

2014
MIXTURES

QUALITY GRASS SEED MIXTURES

DOWNLAND[®]

PARTNERS IN FARMING HEALTH



www.downland.co.uk



THE BEST GRASS SEED MIXTURES

Downland Grass Mixtures have been developed over many years to ensure top quality, highly productive swards capable of exceptional performance and offer the best complete package to farmers throughout the length and breadth of the UK.

THE BEST ADVICE

Downland Distributors are trained to offer you the best advice for your farm at all times. Their knowledge can help balance issues of yield, seasonal growth, forage quality, sward density, disease resistance and winter hardiness to ensure that you select the mixture best suited for your individual farm, enterprise and location.

THE BEST PRODUCTS

- Technical excellence – mixtures formulated with only the best varieties
- All varieties recommended by UK testing authorities
- Top Forage Quality – Downland’s emphasis on forage quality and digestibility ensures that the maximum potential from forage is achieved
- Higher Voluntary Standard (HVS) – the highest standards of purity and germination for fast establishment and weed free swards
- Downland’s minimum germination guarantee of 90% means up to 14% more live seed in every bag (worth £10 per acre) than mixtures certified at UK minimum germination levels
- Innovation – research and development ensures that Downland mixtures lead the field with unique innovative products like GrassMax, iSeed® 50 and the new Advanced Grasses™

THE BEST VALUE

The combination of the best products and the best advice from experienced Downland distributors who understand the economics of livestock farming at a local level, ensures that Downland Grass Seed Mixtures always deliver real value from top performance swards.

CONTENTS

DOWNLAND QUALITY STANDARDS	2 - 3
DOWNLAND FORAGE QUALITY	4
DOWNLAND ADVANCED GRASSES™	5
DOWNLAND RESEEDING SOLUTIONS	6
DOWNLAND HIGH CLOVER AND ORGANIC MIXTURES	7 - 10
DOWNLAND MIXTURE SELECTOR	11
DOWNLAND CONVENTIONAL FORAGE MIXTURES	12 - 22
DOWNLAND OVERSEEDING	23 - 26
DOWNLAND GAME, FODDER AND ENVIRONMENTAL MIXTURES	BACK COVER

DOWNLAND QUALITY STANDARDS

Quality grass seed is the foundation of a good sward. To ensure the best possible sward performance Downland Grass Leys are formulated using the best varieties and the highest quality standards.



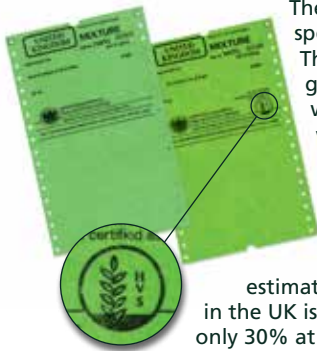
DOWNLAND VARIETIES

Downland supports and contributes towards the production of Grass and Clover Recommended Lists for Scotland and England and Wales and all the varieties used in Downland mixtures have been selected on the basis of their performance in trials throughout the UK.

All Downland varieties appear on UK Recommended Lists and have been included in individual mixtures to ensure that their characteristics are suited to the final sward use.



DOWNLAND SEED QUALITY



There are two certification standards for all species of agricultural seed within the UK. The lowest level is EU certification which guarantees minimum quality standards below which seed cannot be sold. The second standard, which is unique to the UK, is HVS or Higher Voluntary Standard. As the name suggests HVS quality standards are higher than EU and as HVS is 'Voluntary' and not compulsory it is only applied to a relatively small number of grass seed brands in the UK. In fact it is estimated that around 70% of the grass seed supplied in the UK is certified at the EU minimum standard with only 30% at HVS.

Despite the fact that HVS certification is of major benefit in terms of seed quality, many farmers are unaware of its existence and would be appalled at the levels of weed seeds and other impurities allowed at the EU minimum standard. To be sure of the highest quality look for the HVS emblem on the official bag label and if it is not present the seed is only certified at EU and can contain considerably higher levels of weed seeds and other impurities.

All Downland conventional mixtures are certified at HVS guaranteeing the highest standards of purity and germination. Be sure to look for the HVS symbol on the official label.

DOWNLAND GERMINATION & PURITY

Seed germination and purity are key elements of a quality grass seed mixture. All Downland grass mixtures are formulated with individual varieties selected on the highest quality standards.



Germination is the measure of a seed's ability to produce a plant and is expressed as the percentage of live seed in the bag. The minimum germination standards required by the seed regulations are surprisingly low. Italian Ryegrass, for example has a minimum requirement of 75% which means that up to a quarter of the bag can be dead seed that will never produce a plant. Given the importance of high germination to good establishment, all Downland mixtures have a minimum germination standard of 90% guaranteeing improved establishment and better value for money.

	SPECIES		
	Italian Ryegrass	Perennial Ryegrass	Timothy
EU Minimum Germination Standard	75%	80%	80%
HVS Minimum Germination Standard	75%	80%	80%
Downland Minimum Germination Standard	90%	90%	90%
Downland Actual 2013 Germination	92.8%	93.7%	92.1%
Benefit of Downland	17.8%	13.7%	12.1%

The above average germinations actually achieved in 2013 are equivalent to a saving of almost £10 per acre at 2014 prices but the real value is in better establishment, more plants per acre and much denser swards

In addition to low germination standards, EU grass seed certification also allows the presence of relatively high levels of serious grassland weeds introducing literally thousands of new weed seeds every time a field is reseeded. EU minimum standard can allow up to a staggering 1250 docks, 30,000 couch and 25,000 blackgrass seeds per acre. As with germination Downland mixtures have their own quality standards and the HVS symbol on every bag guarantees a standard for weed seed content which is up to 10 times better than EU minimum standard.

DOWNLAND FORAGE QUALITY

High yielding livestock need top quality forage. Increasing the feeding value of grass can have a dramatic effect on livestock productivity and the Downland emphasis on both yield and forage quality ensures that the maximum potential from forage in the ration is achieved.

