Agri intelligence

Agrii™

ENGLAND, WALES AND NORTHERN IRELAND

GRASS & ROOTS GUIDE 2026

www.agrii.co.uk

MasterLeys
The Seeds to Grow your Farming Business

Contents

KEY

(HSG) = High Sugar Grass
(IRG) = Italian Ryegrass
(HRG) = Hybrid Ryegrass
(PRG) = Perennial Ryegrass
F = Festulolium

An introduction to Agrii's Grass & Roots business

All livestock farms are different. At Agrii, we believe that giving specific advice on increasing quality home grown forage is the key to maximising an individual livestock farm's productivity. Our extensive knowledge of nutrient management, agrochemical inputs, grass seed mixture formulations and grassland management can all help build a resilient business and increase margins from forage in these uncertain times.

What makes Master Leys different?

Agrii's Master Leys range of grass mixtures offers full and comprehensive options for all types of farming systems and regions of the UK.

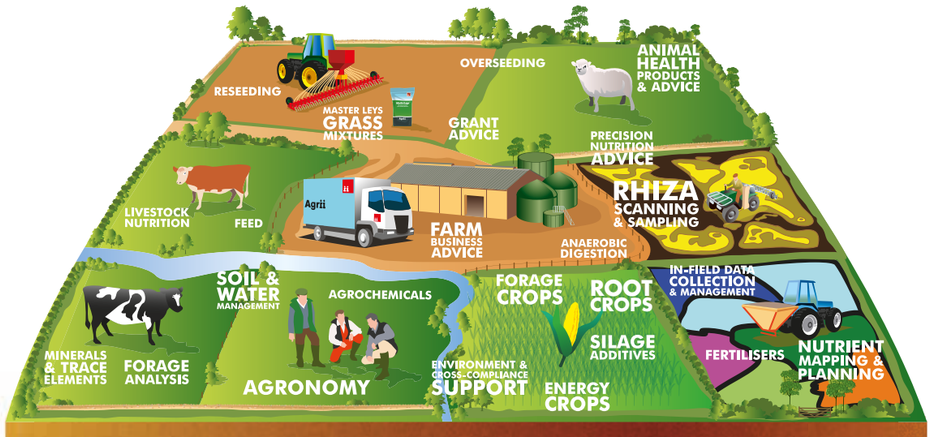
+ Working closely with leading grass seed breeders throughout the UK and Europe, Agrii is able to access the best varieties for the Master Leys portfolio.
+ In addition to this, Agrii grows and produces over 80% of the seed used in Master Leys mixes. This enables us to have a greater control over the quality of the seed we use and ensures that what goes into a Master Leys bag is of the highest possible standard.
+ The varieties in our Master Leys mixes are made up from the best varieties on the Recommended List for Grass and Clover.
+ We provide targeted advice on the best varieties or mixes to use and the right approach for your particular situation – whether that be overseeding, reseeding, or the use of multi-species leys. But the story doesn't stop with the seed in the bag. Agrii agronomists and crop input specialists provide input and advice throughout the lifetime of the ley to ensure the best possible returns from your grass. This covers nutrition, weed control and forage nutrient analysis together with support on animal health and advice on storage. This integrated approach to making your grass work harder will enable you to get the best from your grassland.
+ We are continually developing and innovating our variety choices and species – ensuring that we provide the most resilient and best performing grass mixtures possible for your specific requirements. For example, many of our mixtures now contain high proportions of festuloliums, as we've found these to perform much better in periods of drought than other commonly used species.

To help reduce the reliance on bought-in winter feed, we also offer a wide range of root seeds which will help provide additional home grown winter forage.

By visiting trial sites and working closely with the breeders, it means we are able to choose and offer the best varieties across all species of roots. Not only can we offer the best varieties, we can also offer advice on establishment techniques, nutrition for the crop and agrochemical inputs, to help you achieve maximum forage output.

Along with this, we also offer advice on feeding the crop to help reduce wastage and to make sure the crop that you have grown is utilised to its full potential.

Adam Simper
National Grass, Roots and Environmental Seeds Manager



GRASS

“Master Leys has become one of the most popular brands within the UK, as we offer a full and comprehensive range of mixtures for all types of farming systems and regions throughout the UK.”

Adam Simper | National Grass, Roots and Environmental Seeds Manager

Reseeding

Things to consider

With an abundance of grass seed mixtures on the market, choosing the correct mixture is vital to ensure it suits your individual grassland management regime.

Grass is a crop and grassland farmers need to know that the mixture being sown is fit for purpose, to ensure the seasonal growth, yields, quality and management style meet requirements.

Once you know you have the correct mixture you are then able to capitalise on producing high yields of quality home grown forage, which is vital for on-farm profitability.

How to select grass seed mixtures to suit your requirements

Below are some tips to think about to make sure you are choosing the correct mixture:

Recommended Varieties

Make sure the varieties within the mixture are on the Grass & Clover Recommended List. This will ensure higher yields, better D values, improved disease resistance, increased ground cover, improved winter hardiness and a better return on investment compared to non-listed varieties.

Soil Type

Lighter soils: Festuloliums should be considered as they are extremely useful on dry, light land. They have increased stress tolerances as a result of the fescue that is bred into them. A higher proportion of tetraploids may also be better as they have a deeper rooting system compared to diploids and will scavenge for moisture better.

Heavier soils: Diploids may be better as they tiller out more and provide a dense base which will help prevent poaching.

Longevity: How long do you want it to last for?

Talk to your Seed Specialist/Agronomist in years. One person's thoughts on medium term is different to another. For perennial ryegrass mixtures that are intended to last long term, make sure that varieties within the mix will last the full length of time. A mix containing early perennial ryegrasses varieties will only last 4-5 years so these varieties would not suit a long term mixture lasting 7 years. A 3-4 year cutting mix should not contain any Italian ryegrass as they only last 2 years. It may cheapen the mix but the production would drop dramatically in years 3 and 4, meaning the ley isn't fit for purpose.

Seasonal Growth

If grazing and early spring growth is important for an early turnout, then intermediate perennial ryegrasses should be used. They will last longer than early perennial ryegrass and still produce early spring growth which would suit medium and long term grazing, cutting and dual purpose mixtures.

