



Monarch[®] Ley Mixtures

2019



From



Limagrain 

Why Choose Monarch Leys?

When it comes to selecting the right grass mixture, you need to be sure that your choice offers the best balance of performance and value available.



The combination of the factors below, together with the experience and knowledge of our authorised distributors, means Monarch customers can be sure that they have nothing but the best.

So what makes Monarch a cut and a bite above the rest?

First Class Seed Quality

Ensuring more viable seeds in every bag

Innovative Seed Treatment

HEADSTART® GOLD ensures rapid germination and stronger, healthier plants

Tetraploid Power

Optimum levels of tetraploid grasses means high sugars and improved intakes

Top Performing Varieties

We include varieties endorsed by the UK Recommended Lists

Unrivalled Customer Service

Expert advice from our team of seed specialists enables growers to make the most of our products

Now Includes LG Animal Nutrition Mixtures



Unique mixtures designed to be superior in their nutritional quality, leading to improved production and ultimately more profit

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Terms & Conditions of Sale

All varieties and products listed in this catalogue are offered strictly subject to safe harvest, final certification and remaining unsold on receipt of orders. All other Terms & Conditions of Sale will be advised by your individual Monarch stockist.

Why Reseed?

Why is reseeding so important?

Good grass leys contribute hugely to lowering production costs, but as a sward ages, its yield and feed quality decreases significantly. This is caused largely by the ingress of lower yielding, lower quality weed grasses.

Reseeding gives the opportunity to replace older varieties and weed grasses with the newest genetics that offer a multitude of benefits.

Benefits of reseeding

Improved Feed Quality

- Higher ME
- More digestible
- Higher sugars
- Increased protein

Increased Palatability

- Increased voluntary Intakes

More Forage

- Increased silage yields
- Increased grazing yields
- Better disease resistance

Better Stock Holding Capacity

- Extended growing season
- Increased drought tolerance

More Efficient Use of Inputs

- Better yield response to fertilisers
- Nitrogen fixation from clovers



Value of Reseeding

Reduced feed bills

The table below shows how the yield and energy content of a typical ley changes over time and how this can

lead to increased concentrate costs. A regular reseeded programme reduces money spent on bought-in feeds.

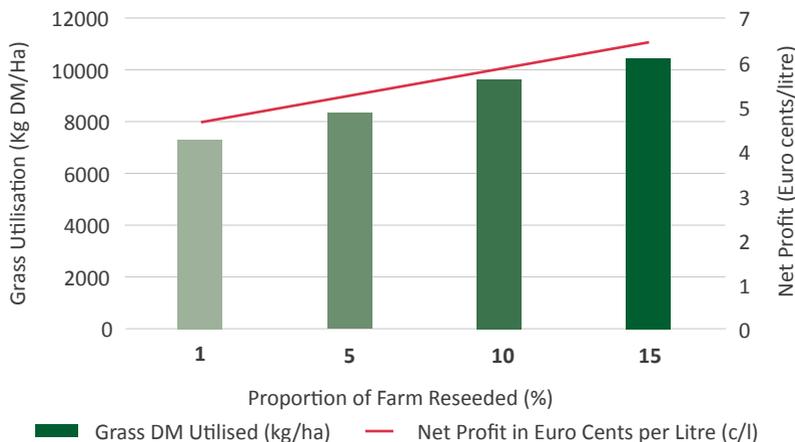
Age of Sward (years)	Ryegrass Content (%)	Yield (T DM/Ha)	Herbage ME (MJ/kg DM)	Lost ME Grown (MJ/ha)	Concentrate cost to replace lost ME (£/ha)
2	95	13.5	12.0	-	-
3	90	12.6	11.8	13,320	197
5	80	11.2	11.5	33,200	491
7	70	9.8	11.3	51,260	759
9	60	8.4	11.0	69,600	1,030
11	50	7.0	10.8	86,400	1,279

Source: AHDB

Increased profitability

Studies carried out at Teagasc in Ireland have shown that increasing the area of the farm reseeded each year, increases the

amount of grass produced and utilised. This leads to improved farm net profit.



Source: Shaloo et al 2011

Seed Quality

The UK has two quality standards of grass seed, with many mixtures only meeting EU minimum standards.

Some mixtures adhere to the Higher Voluntary Standard (HVS) which has more stringent purity requirements.

It is our aim to supply Monarch leys at quality levels that exceed both of these standards



Purity

	EU Quality	Monarch Quality
Pure Seed	96%	98%
Inert Matter	3.2%	2%
Weed Species	0.8%	Trace

 **A 13kg acre bag from other grass suppliers could contain over 0.5kg of inert material and weed seeds!**

Germination

Species	EU Legal Minimum	HVS Standard	Monarch Target
Perennial Ryegrass	80%	80%	90%
Italian Ryegrass	75%	75%	85%
Hybrid Ryegrass	75%	75%	85%

 **A 13kg acre bag from other grass suppliers could contain less than 10kg of viable seed!**

How to Establish a New Ley

Follow these steps to successfully establish your Monarch ley

1. Resolve drainage and compaction problems
Soil test to assess pH and nutrient levels.
The optimum requirements are:
 - pH 6.0 (6.5 for clover)
 - P indices of 2
 - K indices of 2-
2. Consult AHDB's nutrient management guide (RB209) or obtain advice from a FACTS qualified advisor to correct deficiencies
3. Choose your sowing date. Soil moisture and temperature are the key factors. Typical drilling dates would be:
Spring:
March-April for grass swards
April-May for grass and clover swards
Autumn:
August-September for grass swards
July-August for grass and clover swards
4. Prepare a firm, fine seedbed 5-8cm deep. Ring rolling prior to seeding helps ensure adequate moisture and an even drill depth
5. Seed using a harrow/seeder or by direct drilling. If broadcasting, field should be lightly harrowed. Seed should be no deeper than 6mm
6. Roll again to ensure good soil-to-seed contact



Seed Treatment

HEADSTART® GOLD

Get your grass off to a flying start



Faster establishment



Stronger seedlings



Higher plant numbers

HEADSTART® GOLD is the latest in performance-enhancing seed treatments, developed using the latest scientific research and field experience.

HEADSTART® GOLD uses a combination of enzymes, seaweed extracts and trace

elements to stimulate root formation, development and growth.

A stronger root system during the seedlings critical start-up phase leads to better access to moisture and nutrients; producing stronger, more stress resistant plants.

HEADSTART® GOLD comes as standard on Monarch mixtures where you see the **HEADSTART® GOLD** logo.