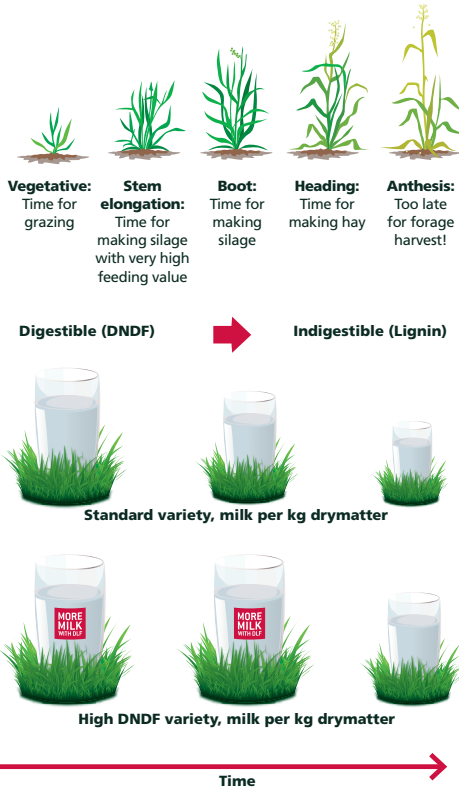


DNDF Makes the Difference

Recent research into animal nutrition has shown that Cell Wall Digestibility (DNDF) is the single most important quality parameter in grass. DNDF is vital to rumen health. It stimulates the rumen function, stabilises pH and improves both the digestion process and the utilisation of nutrients.

Young grass always produces forage with high digestibility but yields are low and as grass matures the opposite applies. High DNDF varieties bring improved animal performance by delivering the best combination of yield and quality as grasses progress through the different growth stages.

The illustration shows how high DNDF varieties maintain higher digestibility throughout the growth stages and the impact on animal production.



Downland Top DNDF Varieties

For 2014 Downland has been able to include the following seven high DNDF varieties in the Downland grass mixture range.

SOLOMON	Intermediate Perennial Ryegrass
CALVANO 1	Intermediate Perennial Ryegrass
CANCAN	Late Perennial Ryegrass
ROMARK	Late Perennial Ryegrass
PASTOUR	Late Perennial Ryegrass
POLIM	Tetraploid Late Perennial Ryegrass
MAURICE	Tetraploid Late Perennial Ryegrass

Following extensive trial work with world's leading grass seed company DLF Trifolium, Downland has been able to include a new type of forage grass with high yields and excellent forage quality into its mixture recipes. This new range of Advanced Grasses™ has been developed by crossing Italian Ryegrass with both Meadow Fescue and Tall Fescue and combines the best characters from each of the parent species.



In 2014 further development has allowed Downland to expand the use of these new and exciting Advanced Grasses™. Three varieties of Advanced Grasses™ are now available as follows:

Advanced Hybrid Ryegrass™ – LOFA

As an Advanced Hybrid Ryegrass™, LOFA has the most general appeal for extensive use within UK grass mixtures. Behaving like a Hybrid Ryegrass but with very fast establishment, high yields, excellent stress tolerance and disease resistance, it is an ideal component in 3 – 5 year mixtures and is particularly suitable as a companion grass for Red Clover.

Advanced Italian Ryegrass™ – PERSEUS

Perseus is a variety of Advanced Italian Ryegrass™ but with much better persistence and combines high yields with good quality and high sugar levels. It has exceptional early spring growth and good disease resistance and with its unique set of characteristics it is also an ideal companion grass for Red Clover.

Advanced Tall Fescue™ – HYKOR

Tall Fescue is an extremely drought tolerant species and the Advanced Tall Fescue™ variety Hykor with its excellent tolerance of general stress and drought offers a unique solution for very dry conditions.

A summary of performance data of the three varieties is shown below

	Yield t DM/ha	% Sugar content	% Protein content	ME MJ/kg DM	D-value
LOFA Advanced Hybrid Ryegrass™	21.69	12.0%	21.9%	11.3	71.1
PERSEUS Advanced Italian Ryegrass™	22.68	12.2%	21.6%	11.3	71.1
HYKOR Advanced Tall Fescue™	17.63	10.4%	22.5%	11.4	71.4
Intermediate Tetraploid Perennial Ryegrass	17.37	12.1%	24.8%	11.4	71.9

DOWNLAND RESEEDING SOLUTIONS

In grassland areas there is an increasing trend towards replacing grass in the summer months however a missed or failed reseed at this time can put pressure on silage acres the following spring. A spring reseed will not produce sufficient bulk for cutting in the year of sowing however the inclusion of Westerwolds Ryegrass can offer a solution.

Westerwolds Ryegrass is a short lived grass species designed to die out in the year of sowing following an initial flush of growth. It will provide substantial bulk in the year of sowing and can be grazed within 8 weeks or cut for silage 10 – 12 weeks after sowing. A spring reseed with Westerwolds will produce an estimated 20 – 25 tonnes of fresh grass in the year of sowing and has the added benefit of providing a nurse crop for the young grass and helping to compete against weeds.

Westerwolds is included in a full mix at 20% by weight or 3 kgs/acre taking the total sowing rate to 17 – 18 kgs/acre and it should always be sown by the end of June to ensure that it dies out in the year of sowing. It can be subjected to any combination of cutting and grazing but its autumn management should always include hard grazing to ensure it is eradicated as survival into the second year may damage the final sward.



The inclusion of Westerwolds Ryegrass in a Downland mixture allows reseeding and bulk production in the year of sowing.

DOWNLAND CLOVER

Clover has always been an important component in UK grass seed mixtures but in recent years the use of both Red and White Clover has increased dramatically, fuelled largely by a drive for greater self-sufficiency in the light of spiralling prices of nitrogen fertiliser but also by the substantial nutritional and environmental benefits that clover can bring.

There are many different types of clover available for inclusion in grass mixtures with each type having very different characteristics, uses and production potential. Despite these differences however, they all offer similar benefits to the farmer by providing high quality, protein rich forage and a means of reducing or even completely eliminating the need for nitrogen fertiliser.

KEY BENEFITS OF CLOVER

FREE NITROGEN	Clover has the ability to 'fix' atmospheric nitrogen providing up to 150 units N / acre / year completely free of charge
HIGHER FEED VALUE	Clover has much better digestibility than grass and its D-value declines at a much slower rate than ryegrass as the season progresses. In addition the crude protein level in clover is approximately 50% greater than grass and clovers generally have higher contents of the important major and minor minerals
INCREASED INTAKE	Clover is very palatable and consequently animals will consume more of a grass and clover sward than they will of a grass only sward
BETTER LIVESTOCK PERFORMANCE	The combination of clover's higher feed value and increased intake ensures substantial improvements in animal performance when compared to grass only swards



DOWNLAND CLOVER

The two species of clover in greatest use on UK farms are White Clover (*Trifolium repens*) and Red Clover (*Trifolium pratense*). Although they share the same name they couldn't be more different in terms of their growth characteristics, production potential and their role in a grass seed mixture.

