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The Ultimate Grassland Support Package

- UK Forage Line (Freephone 08000 234416)
- 33 branches
- 70 farm-based representatives
- Established since 1990
- UK bred grass varieties (partners with AFBI)
- Over 2,000 ha grass seed produced on UK Farms

Partners with grass expert, Barenbrug

BARENBRUG
Grass remains crucial to the dietary requirements of UK livestock production. Following a challenging growing season in 2018 and predicted shortfalls of forage this year there has never been a more appropriate time to ensure you have a reseeding plan for your farm. Reseeding with recommended varieties will boost grass yields, enhance forage quality and optimise livestock performance. At Carrs Billington we offer specialist ‘on farm’ grassland advice including sward management, weed control, soil compaction and nutrient status. Contact us today for a free consultation.

Alex Law
Carrs Billington Grassland Specialist

Re seeding delivers these benefits:
- The opportunity to address soil nutrient deficiencies.
- The chance to improve soil structure.
- Increased grass yield.
- Improved grass quality.
- Better nutrient efficiency.

All leading to:
- Improved livestock intakes.
- Enhanced feed conversion.
- More meat and milk.

UK GRASS

GRASSLAND MAKES UP NEARLY 70% OF THE UK FARMED LANDSCAPE, MAKING IT THE MOST IMPORTANT RESOURCE IN LIVESTOCK FARMING.

Optimise your grassland productivity with advice on soil, seeds and fertiliser.
Get advice in the selection of the best grass seeds to match your farming needs.

Starting with the soil
Correct soil fertility and soil structure are fundamental to any grassland or other cropping system. By soil sampling around 25% of the farm annually, you will be better placed to produce a more efficient nutrient management plan contributing to overall profitability.

Soil pH is vital
- pH is the level of acidity or alkalinity of the soil.
- pH determines how available other nutrients are to grass plants.
- Target pH for grass is at least 6, and ideally 6.5 for grass and clover.
- pH 6 is ten times more acidic than pH 7, pH 5 is 100 times more acidic than pH 7 and so on.
- A neutral pH promotes the best and most balances biological activity in the soil (earthworms, bacteria and fungi).
- A neutral pH is essential for optimal nitrogen fixation by legumes.

Phosphate (P), Potash (K) and Sulphur (S)
- Soil status targets for P & K are to maintain at Index 2.
- Failure to maintain these levels of P & K and account for crop offtake can reduce yields by 10%.
- 1 tonne of grass dry matter removes over 7kg P and over 27kg K.

• Adequate levels of S improve the nutrient balance and increase efficiency of nutrient uptake by the grass.
• Applying S-containing fertilisers in a grazing regime can increase grass crude protein (CP) content by 4%.

Guidelines
- Refer to your FACTS trained Carrs Billington representative to help make a nutrient plan.
- AHDB’s Nutrient Management Guide (formerly RB209) section 3 gives advice on fertiliser requirements for grass. Section 2 gives standard nutrient levels for farmyard manures and slurries.
- Knowing your soil type will aid in management decisions regarding nutrients e.g. feed sandy soils little and often to prevent leaching.

Nutrient Content of Farmyard Manure

<table>
<thead>
<tr>
<th>Manure</th>
<th>Total N (kg/t)</th>
<th>Available P (kg/t)</th>
<th>Available K (kg/t)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cattle Slurry (6% DM)</td>
<td>2.6</td>
<td>0.6</td>
<td>2.3</td>
</tr>
<tr>
<td>Cattle FYM (25% DM)</td>
<td>6</td>
<td>1.9</td>
<td>8.5</td>
</tr>
<tr>
<td>Pig FYM (25% DM)</td>
<td>7</td>
<td>3.6</td>
<td>7.2</td>
</tr>
<tr>
<td>Broiler Litter (60% DM)</td>
<td>28</td>
<td>10.2</td>
<td>19</td>
</tr>
</tbody>
</table>

Source: AHDB’s Nutrient Management Guide
MANAGING NEW SWARDS

Top tips for successful establishment.

Grass Grows Grass.
New sown leys should be considered as ‘establishing’ for the first 12 months. The management of new sown leys in this period is critical to achieve persistent grass growth. Many will achieve high DM yields although rooting structures are often poor until the second year.