If your soil type and location don't allow you to turnout early, then a mixture containing all late perennial ryegrass should be considered as it will start growing slightly later in the growing season so less grass is wasted in the sward.

Field Location

This will impact whether you want to cut or graze the sward. Also if a field is close to the farm and gets used a lot, you may then want to use a mix with a high diploid content which will provide greater ground cover.

What's your End Goal?

First of all, decide how long you want the mix to last. Then if you want flexibility with the ability to cut and graze, choose a mix containing both diploids and tetraploids. If predominantly cutting, choose a mix with a high tetraploid content as tetraploids have a higher cutting yield, quicker regrowth and a higher level of water soluble carbohydrates which will aid the fermentation process. If intensively rotational grazing, then choose a mix that can cope with this style of management and provide good ground cover and quick regrowth. If intensively tight grazing, then use a mix with a high diploid content. Diploids have a higher DM/kg of feed and will also tiller out better than tetraploids, which will create a dense sward. Look at the mixture selector on pages 12 & 13 to help decide what mix is suitable for your grassland management.

Clover or No Clover?

If you expect significant weed problems then choose a no clover mixture. Consult your agronomist about appropriate herbicides and timings to control the weeds. Once the herbicides are applied and the weeds are addressed, introduce the clover at a later date if required.

Reseeding

Realise the benefits

Growers often question the value of reseeding, however reseeding should always be seen as an investment rather than a cost.

Good quality grazed grass is the cheapest feed for ruminants. Renewing pastures regularly is important to maximise productivity and maintain feed quality. Below are the yields in tonnes of dry matter/acre of an old sward compared with the first year of a new ley. The yield increase is huge and easily pays for the reseed and will lead to a significant return on investment.

	FINAL year Tonnes DM/Acre	FIRST year Tonnes DM/Acre
Silage Master	4.4	7.9
Cut Master	5.0	7.4
Forage Master	5.0	7.3
Sward Master	4.8	7.3

These were replicated trials carried out on behalf of Agrii by DLF Seeds.

Reseeding doesn't just bring grazing and cutting yield benefits, it will also lead to:

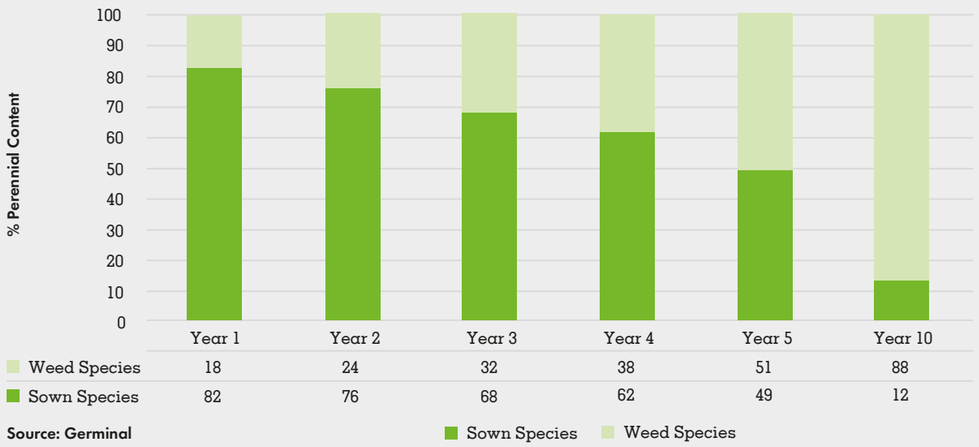
- \+ Improved quality.
- \+ Increased palatability and digestibility.
- \+ Improved DM intakes.
- \+ Increased seasonal growth.
- \+ Increased animal performance.
- \+ Increased stocking rates.
- \+ Increased disease resistance.
- \+ Improved response to N fertiliser.
- \+ All of these factors result in increased farm productivity.

Realise the benefits: Reducing weed grasses

Within several years from establishing a new ley, 'weed grasses' will ingress into a sward especially after a hard winter or if the land has been poached.
(see chart below).

Compared to modern day ryegrasses, these weed grasses will produce lower yields and lower quality forage. The palatability and digestibility will also be poorer which will all result in a reduction in animal performance and profitability from home grown forage.

Weed Grass Ingression

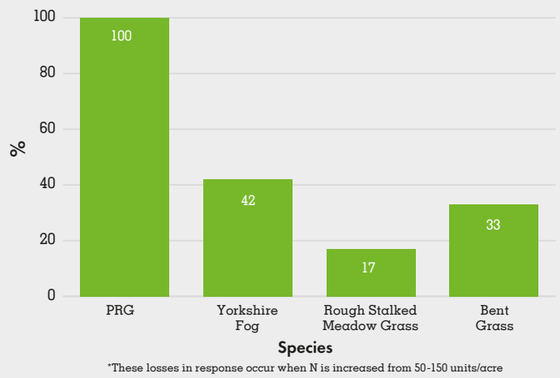


Source: Germinal

These weed grasses also don't respond to nitrogen fertiliser inputs as well as ryegrasses (see chart to the right).

With on-farm margins being squeezed, making sure your sward has the correct grasses to respond to nitrogen inputs is also vital for a sustainable and profitable business. If you are buying and applying nitrogen fertiliser you want to make sure the crop is responding and utilising the fertiliser applied.

Response to Nitrogen



*These losses in response occur when N is increased from 50-150 units/acre

Reseeding

Top tips

Once the decision to reseed has been made, following these steps will help you achieve the full potential of the reseed.