WHITE CLOVER

White Clover is less productive than Red Clover but it is much more persistent and is therefore used in medium to long term mixtures. The sowing rate of White Clover should be around 1.0 – 1.5 kgs/acre (7% - 10% of the mixture by weight) and it should be sown shallowly into a firm, fine seedbed. The optimum soil pH is 5.8 – 6.5 and clover has a high demand for phosphate and potash. Mixtures containing White Clover can be sown throughout the year but summer reseedings should be completed in time to allow clover to fully establish before the onset of winter.



There are many different White Clover varieties and their performance varies enormously in terms of yield, seasonality and persistency under different management regimes. All the clover varieties used in Downland mixtures are specially selected from UK Recommended Lists and matched to suit the sward use.

RED CLOVER

Red Clover is a very high yielding, short-lived perennial plant with a normal life-span of 2 to 4 years. It has a tufted, upright growth habit from the crown of the plant which lies at ground level and it has a deep tap root. Its upright growth habit from a central crown restricts its use for grazing and it is essentially a crop for silage production which can be cut 3 to 4 times a year over its life expectancy of 3 full production years.

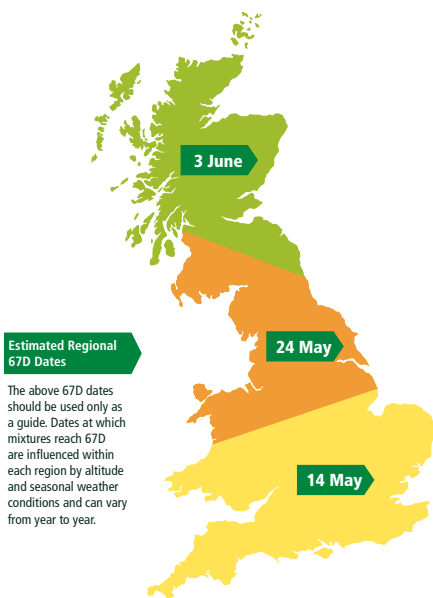


Red Clover has the potential to produce high yields of protein rich forage (typically around 15 – 20% crude protein) but needs to be sown at 3.5 – 4.0 kgs/acre (25% by weight) in a mix with suitable grasses to provide sugars for the ensiling process. The ideal companion grasses are Hybrid Ryegrasses and the new Advanced Grasses™ both of which have a similar life-span and are aggressive enough to compete in a sward containing a high percentage of Red Clover.



DOWNLAND HIGH CLOVER DUAL PURPOSE

A flexible High Clover Dual Purpose Mixture specially designed for cutting and grazing in situations where little or no nitrogen fertiliser will be applied



- Specially formulated for both high sugar and high DNDF forage incorporating four high DNDF varieties included for their forage quality and high yields under both cutting and grazing
- Includes Solomon, an excellent dual purpose variety which is very high yielding under both cutting and grazing and produces a very dense sward with excellent early and late season growth
- Timothy included for bulk and as an ideal companion grass for clover

VARIETIES USED

Calibra

Tetraploid Intermediate
Perennial Ryegrass

Magician

Tetraploid Intermediate
Perennial Ryegrass

Solomon

Intermediate Perennial Ryegrass



Romark

Late Perennial Ryegrass



Polim

Tetraploid Late
Perennial Ryegrass



Pastour

Late Perennial Ryegrass



Promesse

Timothy

Amos

Red Clover

**Downland Dual
Purpose Clover Blend**
White Clover

SOWING RATE

14 kg/acre
34.5 kg/hectare

Available with a **70% ORGANIC CONTENT**
to meet 2014 organic certification regulations

- Designed for 2 to 3 cuts of high D-value silage followed by aftermath grazing
- Based largely on Tetraploids allowing a high clover content to develop
- Red Clover inclusion to ensure high clover yields and nitrogen fixation in the early stages
- High content of Downland Dual Purpose Clover Blend to ensure good establishment and a high clover content in the final sward

DOWNLAND HIGH CLOVER GRAZE

A Medium to Long Term Mixture containing persistent varieties of both grass and clover specially designed to ensure the maximum contribution from clover in a grazing situation

High Clover and
Organic Mixtures



VARIETIES USED

Calibra

Tetraploid Intermediate
Perennial Ryegrass

Magician

Tetraploid Intermediate
Perennial Ryegrass

Calvano 1

Intermediate Perennial Ryegrass



Romark

Late Perennial Ryegrass



Polim

Tetraploid Late
Perennial Ryegrass



Cancan

Late Perennial Ryegrass



Maurice

Tetraploid Late
Perennial Ryegrass



Downland Grazing Clover Blend

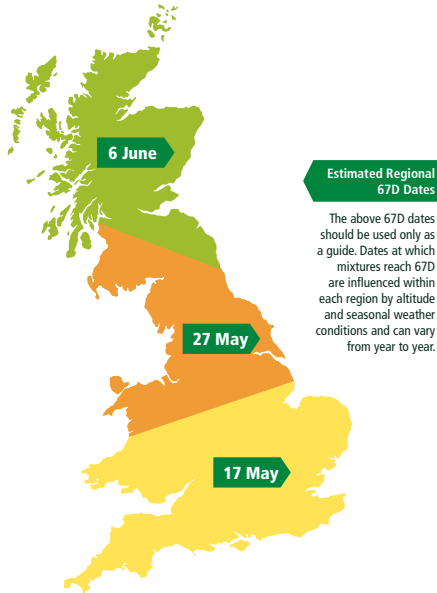
White Clover

SOWING RATE

14 kg/acre

34.5 kg/hectare

Available with a **70% ORGANIC CONTENT**
to meet 2014 organic certification regulations.