Timing of first grazing:
- Don’t graze too soon. The “pluck test” is a guide indicating the pasture sward can be grazed if that is the preferred option.
- Grasp the ryegrass seedling firmly between the thumb and forefinger, then tug in a single, quick movement (to mimic an animal biting). If the leaves break off and the roots stay in the ground, the pluck test is passed.
- When first grazing, ensure that 4-5cm of stubble is left, allowing the grass to recover faster.
- In autumn the plant is directing energy to the root system. The more green material it has after grazing, the quicker the plant can recover and continue putting reserves into the root system aiding the overall PERSISTENCE.

Managing for success
- If sacrifice paddocks are needed over the winter – DON’T use the new pastures as they are most susceptible to damage, ultimately reducing DM yield, ground cover and overall persistency.
- When budgeting inputs, look after these pastures first in terms of fertiliser and herbicide sprays.
- Timely N applications are as important for the new swards as the clover component of the sward is not contributing at this point. Nitrogen assists with tillering of ryegrass plants as well as overall health. Refer to AHDB’s Nutrient Management Guide (formerly RB209).
- Application of P & K in the seedbed are beneficial especially where soil indices are below Index 2.
- Cherish new pasture swards like growing young stock – they are the production house of the future.

Weed control
Effective weed control is essential to reduce the seed burden in the existing and subsequent crops. Some weed species produce tens of thousands of seeds per year and some seeds can lie dormant in the soil for over 80 years!

Weeds:
- Can be harmful or poisonous
- Reduce the overall feed value of the sward
- Can be hosts to diseases and pests
- Reduce sward palatability
- Compete with grass for light, space, water and fertiliser.
- A 20% weed infestation is at least a 20% reduction in grass and grass utilisation.
SEED SELECTION

What to consider before choosing a mixture.

It is important to select the correct seed mixture for your needs.

Make the selection process easier by following a few simple steps:

- **Which field?** – Not necessarily the oldest but the most poorly performing field should be the top priority for reseeding.

- **Assess soil fertility by sampling and checking soil structure**, particularly where a field will not be ploughed. Compaction can significantly reduce root development, nutrient uptake and subsequent establishment, yield and quality. Nutrients take time to break down and become available so soil sample and address issues as soon as possible.

- Note local issues such as high rainfall, sandy soil or perennial weeds which can influence species choice.

- **How long do I wish the field to be in grass for?** For example, a 4 year rotation or a 10 year rotation.

- **What do I want to do with the field?** E.g. a 4 – 5 cut system with a first cut in April or all summer grazing from turnout in May.

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SOWING RATES

<table>
<thead>
<tr>
<th>PRODUCT</th>
<th>SOWING RATE (Kg/acre)</th>
<th>COMMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>MEGA GRASS LEYS Full reseed</td>
<td>14kg</td>
<td>Mega Grass Leys grass seed mixtures are all conveniently packed in 1 acre packs.</td>
</tr>
<tr>
<td>MEGA GRASS LEYS Overseeding</td>
<td>10kg</td>
<td>Where broadcasting, it may be wise to increase the sowing rate by 0.5kg/acre.</td>
</tr>
<tr>
<td>White Clover</td>
<td>0.5 – 1kg</td>
<td></td>
</tr>
<tr>
<td>Red Clover – with grass</td>
<td>2-3kg</td>
<td></td>
</tr>
<tr>
<td>Red Clover - pure stand</td>
<td>5kg</td>
<td></td>
</tr>
<tr>
<td>Stubble Turnips</td>
<td>2kg – high bulb % 3kg – high leaf %</td>
<td></td>
</tr>
<tr>
<td>Forage Rape</td>
<td>4kg – broadcast 2kg – drilled</td>
<td>Supplied in a 2 acre pack.</td>
</tr>
<tr>
<td>Kale</td>
<td>1-2kg – drilled 3kg – broadcast</td>
<td>Best sown with clovers for nitrogen</td>
</tr>
<tr>
<td>Bar Finisher (Lamb Finishing Blend)</td>
<td>5kg</td>
<td></td>
</tr>
<tr>
<td>Chicory</td>
<td>3kg</td>
<td></td>
</tr>
<tr>
<td>Plantain</td>
<td>Up to 5kg</td>
<td></td>
</tr>
<tr>
<td>Amenity Grass Seed - Overseeding</td>
<td>25g/m²</td>
<td></td>
</tr>
<tr>
<td>Amenity Grass Seed – Reseed</td>
<td>35g/m²</td>
<td></td>
</tr>
</tbody>
</table>
MEGA YIELD

SHORT-TERM

Highly productive Italian and Hybrid ley, which will give an exceptional crop for silage or hay from a high input system.