- Address any compaction or drainage issues within the field and clear drainage ditches to ensure all outflows are working correctly.
- Destroy the old sward using a product containing glyphosate. Ensure there is sufficient new growth for the chemical to be taken up and that an appropriate rate is applied under correct conditions. Whilst this treatment will control actively growing plants it will not kill dormant weed seed in the soil.
- Walk in a 'W' around the field taking soil samples to a depth of 15 cm if ploughing or 7.5 cm if only cultivating the surface, to analyse the pH, P and K indices.
- Apply any farmyard manure.
- Plough and press.
- Apply seedbed fertiliser as suggested from the soil sample results. Apply any lime to achieve 6.5 pH at a maximum of 5 t/ha (2 t/acre), split-dress if more is required.
- Work down to prepare a fine, firm seedbed.
- Ring roll.
- Choose the correct Agrii grass mixture to suit your management regime. Remember to choose a no clover mixture if significant weed problems are expected. You can then introduce the clover at a later date once a herbicide has been applied to the sward.
- Drill or broadcast the seed onto the rolled seedbed to a depth of 1 cm. If broadcasting lightly harrow and then roll. If drilling just roll to ensure maximum seed to soil contact. Rolling will also help to reduce moisture loss. Perennial ryegrass will not germinate until the average daily soil temperatures are above 5°C and clovers above 8°C. Temperatures need to rise to achieve satisfactory germination and growth.
- Once established, pull at the grass blades with your thumb and finger. If the root system is pulled out then the plant is not ready to be grazed. If the roots stay in the ground and the grass blades rip off then graze periodically from 8-12 cm down to 4-6 cm. This will encourage the plant to tiller out and help achieve a dense leafy sward. Gentle first grazings also allow sunlight to reach and stimulate the grass tiller buds and the clover's growing points. Sheep or young stock are ideal for first grazings as they are less likely to poach the developing sward and they will also minimise any potential soil compaction in wet conditions.
- Weed control in the new ley is usually necessary to ensure a good establishment and to avoid a gappy sward. Consult your agronomist with regards to timings and application of a suitable herbicide.

Species

Grass species characteristics

Currently, throughout the UK, most reseeds are a mixture of diploid and tetraploid perennial ryegrass.

There are also other types of ryegrass and species used such as clovers, Timothy, cocksfoot, and in recent years Festuloliums, which all have a role to play in certain situations.

Each of these species have different growth and quality characteristics so it is important to select the most appropriate species for your ground and situation.

Perennial Ryegrass

Lolium perenne (PRG)

The most widely sown species and most persistent type of ryegrass. It is a versatile species as it can be cut or grazed. Different varieties of perennials are subdivided into diploids and tetraploids and then divided further into early, intermediate or late – meaning that they provide grass growth at different times of the growing season. It yields around 13-15t DM/ha, which is lower yielding than Italian ryegrass but perennials last longer than Italian ryegrass and westerwolds, at around five to seven years (depending on heading date).

Italian Ryegrass

Lolium multiflorum (IRG)

This is a short-lived grass, lasting for two years. It will start to grow when the soil temperatures reach 3°C, therefore growing earliest in the spring and latest in the autumn compared to other agricultural grasses. Italian ryegrass is very good at utilising any residual nutrients left within the soil after the previous crop has been harvested. It has a very open growth habit, with fewer tillers than other grasses and is best suited to cutting rather than grazing regimes. This is one of the highest yielding grass species available in the UK and can provide around 18t DM/ha/year in the correct conditions.

Hybrid Ryegrass

Lolium multiflorum x Lolium boucheanum (HRG)

Hybrid ryegrass is a cross between Italian and perennial ryegrasses. The crossing between the two species means it has the yield of IRGs and the longevity of the PRGs, so the persistency will be around 4 years. Most varieties have more Italian genes within the plant, making it a useful inclusion in intensive mixtures. Hybrids also have more tillers than straight Italian ryegrasses due to the perennial gene within the plant, which increases ground cover and also makes them suitable for grazing.

Timothy

Phleum pratense

Timothy grows at lower temperatures than perennial ryegrasses and can be good for early grazing in cold late springs. It has good ground cover and is a winter hardy species, which thrives on wet or heavy land. It is a very common species found in pasture throughout the UK. This is mainly due to its ability to provide good mid-season growth which can fill the summer gap when ryegrass growth is slowing down. Timothy is suited for both cutting and grazing.

Festulolium

Festulolium is a cross between meadow fescue ***(Festuca pratensis)*** or tall fescue ***(Festuca arundinacea)*** and perennial ryegrass ***(Lolium perenne)*** or Italian ryegrass ***(Lolium multiflorum).*** When the cross is done, it will result in grasses with the best characteristics of each parent. Depending on parental material, a Festulolium will get the best qualities from both grasses but it will be somewhat more similar to either the fescue or the ryegrass type. Hence, Festuloliums can be categorized into two main types – the tall fescue or the ryegrass type – related to their characteristic and phenotypic appearance. It is characterised by high dry matter yield, high cold tolerance, drought tolerance and the overall high persistency that tends to be found in fescues, whereas its rapid establishment, spring growth, good digestibility, high sugar content and palatability, characterise ryegrass.

Westerwold Ryegrass

Lolium multiflorum westerwoldicum

The only agricultural grass to produce a stem and a seed head from a spring sowing. This makes it ideal for hay production or increasing silage yields if spring reseeding. These are annual grasses which are very fast to establish but are relatively short lived. Westerwolds are very good at utilising any residual nutrients left within the soil after the previous crop has been harvested.

GRASS SPECIES

Mixture selector

THINGS TO CONSIDER...