HEADSTART® GOLD

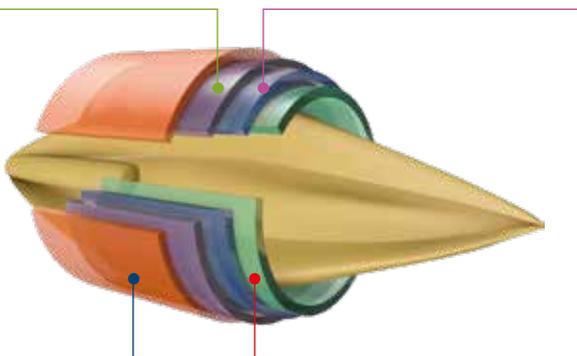
How it Works

Biostimulants

- Promotes the supply of nutrients
- Ensures efficient use of nutrients
- Prevents deficiency of trace elements

Enzyme Activity

- Stimulates growth of roots/shoots
- A catalyst for photosynthesis



Trace Elements

- Copper, Molybdenum, Phosphorous and Sulphur - all essential for rapid rooting and initial seedling growth

Seaweed Extract with High Cytokinin Content

- Promotes cell division & metabolism
- Leads to faster germination



What is LG Animal Nutrition?



The LG Animal Nutrition (LGAN) accreditation is used to denote varieties and mixtures that deliver superior nutritional value, whilst maintaining excellent agronomic qualities and yield.

Why is the feed quality of grass so important?

As with any other type of feed, improving the nutritional value of grass can have a significant impact on intakes, productivity and feed efficiency.

Sugar Content (%)

Water soluble carbohydrates (WSC) are sugars that provide readily available energy for use by rumen microbes. Feeding grasses with an increased WSC content has been linked to increased intakes and production

Digestible Fibre (dNDF)

dNDF is the digestible fraction of fibre which provides energy in a more slowly released form than sugars. dNDF levels are less affected by environmental conditions such as temperature and sunshine.

Increasing dNDF by 1% has been shown to increase milk yield by up to 0.25kg per day and intakes by up to 0.17kg per day (Oba and Allen, 1999)

Protein Content (%)

Protein is a key nutrient for production and growth. High energy feeds such as maize need to be balanced with high protein feeds to provide sufficient nitrogen for the rumen microbes.

Energy Content (MJ/Kg DM)

The metabolizable energy (ME) in grass is supplied principally from sugars and fibre. ME is directly correlated with D-Value (the proportion of digestible organic matter) with 1 percentage point "D" being equivalent to 0.16MJ/Kg ME.

A one unit increase in D-value has been shown to increase milk yields by as much as 0.4 litres per cow per day and liveweight gains by 40g per day (beef) and 20g per day (sheep).

Producing the Perfect Mixture

Plant breeders have long recognised the importance of nutritional attributes and aim to produce varieties that show improvements in feed value, as well as agronomic characteristics such as yield and disease resistance. However, there are still significant differences in even the best varieties. The table to the right shows the typical variation in different feed quality characteristics between varieties in Limagrain trials.

Feed Quality Characteristic	Typical variation between the best and worst varieties in trial
Sugar	5%
Protein	5%
Digestible fibre	10%
Energy	1.2ME

LGAN mixtures have been formulated by combining the optimum proportions of varieties, with superior nutritional attributes, to create a mixture with an improved feed quality profile.

The mixtures have been thoroughly tested in both forage quality trials and animal feeding trials where they've demonstrated clear benefits over traditionally formulated grass mixtures.

Animal feeding trials

Schothorst Research Institute, Netherlands

	Control Mixture	 Mixture
Energy Content Milk per Kg fed	1.24	1.3
Milk Yield Litres per cow per day	28.5	29.9

An additional 1.4 litres of milk per day, worth an extra £147 a year per cow (assuming 300 milking days at £0.35p/litre)

Forage quality trials

NIAB TAG, Dartington, Devon

	Control Mixture	 Mixture
Energy Content MJ/Kg	13.69	13.82
Energy Yield MJ/Ha	134,508	160,202

An additional 25,694MJ/ Ha, equivalent to 4,848 litres of milk worth £1697/ Ha (assuming £0.35p/litre)

Mixture Selection Chart



**Short
Term**



**Medium
Term**



**Long
Term**

Mainly Cutting

Grass Booster

18 months value silage mix

p12

Quality Silage

2 years high energy silage

p13

Clovercut

2-3 years silage, with red clover

p14

Protein Silage

4 years maximum protein

p15

Maxicut

4+ years early cut quality silage

p16

Multicut

5+ years flexible quality silage

p17

Key to abbreviations used in the mixture descriptions

EPRG: Early Perennial Ryegrass **IPRG:** Intermediate Perennial Ryegrass

LPRG: Late Perennial Ryegrass **Tet:** Tetraploid **WC:** White Clover

Mainly Grazing

 **Matrix 40**

p19

Matrix 70

p20

Matrix Sheep & Lamb

p21

Matrix with Timothy

Medium to long term extended grazing

p22

 **Intensive Grazing**

Quality grazing mixture for maximum production

p23

 **Multigraze**

Long term dense grazing mixture perfect for sheep

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Dual Purpose

Hymax

Short term, high yielding, dual purpose mix

p25

 **Silage & Grazing**

Versatile cutting and grazing mixture

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Flexiscot

Medium to long term mix for Scotland and Northern England

p27

Greensward

Value long term dual purpose mix

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Permanent Pasture

Long term dual purpose with Timothy

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HRG: Hybrid Ryegrass **SSMG:** Smooth Stalked Meadow Grass
CRF: Creeping Red Fescue **VNS:** Variety Not Specified **RC:** Red Clover

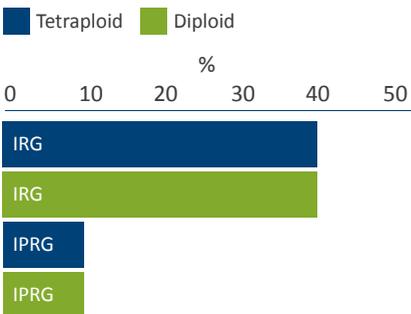


Grass Booster (Blended Ryegrass)

Short Term

This mixture uses Italian ryegrasses to provide tremendous yields and fast regrowth over an 18 month period.

- Ideal catch crop sown after maize, arable silage or wholecrop
- Helps prevent winter soil erosion and mops up nutrients to help prevent leaching
- Fast spring growth suited to an early silage cut
- A great budget short term ley option
- 50% Tetraploid, 50% Diploid
- Pack Size: 25Kg



Managing maize stubbles

Leaving maize stubbles bare over winter is not only a missed opportunity to produce more forage but can also lead to soil erosion and loss of valuable nutrients.