Silage production with winter grazing option.

- Intensive production for 2-3 years under a high input system.
- Up to 4-5 silage cuts with aftermath grazing.
- Ideal as a catch crop, will give excellent production from a late summer sowing.

Yield delivers you:

- MEGA YIELD is a top quality Italian and Hybrid ryegrass ley designed to give massive production from a short-term ley.

Where Yield works:

Growing down to 3-4°C has a very long growing season, its exceptional spring growth makes it ideal for lamb finishing or early turnout.

An early grazing can be followed by four to five cuts of quality silage and a late flush for grazing.

How the varieties perform:

- Includes GEMINI, which combines exceptional early spring growth (104%) and high yields of high ME silage.
- A first cut in the middle to end of May, following a spring grazing will produce 70+ D value silage, with a 2nd cut 5 to 6 weeks later.
- Responds very positively to high levels of nitrogen, by producing 20% more yield than long-term leys.
- The use of KIRIAL and MOIRA ensures the maximum persistency and ground cover of the sward.

4.00kg JAVORIO Italian Ryegrass (DIP)
4.00kg GEMINI Italian Ryegrass (TET)
5.00kg KIRIAL Hybrid Ryegrass (TET)
1.00kg MOIRA Intermediate Perennial Ryegrass (DIP)
14kg per acre
MEGA MAX

SHORT-TERM

An excellent, high protein cutting ley for 3-4 years with the option to graze. High protein silage & grazing predominately for cattle.

- Intensive cutting, up to four cuts per year, with the option to graze.
- Contains Ensign RED, a unique mixture of red clovers.
- 'Fixes' up to 150kg/ha of Nitrogen reducing the need for Nitrogen applications.

Max delivers you:

Hybrid ryegrasses grow to 5-6°C soil temperature and so will extend the growing season. Three to four cuts of high protein forage from Ensign RED clover blend can be followed by aftermath grazing which is ideal for finishing lambs or grazing young cattle.

Where Max works:

Red Clover swards MUST be well managed. Leave a 4 inch (10 cm) stubble when mowing, avoid overgrazing and select free-draining fields to protect the growing point and maintain plant population.

Animals fed on red clover/grass silage will eat more and perform better than those fed on grass silage alone (although it is not advisable for breeding sheep due to phyto-oestrogen production).

How the varieties perform:

- Designed for yield and persistence, combining the yield of the grasses with the additional protein from the Ensign RED clover blend.
- KIRIAL has an excellent first cut yield (102%) with a D Value of over 71. FINTONA is an exceptionally high yielding variety, with a first cut of 112% and a total silage yield of 108%.

| 4.00kg | KIRIAL Hybrid Ryegrass (TET) |
| 6.00kg | FINTONA Intermediate Perennial Ryegrass (TET) |
| 3.00kg | ENSIGN RED Red Clover Blend |
| 0.25kg | ALICE White Clover |

13.25kg per acre
OVERSEEDING

1. Dig a soil assessment pit to look for compaction and plant rooting structure which should go 30cm deep in PRG/Timothy sward.

2. Address compaction with aerators or sub-soilers as needed. Soil testing (4” deep) would also be advantageous as high levels of water can leach nutrients and reduce pH significantly. Assess what plants are there – learn to identify what species you want to have e.g. PRG/Timothy.

3. Minimise competition by sheep grazing or cutting for silage, prior to sowing.

4. Do not fertilise or spread slurry on the field before overseeding.

5. Control perennial weeds before seeding by spraying with a selective herbicide.

6. Use a spring tine harrow to remove any dead stalks, thatch and shallow rooted weed grasses. Make sure that the tines are working the top 1cm of the soil as this will create the seed bed for the new seeds. Sow when the soil conditions are neither excessively dry nor wet.

7. Roll the sward to ensure good seed/soil contact to conserve moisture. Good seed bed consolidation not only helps germination, it will reduce the movement of leatherjackets within the soil therefore reducing the risk of damage.

8. Graze lightly when the seedlings are 10cm high and continue at frequent intervals until the plants are well established.

All the best things start from the ground up and it’s important you choose a mixture designed for the job.
MEGA RESTORE

Forage production is expensive; get your sward back into maximum, long-term productivity, by over seeding with MEGA RESTORE.