1. How long would you like it to last? 2. Are you grazing, cutting or both? 3. Would you like clover in the mix?

	MIXTURE	LONGEVITY IN YEARS	MIXTURE PURPOSE	SUITABILITY FOR GRAZING	SUITABILITY FOR CUTTING	SUITABILITY FOR HAY	CLOVER VERSION AVAILABLE	NO CLOVER VERSION AVAILABLE	SEED RATE KG/ACRE	AVERAGE HEADING DATE	MORE INFO
SHORT TERM	Bulk Master	1-2	One to two year bulky silage ley	★	★★★★★	★★★★	✗	✓	14.00 kg (25 kg bags)	19th May	Page 14
	Silage Master	2	Two year bulky silage ley	★★	★★★★★	★★★	✗	✓	14.00 kg	20th May	Page 14
MEDIUM TERM	Cut Master	3-4	Three to four year productive cutting ley with aftermath grazing	★★★	★★★★★	★	✗	✓	13.00 kg	24th May	Page 15
	Cut Master + Clover	3-4	Three to four year productive cutting ley with aftermath grazing	★★★	★★★★★	★	✓	✗	13.75 kg	24th May	Page 15
	Protein Master	3	Three year productive red clover cutting ley with aftermath grazing	★★★	★★★★★	★	✓ (Red)	✗	13.00 kg	21st May	Page 16
	Drought Master	5-6	Five to six year cutting and grazing mixture	★★★★	★★★★	★	✓ (White)	✓	14.00 kg	25th May	Page 16
	Forage Master	5-6	Five to six year dual purpose ley (Early Bite)	★★★★	★★★★	★★	✓ (White)	✓	13.00 kg	28th May	Page 17
	Field Master	5-6	Five to six year dual purpose ley	★★★★	★★★★	★★★	✓ (White)	✓	13.00 kg	28th May	Page 17
LONG TERM	Sward Master	6+	Six year plus intensive grazing mixture (Early Bite)	★★★★★	★★★	★★★	✓ (White)	✓	13.00 kg	29th May	Page 18
	Sward Master Plus	6+	Multi-species grazing mixture (Early Bite) (Herbs may only persist for 4 years with correct management)	★★★★★	★★	★	✓ (White)	✗	13.00 kg	29th May	Page 18
	Stock Master	6+	Six year plus cutting and grazing mix	★★★★	★★★★	★★	✓ (White)	✓	13.00 kg	2nd June	Page 19
	Multi Master	6+	Six year plus cutting mixture	★★★	★★★★★	★	✗	✓	13.00 kg	26th May	Page 19
OVERSEEDING MIXTURES	ST Over Master	1-2	Rejuvenate existing pastures to increase yields and improve quality for two years	★	★★★★★	★	✗	✓	10.00 kg	19th May	Page 23
	MT Over Master	3-4	Rejuvenate existing pastures to increase yields and improve quality for three to four years	★★★	★★★★	★	✓ (White)	✓	10.00 kg	20th May	Page 23
	LT Over Master	5+	Rejuvenate existing pastures to increase yields and improve quality for five years plus	★★★	★★★★	★	✓ (White)	✓	10.00 kg	30th May	Page 23

HORSE AND PONY MIXTURES	LONGEVITY IN YEARS	MORE INFO
Horse and Pony Plus Perennial Ryegrass	6+	Page 34
Lami-Less Horse and Pony	6+	Page 34
ST Hay Master	2	Page 35
LT Hay Master	6+	Page 35
ST Haylage Master	1-2	Page 35
LT Haylage Master	6+	Page 35

Aim to cut 5-10 days before average heading date for optimum silage.

MIXTURE SELECTOR

GUIDE TO GRASS & ROOTS 2026

Short Term

BULK MASTER

(Average heading date 19th May) Grazing: ★ Cutting: ★★★★★ Hay: ★★★★

(ITALIAN CATCH CROP) ONE TO TWO YEAR BULKY SILAGE LEY

Bulk Master is 100% Italian ryegrass, which has rapid establishment and will produce three-four bulky cuts of quality silage. Italian ryegrass grows at lower temperatures making Bulk Master ideal for drilling after crops have been harvested in the autumn.

Bulk Master is an excellent user of residual N which has been left by the previous crop and can be used for one big cut in the spring if returning to maize or left down for two full years.

- + **40% Bigdyl** Diploid IRG
- + **40% Melsprinter** Tetraploid IRG
- + **20% Barmultra II** Tetraploid IRG
- + **25 kg bags sow at 14.00 kg/acre**

SILAGE MASTER

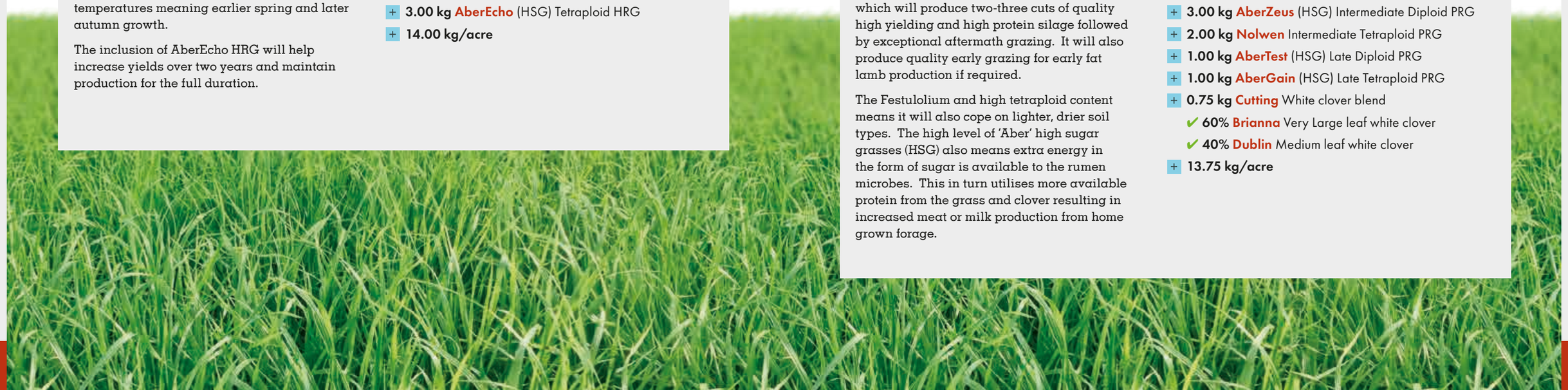
(Average heading date 20th May) Grazing: ★★ Cutting: ★★★★★ Hay: ★★★

TWO YEAR BULKY SILAGE LEY

Silage Master is a highly productive cutting mixture that produces three-four cuts of quality silage for up to two years. The high Italian ryegrass content will also grow at lower temperatures meaning earlier spring and later autumn growth.

The inclusion of AberEcho HRG will help increase yields over two years and maintain production for the full duration.

- + **5.00 kg Fox** Diploid IRG
- + **3.00 kg Hunter** Tetraploid IRG
- + **3.00 kg Sendero** Diploid IRG
- + **3.00 kg AberEcho** (HSG) Tetraploid HRG
- + **14.00 kg/acre**



Medium Term

CUT MASTER

(Average heading date 24th May) Grazing: ★★★ Cutting: ★★★★★ Hay: ★

THREE TO FOUR YEAR PRODUCTIVE CUTTING LEY WITH AFTERMATH GRAZING

Cut Master is a three-four year ley which will produce two-three cuts of quality high yielding silage followed by exceptional aftermath grazing. It will also produce quality early grazing for early fat lamb production if required.

