground cover.

Promesse *Innoseeds BV (NL) / DLF Trifolium*

Similar yields and growth distribution to Erecta, but better autumn growth.

Erecta RvP *ILVO (B) / Limagrain UK*

Consistent variety in plot trials under both managements. Good ground cover.

Comtal *DLF Trifolium A/S (NL) / Limagrain UK*

Excellent variety in plot trials under both managements. Very good spring and autumn growth under grazing. Average ground cover.

White Clover - First choice small leaved varieties

Summary of Characters

Variety	Aber S184	Grasslands Demand	Aber Pearl	Ronny	Rivendel
Leaflet size (% Gr. Huia)	70	77	80	80	82
Total Yield (% Kent Wild White)					
Year 2	106	106	110	113	113
3	103	107	113	111	107
Mean 2 + 3	105	107	112	112	110
Clover Yield					
Year 2	131	144	173	156	147
3	131	162	177	167	145
Mean 2 + 3	131	153	175	161	146
Ground Cover					
Light defol.	B	A	A	A	B
Hard defol.	A	A	A	A	B
Source	GB	NZ	GB	DK	DK
First listed	1973	1994	2004	2001	1983

White Clover - First choice medium leaved varieties

Summary of Characters

Variety	Crusader	AberCrest	AberHerald	Gr. Bounty	Avoca	Iona	AberDai	AberVantage	Buddy	Violin	Menna	Mervi
Leaflet size (% Gr. Huia)	85	86	89	90	90	92	99	102	103	103	104	104
Total Yield (% Grasslands Huia)												
Year 2	107	101	103	101	109	103	105	104	108	109	104	106
3	104	102	105	104	107	104	106	104	109	107	104	106
Mean 2 + 3	106	102	104	103	108	103	105	104	109	108	104	106
Clover Yield												
Year 2	133	108	126	108	135	123	129	122	139	147	119	115
3	134	117	137	119	144	135	134	128	134	141	122	129
Mean 2 + 3	134	112	131	113	139	129	131	125	137	144	120	122
Ground Cover												
Light defol.	A	B	A	A	A	A	A	A	A	A	A	B
Hard defol.	B	B	C	B	A	A	B	B	B	B	B	C
Source	NZ	GB	GB	NZ	IRL	IRL	GB	GB	IRL	DK	GB	B
First listed	2002	1994 *	1994	2003 *	1993	2011	1997	1994	2013 (P)	2009	1977 *	1990

White Clover - First choice large leaved varieties

Summary of Characters

Variety	Chieftain	Katy	Makuri	Milkanova	Alice	Barblanca	Aran	Briana
Leaflet size (% Gr. Huia)	105	110	116	123	124	125	159	191
Total Yield (% Alice)								
Year 2	102	104	98	97	100	98	100	100
3	103	100	100	95	100	101	99	101
Mean 2 + 3	102	102	99	96	100	99	99	101
Clover Yield								
Year 2	93	110	101	84	100	89	105	105
3	103	96	99	77	100	98	102	103
Mean 2 + 3	98	103	100	80	100	93	104	104
Ground Cover								
Light defol.	A	A	B	B	A	B	B	B
Hard defol.	B	C	C	B	C	C	C	B
Source	IRL	NZ	NZ	DK	GB	NZ	IRL	DK
First listed	2001	2012 (P)	2003	1974 *	1985	2001	1981	2015 (P)