Sowing a mixture such as Grass Booster after maize helps alleviate these problems

Prevent run off	✓
Build organic matter	✓
Retain soil nutrients	✓
Increase production	✓





Quality Silage



Short Term

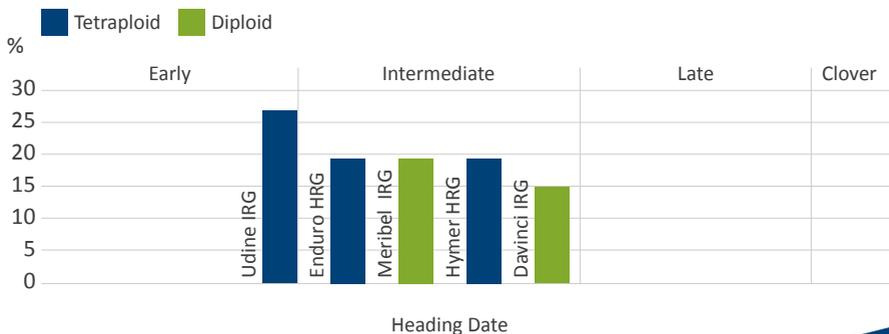
A high energy, highly digestible silage mixture, giving improved production from conserved grass.

- Good D-Value, DNDF and energy content to maximise production
- Good sugar content for quick silage fermentation and efficient conservation of nutrients
- Very high yielding - up to four cuts per year for two years
- Well suited to zero grazing or multicut systems

- 65% Tetraploid, 35% Diploid
- **HEADSTART® GOLD** treated
- Pack Size: 13Kg



Quality Silage produced close to 5% more energy than controls in 2014/15 NIAB TAG Trials





Clovercut

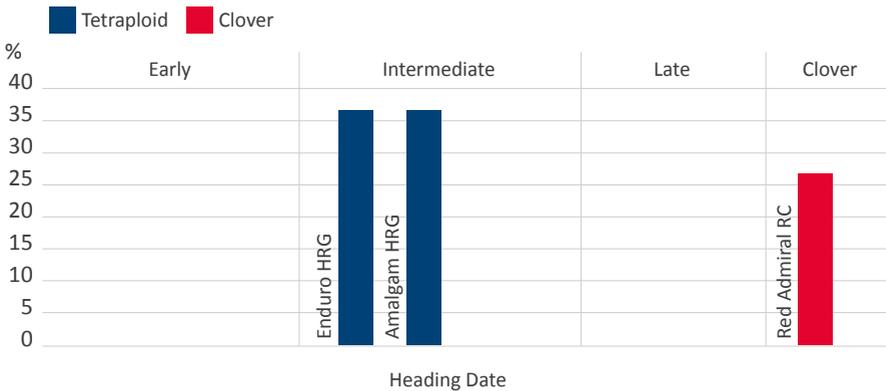
Short Term



A 2/3 year cutting mixture consisting of tetraploid grasses and red clover to give top quality, highly nutritious silage.

- Gives big yields of high energy, high sugar and high protein silage
- Fixes atmospheric nitrogen
- Designed for cutting but aftermath can be grazed
- Good drought tolerance
- Our highest yielding red clover mix

- 73% Tetraploid, 27% Red Clover
- **HEADSTART® GOLD** treated
- Pack Size: 11Kg





Protein Silage



Medium Term

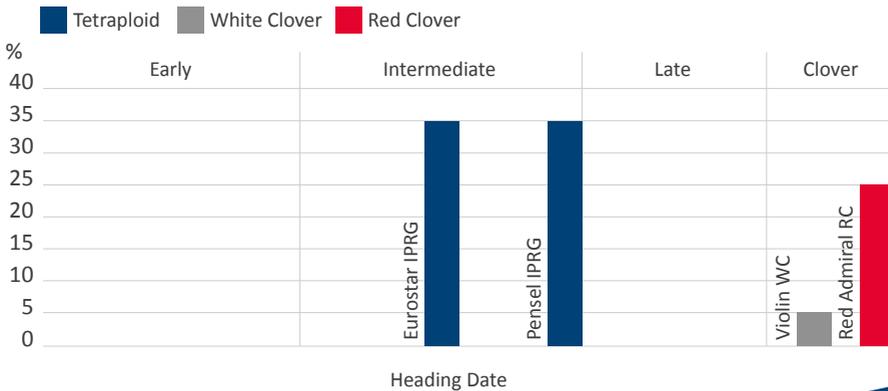
Produces a protein rich silage that minimises the need for supplementation of protein in the diet.

- The ideal complement to high energy feeds such as LG Animal Nutrition maize silage
- Includes red and white clovers to increase digestibility and palatability
- High sugar tetraploid grasses balance the high protein clovers and improve silage fermentation

- 70% Tetraploid, 5% White Clover, 25% Red Clover
- **HEADSTART® GOLD** treated
- Pack Size: 12Kg



Protein Silage produced 3% more protein than controls in 2014/15 NIAB TAG Trials





Maxicut

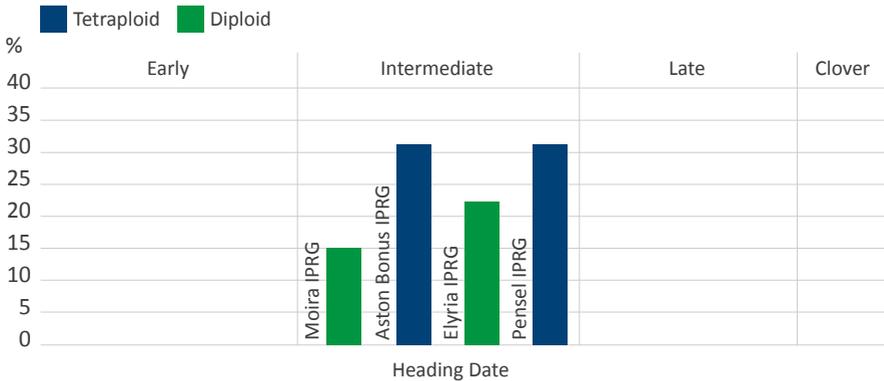
Medium Term



A medium term cutting mixture designed to give high yields of early cut, top quality silage over a 4 year period or longer.