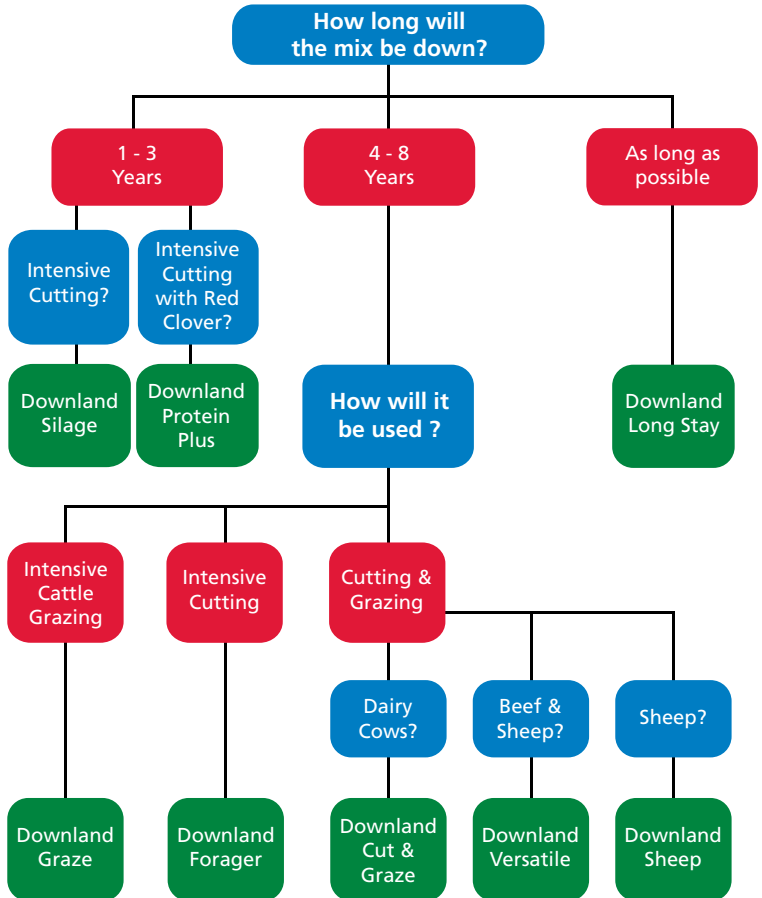
- Mixture design to ensure the maximum contribution from clover under grazing
- Specially formulated for both high sugar and high DNDf forage incorporating five high DNDf varieties included for their grazing performance, sward density and persistency
- Grass varieties chosen for their very high yields under grazing management
- Exceptionally good forage quality and high sugar levels for grazing palatability
- Formulated with Diploid and Tetraploid Perennials to ensure the correct balance between grass and clover in a grazing situation
- Excellent disease resistance particularly to Crown Rust which can be a major problem in situations where low levels of nitrogen are being applied
- Formulated with a high level of clover varieties specially selected for their grazing performance to ensure excellent persistency and a high clover content in the sward

DOWNLAND MIXTURE SELECTOR

Downland mixtures are designed and formulated to meet specific sward uses. Significant differences between mixture recipes are not always obvious but even small differences in varieties or their proportions in the mix can change the way in which the final sward behaves.



The Downland mixture selector is designed to help answer many of the common questions in mixture selection, however if in doubt, please contact your Downland distributor for further advice.



DOWNLAND SILAGE

2 - 3 years Intensive Cutting

VARIETIES USED

Alamo

Italian Ryegrass

Hunter

Tetraploid Italian Ryegrass

Citeliac

Tetraploid Hybrid Ryegrass

Bahial

Tetraploid Hybrid Ryegrass

Lofa

Advanced Hybrid Ryegrass™

Perseus

Advanced Italian Ryegrass™

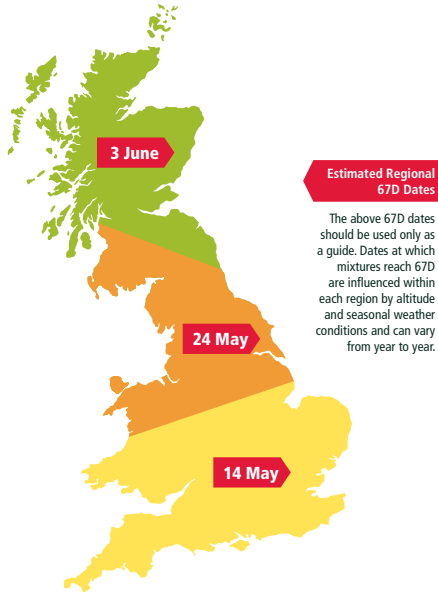
SOWING RATE

14 kg/acre

34.5 kg/hectare

Conventional
Forage Mixtures

DOWNLAND
PARTNERS IN FARMING HEALTH



- Specially formulated to provide the maximum bulk under intensive cutting over 2 – 3 years
- Includes the new Advanced Grasses™, Lofa and Perseus, combining very high yields with excellent feed value and fast regrowth after cutting
- Italian Ryegrass varieties are Alamo and Hunter, two of the highest yielding Italians on UK Recommended Lists
- Very good spring growth for high silage yields at early first cut dates
- High Tetraploid content ensures high sugar levels for silage fermentation and grazing palatability
- Very good disease resistance
- Variety selection ensures rapid recovery and regrowth after cutting
- Overseed with **GrassMaxTM CUT**

DOWNLAND PROTEIN PLUS

A Short Term Intensive Cutting Mixture with a high proportion of Red Clover specially designed to increase both silage yields and protein levels

VARIETIES USED

Citeliac

Tetraploid Hybrid Ryegrass

Tetragraze

Tetraploid Hybrid Ryegrass

Bahial

Tetraploid Hybrid Ryegrass

Lofa

Advanced Hybrid Ryegrass™

Perseus

Advanced Italian Ryegrass™

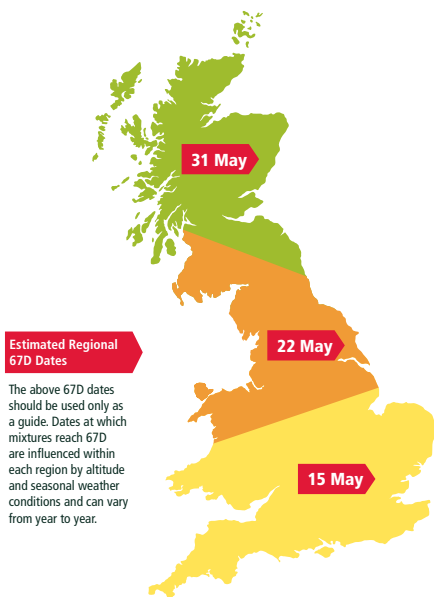
Amos

Red Clover

SOWING RATE

14 kg/acre

34.5 kg/hectare



- Specially formulated with a high level of Red Clover for high protein silage
- Will cut up to four times a year over its lifespan of 3 full production years
- Grasses specially selected for their massive yield potential and ability to compete and survive in a sward containing a high proportion of Red Clover
- Contains high sugar grasses to balance the Red Clover content and to ensure sufficient sugars for good silage fermentation
- Includes the new Advanced Grasses™ Lofa and Perseus, excellent companion grasses for Red Clover combining exceptionally high yields with good forage quality and the ability to compete and persist in a Red Clover sward
- Varieties selected for their high yields under conservation on UK Recommended Lists
- Will provide excellent aftermath grazing in late Summer and Autumn