- Increases the proportion of productive ryegrass in the sward.
- Reintroducing or increasing the clover content of the sward.

**Restore delivers you:**
- Increasing the quality of the grass for better animal performance.
- Repairing the damage caused by poaching of grazing swards.

**Where Restore works:**
- Uses varieties which are aggressive enough to establish in an existing sward, yet easy to manage.
- Specifically designed to work best with specialist overseeding techniques.

2.00kg KIRIAL Hybrid Ryegrass (TET)
3.00kg DUNLUCE Intermediate Perennial Ryegrass (TET)
4.50kg BIJOU Late Perennial Ryegrass (TET)
0.50kg ENSIGN White Clover Blend

10kg per acre.

MEGA PATCH

MEGA PATCH is a specialist mixture, designed to repair damaged and poached areas and get them back into production - FAST.

- Overseeding and patching damaged and poached areas.

**Patch delivers you:**
- Rapid establishment and aggressive growth to smother seedling weeds.
- Will give a rapid return to production from the ley.

**Where Patch works:**
- For overseeding areas damaged and poached by stock such as gateways and around troughs.

3.00kg CLOROFYL Italian Ryegrass (DIP)
3.50kg BARVITRA Hybrid Ryegrass (TET)
3.50kg YOUPI Late Perennial Ryegrass (TET)
10kg per acre.
MIXTURE SELECTOR

**Short Term**
- **Up to three years**
  - **YIELD**
    - Substantial Italian silage yield
- **Up to four years**
  - **MAX**
    - High protein hybrid red clover blend

**Medium-Long Term**
- **Mainly cutting, some grazing**
  - **CROPPER**
    - Up to 4 crops of silage with grazing option
  - **BOOST**
    - Boost stock capacity with later cut

**Overseeding**
- **Full sward renovation**
  - **RESTORE**
- **Repairing damaged sections**
  - **PATCH**

**Long Term**
- **Multi-purpose**
  - **CHOICE**
    - Flexible choice for all areas and systems
  - **PERM**
    - The permanent grassland option
- **BARMIX**
  - Low input beef and sheep
MEGA CROPPER

MEDIUM-LONG TERM

Exceptional silage cuts of extremely nutritious forage. Multiple silage cuts with autumn grazing for all livestock classes.

- Top quality, medium-long term ley for production of high quality silage and grazing.
- Suitable for a wide range of geographical areas and livestock systems.
- Maximum production by using the top yielding varieties.
- Up to 4 cuts per year followed by autumn and winter grazing.

Cropper delivers you:
MEGA CROPPER is a mixture of intermediate and late heading ryegrasses with Timothy designed as a long term, top class cutting mixture, which will also produce quality grazing.

A ley that combines the quality from the high tetraploid content with excellent sward density.

Where Cropper works:
- Ideally suited for a mid-May first cut.
- Suitable for a wide range of geographical areas and livestock systems.

How the varieties perform:
- Includes MOIRA, which provides a huge first cut of 107% of control varieties.
- KIRIAL provides excellent spring growth, high yields and good disease resistance.
- All varieties combine good silage yields with excellent digestibility (both 1st and 2nd cuts over 70D) to produce top quality forage for better animal performance.
- Ideal as a top quality cutting ley that will also produce a high quality, dense, palatable grazing sward.

2.00kg KIRIAL
4.50kg MOIRA
2.00kg FINTONA
2.00kg CLANRYE
2.50kg YOUPI
0.50kg COMER
0.50kg ENSIGN
14kg per acre

Hybrid Ryegrass (TET)
Intermediate Perennial Ryegrass (DIP)
Intermediate Perennial Ryegrass (TET)
Late Perennial Ryegrass (DIP)
Late Perennial Ryegrass (TET)
Timothy
White Clover Blend
Also available without clover
MEGA BOOST

Long term grazing ley delivering highly palatable and digestible grass. Traditional mid-spring cattle grazing with the option for late silage cuts.

- Intensive production from grazing a highly palatable, very digestible ley.
- Creating a tight persistent sward that is highly resistant to poaching.
- Designed to provide grazing from mid spring to late autumn.

Boost delivers you:
MEGA BOOST is a medium-long term grazing ley that will also give the option to take later cuts of top quality silage.

The tetraploid content in this mixture ensures maximum animal performance from grazing.

Where Boost works:
MEGA BOOST is a late heading perennial ryegrass mixture designed to give intensive grazing production from a dense, prolific ley.