The Festulolium and high tetraploid content means it will also cope on lighter, drier soils types. The high level of 'Aber' high sugar grasses (HSG) also means extra energy in the form of sugar is available to the rumen microbes. This in turn utilises more available protein from the grass and clover resulting in increased meat or milk production from home grown forage.

- + **3.00 kg Lofa** Advanced hybrid Festulolium
- + **1.50 kg AberEcho** (HSG) Tetraploid HRG
- + **1.50 kg AstonCrusader** Tetraploid HRG
- + **3.00 kg AberZeus** (HSG) Intermediate Diploid PRG
- + **2.00 kg Nolwen** Intermediate Tetraploid PRG
- + **1.00 kg AberTest** (HSG) Late Diploid PRG
- + **1.00 kg AberGain** (HSG) Late Tetraploid PRG
- + **13.00 kg/acre**

CUT MASTER + CLOVER

(Average heading date 24th May) Grazing: ★★★ Cutting: ★★★★★ Hay: ★

THREE TO FOUR YEAR PRODUCTIVE CUTTING LEY WITH AFTERMATH GRAZING

Cut Master + Clover includes a cutting white clover blend to increase the protein and palatability of the silage and to help fix nitrogen. Cut Master is a three-four year ley which will produce two-three cuts of quality high yielding and high protein silage followed by exceptional aftermath grazing. It will also produce quality early grazing for early fat lamb production if required.

The Festulolium and high tetraploid content means it will also cope on lighter, drier soil types. The high level of 'Aber' high sugar grasses (HSG) also means extra energy in the form of sugar is available to the rumen microbes. This in turn utilises more available protein from the grass and clover resulting in increased meat or milk production from home grown forage.

- + **3.00 kg Lofa** Advanced hybrid Festulolium
- + **1.50 kg AberEcho** (HSG) Tetraploid HRG
- + **1.50 kg AstonCrusader** Tetraploid HRG
- + **3.00 kg AberZeus** (HSG) Intermediate Diploid PRG
- + **2.00 kg Nolwen** Intermediate Tetraploid PRG
- + **1.00 kg AberTest** (HSG) Late Diploid PRG
- + **1.00 kg AberGain** (HSG) Late Tetraploid PRG
- + **0.75 kg Cutting** White clover blend
  - ✔ **60% Brianna** Very Large leaf white clover
  - ✔ **40% Dublin** Medium leaf white clover
- + **13.75 kg/acre**

Medium Term

PROTEIN MASTER

(Average heading date 21st May) **Grazing: ★★★ Cutting: ★★★★★ Hay: ★**

THREE YEAR PRODUCTIVE RED CLOVER WITH AFTERMATH GRAZING

Protein Master is a three year red clover ley, which will produce two-three high protein bulky silage cuts with quality aftermath grazing. The red clover content will finish lambs extremely well however red clover contains oestrogen which can affect the fertility of your breeding stock so don't graze four-six weeks either side of tupping.

Care should also be taken if grazing cattle due to potential bloat issues from the red clover. The high red clover content will help increase the overall yield and can also help to fix 100-150 kg/N/ha/year offering potential opportunities to reduce N applications. The red clover, Festulolium and tetraploid content will also ensure high yields even in dry years.

- + **3.00 kg Lofa** Advanced hybrid Festulolium
- + **1.50 kg AberEcho** (HSG) Tetraploid HRG
- + **1.50 kg AstonCrusader** Tetraploid HRG
- + **4.00 kg AberZeus** (HSG) Intermediate Diploid PRG
- + **3.00 kg Red clover blend**
  - ✔ **60 % Secretariat**
  - ✔ **28% Garant**
  - ✔ **12% Krynia**

  (red clover varieties may change, subject to availability)
- + **13.00 kg/acre**

DROUGHT MASTER

(Average heading date 25th May) **Grazing: ★★★★ Cutting: ★★★★ Hay: ★**

FIVE TO SIX YEAR CUTTING AND GRAZING MIXTURE

Drought Master has been designed to produce high dry matter yields on the lighter, drier soil types.

The inclusion of Festuloliums and the deeper rooting tetraploids means more forage will be produced in these conditions, compared with 100% perennial ryegrass swards.

The mix can provide one to two cuts followed by quality aftermath grazing.

A dual purpose white clover blend is used to alternate between cutting and grazing and will also increase palatability and protein levels over the dry summer months. It also has the ability to fix nitrogen.

- + **3.00 kg Lofa** Advanced hybrid Festulolium
- + **3.00 kg Fojtan** Advanced hybrid Festulolium
- + **2.00k g Nolwen** Intermediate Tetraploid PRG
- + **2.50 kg AberTest** (HSG) Late Diploid PRG
- + **2.50 kg AberGain** (HSG) Late Tetraploid PRG
- + **1.00 kg Dual Purpose** White clover blend
  - ✔ **30% Brianna** Very Large leaf white clover
  - ✔ **20% Dublin** Medium leaf white clover
  - ✔ **10% Merwi** Medium leaf white clover
  - ✔ **10% Quartz** Small/Medium leaf white clover
  - ✔ **30% Rivendel** Small leaf white clover
- + **14.00 kg/acre**

Lofa increases to 4.00 kg

AGRII MIXTURES

Medium Term

FORAGE MASTER

(Average heading date 28th May) **Grazing: ★★★★ Cutting: ★★★★ Hay: ★★**

FIVE TO SIX YEAR DUAL PURPOSE LEY (EARLY BITE)

Forage Master is a quality dual purpose ley which can alternate between cutting and grazing. Its versatility allows one quality bulky silage cut and then three grazing cycles OR five-six grazing cycles starting in late March/ early April.

Excellent sward density for persistency under varying intensive management regimes. The Festulolium and tetraploid content means it will also cope on lighter, drier soil types.