DOWNLAND INTENSIVE

4 - 6 years Intensive Cutting or
Grazing Ley for drought prone soils

VARIETIES USED

Lofa

Advanced Hybrid Ryegrass™

Glenstal

Tetraploid Intermediate
Perennial Ryegrass

Magician

Tetraploid Intermediate
Perennial Ryegrass

Twymax

Tetraploid Late Perennial Ryegrass

Polim

Tetraploid Late
Perennial Ryegrass



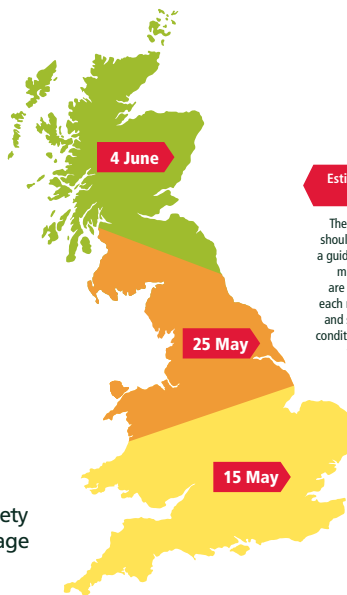
SOWING RATE

14 kg/acre

34.5 kg/hectare

Conventional
Forage Mixtures

DOWNLAND
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Estimated Regional 67D Dates

The above 67D dates should be used only as a guide. Dates at which mixtures reach 67D are influenced within each region by altitude and seasonal weather conditions and can vary from year to year.

- Specially formulated for high sugar and top quality forage incorporating the high DNDF variety Polim included for its yield, forage quality and disease resistance
- Includes the new Advanced Hybrid Ryegrass™ Lofa combining exceptionally high yields with good forage quality, stress tolerance and excellent persistency
- Contains high proportions of the highest yielding Intermediate and Late Perennial Ryegrasses on UK Recommended Lists
- Deep rooting Tetraploids help to provide good drought resistance
- Varieties chosen for their performance under both cutting and grazing
- High sugar content for rapid silage fermentation and excellent grazing palatability
- Good seasonality of growth for early Spring and late Autumn grazing
- Very good general disease resistance and excellent resistance to both Crown Rust and Drechslera (Leaf Spot) two of the most damaging grassland diseases
- Large seeded, vigorously establishing Tetraploid grasses make this mix ideal for pasture rejuvenation
- Overseed with **GrassMaxTM CUT**

DOWNLAND FORAGER

4 - 6 years Intensive Cutting Ley
with Autumn Grazing

VARIETIES USED

Solomon

Intermediate Perennial Ryegrass



Boyne

Intermediate Perennial Ryegrass

Glenstal

Tetraploid Intermediate
Perennial Ryegrass

Magician

Tetraploid Intermediate
Perennial Ryegrass

Pastour

Late Perennial Ryegrass



Polim

Tetraploid Late
Perennial Ryegrass



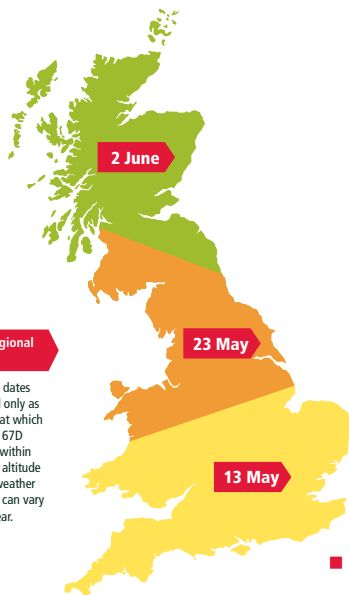
SOWING RATE

14 kg/acre

34.5 kg/hectare

Estimated Regional 67D Dates

The above 67D dates should be used only as a guide. Dates at which mixtures reach 67D are influenced within each region by altitude and seasonal weather conditions and can vary from year to year.



- Specially formulated for top quality forage with high proportions of top DNDF varieties Solomon, Pastour and Polim
- Improved for 2014 with the addition of Boyne one of the highest yielding Intermediate Perennial Ryegrasses on UK Recommended Lists
- Includes Solomon which is very high yielding under cutting with very good first cut yields. Solomon also produces a very dense sward and has excellent early and late season growth
- High silage yields and good aftermath grazing
- Varieties selected on the basis of their cutting yield and forage quality
- Tetraploid content provides high sugar levels for rapid silage fermentation and grazing palatability
- Good Spring growth with later heading for high yields at flexible cutting dates
- Excellent forage quality and mid-season D-value
- Excellent disease resistance particularly to Drechslera (Leaf Spot) one of the most serious and damaging grass diseases
- Downland Cutting Clover Blend option if required
- Overseed with **GrassMaxTM CUT**

DOWNLAND GRAZE

Long Term Cattle Grazing Ley

VARIETIES USED

Boyne

Intermediate Perennial
Ryegrass

Solomon

Intermediate Perennial Ryegrass



Glenstal

Tetraploid Intermediate
Perennial Ryegrass

Pastour

Late Perennial Ryegrass



Romark

Late Perennial Ryegrass



Maurice

Tetraploid Late
Perennial Ryegrass



Downland Grazing Clover Blend

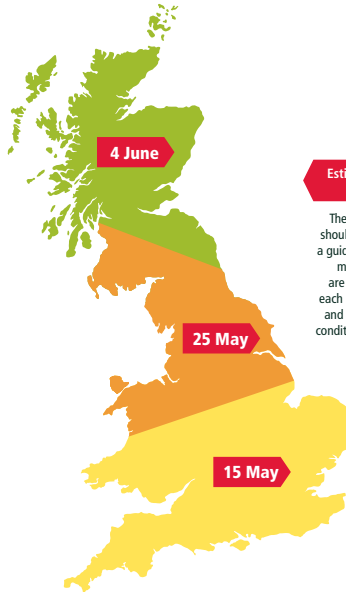
White Clover

SOWING RATE

14 kg/acre
34.5 kg/hectare

Conventional
Forage Mixtures

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Estimated Regional 67D Dates

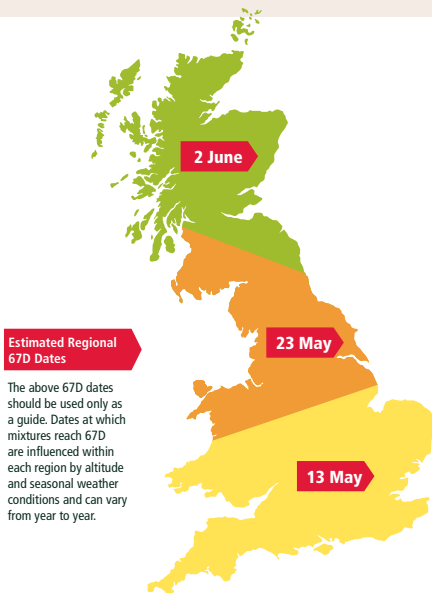
The above 67D dates should be used only as a guide. Dates at which mixtures reach 67D are influenced within each region by altitude and seasonal weather conditions and can vary from year to year.