White Clover First Choice Varieties
Seasonal Growth Pattern - Grass and Clover

	Early	Mid	Late	Total yield % Grasslands Huia
<i>Grasslands Huia</i>	1.9t	6.7t	1.0t	9.6t DM/ha
Aber S184	102	101	95	100
Grasslands Demand	101	103	102	102
AberPearl	106	107	105	107
Ronny	110	108	100	107
Rivendel	103	107	98	105
Crusader	107	103	123	106
AberCrest *	101	102	100	102
AberHerald	102	104	106	104
Grassland Bounty *	104	102	104	103
Avoca	107	108	110	108
Iona	100	103	106	103
AberDai	103	106	108	105
AberVantage	101	105	104	104
Buddy (P)	109	110	99	109
Violin	104	108	116	108
Menna *	101	104	107	104
Merwi	102	108	105	106
Chieftain	101	108	116	107
Katy (P)	103	110	103	108
Makuri	97	105	114	104
Milkanova *	98	102	95	101
Alice	102	105	110	105
Barblanca	101	103	116	104
Aran	100	104	116	104
Brianna (P)	102	106	110	105

White Clover First Choice Varieties
Seasonal Growth Pattern - Clover only

	Early	Mid	Late	Total yield % Grasslands Huia
<i>Grasslands Huia</i>	0.3t	1.8t	0.4t	2.5t DM/ha
Aber S184	102	97	79	96
Grasslands Demand	116	111	107	112
AberPearl	136	129	105	128
Ronny	129	123	85	118
Rivendel	108	110	84	107
Crusader	145	126	149	134
AberCrest *	118	113	104	112
AberHerald	127	134	128	131
Grassland Bounty *	132	109	109	113
Avoca	167	136	123	139
Iona	127	130	126	130
AberDai	134	132	118	131
AberVantage	133	124	124	125
Buddy (P)	147	142	98	137
Violin	145	144	132	144
Menna *	119	121	110	120
Merwi	121	123	110	122
Chieftain	125	129	132	130
Katy (P)	115	155	98	142
Makuri	130	130	136	133
Milkanova *	112	108	96	107
Alice	130	133	122	133
Barblanca	129	119	137	124
Aran	139	134	145	137
Brianna (P)	139	137	128	138

Variety Descriptions - White Clover Varieties

Small

Aberystwyth S 184 *IGER (GB) / Barenbrug Holland*

Persists and yields well under hard sheep grazing.

Grasslands Demand *AgResearch (NZ) / Limagrain UK*

A good variety with good yields of grass and clover. Good ground cover under both light and hard defoliation.

AberPearl *IBERS (GB) / Germinal Seeds*

Good early and mid-season growth with good ground cover.

Ronny *DLF Trifolium A/S (DK) / DLF Trifolium*

Good early and mid-season growth. Withstands hard grazing.

Rivendel *DLF Trifolium A/S (DK) / DLF Trifolium*

Useful variety but no outstanding attributes.

Medium

Crusader *AgResearch (NZ) / Barenbrug UK*

Despite re-classification still a very good clover variety with very good performance both early and late in the season.

AberCrest *IBERS (GB) / Germinal Seeds*

Re-classification makes clover yields and ground cover appear rather modest. Breeder claims good winter-hardiness.

AberHerald *IGER (GB) / Germinal Seeds*

Gives high clover yields and good overall production but is less persistent under hard defoliation (as measured by mowing). Breeder claims good winterhardiness.

Grasslands Bounty *P.G.G.Wrightson (NZ) / Limagrain UK*

Good spring growth, more modest thereafter. Good persistence.

Avoca *Teagasc (IRL) / DLF Trifolium*

Outstanding variety showing excellent growth throughout the season with very good clover yields. Good ground cover under both hard and light defoliation.

Iona *Teagasc (IRL) / DLF Trifolium*

Useful addition to the Medium Leaf Size Group showing good ground cover under rotational grazing.

AberDai *IBERS (GB) / Germinal Seeds*

A good variety with good clover content. Better suited to light defoliation.

AberVantage *IBERS (GB) / Germinal Seeds*

Bred for use in rotational grazing systems, AberVantage combines good total production with good ground cover.

Buddy *Teagasc (IRL) / DLF Trifolium*

Good grass and clover yields through much of the season but more modest autumn growth.

Violin *DLF Trifolium A/S (DK) / Limagrain UK*

An excellent variety showing good clover yields throughout the season coupled with good persistence especially under light defoliation..