68% of 'Aber' high sugar grasses (HSG) are used, meaning extra energy in the form of sugar is available to the rumen microbes. This in turn utilises more available protein from the grass and clover resulting in increased meat or milk production from home grown forage. Timothy is included as it fills a summer gap and thrives on the wetter heavier soil types. A white clover blend is used for different management regimes as well as increasing palatability and the ability to fix nitrogen.

- + **2.00 kg Lofa** Advanced hybrid Festulolium
- + **2.00 kg AberZeus** (HSG) Intermediate Diploid PRG
- + **1.00 kg AberSpey** (HSG) Intermediate Tetraploid PRG
- + **1.00 kg AberRoot** (HSG) Festulolium (Intermediate Tetraploid)
- + **3.00 kg AberAvon** (HSG) Late Diploid PRG
- + **2.00 kg AberGain** (HSG) Late Tetraploid PRG
- + **1.00 kg Comer** Timothy
- + **1.00 kg AberDairy** White clover blend
  - ✔ **45% AberSwan** Medium/Large leaf white clover
  - ✔ **35% AberDai** Medium/Large leaf white clover
  - ✔ **20% AberHerald** Medium/Large leaf white clover
- + **13.00 kg/acre**

AberAvon increases to 3.50 kg
AberGain increases to 2.50 kg

FIELD MASTER

(Average heading date 28th May) **Grazing: ★★★★ Cutting: ★★★★ Hay: ★★★**

FIVE TO SIX YEAR DUAL PURPOSE LEY

Field Master is a high yielding, quality dual purpose ley, which is versatile and suits a wide range of different management regimes between cutting and grazing.

It has excellent crown rust resistance and outstanding sward density for persistency under varying intensive management regimes.

95% of 'Aber' high sugar grasses (HSG) are used, meaning extra energy in the form of sugar is available to the rumen microbes. This in turn utilises more available protein from the grass and clover resulting in increased meat or milk production from home grown forage.

A white clover blend is used for different management regimes as well as increasing palatability and the ability to fix nitrogen.

- + **2.50 kg AberZeus** (HSG) Intermediate Diploid PRG
- + **1.50 kg AberSpey** (HSG) Intermediate Tetraploid PRG
- + **1.50 kg AberRoot** (HSG) Festulolium (Intermediate Tetraploid)
- + **2.00 kg AberAvon** (HSG) Late Diploid PRG
- + **2.00 kg AberTest** (HSG) Late Diploid PRG
- + **3.00 kg AberGain** (HSG) Late Tetraploid PRG
- + **0.50 kg AberDairy** White clover blend
  - ✔ **45% AberSwan** Medium/Large leaf white clover
  - ✔ **35% AberDai** Medium/Large leaf white clover
  - ✔ **20% AberHerald** Medium/Large leaf white clover
- + **13.00 kg/acre**

AberAvon increases to 2.50 kg

Long Term

SWARD MASTER

(Average heading date 29th May) **Grazing: ★★★★★ Cutting: ★★★ Hay: ★★★**

SIX YEAR PLUS INTENSIVE GRAZING MIXTURE (EARLY BITE)

Sward Master is a long term intensive grazing mixture which has the capability of producing a cut of silage if required.

It is made up of mainly diploid perennial ryegrass, which will create a dense sward for persistency under intensive grazing. The intermediate perennial ryegrass content will produce early spring growth for an early bite.

77% of the PRG used are 'Aber' high sugar grasses (HSG) meaning there is extra energy in the form of sugar available to the rumen microbes. This in turn utilises more available protein from the grass and clover resulting in increased meat or milk production from home grown forage.

A small to medium white clover blend is used to withstand intensive grazing and will also increase palatability and protein levels. It also has the ability to fix nitrogen.

- + **3.00 kg AberZeus** (HSG) Intermediate Diploid PRG
- + **2.00 kg Wetherby** Late Diploid PRG
- + **4.50 kg AberTest** (HSG) Late Diploid PRG
- + **2.50 kg AberGain** (HSG) Late Tetraploid PRG
- + **1.00 kg Grazing** White clover blend
  - ✔ **20% Merwi** Medium leaf white clover
  - ✔ **20% Quartz** Small/Medium leaf white clover
  - ✔ **60% Rivendel** Small leaf white clover
- + **13.00 kg/acre**

AberTest increases to 5.50 kg

SWARD MASTER PLUS

(Average heading date 29th May) **Grazing: ★★★★★ Cutting: ★★ Hay: ★**

MULTI-SPECIES GRAZING MIXTURE (EARLY BITE)

Sward Master Plus is a multi-species grazing mixture based upon Agrii's very popular Sward Master, and which also has the capability of producing a cut of silage if required. This diverse grazing mixture is formulated using a high percentage of diploid perennial ryegrass to produce a dense grazing sward, intermediate perennial ryegrass for early spring growth, a white clover blend, plantain and chicory for forage diversity.

69% of the PRG used are 'Aber' high sugar grasses (HSG) delivering extra energy in the form of available sugar to the rumen microbes. This results in more protein being utilised from the grass and clover to increase meat or milk production from home gown forage. Protein yields and grazing palatability are increased by the inclusion of a small to medium white clover blend which will withstand grazing pressure and also fix nitrogen. The inclusion of both plantain and chicory supplies this mixture with a simple yet highly effective and reliable source of forage variance.

Both species produce incredibly deep tap roots which allow them to shoulder drought conditions and mine valuable minerals from the soil profile. For more information on the benefits of chicory and plantain please turn to pages 46 and 47.

- + **3.00 kg AberZeus** (HSG) Intermediate Diploid PRG
- + **2.00 kg Wetherby** Late Diploid PRG
- + **3.50 kg AberTest** (HSG) Late Diploid PRG
- + **2.50 kg AberGain** (HSG) Late Tetraploid PRG
- + **0.50 kg Plantain**
- + **0.50 kg Chicory**
- + **1.00 kg Grazing** White clover blend
  - ✔ **20% Merwi** Medium leaf white clover
  - ✔ **20% Quartz** Small/Medium leaf white clover
  - ✔ **60% Rivendel** Small leaf white clover
- + **13.00 kg/acre**

Long Term

STOCK MASTER

(Average heading date 2nd June) **Grazing: ★★★★ Cutting: ★★★★ Hay: ★★**

SIX YEAR PLUS CUTTING AND GRAZING MIX

Stock Master is a long term dual purpose mix that is made up of all late perennial ryegrass. This means it will produce lush leafy grass much longer into the growing season and is less likely to produce stemmy seed heads in the summer grazing months.