- Rapid spring growth ensures early first cut
- Close heading dates for high quality silage
- Suits all cutting regimes
- High sugars for improved fermentation

- 62% Tetraploid, 38% Diploid
- **HEADSTART® GOLD** treated
- Pack Size: 13Kg





Multicut

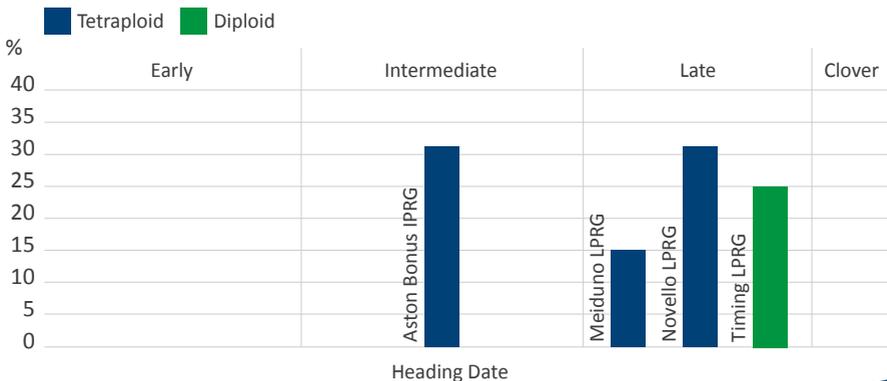
Long Term



Multicut is a long term cutting mixture which offers excellent yields of high quality silage with more flexible heading dates, combined with excellent leafy aftermath grazing.

- 77% Tetraploid, 23% Diploid
- **HEADSTART® GOLD** treated
- Pack Size: 13Kg

- High tetraploid content gives increased sugar levels and high ME silage
- Superb disease resistance and drought tolerance
- Late heading grasses boost aftermath grazing
- Also available with Ensign Plus white clover blend





Matrix Enhanced[®] Ryegrass Mixtures



Medium Term

What is Matrix Enhanced[®] Ryegrass?

Matrix is a high quality grazing festulolium variety which gives a much extended grazing season and faster regrowth than a conventional ryegrass. Matrix was developed by Cropmark in New Zealand and is an inter-generic hybrid consisting of around 80% diploid perennial ryegrass and 20% meadow fescue.



Benefits of Matrix Enhanced[®] Ryegrass

- Begins growing at lower temperatures than ryegrass, giving up to **3 weeks extra growth in the spring**
- Continues to grow much later in the autumn than ryegrass, giving an **additional 3 weeks grazing**
- Very **rapid regrowth** in-between grazings
- Very dense, fine-leaved sward which resists **poaching and treading**
- Excellent **forage quality and digestibility**
- Unique growth characteristics perfectly **suited to paddock management or rotational grazing systems**



Matrix 40



Medium Term



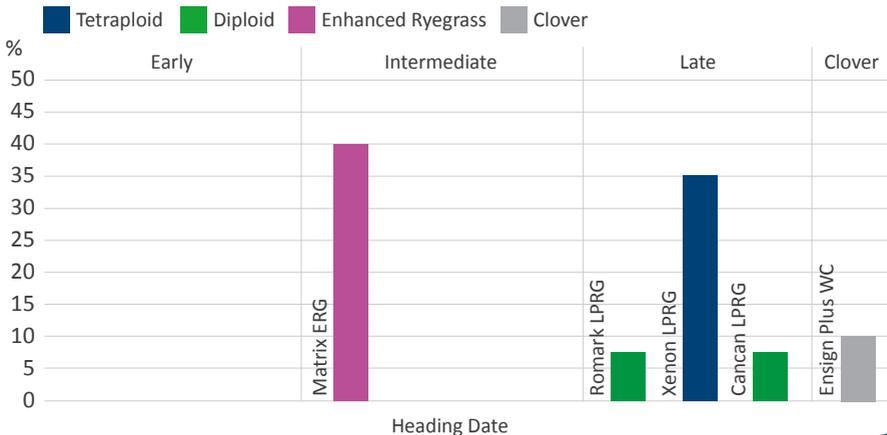
A grazing mixture that gives excellent nutritional value over an extended growing season.

- Good energy, protein, sugar and digestibility for maximum feed value
- Excellent ground cover for resistance to poaching and increased sward longevity
- The high percentage of white clover increases the protein content and reduces the need for applied fertiliser

- 35% Tetraploid, 15% Diploid, 40% Enhanced Ryegrass, 10% White Clover
- **HEADSTART® GOLD** treated
- Pack Size: 25Kg



Matrix 40 produced 10% more energy than the control mixture in 2017 Limagrain Trials





Matrix 70

Medium Term



A high proportion of Matrix Enhanced® Ryegrass, together with best late heading tetraploid perennial ryegrasses and clover.

- The pinnacle of modern grazing mixtures
- Exceptional yield and quality over an extended growing season
- Suited for warmer parts of the country, unless overseeding
- High white clover content

- 20% Tetraploid, 70% Enhanced Ryegrass, 10% White Clover
- **HEADSTART® GOLD** treated
- Pack Size: 25Kg





Matrix Sheep & Lamb

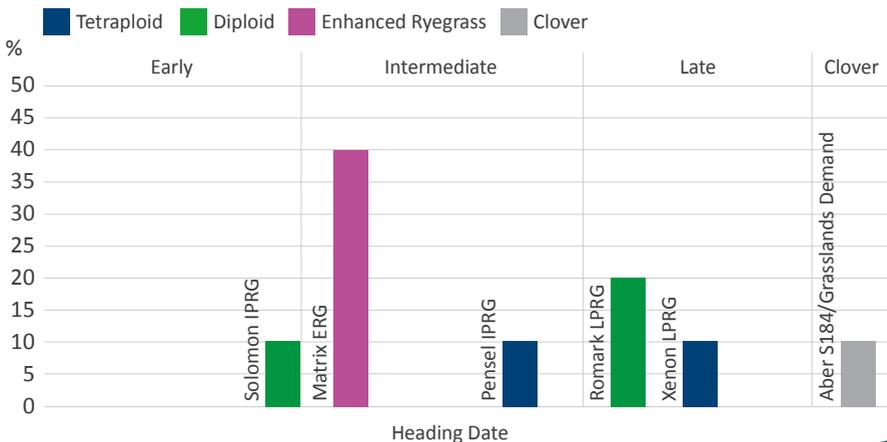
Medium Term



This Matrix Enhanced® Ryegrass mixture has been specially formulated for grazing sheep and lambs.