The growth of the ley is designed to match normal turnout and as a result produces the best quality grazing sward to enable the grazing animal to make the best of its cheapest feed - grazed grass.

How the varieties perform:
- Produces a persistent, palatable ley with a high leaf:stem ratio for ease of management, ground cover and digestibility.
- All ryegrass varieties have a grazing D value over 75.
- GOSFORD and CLANRYE both contribute to yield palatability and persistency of the sward.
- ENSIGN clover blend ensures the optimum clover content for increased protein levels, intakes, animal performance and nitrogen fixation.

3.00kg GOSFORD Intermediate Perennial Ryegrass (DIP)
4.50kg CLANRYE Late Perennial Ryegrass (DIP)
5.00kg YOUPI Intermediate Perennial Ryegrass (TET)
1.00kg COMER Timothy
0.50kg ENSIGN White Clover Blend
14kg per acre Also available without clover
MEGA CHOICE

LONG TERM

Flexible choice for all areas and systems.
A true all-rounder. Cutting and grazing for all livestock classes.
- A truly flexible ley, capable of being both grazed and cut.
- Designed to give the maximum yield over the longest possible growing season, producing forage at the times of year it is most valuable.
- Uses varieties with excellent sward density and persistency to minimise poaching damage and weed encroachment.

Choice delivers you:
Up to 2 cuts per year with the option to graze any time.

Where Choice works:
Ideal for early turnout or lambing thanks to its exceptional spring growth.

How the varieties perform:
- Varieties selected to give a palatable and responsive sward with excellent persistency.
- MOYOLA has a spring growth of 123% of control varieties.
- COMER Timothy increases spring growth and persistence under more extreme conditions.
- MOIRA delivers a first cut yield of 107% and GOSFORD of 103%
- ENSIGN clover blend ensures the optimum clover content for increased protein levels, intakes, animal performance and nitrogen fixation.

#1 BEST SELLER

2.00kg MOYOLA Early Perennial Ryegrass (DIP)
3.00kg MOIRA Intermediate Perennial Ryegrass (DIP)
2.50kg GOSFORD Intermediate Perennial Ryegrass (DIP)
2.50kg FINTONA Intermediate Perennial Ryegrass (TET)
2.50kg CLANRHYE Late Perennial Ryegrass (DIP)
1.00kg COMER Timothy
0.50kg ENSIGN White Clover Blend
14kg per acre Also available without clover
MEGA PERM

LONG TERM

Long-term mixture designed for high production systems, suited to both cutting and grazing.
Medium/lower input grazing and silage particularly for all beef and sheep.
• It is a modern version of a traditional Scottish long term mixture, ensuring a winter hardy, robust, persistent ley.

Perm delivers you:
Outstanding persistency, using varieties with proven durability and winter hardiness.

Where Perm works:
MEGA PERM is a long-term, flexible mixture suited to both cutting and grazing under medium to low input systems.

Early spring growth, which makes it ideal for lambing or early turnout.

Early grazing can be followed by 1 - 2 cuts and further grazing or a full season of grazing.

How the varieties perform:
• It produces a leafy, quality sward with excellent palatability.
• Increased white clover content for improved durability, nitrogen fixation, protein levels and animal intakes.
• The higher diploid and Timothy content guarantees performance in wetter, less fertile conditions, improves sward density and extends the grazing season.

<table>
<thead>
<tr>
<th>Amount</th>
<th>Variety</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.00kg</td>
<td>ASTON CRUSADER</td>
<td>Hybrid Ryegrass (TET)</td>
</tr>
<tr>
<td>2.00kg</td>
<td>MOYOLA</td>
<td>Early Perennial Ryegrass (DIP)</td>
</tr>
<tr>
<td>2.50kg</td>
<td>GOSFORD</td>
<td>Intermediate Perennial Ryegrass (DIP)</td>
</tr>
<tr>
<td>2.00kg</td>
<td>DUNLUCE</td>
<td>Intermediate Perennial Ryegrass (TET)</td>
</tr>
<tr>
<td>2.00kg</td>
<td>DRUMBO</td>
<td>Late Perennial Ryegrass (DIP)</td>
</tr>
<tr>
<td>2.00kg</td>
<td>BALLINTOY</td>
<td>Late Perennial Ryegrass (TET)</td>
</tr>
<tr>
<td>1.50kg</td>
<td>COMER</td>
<td>Timothy</td>
</tr>
<tr>
<td>1.00kg</td>
<td>ENSIGN</td>
<td>White Clover Blend</td>
</tr>
</tbody>
</table>

Also available without clover
LONG TERM

Low input Beef and Sheep systems for more challenging environments.