It will also produce excellent quality first cut silage followed by lush, leafy aftermath grazing.

A clover blend is included to suit different management regimes, increase protein and palatability levels and also has the ability to fix nitrogen.

92% of 'Aber' high sugar grasses (HSG) are used meaning extra energy in the form of sugar is available to the rumen microbes. This in turn utilises more available protein from the grass and clover resulting in increased meat or milk production from home grown forage.

- + **4.00 kg AberTest** (HSG) Late Diploid PRG
- + **2.00 kg AberAvon** (HSG) Late Diploid PRG
- + **2.00 kg AberBite** (HSG) Late Tetraploid PRG
- + **4.00 kg AberGain** (HSG) Late Tetraploid PRG
- + **1.00 kg AberPasture** White clover blend
  - ✔ **30% AberSwan** Medium/Large leaf white clover
  - ✔ **30% AberLasting** Small leaf white clover
  - ✔ **20% AberDai** Medium/Large leaf white clover
  - ✔ **20% AberAce** Small leaf white clover
- + **13.00 kg/acre**

AberTest and AberGain increases to 4.50 kg

MULTI MASTER PLUS

(Average heading date 26th May) **Grazing: ★★★ Cutting: ★★★★★ Hay: ★**

SIX YEAR PLUS CUTTING MIXTURE

Multi Master Plus is suitable for multi-cut systems where a tight heading date is needed. This will ensure maximum quality throughout the growing season whilst avoiding stemmy grass growth. It will produce high quality yields from early May and will be ready to cut every 4-5 weeks after. A blend of diploids and tetraploids means it will have good ground cover and persistency whilst producing high silage yields as well. It can also offer quality aftermath grazing if required.

- + **3.00 kg Seagoe** Intermediate Tetraploid PRG
- + **2.50 kg Nifty** Intermediate Diploid PRG
- + **2.50 kg AberZeus** (HSG) Intermediate Diploid PRG
- + **3.00 kg AberGain** (HSG) Late Tetraploid PRG
- + **2.00 kg AberTest** (HSG) Late Diploid PRG
- + **13.00 kg/acre**

ORGANIC

The required organic content of an organic grass mixture for 2026 will reduce to 50%. Agrii can offer a full range of organic grass seed mixtures to suit a wide range of management regimes. As well as organic grass mixtures we can also offer organic root seed options. For more information about our organic offering, please call your local Agrii Agronomist or Crop Inputs Specialist (contact details on back page).

Maize Master

Specialist Undersowing Mixture for Maize

Maize Master is a specifically formulated grass mixture to undersow within maize crops to improve travelling conditions at the time of harvest, provide ground cover over the winter, retain residual nutrients and supply additional forage within a rotation.

This dedicated mixture is comprised of three key components:

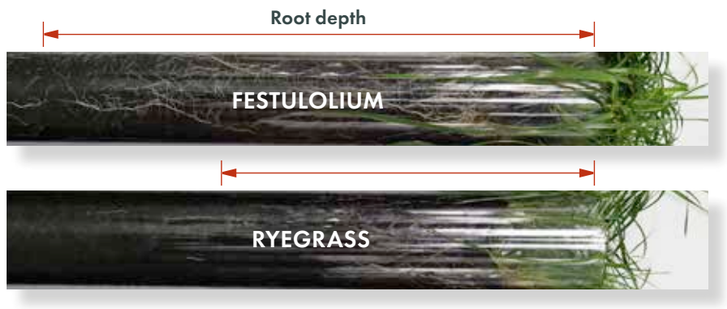
<u>35% LOFA festulolium</u> which is a genetic cross between a fescue and a perennial ryegrass. The main agronomic attributes which are carried through from this hybridisation are stress tolerance, yield and rooting capability. Enhanced rooting capabilities play a vital part in ensuring soil erosion is minimised and residual nutrients retained during the winter months.

<u>35% AberEcho hybrid ryegrass</u> enhances overall yield potential within the mixture and carries just enough aggression within the formulation to ensure it establishes well but does not outcompete the maize when undersown. This variety, although a hybrid, also has excellent ground cover ability.

<u>30% AberGain perennial ryegrass</u> is a tetraploid with superb ground cover capabilities. This additional ground cover is key to ensuring soil structures are not damaged at the time of harvest, by improving travelling conditions for machinery.

- Pack size: 15 kg / 3 acre
- Seed rate: 5 kg per acre

Maize Master can be sown when maize is drilled, or at the 6-8 leaf stage.



*Whilst every effort is made to ensure that the details supplied in this brochure are correct, Agrii cannot be held responsible for any inaccurate information. Current legislation must be checked before entering schemes. Agrii reserves the right to change varieties within the mixtures with a suitable replacement if required.

Overseeding

Top tips

Overseeding into an existing old or damaged pasture can be an effective and efficient way to introduce new modern ryegrasses into a sward without the cost of a full reseed.

Increased yields and quality can be achieved without ploughing and there will also be less time out of production. The benefits are increased DM yields, increased D values and higher crude protein, ME and sugar levels of the forage. It will also improve the disease resistance and ground cover of the sward.

There are many factors that could make overseeding unsuccessful and timing is important. The best time to overseed is March, April, July or September as the grasses are not growing as vigorously as they are in May and June.

Overseeding – Using Harrows

1. Soil sample to assess the pH and nutrient status of the soil and address any deficiencies.
2. Remove any excess cover by grazing hard or cutting.
3. Harrow, ideally with two or three passes if a real thick mat. This will help to remove all the dead feggy grass and weed grasses and help to create an open sward for maximum seed to soil contact.
4. Apply seed using Einbock harrows or use a fertiliser spinner.
5. Roll, with ideally a set of Cambridge rolls to get maximum seed to soil contact or put stock back in to tread the seed in for 5-7 days. Remember to take the stock out so they don't graze out the new seedlings.
6. Do not spread nitrogen fertiliser until new seeds are well established.
7. Simulate grazing once established, pull at the grass blades with your thumb and finger. If the root system is pulled out then the plant is not ready to be grazed. If the roots stay in the ground and the grass blades rip off then you are ready to start light grazing, this could be in around 6-7 weeks from overseeding.