- Offers rapid regrowth and extended grazing
- Includes ryegrass varieties that tolerate very close grazing
- Stoloniferous small leaved white clovers persist well under sheep grazing

- 20% Tetraploid, 30% Diploid, 40% Enhanced Ryegrass, 10% White Clover
- **HEADSTART® GOLD** treated
- Pack Size: 25Kg





Matrix with Timothy

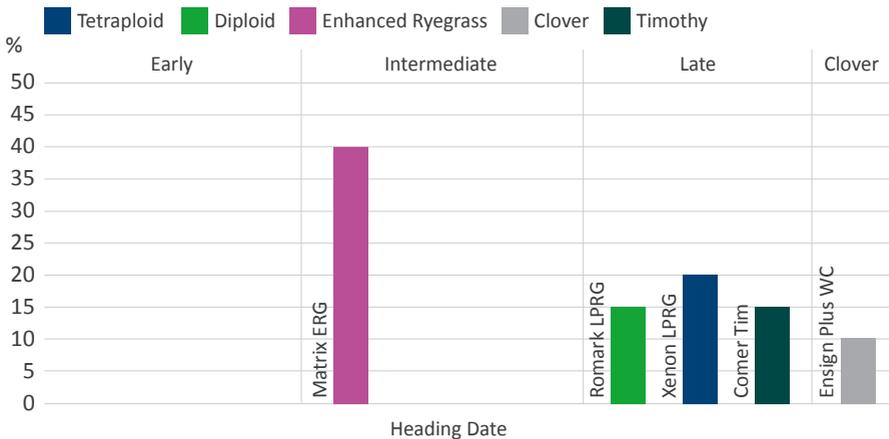
Medium Term



A mixture formulated as a result of our extensive product development trials.

- Matrix and Timothy both grow at a lower temperature, giving excellent growth on the shoulders of the season
- Superb spring growth allows earlier turnout
- The addition of Timothy adds winter hardiness
- The highest yielding grazing mixture in our recent trials

- 20% Tetraploid, 15% Diploid, 40% Enhanced Ryegrass, 15% Timothy, 10% White Clover
- **HEADSTART® GOLD** treated
- Pack Size: 25Kg





Intensive Grazing



Long Term

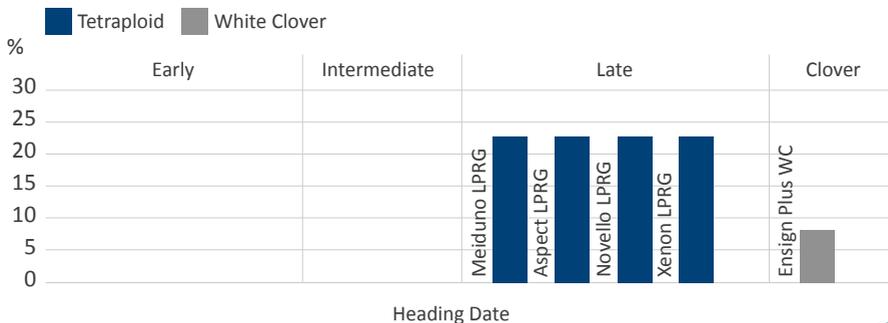
A mixture formulated to maximise voluntary intakes and increase animal production from grazed grass.

- Highly palatable and highly digestible tetraploid grasses increase the rate of digestion, leading to improved voluntary intakes
- Outstanding energy content means more milk and meat from every bite
- High sugars and digestible fibre improve digestion efficiency

- 92% Tetraploid, 8% White Clover
- HEADSTART® GOLD treated
- Pack Size: 13Kg



Intensive Grazing produced 15% more energy than the control mixture in 2017 Limagrain Trials





Multigraze



Long Term

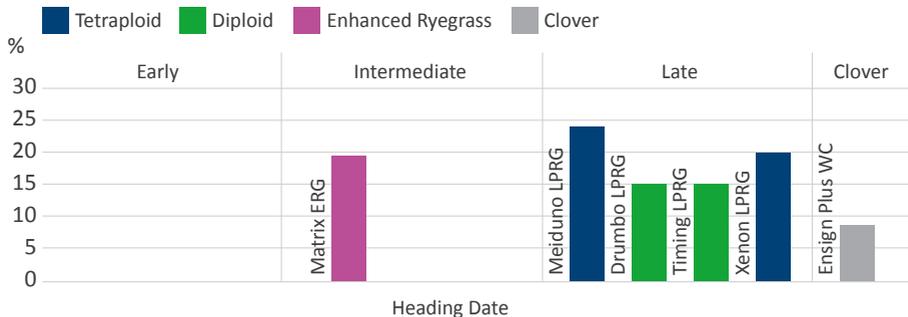
A long term grazing mixture that delivers a top class, dense, leafy sward - ideal for sheep grazing.

- Now includes Matrix Enhanced[®] Ryegrass for earlier spring growth, improved sward density and faster regrowth
- Suitable for intensive grazing by all livestock
- Provides excellent ground cover during wet periods or on damp ground
- Late heading varieties ensure leafy, stem free growth for longer
- White clover content boosts protein and fixes atmospheric nitrogen

- 43% Tetraploid, 30% Diploid, 19% Enhanced Ryegrass, 8% White Clover
- HEADSTART[®] GOLD treated
- Pack Size: 13Kg



Multigraze produced 10% more energy than the control mixture in 2017 Limagrass Trials





Hymax

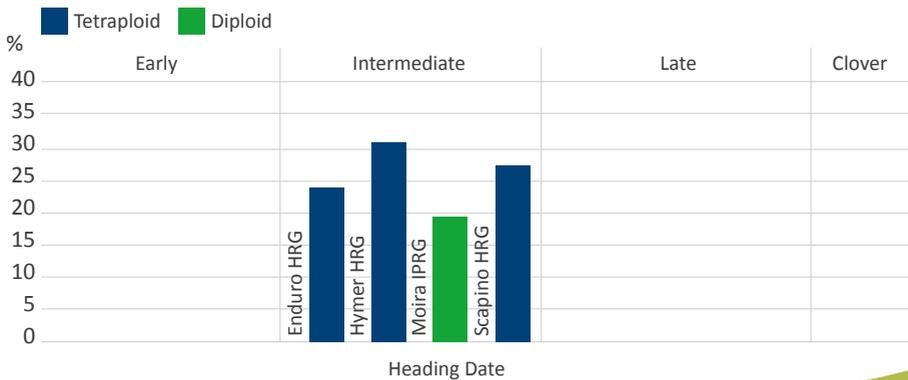
Short Term



A very high yielding 3/4 year ley, capable of producing multiple cuts with aftermath grazing.