- Long term, high yielding sward of very palatable grass.
- Excellent drought tolerance for deep rooted, persistent species.
- Exceptional late winter and early spring growth.
- Ideal for all beef and sheep needs.

A highly successful, persistent, drought tolerant, high protein sward for beef and sheep production from a clover based sward.

BARMIX uses the best new Cocksfoot and Tall Fescues to produce a highly palatable, very productive ley. As a result it produces considerably more grass than conventional ryegrass leys especially under low fertility conditions and low fertiliser usage.

How the varieties perform:

- BARAULA (cocksfoot), BARDOUX and BARELITE (tall fescues) are proven in on farm grazing trials to be highly palatable due to their soft leaves.
- The ryegrasses in the sward are highly productive, with BALLINTOY giving 112% for early spring growth of control varieties and GOSFORD 108% for spring and 105% for autumn growth, of control varieties.

<table>
<thead>
<tr>
<th>Variety</th>
<th>Quantity</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>GOSFORD</td>
<td>3.50kg</td>
<td>Intermediate Perennial Ryegrass (DIP)</td>
</tr>
<tr>
<td>BALLINTOY</td>
<td>3.50kg</td>
<td>Late Perennial Ryegrass (TET)</td>
</tr>
<tr>
<td>BARDOUX</td>
<td>2.00kg</td>
<td>Tall Fescue</td>
</tr>
<tr>
<td>BARELITE</td>
<td>2.00kg</td>
<td>Tall Fescue</td>
</tr>
<tr>
<td>BARAULA</td>
<td>1.00kg</td>
<td>Cocksfoot</td>
</tr>
<tr>
<td>COMER</td>
<td>1.00kg</td>
<td>Timothy</td>
</tr>
<tr>
<td>ENSIGN</td>
<td>1.00kg</td>
<td>White Clover</td>
</tr>
<tr>
<td></td>
<td>14kg per acre.</td>
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</tr>
</tbody>
</table>
Future proof your most important feed.

2018 proved to be another difficult year for grass growth with a cold, wet, late spring rapidly turning to drought conditions and although the back end was more open, few were left with a surplus of grass.

The young well managed grass fields recovered quickest. It’s time to start treating grass like the fundamental crop it is. 2019 will be more important than ever to make a reseeding plan to get grassland productivity back to where it needs to be.

Mega Leys Top Tips

1. Do a forage budget and be specific. What animals do you have, what feed requirements do they have. Analyse silage to be able to allocate the best quality to growing and productive animals and leave the drier, lower ME/CP stocks for dry cows. Where deficits occur, assess the different options available to you in terms of nutritive value, costs, logistics and practicality.

2. Map your own farm now. Ascertain which fields are in best conditions and which need attention first. Know which fields are lighter, grow forage earlier and can be travelled on sooner and consider alternative species that grow at lower temperatures. Don’t just sow what you’ve always sown.

3. Ongoing grassland management remains essential for any system with livestock whether cutting or grazing. Regular crop walking of grass, paying attention to residuals, a specific soil sampling regime and lime and nutrient plans can allow you to make alterations to the rotations for short or long term gains. Get specific about your requirements and future proof your livestock system with high quality forage.

TO FORMULATE YOUR FARM’S FORAGE RECOVERY ROTATION PLAN CONTACT THE FORAGE LINE ON 08000 234416

ARTÉMIS LUCERNE

Lucerne is a highly nutritious forage for livestock. It combines good digestibility with high proteins providing excellent milk yields or daily live weight gains.

Sow in spring. Approx 40 days to maturity.
Sowing rate: 8-10kg/acre (20-25kg/ha). Drill at 5-12mm deep on normal soils or up to 25mm on light sandy soils.
Pack sizes: Available in pack sizes of 25kg.

One of the most underrated and underutilised forage crops available to livestock farmers in the UK. To utilise lucerne, ensure a minimum of 50% flowering (50% of the tallest stems have a flower) prior to the first grazing/cutting. If the stand is weedy at establishment it can be grazed/cut ONCE if it is 15-20cm tall and then left to flower to a minimum of 50% • >300 - 500 g/hd/d – rotationally grazed or cut.
• High MJME and high protein, which is easily digested.
• Perennial - Well managed crops can persist for up to 5 years.
• Performs well in free draining, drier environments due to tap roots.
• Dual purpose – potential for cutting and grazing.