- Specially formulated for high sugar forage
- All varieties selected for their high grazing yields including Boyne and Solomon, both superb grazing varieties with excellent spring growth, mid-season quality and very good sward density
- Includes four high DNDF varieties selected for their grazing yields, forage quality and excellent overall performance
- Very good sward density able to withstand heavy grazing pressure and resist poaching
- Balanced proportions of Diploid and Tetraploid grasses for maximum palatability and sward density
- Excellent forage quality and mid-season D-value
- Designed to have grass at the right stage for grazing at cattle turnout
- Very good general disease resistance and excellent resistance to both Crown Rust and Drechslera (Leaf Spot) two of the most serious and damaging grassland diseases
- Contains White Clover varieties specially selected for intensive cattle grazing
- Overseed with **GrassMax** GRAZE

DOWNLAND CUT & GRAZE

4 - 8 years Dual Purpose Ley

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- Specially formulated for top quality high DNDP forage
- A intensive mix aimed primarily at the dairy sector designed for high silage yields over two cuts followed by good aftermath grazing
- Improved for 2014 with the addition of Boyne one of the highest yielding Intermediate Perennial Ryegrasses on UK Recommended Lists
- Varieties selected on the basis of their cutting yield and forage quality
- Tetraploid content provides high sugar levels for improved silage fermentation
- Good Spring growth with later heading for high yields at flexible cutting dates
- Excellent forage quality and mid-season D-value
- Contains Downland Dual Purpose Clover Blend designed to achieve maximum clover content and persistence under both cutting and grazing
- Overseed with **GrassMax** DUAL PURPOSE

VARIETIES USED

Citeliac

Tetraploid Hybrid Ryegrass

Glenstal

Tetraploid Intermediate Perennial Ryegrass

Solomon

Intermediate Perennial Ryegrass



Boyne

Intermediate Perennial Ryegrass

Polim

Tetraploid Late Perennial Ryegrass



Pastour

Late Perennial Ryegrass



Downland Dual Purpose Clover Blend

White Clover

SOWING RATE

15 kg/acre
37 kg/hectare

DOWNLAND VERSATILE

Long Term Dual Purpose Ley

Conventional
Forage Mixtures

DOWNLAND
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VARIETIES USED

Solomon

Intermediate Perennial Ryegrass



Boyne

Intermediate Perennial Ryegrass

Cancan

Late Perennial Ryegrass



Pastour

Late Perennial Ryegrass



Toddington

Late Perennial Ryegrass

Twymax

Tetraploid Late Perennial Ryegrass

Polim

Tetraploid Late Perennial Ryegrass



Dolina

Timothy

Promesse

Timothy

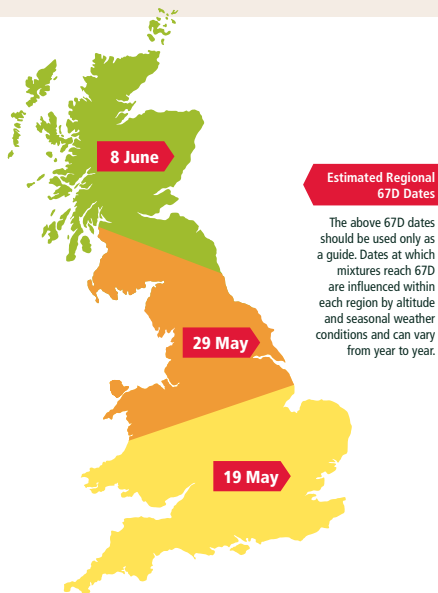
Downland Dual Purpose Clover Blend

White Clover

SOWING RATE

15 kg/acre

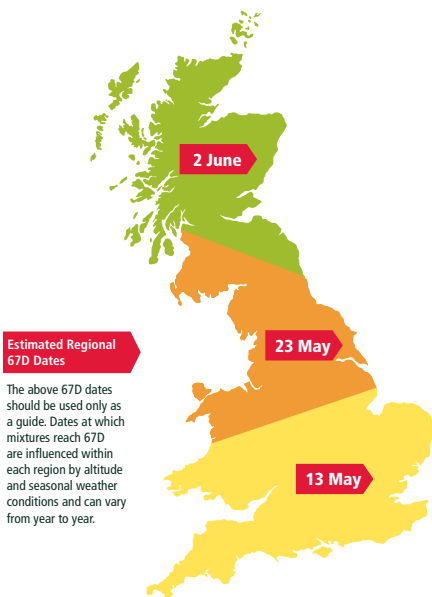
37 kg/hectare



- Specially formulated for high DNDF forage
- Improved for 2014 with the addition of Boyne one of the highest yielding Intermediate Perennial Ryegrasses on UK Recommended Lists
- A high proportion of Late Perennials for good production and persistency over many years
- Contains Solomon which combines high yields under both cutting and grazing with good forage quality and excellent sward density
- Particularly suited to later areas or where first cut is being taken in June
- Contains Timothy to enhance Spring growth, palatability and silage yield at later cutting dates
- Good Spring growth without early heading
- Formulated to suit a wide variety of uses and farm enterprises
- Good winter hardiness ensures reliable production for many years
- Contains Downland Dual Purpose Clover Blend designed to achieve maximum clover content and persistence under both cutting and grazing
- Overseed with **GrassMax™** DUAL PURPOSE

DOWNLAND LONG STAY

Permanent General Purpose Ley



Estimated Regional
67D Dates

The above 67D dates should be used only as a guide. Dates at which mixtures reach 67D are influenced within each region by altitude and seasonal weather conditions and can vary from year to year.