- Hybrid ryegrasses give early spring growth, fast regrowth and higher yields than perennial ryegrass
- High tetraploid content offers excellent palatability, high digestibility and increased production
- Can be supplied with white clover
- Perfect for use as a break crop in arable rotations

- 81% Tetraploid, 19% Diploid
- **HEADSTART® GOLD** treated
- Pack Size: 13Kg





Silage and Grazing



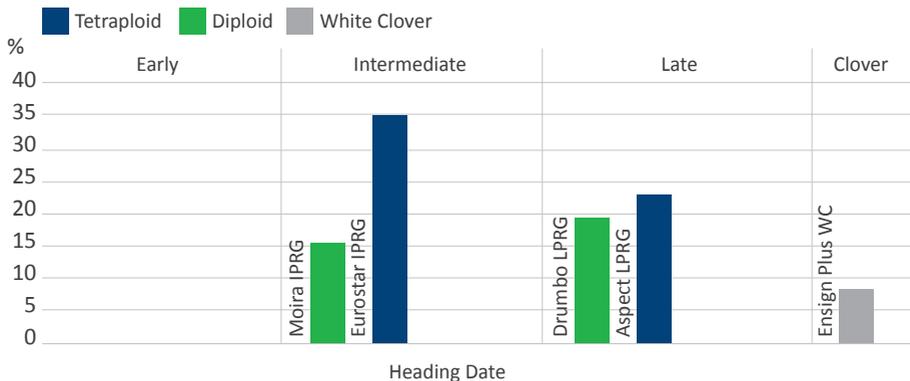
Medium Term

A versatile mixture with a perfect balance of nutritional qualities when cut or grazed.

- Includes varieties that express superior nutritional qualities under both grazing and conservation managements, to give improved animal performance
- High D-value and digestible fibre maximises nutrient availability and increases voluntary intakes
- High energy and sugars fuel milk and meat production
- Includes Includes Ensign Plus White Clover Blend to increase palatability, mineral and protein content

- 58% Tetraploid, 34% Diploid, 8% White Clover
- **HEADSTART® GOLD** treated
- Pack Size: 13Kg

 Silage and Grazing produced 16% more energy than the control mixture in 2017 Limagrain Trials





Flexiscot

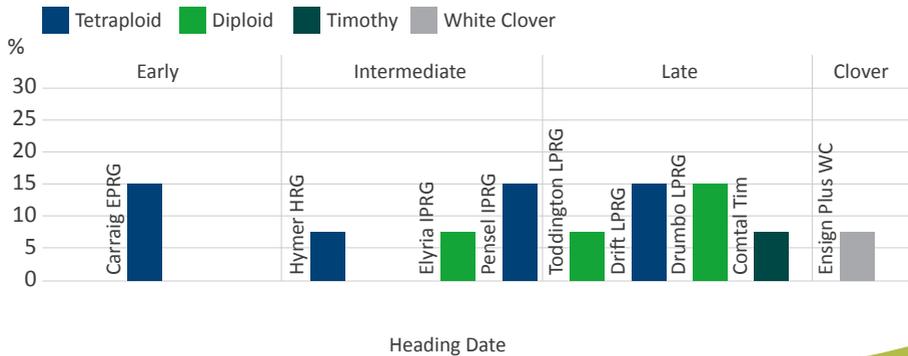
Medium Term



A medium/long term dual purpose mixture, tried and tested across Scotland and northern England.

- Hybrid ryegrasses give early growth for spring grazing or first cut silage
- Successive growth pattern of varieties gives reliable, consistent growth throughout the growing season
- Excellent winter hardiness
- Suitable for all classes of livestock and for silage, grazing or hay production

- 53% Tetraploid, 31% Diploid, 8% Timothy, 8% White Clover
- **HEADSTART® GOLD** treated
- Pack Size: 13Kg





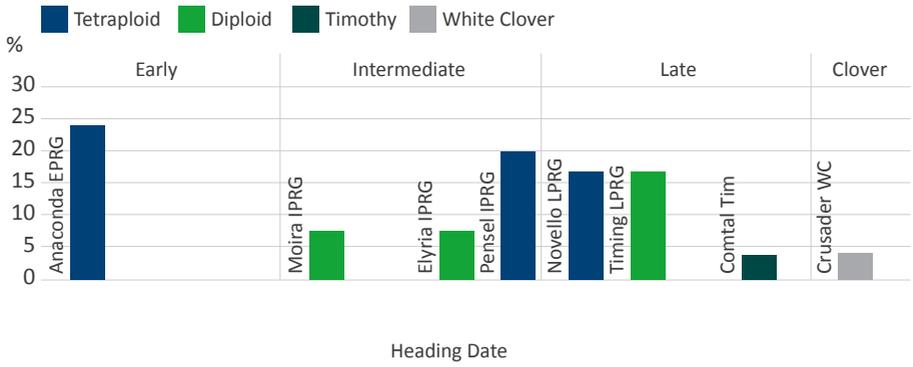
Greensward

Long Term



A long term dual purpose mixture which offers excellent value for money.

- Suitable for grazing, silage or hay and all classes of livestock
 - Good winter hardiness
 - Successive growth pattern of varieties offers great flexibility
 - A cost effective solution
- 60% Tetraploid, 32% Diploid, 4% Timothy, 4% White Clover
 - **HEADSTART® GOLD** treated
 - Pack Size: 12.5Kg





Permanent Pasture

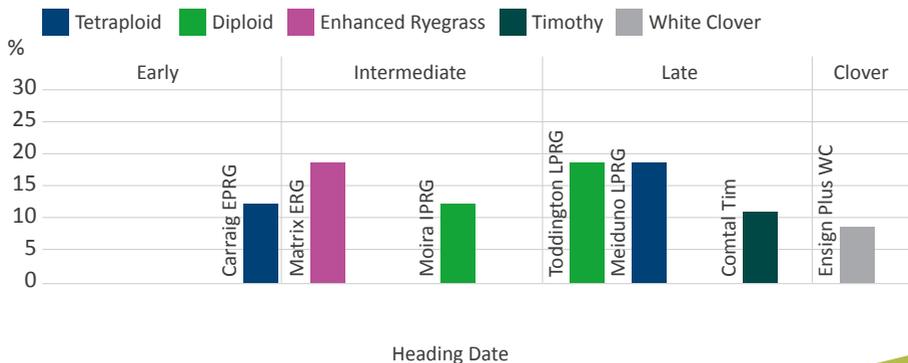
Long Term



Permanent Pasture is a long term, dual purpose mixture that delivers outstanding performance over many years.