For more information and advice on management, please contact us for the guide.
**Barabas**

High leaf to bulb ratio resulting in high levels of protein. Tankard bulb shape to enhance utilisation.

Barabas is a UK proven variety with high leaf to bulb ratio and tankard shaped bulbs to enhance utilisation. It is palatable, has good disease resistance and excellent vigour. It is flexible and can be used in summer or winter by all classes of livestock.

Sow at 3kg/acre (7.5kg/ha) for higher leaf percentage.
Sow at 2kg/acre (5kg/ha) for higher bulb percentage.
Available in pack sizes of 5kg or 25kg.

**Barcoli**

Multipurpose forage rape with excellent autumn/early winter feed.

Barcoli forage rape is a flexible forage option which can be utilised in summer or winter by all classes of stock. It has good regrowth potential where given only a light first graze and has excellent winter keeping properties.

Sow at 4kg/acre (10kg/ha) broadcast or 2.5kg/acre (6kg/ha) drilled.
Available in pack sizes of 10kg or 25kg.
Sow between April and September.

**Thousand Head**

Thousand Head is a medium height kale with excellent leaf to stem ratio (greater than 50% leaf) ideal for sheep production.

Its highly digestible stem improves total crop utilisation and it has good regrowth potential from a light summer graze.

Kale is a well proven, highly adaptable fodder crop which consistently provides very high yields of succulent green fodder.

Sow between April and late July. 170 – 220 days to maturity.
Sowing rate: 1 – 2kg/acre (2.5 – 5kg/ha) drilled or 3kg/acre (7.5kg/ha) broadcast
Available in pack sizes of 5kg or 25kg (untreated), 2kg (treated).

**Marrowstem**

Marrowstem is a large type kale making it the better choice for cattle.

Capable of 18tDM/ha, it also has excellent tolerance to frost and winter hardness and is a good choice for post Christmas feeding.

Sow at 4kg/acre (10kg/ha) broadcast or 2.5kg/acre (6kg/ha) drilled.
Available in pack sizes of 10kg or 25kg.
Sow between April and September.
BAR FINISHER MIXTURE

BAR FINISHER is a mix of chicory, white clover, red clover and plantain with excellent daily liveweight gain potential.

It is palatable, high in protein and energy and has anthelmintic properties from the chicory component.

Deep rooted species provides a broader spectrum of minerals to the diet.

Grass can also be introduced into the mixture.

BAR FINISHER MIXTURE

| 1.50kg RED | Red Clover Blend |
| 1.00kg WHITE | White Clover Blend |
| 1.00kg COMMANDER | Chicory |
| 1.50kg TONIC | Plantain |

Pack size 10kg. Sowing rate: 5kg per acre.

COMMANDER CHICORY

A true perennial chicory that lasts more than one year. Commander produces significant yields of high protein forage, especially when mixed with red clover.

Chicory is a perennial herb, which is an excellent source of high quality feed for finishing stock and also has anthelmintic properties.

- Sowing rate: 3kg/acre (7.5kg/ha) as a straight and with clover.
- Available in pack sizes of 5kg or 25kg

TONIC PLANTAIN

Tonic plantain can be used to boost summer milk production and to finish lambs. Historically used in grassland mixtures it is suited to many soil types and can increase daily intakes during the summer.

- Sowing rate: 2kg/acre (5kg/ha) in a grassland mixture, 8-10kg/acre (19-24kg/ha) as a special purpose crop.
- Available in pack sizes of 5kg or 25kg
WILDFLOWERS

A range of wildflower mixtures provide a beautiful wildflower habitat, encouraging biodiversity in urban landscapes and are designed to satisfy professional, conservation or domestic requirements.

They include UK native species and are available as 100% wildflowers or alongside grasses in a 80:20 mixture of non-aggressive grasses and wildflowers.

FOR INFORMATION ON ANY OF THESE PRODUCTS, CONTACT THE FORAGE LINE ON 08000 234416
**EQUESTRIAN GRASS SEED**

Young, well managed grass can provide most of a horse’s feed requirement. Our mixtures are designed especially for horses.

**GENERAL PURPOSE**

Hardwearing general-purpose mixture designed to withstand the pressures of equestrian use and provide good quality grazing for horses.