- A long term mixture specially formulated for high yields of top quality forage containing five top DNDF varieties included for their yield, forage quality and persistency
- Particularly suited to later areas or where first cut is being taken in June
- Contains Timothy to enhance Spring growth, palatability and silage yield at later cutting dates
- Good Spring growth without early heading
- A high proportion of Late Perennials for good production and persistency over many years
- Good winter hardiness ensures reliable production for many years
- Contains Downland Dual Purpose Clover Blend designed to achieve maximum clover content and persistence under both cutting and grazing
- Overseed with **GrassMax** GRAZE

VARIETIES USED

Solomon

Intermediate Perennial Ryegrass



Calvano 1

Intermediate Perennial Ryegrass



Magician

Tetraploid Intermediate Perennial Ryegrass



Pastour

Late Perennial Ryegrass



Romark

Late Perennial Ryegrass



Maurice

Tetraploid Late Perennial Ryegrass



Promesse

Timothy

Dolina

Timothy

Downland Grazing Clover Blend

White Clover

SOWING RATE

15 kg/acre
37 kg/hectare

DOWNLAND SHEEP

A Long Term Sheep Grazing Ley

Conventional
Forage Mixtures

DOWNLAND
PARTNERS IN FARMING HEALTH

VARIETIES USED

Solomon

Intermediate Perennial Ryegrass



Premium

Intermediate Perennial Ryegrass

Boyne

Intermediate Perennial Ryegrass

Romark

Late Perennial Ryegrass



Cancan

Late Perennial Ryegrass



Maurice

Tetraploid Late Perennial Ryegrass



Promesse

Timothy

Dolina

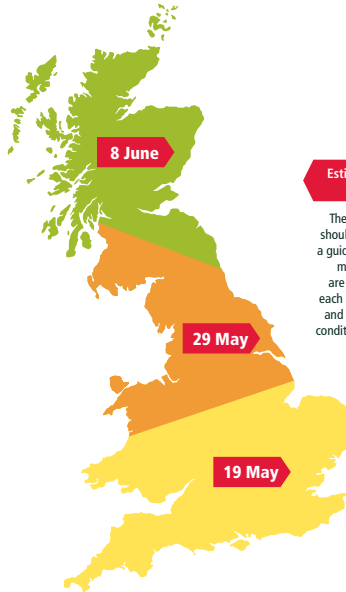
Timothy

Downland Grazing Clover Blend

White Clover

SOWING RATE

15 kg/acre
37 kg/hectare



Estimated Regional 67D Dates

The above 67D dates should be used only as a guide. Dates at which mixtures reach 67D are influenced within each region by altitude and seasonal weather conditions and can vary from year to year.

- Specially formulated for long term sheep grazing
- Includes four high DNDF varieties with high grazing yields and excellent persistency under long term sheep grazing
- Includes the new variety Boyne and also Solomon, both excellent dual purpose varieties which are very high yielding under both cutting and grazing and produce very dense and persistent swards with very good early and late season growth
- Only includes varieties with high grazing yields and proven performance and persistence under hard grazing
- Early bite without early heading provided by a high Timothy content
- Will also provide a cut of hay or silage if required
- Very good winter hardiness and persistency for longevity of the sward
- High clover content of varieties specially selected for optimum performance and persistency under sheep grazing

DOWNLAND CATCH CROP

Sowing a fast growing catch crop in early or mid-summer after a field of grass or an early harvested cereal crop can provide very valuable forage for grazing throughout the autumn, winter and early spring. As a result of increasing demand, Downland has introduced two highly productive catch cropping mixtures.

DOWNLAND CC

VARIETIES USED

Alamo

Italian Ryegrass

Hobson

Forage Rape

Green Globe

White Turnip

SOWING RATE

9 kg/acre

22 kg/hectare

- Designed to produce autumn grazing for sheep and fattening lambs
- A fast growing and very productive catch crop mix
- Will provide both autumn grazing from the combination of species and winter and early spring grazing from the Italian Ryegrass

DOWNLAND CD

VARIETIES USED

Alamo

Italian Ryegrass

Hobson

Forage Rape

SOWING RATE

9 kg/acre

22 kg/hectare

- A similar mix to Downland CC but without the white turnips
- Designed to produce autumn grazing for sheep and fattening lambs
- Formulated with proportions to ensure both the forage rape and Italian Ryegrass establish successfully
- A fast growing and very productive catch crop mix
- Will provide both autumn grazing from the combination of species and winter and early spring grazing from the Italian Ryegrass



DOWNLAND EQUIPADDOCK

A General Purpose Horse Grazing
and Hay Mix

- Based on the densest Perennial Ryegrass and Timothy varieties for an exceptionally dense and damage resistant sward with varieties specially selected for their grazing performance, sward density and damage resistance
- Very winter hardy and equally suited to all soil types
- Contains only Diploid Ryegrass for improved sward density and suitability for production of hay
- Ryegrass varieties selected for sward density and palatability
- Contains a high percentage of Creeping Red Fescue to further improve sward density and resist poaching
- Contains Timothy to enhance palatability and suitability for grazing and hay production



VARIETIES USED

Premium

Intermediate Perennial Ryegrass

Solomon

Intermediate Perennial
Ryegrass



Romark

Late Perennial Ryegrass



Tyrconnell

Late Perennial Ryegrass

Promesse

Timothy

Dolina

Timothy

Maxima

Creeping Red Fescue

SOWING RATE

15 kg/acre

37 kg/hectare

Conventional
Forage Mixtures

DOWNLAND
PARTNERS IN FARMING HEALTH

DOWNLAND OVERSEEDING

Overseeding presents a real opportunity to restore production in tired or damaged swards to newly sown levels without the expense and disruption of a full reseed and it can also be used to introduce or increase clover levels in the sward.

The key to successful overseeding lies in ensuring that the newly sown plants are capable of competing with the existing grass and that the germinating seedlings have sufficient vigour to establish successfully in what can be a very competitive environment. Increasing the competitiveness of the establishing plants can be achieved in three ways each of which has a cumulative effect in ensuring success.

Minimise Competition from the Existing Sward

When the existing sward is growing strongly there is obviously more competition for the establishing seedlings. Consequently the timing of the actual overseeding operation and the subsequent fertiliser treatment are important factors to consider. The objective should be to find a window during the season when the existing sward is short and is not growing strongly. Ideal conditions are provided after a hard graze or immediately after the last silage cut of the season and when no fertiliser has been applied.