- Includes Matrix Enhanced® Ryegrass for earlier spring growth, improved sward density and faster regrowth
- The best selling mixture in the Monarch range
- Highly productive in varied growing conditions from fertile lowlands to cooler, more severe uplands
- Suitable for extensive or intensive management systems, across all livestock types

- 31% Tetraploid, 31% Diploid, 19% Enhanced Ryegrass, 11% Timothy, 8% White Clover
- **HEADSTART® GOLD** treated
- Pack Size: 13Kg





Equipaddock Original

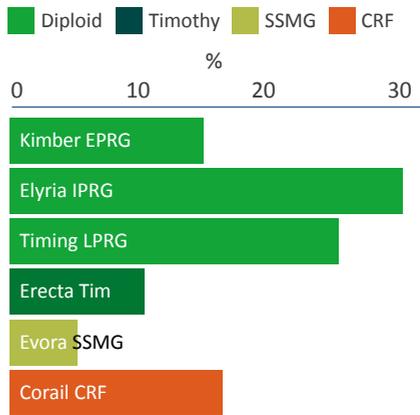


Long Term

Equipaddock Original is a flexible grazing or cutting ley designed specifically for use by horses and ponies.

- Forms a very dense rhizomatous sward, which is suited to hard grazing and has the ability to repair itself
- Capable of producing good yields of high quality horse hay
- Suitable for gallops, where good ground cover is beneficial
- Responds well to moderate use of nitrogen fertiliser to bulk up yields and aids with recovery after cutting

- 70% Diploid, 10% Timothy, 17% Creeping red fescue, 3% Smooth stalked meadow grass
- Pack Size: 10Kg



To see our full Equipaddock range visit www.lgseeds/equipaddock



Westerwolds

Short Term

Westerwolds is an annual crop that offers the highest yields of any ryegrass and is used to produce huge yields over 1 year.

- Very vigorous and quick to establish
- Spring crops are ready for silaging in just 9 to 10 weeks from sowing and are capable of producing 3 to 4 cuts
- Sowing after maize harvest prevents problems associated with bare stubbles, whilst increasing forage production
- Westerwolds can be added to longer term ley mixtures to give extra yield and earlier growth potential

Sowing Rate:

13-16Kg/acre
32-40Kg/Ha
Pack Size: 25Kg

Key Varieties

Peleton - A tetraploid variety, that has a larger seed size with increased vigour, giving the best opportunity for rapid establishment.

Prompt - bred for additional persistence, this variety has improved winter hardiness and is therefore suitable for autumn sowings.





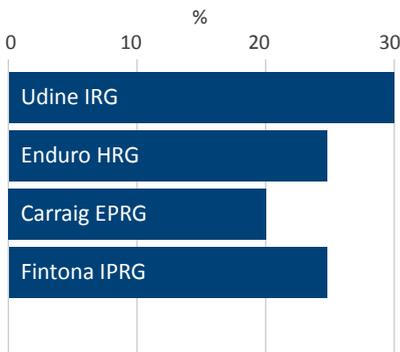
Rejuvenator

Medium Term



Rejuvenator is an economical, medium term solution for repairing damaged pastures and boosting yields.

- Vigorous tetraploid grasses establish quickly and compete well with the existing sward
- Short term grasses give good early spring growth
- Longer term grasses offer good ground cover and persistency
- Sow at 10kg per acre for overseeding into existing pasture
- 100% Tetraploid
- Pack Size: 10Kg



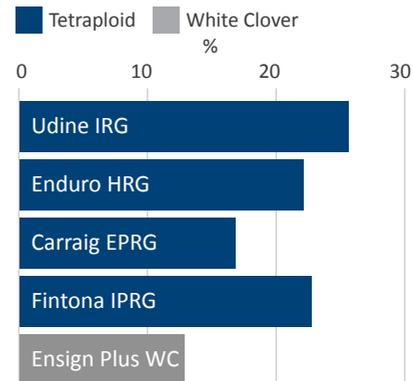
Clover Rejuvenator

Medium Term



The perfect mixture to rejuvenate the grass and clover content of a sward, significantly improving forage production and quality of old or tired pastures.

- All of the benefits of Rejuvenator with added clover
- Ideal for adding in white clover after non-clover safe herbicide use
- Helps reduce the fertiliser bill
- 87% Tetraploid, 13% White Clover
- Pack Size: 10Kg





Forage Chicory - Grasslands Choice

Why grow Forage Chicory?

- Increased milk production
- Higher liveweight gain in lambs and beef animals
- Good drought tolerance and mid-summer growth
- Elevated mineral and trace element content for healthy livestock
- Very high forage quality and digestibility

Management

- Drill into warm, well drained soils (10°C) at a depth of about 10mm.
- Can be sown in herbal strips or blocks, rather than throughout the ley, to simplify management. Please note; topping may be required to prevent bolting.
- Best rotationally grazed. Re-grazing should only be undertaken when 2 to 4 leaves per plant have fully re-grown.

Sowing Rate:

2-6Kg/acre straight

1-4Kg/acre in a grass/clover mix

Pack Size: 2.5Kg

Preferred Variety

Grasslands Choice is a cool season variety, most compatible with grasses in mixtures. It exhibits long season growth, only becoming dormant at near freezing temperatures.

Herb Mix

Mixed Herbs are a valuable addition to grazing mixtures, allowing their rooting systems to draw up minerals and trace elements that are essential to the diet of sheep and cattle.

30% Sheeps Parsley

35% Chicory

10% Ribgrass

25% Burnet

Pack Size: 1Kg

Include at 1Kg per acre



White Clover

White clover is the most important forage legume currently grown in the UK. Whether you are milking dairy cows, finishing cattle or feeding sheep, this flexible species has an important part to play in the ley mixtures on your farm.

White clover has the potential to improve the quality of any leys cut and conserved as silage or grazed in the field, whilst also fixing atmospheric nitrogen - reducing fertiliser costs.

Why Grow White Clover?

- High quality feed
- High protein and digestibility
- Rich in minerals
- Increased voluntary intakes and animal performance
- Good drought resistance and mid-season growth
- Can fix over 160Kg/ha of nitrogen
- Reduced N fertiliser use
- Improves soil structure



Sowing Rate:

1Kg/acre as part of a grass/clover mix



White Clover Blends

Why Grow White Clover Blends?

Ensign Plus White Clover Blend

Ensign Plus is a carefully designed white clover blend included in many mixtures in the Monarch range. It includes specially selected small, medium and large leaved clover varieties, making the blend suitable for a range of management types. This blend of varieties ensures optimum establishment, persistency and growth through the season.