- Grass varieties used have been specifically selected for roughage and low fructan content
- Produces a good, spring, dense turf
- The low fructan concentration reduces the risk of laminitis
- Strong grass plant rooting system, making the sward dense, hard-wearing and persistent
- Paddock will deliver grazing and forage production
- Yields good levels of effective roughage, ideal for a fit and healthy equine gut

**TRADITIONAL MEADOW**

Formulated to recreate the nutritional characteristics of a natural habitat. The mixture is ryegrass free and uses species with a less aggressive growth habit to aid diversity.

- Swards sown with this mixture are likely to be lower in fructans than a ryegrass sward, reducing the risk of laminitis
- The healthiest pasture for your horse
- The optimum grass seed for your horse meadow
- Good horse pasture that can be effectively managed

**THE ALL ROUNDER**

A multipurpose, hard-wearing grass seed that’s ideal for creating new lawns, overseeding or repairing worn patches.

- A great everyday lawn for the rough and tumble of family use
- Rapid germination and establishment
- Attractive appearance
- Ideal for the whole family to play on and enjoy.

**THE PERFECTIONIST**

A fine and luxury traditional lawn seed mixture.

- A very fine leaved and dense lawn
- High quality and beautiful looking lawn
- Improved tolerance to common lawn diseases
- Ideal for the traditional ornamental lawn.

**THE ACTION HERO**

A very hard wearing mixture that contains tough wearing grasses which is ideal for playing areas with high traffic.

- High levels of perennial ryegrass in this mixture give it substantial ability to withstand wear and tear
- This tough mixture is ideal for areas of the garden that are used frequently.

***Sizing options:*** Cartons (15sqm), Pouches (50sqm), 10kg (285sqm), 20kg (570sqm).
# Grow great grass.

<table>
<thead>
<tr>
<th>TIMING</th>
<th>PROBLEM</th>
<th>SOLUTION</th>
<th>DOSE RATE</th>
<th>WATER VOLUME**</th>
<th>SITUATION*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Docks</td>
<td>Docks and Chickweed</td>
<td>Doxstar® PRO (HERBICIDE)</td>
<td>2.0 L/ha</td>
<td>300–400 L/ha</td>
<td>Silage/Pasture</td>
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<tr>
<td></td>
<td>Thistles and Nettles</td>
<td>Thistlex® (HERBICIDE)</td>
<td>1.0 L/ha</td>
<td>200–400 L/ha</td>
<td>Silage/Pasture</td>
</tr>
<tr>
<td></td>
<td>Buttercups, Dandelions, Chickweed, Daisies and Docks</td>
<td>Envy® (HERBICIDE)</td>
<td>1.5 L/ha New sown leys 2.0 L/ha Established grass</td>
<td>200–400 L/ha</td>
<td>New Ley/Pasture/Horse Paddock</td>
</tr>
<tr>
<td></td>
<td>Docks, Thistles, Chickweed, Dandelions and Nettles</td>
<td>Pas•Tor® Agronomy Pack (HERBICIDE)</td>
<td>Pas 1.0 L/ha + Tor 1.0 L/ha</td>
<td>300–400 L/ha</td>
<td>Silage/Pasture</td>
</tr>
<tr>
<td></td>
<td>Weed control for new sown leys and maize</td>
<td>Leystar® (HERBICIDE)</td>
<td>1.0 L/ha New sown leys and maize 2.0 L/ha Established grass</td>
<td>200–400 L/ha</td>
<td>New Ley/Pasture/Maize</td>
</tr>
<tr>
<td></td>
<td>Docks, Thistles, Nettles, Buttercups, Dandelions and Ragwort</td>
<td>Forefront® T (HERBICIDE)</td>
<td>2.0 L/ha</td>
<td>200–300 L/ha</td>
<td>Grazing only</td>
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<tr>
<td></td>
<td>Docks, Thistles, Nettles, Brambles, Gorse and Broom</td>
<td>Grazon® PRO (HERBICIDE)</td>
<td>60 mls</td>
<td>10 Litres</td>
<td>Spot treatment</td>
</tr>
</tbody>
</table>

*The post-emergent stock exclusion interval for all the above products is 7 days in the absence of ragwort. Pre-treatment grazing and cutting intervals may also apply.

*In addition to the direction on water volumes on the label, Corteza Agriscience supports the use of our grassland herbicides at 500 L/ha where low droppers are used.