Menna *IGER (GB) / Barenbrug Holland*

A useful variety but no outstanding attributes.

Merwi *ILVO (B) / Limagrain UK*

A productive variety better suited to light defoliation

Large

Chieftain *Teagasc (IRL) / DLF Trifolium)*

Good growth throughout the season with good ground cover scores.

Katy *AgResearch (NZ) / Barenbrug UK*

Very good mid-season growth. Ground cover typical of many in this group.

Makuri *AgResearch (NZ) / Barenbrug UK*

Good growth throughout the season. Less persistent under hard grazing.

Milkanova *DLF Trifolium A/S / DLF Trifolium*

Becoming outclassed.

Alice *IGER (GB) / Barenbrug UK*

Remains a good benchmark variety in the large leaved group.

Barblanca *AgResearch (NZ) / Barenbrug UK*

A useful variety in the large leaved group. Good spring and autumn growth.

Aran *Teagasc (IRL) / Germinal Seeds*

A very large leaved variety, Aran is high yielding but best suited to cutting as its height allows it to compete with tall grass canopies. Poor persistence under hard grazing.

Brianna *DLF Trifolium A/S (DK) / DLF Trifolium*

NEW

A very large leaved variety with consistently good yields and good tolerance of hard grazing for it's leaf size.

RED CLOVER - Descriptive List of Early Flowering Types
Summary of Characters

Variety	AberChianti	AberClaret	Merula	Milvus	Amos (T)	Diplomat	Global	Lemmon	Magellan (T)	Merviot	Atlantis (T)	Avisto	Harmonie
Annual Yield (<i>Yields expressed as % Merviot</i>)													
Year 1 13.5 t DM/ha	91	97	98	95	102	97	104	100	101	100	99	95	97
2 12.6 t DM/ha	97	99	96	99	101	98	105	105	113	100	98	99	104
Mean 1 + 2	94	98	97	97	102	98	105	102	107	100	99	97	100
Annual Yield (<i>Yield expressed as % Merviot</i>)													
Year 3 10.3 t DM/ha	113	122	104	107	93	91	105	103	(126)	100	100	107	106
Mean 1+2+3	100	105	99	100	99	96	105	103	(111)	100	99	100	102
Ground Cover	A	A	C	C	C	C	B	B	A	B	A	B	A
Source	GB	GB	CH	CH	CZ	D	B	B	D	B	D	B	D
First Listed	2012	2011	2011	2011	2011	2011	2011	2011	2015	1980	2012	2012	2013

Red Clover - Descriptive List
Seasonal Growth under Conservation

Mean Years 1+2	1st cut	2nd cut	3rd cut	Aftermath	Total yield % Merviot
<i>Merviot</i>	7.0t	4.0t	1.7t	0.4t	13.1t DM/ha
AberChianti	87	99	113	-	94
AberClaret	88	105	123	97	98
Merula	90	104	114	84	97
Milvus	88	108	108	86	97
Amos (T)	101	102	104	79	102
Diplomat	98	100	91	77	98
Global	104	104	109	106	105
Lemmon	104	102	100	85	102
Magellan (T)	110	102	107	88	107
Atlantis (T)	98	99	104	-	99
Avisto	97	93	104	-	97
Harmonie	105	93	101	-	100
Year 3	1st cut	2nd cut	3rd cut	Aftermath	Total yield % Merviot
<i>Merviot</i>	5.2t	3.5t	1.4t	0.3t	10.4t DM/ha
AberChianti	105	116	138	155	113
AberClaret	114	127	142	-	122
Merula	94	110	123	104	104
Milvus	96	116	124	107	107
Amos (T)	93	98	90	36	93
Diplomat	91	95	84	36	91
Global	102	105	110	132	105
Lemmon	98	108	101	117	103
Magellan (T)	(130)	(122)	(127)	79	(126)
Atlantis (T)	107	97	92	79	100
Avisto	107	108	111	96	107
Harmonie	116	101	92	88	106

Variety Descriptions - Early Flowering Red Clover

AberChianti *IBERS (GB) / Germinal Seeds*

Broadly similar to AberClaret with good persistence and good yields in the third harvest year.