Untreated clover seed (top) and CloverPlus pelleted clover seed (bottom)

CloverPlus Pelleted White Clover Blend

Overseeding clover into an existing ley has become a very popular method of improving productivity. CloverPlus is the perfect product for the job. CloverPlus is a white clover blend, coated in a pellet and treated with **HEADSTART® GOLD**. This unique product offers several significant benefits:

- The pellet increases the weight and size of the seed, making equipment calibration easier and giving a more consistent spread pattern if broadcast.
- The added weight ensures greater numbers of seed get down through the existing sward to give maximum soil/seed contact.
- In dry conditions, the pellet will protect the seed until there is sufficient moisture for germination.
- **HEADSTART® GOLD** seed treatment speeds up germination, giving young plants the best opportunity to compete with the existing sward.

Sowing Rate:

2kg/acre

Pack Size: 5Kg



Red Clover

Red clover offers the opportunity to reduce reliance on purchased concentrate feeds, due to its big yields of very high protein forage. Sown straight or as part of a mixed grass/clover sward, red clover can produce up to 4 cuts a year with quality aftermath grazing. Like other leguminous plants, red clover also fixes atmospheric nitrogen, helping to bring down fertiliser costs.

Red Admiral Red Clover Blend

Red Admiral is a blend of diploid and tetraploid red clover varieties with a range of flowering dates, that has been proven to deliver consistently high yields for three harvest years. Red Admiral is included in **Clovercut** (Page 14) and **Protein Silage** (Page 15).

Why grow Red Clover?

- High yields of protein rich forage
- Predominantly used for silage but can also be grazed
- Much higher yielding than white clover
- Reduces N fertiliser use
- Improves soil structure
- Drought tolerant

Sowing Rate:

5-6 Kg/acre straight
3Kg/acre as part of grass/clover mix





Lucerne

Lucerne provides good yields of highly nutritious silage and is particularly useful in relatively dry conditions. Lucerne is very high in protein and minerals and its lower cell wall content means lucerne is highly digestible with high intakes.

Why Grow Lucerne?

- High protein forage
- Drought tolerant
- Four cuts per year possible
- 3 to 5 year potential
- Suitable for silage, big bales, hay or zero grazing
- Fixes atmospheric nitrogen

Preferred varieties:

Mezzo is a new variety with outstanding yields and increased winter hardiness

Marshal is a popular choice with UK growers due to its consistently high yields and thinner stems giving increased palatability and harvest/storage benefits.

Management

Lucerne can be sown from April through to August, though later sowings carry a greater risk of establishment failure, due to cooler weather and winter kill.

Seed should be treated with a Rhizobium inoculant to ensure root nodulation and efficient nitrogen fixing.

Sow at 8-15Kg/acre into well drained soils with a neutral pH. Lucerne will not tolerate waterlogged or acidic soils. Drill into moisture in 10cm rows, no deeper than 1cm.

First cut will usually be in late April/May with subsequent cuts at approximately 40 day intervals.

Get our Lucerne growers guide
www.lgseeds.co.uk/marshal-lucerne

Organic Mixtures

No.1 Organic Fertility Builder

A mixture of Italian and hybrid ryegrasses, along with highly productive red clover. A two year mixture that will boost soil fertility and increase soil humus levels.

No.2 Organic Grazing

Our organic grazing mixture differs from conventional mixtures in that it has a more open sward allowing the high white clover content to thrive. The mixture also contains mid and late season perennials - including some very palatable tetraploids.

No.3 Organic Cutting

A 4+ years mixture that has been designed using varieties with close heading dates to maximise forage quality and yield at each cut.

Despite its name, Organic Cutting mixture also doubles up as a good quality grazing mixture in mid summer, with leafy grass regrowth.

No.4 Organic General Purpose

A long term, versatile mixture that is well suited to a range of soil types and growing conditions. Organic General Purpose will produce high quality silage from one or two cuts with aftermath grazing. Conversely, if used as a grazing ley, the white clover blend will enhance digestibility, as well as inputting soil nitrogen. Organic General Purpose is suitable for all classes of livestock.

No.5 Organic Long Term

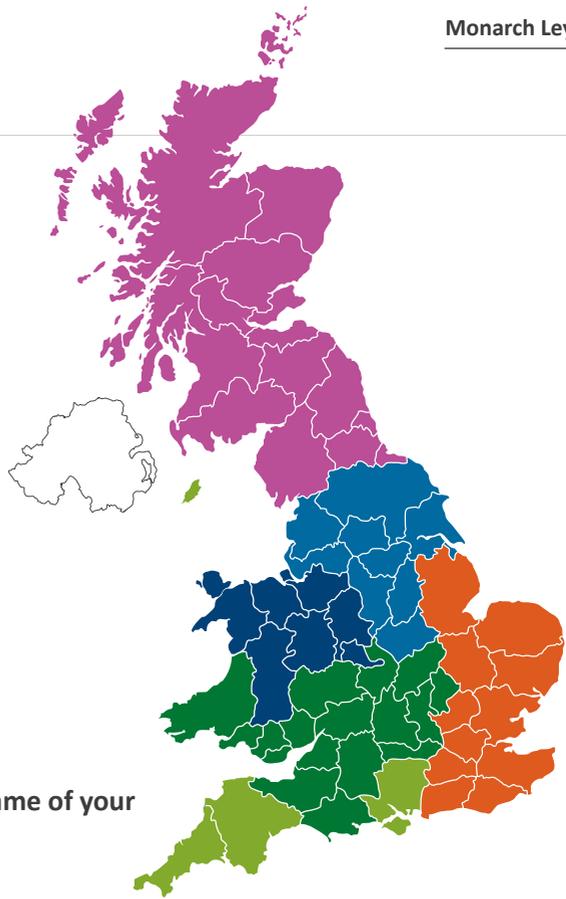
This mixture utilises a range of species which will thrive in lower fertility conditions and less favourable soil types. Meadow fescue can, for example, outyield ryegrass in lower fertility soils and timothy will often produce more palatable herbage than perennial ryegrass when grown on wetter, heavy soils. This mixture is ideal for land that you would prefer not to plough too often.

To view our full range of Organic mixtures please visit www.lgseeds.co.uk/organic



Contacts

For more information and a list of key Monarch distributors please visit:
lgseeds.co.uk/monarch



For technical advice and the name of your nearest Monarch stockist:



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Graham Parnell
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Northern England & Midlands
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