Use a Mixture Designed for Overseeding

Large seeded grasses are more competitive in their establishment and all the Downland GrassMax mixtures are comprised of Tetraploid Hybrid and Perennial Ryegrasses specially selected for their establishment vigour. The use of these large seeded aggressively establishing grasses significantly increases their ability to compete with the existing sward.

Use Mixtures Treated with iSeed® 50

Although conventional fertiliser application will increase the establishment vigour of the new seedlings, its growth promotion effect on the existing sward is greater and competition is increased to a level which often overwhelms the establishing plants. For 2014 all Downland GrassMax mixtures are available with iSeed® 50 treatment where every individual seed is coated with nitrogen and phosphate. This unique targeted fertiliser concept feeds the sown seeds and not the surrounding sward and dramatically improves establishment vigour at the most crucial stage in the overseeding process. Extensive trials have shown that the uptake of iSeed® 50 fertiliser is four times more effective than conventional fertiliser treatment and have demonstrated establishment gains of up to 50% and also substantial benefits to both root and shoot development.



DOWNLAND OVERSEEDING

If done correctly overseeding not only improves yield but also has a significant effect on palatability, forage quality, spring growth and the overall response to fertiliser inputs. Successful overseeding however depends on following strict guidelines which have been developed to ensure the best possible end result.



Guidelines for Successful Overseeding

Field Preparation

- Remove all surplus grass growth by cutting or hard grazing
- Scarify the area in opposite directions using a wire tine grass scarifying harrow

Sowing

- Sow at the same time as scarifying with up to 10 kg/acre (25 kg/ha) of the appropriate GrassMax seed mixture
- Where iSeed® 50 is used, as the fertiliser coating increases the weight of the seed, it is necessary to increase the treated seed sowing rate to ensure that the same number of actual seeds sown remains at the target level. As iSeed® 50 increases the weight of the seed by 50%, the sowing rate should be increased by the same amount taking the standard iSeed® 50 sowing rate to 15 kg/acre (37 kg/hectare)
- Immediately after sowing roll the field to consolidate the ground and ensure good seed to soil contact

Timing

- With untreated seed the optimum window is immediately after the last silage cut of the season or after a hard graze in the Spring or Autumn
- Although the benefit of minimising competition from the existing sward also applies to iSeed® 50, the increased competitiveness of iSeed® 50 reduces the dependence on timing and may offer the opportunity of a much wider overseeding window

Fertiliser

- For high clover establishment wait until at least 30 days before applying any Nitrogen fertiliser
- If clover is not included wait until at least 10 - 15 days after sowing

Livestock re-introduction

- After cutting wait until aftermaths have fully recovered
- After sowing keep stock on for 10 - 15 days then remove and allow sward to recover





DOWNLAND GrassMaxTM CUT

For overseeding fields that will be mainly cut for silage

VARIETIES USED
Lofa Advanced Hybrid Ryegrass TM
Citeliac Tetraploid Hybrid Ryegrass
Magician Tetraploid Intermediate Perennial Ryegrass
Downland Cutting Clover Blend White Clover
SOWING RATE
10 kg/acre 25 kg/hectare

- Contains large seeded aggressively establishing grasses which are ideal for overseeding
- Grasses specially selected for their high conservation yields
- Varieties chosen for good Spring growth to maximise first cut yields
- Contains a high proportion of Downland Cutting Clover Blend to ensure good clover production and persistence under intensive silage management
- No clover option available on request

DOWNLAND GrassMaxTM CUT

WITH RED CLOVER

For overseeding fields that will be cut for silage and where the introduction of red clover is required

VARIETIES USED
Lofa Advanced Hybrid Ryegrass TM
Citeliac Tetraploid Hybrid Ryegrass
Downland Red Clover Blend Red Clover
SOWING RATE
10 kg/acre 25 kg/hectare

- Contains large seeded aggressively establishing grasses which are ideal for overseeding
- Grasses specially selected for their high conservation yields and their ability to compete and survive in a sward with a high Red Clover content
- 30% Red Clover content to ensure a good plant population in the overseeded sward
- Excellent forage quality and high Red Clover content for increased protein levels in silage

Downland GrassMaxTM mixtures are available with





For overseeding fields that will be predominantly grazed



For overseeding fields that will be both cut and grazed

Overseeding



VARIETIES USED

Catabi 1
Tetraploid Intermediate Perennial Ryegrass

Magician
Tetraploid Intermediate Perennial Ryegrass

Polim
Tetraploid Late Perennial Ryegrass 

Maurice
Tetraploid Late Perennial Ryegrass 


Downland Grazing Clover Blend
White Clover

SOWING RATE
10 kg/acre
25 kg/hectare

VARIETIES USED

Citeliac
Tetraploid Hybrid Ryegrass

Catabi 1
Tetraploid Intermediate Perennial Ryegrass

Polim
Tetraploid Late Perennial Ryegrass 

Downland Dual Purpose Clover Blend
White Clover

SOWING RATE
10 kg/acre
25 kg/hectare

- 100% Tetraploid grasses which are ideal for overseeding as they have the largest seeds and are aggressive establishers
- Grasses based entirely on Perennial Ryegrass varieties with the highest grazing yields on UK Recommended Lists
- Excellent Crown Rust resistance
- Contains a high proportion of Downland Grazing Clover Blend containing varieties specially selected for their production and persistence under grazing
- No Clover option available on request

- 100% Tetraploid grasses which are ideal for overseeding as they have the largest seeds and are aggressive establishers
- Based on Hybrid and Perennial Ryegrasses with high yields under both cutting and grazing
- Varieties chosen for good Spring growth to maximise first cut yields
- Contains a high proportion of Downland Dual Purpose Clover Blend to ensure good clover production and persistence under both cutting and grazing
- No Clover option available on request

Downland GrassMax mixtures are available with



DOWNLAND GAME, FODDER & ENVIRONMENTAL MIXTURES

In addition to grass mixtures Downland offers a comprehensive range of both individual varieties and seed mixtures covering all aspects of game cover and food crops, fodder crops for autumn grazing and mixtures for Stewardship and other environmental uses.

DOWNLAND
PARTNERS IN FARMING HEALTH

Increasing interest and emphasis on the environment and wildlife has created a vast array of seed mixtures for different uses on farm containing a wide and complex spectrum of plant species. The Downland Countryside brochure offers a comprehensive guide to these important crop areas and provides clear advice on species and mixture selection to meet both stewardship requirements and other specific objectives.

A copy of the Downland Countryside brochure is available on request from your local Downland supplier



Your nearest Downland distributor is

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