AberClaret *IBERS (GB) / Germinal Seeds*

Very good persistence and very good yields in the third harvest year.

Merula *ART Reckenholz (CH) / Feldsaaten Freudenberger GmbH*

More modest first cut yields, better performance later in the season and in the third harvest year.

Milvus *ART Reckenholz (CH) / DSV*

More modest first cut yields, better performance later in the season and in the third harvest year.

Amos (T) *Slechtitelska Stanice (CZ) / DLF Trifolium*

Good yields under cutting in years 1 and 2.

Diplomat *PH Peterson (D) / DSV*

Average yields in years 1 and 2.

Global *ILVO (B) / Feldsaaten Freudenberger GmbH*

Excellent variety. Good yields under cutting in years 1, 2 and 3.

Lemmon *ILVO (B) / Barenbrug UK*

Good performance in all years.

Magellan (T) *NPZ Lembke((D)/ LSPB*

NEW

Very high yielding variety showing good growth in the third year for a tetraploid type.

Merviot *ILVO (B) / Limagrain UK*

Remains a very good benchmark variety.

Atlantis (T) *NPZ Lembke (D) / LS Plant Breeding Ltd*

A tetraploid variety with good persistence and good first cut yields in the third harvest year.

Avisto *ILVO (B) / Barenbrug UK*

Good performance in the third harvest year.

Harmonie *NPZ Lembke (D) / LS Plant Breeding Ltd.*

Good yields in the second and third harvest years. Good yields at the first cut especially in the third harvest year.

Variety Descriptions – Second Choice Varieties added in 2014

Perennial ryegrass

Glenarm *AFBI (GB)/ Barenbrug UK* *REE 49 (L)*

Fairly good grazing variety

Cavendish *DLF Trifolium (DK)/ DLF Trifolium* *REE 50 (L)*

Average variety for both conservation and grazing.

Timing *DLF Trifolium (DK)/ Limagrain UK* *REE 50 (L)*

Shows best performance in late spring.

Xanthus (T) *NPZ Lembke (D) / LSPB* *REE 51 (L)*

Overall, a moderate performing variety.

Youpi (T) *R2N (F)/ RAGT* *REE 52 (L)*

Shows better growth for grazing later in the season.

Addresses of UK Agents / Maintainers

Barenbrug Holland BV	Postbus 1338, 6501 BH Nijmegen, Netherlands
Barenbrug UK Ltd	33 Perkins Road, Rougham Industrial Estate Bury St Edmunds, Suffolk IP30 9NW
Germinal Seeds Ltd	Portview Road, Avonmouth, Bristol BS11 9JH
DLF Trifolium Ltd	Thorn Farm, Evesham Road, Inkberrow, Worcestershire WR7 4LJ
DSV	Weissenburger Strasse 5, 59557 Lippstadt, Germany
Feldsaaten Freudenberger GmbH	Madgeburger Strasse 2, D-47800 Krefeld, Germany
KWS UK Ltd	56 Church Street, Thriplow, Nr Royston Herts SG8 7RE
Limagrain UK Ltd.	Camp Road, Witham St Hughs, Lincoln LN6 9TW
LS Plant Breeding Ltd.	North Barn, Manor Farm, Milton Road, Impington, Cambridge CB24 9NF
RAGT Seeds Ltd.	Grange Road, Ickleton, Essex CB10 1TA
STSGA	Broomhall, Inchtute, Perth PH14 9QP

For further information
on herbage varieties or mixtures contact:

David Lawson
SRUC
Sandpiper House
Ruthvenfield Road
Inveralmond Industrial Estate
Perth
PH1 3EE
Tel 01738 636611
Email david.lawson@sruc.ac.uk