Overseeding – Using direct drills / slot seeders

1. Soil sample to assess the pH and nutrient status of the soil and address any deficiencies.
2. Remove any excess cover by grazing hard or cutting.
3. Direct drill two ways to get better ground cover and don't drill any deeper than 1 cm.
4. Roll, with ideally a set of Cambridge rolls to make sure the slot is closed or it can dry out very quickly or get waterlogged. Rolling will also ensure maximum seed to soil contact as will putting the stock back in to tread the seed in for 5-7 days. Remember to take the stock out so they don't graze out the new seedlings.
5. Do not spread nitrogen fertiliser until new seeds are well established.
6. Simulate grazing once established, pull at the grass blades with your thumb and finger. If the root system is pulled out then the plant is not ready to be grazed. If the roots stay in the ground and the grass blades rip off then you are ready to start light grazing, this could be in around 6-7 weeks from overseeding.

Overseeding Mixtures

ST OVER MASTER

(Average heading date 19th May) Grazing: ★ Cutting: ★★★★★ Hay: ★

SHORT TERM OVERSEEDING MIXTURE

This mix will last one-two years. Using 100% IRG and HRG tetraploid ryegrasses, means it will be the most vigorous overseeding mix, which will increase both yield and quality.

- + **5.00 kg Hunter** Tetraploid IRG
- + **5.00 kg AstonCrusader** Tetraploid HRG
- + **10.00 kg/acre**

MT OVER MASTER + CLOVER

(Average heading date 20th May) Grazing: ★★★ Cutting: ★★★★ Hay: ★

MEDIUM TERM OVERSEEDING MIXTURE

Lasting three-four years, this mix will rejuvenate existing pastures to increase yields and improve quality. The inclusion of Festulolium will also mean it will cope on the lighter drier soil types.

Clover is included to increase protein levels and fix nitrogen within the soil.

AberEcho increased to 3.00 kg

- + **3.50 kg Lofa** Advanced hybrid Festulolium
- + **2.00 kg AberEcho** (HSG) Tetraploid HRG
- + **3.50 kg Seagoe** Intermediate Tetraploid PRG
- + **1.00 kg Dual Purpose** White clover blend
  - ✔ **30% Brianna** Very Large leaf white clover
  - ✔ **20% Dublin** Medium leaf white clover
  - ✔ **10% Merwi** Medium leaf white clover
  - ✔ **10% Quartz** Small/Medium leaf white clover
  - ✔ **30% Rivendel** Small leaf white clover
- + **10.00 kg/acre**

LT OVER MASTER + CLOVER

(Average heading date 30th May) Grazing: ★★★ Cutting: ★★★★ Hay: ★

LONG TERM OVERSEEDING MIXTURE

The use of intermediate and late PRG means this mix will last five years plus. Introducing new modern PRG to existing pastures will mean that the overall yield, quality and D values are improved compared with the existing ley.

A clover blend is used to suit different management regimes and will also increase protein levels and fix nitrogen within the soil.

AberGain increased to 5.00 kg

- + **3.00 kg AberRoot** (HSG) Festulolium (Intermediate Tetraploid)
- + **4.00 kg AberGain** (HSG) Late Tetraploid PRG
- + **2.00 kg AberBite** (HSG) Late Tetraploid PRG
- + **1.00 kg AberPasture** White clover blend
  - ✔ **30% AberSwan** Medium/Large leaf white clover
  - ✔ **30% AberLasting** Small leaf white clover
  - ✔ **20% AberDai** Medium/Large leaf white clover
  - ✔ **20% AberAce** Small leaf white clover
- + **10.00 kg/acre**

DIGEST-IT®

A biological slurry & digestate additive

Designed to increase nutrient recovery from slurry while also reducing ammonia emissions.

How does DIGEST-IT® work?

DIGEST-IT® provides a rich food for microbes as well as dormant aerobic bacteria species that are able to feed on and break down the organic matter in the slurry and use the ammonia gas as a source of nitrogen to grow, thus turning it into microbial nitrogen.

Application rate of DIGEST-IT®

- 1 litre treats 5,000 gallons (22,500 litres) of slurry.
- 20 litres treats 100,000 gallons (450,000 litres) of slurry.
- 'DIGEST-IT® is best applied to fresh slurries/digestates'.

Benefits of DIGEST-IT®

For slurry storage:

- 80% reduction in ammonia losses, resulting in less smell from slurry when agitating or spreading.
- In trials over a 13-week period, the mean ammonia concentration level for untreated slurry was 20.9ppm compared to 4.2ppm for the DIGEST-IT® treated slurry – an 80% reduction.
- Anaerobic bacteria compost solids into plant-available liquid nutrients.
- 29% reduction in oven dry solids, reducing time required to agitate and pump slurry.

In the field:

- DIGEST-IT® treated slurry grows more, better quality grass.
- DIGEST-IT® treated slurry reduces odour when spreading.
- DIGEST-IT® treated slurry improves soil health by supplying 'good' microbes to the soil.
- DIGEST-IT® treated slurry is kinder to the soil organisms living in your soil, including worms.
- DIGEST-IT® treated slurry has a lower Biochemical Oxygen Demand (BOD) than untreated slurry.

For dairy farms:

- Increased fertiliser value.
- Improves soil health by supplying 'good' microbes to the soil.
- Reduces surface crusting, reducing agitation time.

For in-house storage:

- 80% reduction in volatile ammonia losses, resulting in less smell in houses, storage and spreading.
- Reduced ammonia, resulting in better working conditions and livestock welfare.
- Ease of application into slurry pits.

DIGEST-IT® Best Use Guidance

- **Size of can:** 20 lts
- **When best to apply:**
  - **For digestate** apply to lagoons ahead of filling
  - **For slurry** 12 weeks before application
- **How long should it be left post inclusion?** 12 weeks
- **Does the inclusion rate vary depending on what it's mixed with? (E.g slurry / digestate)** No, the application rate stays the same regardless.

For more information, please speak with your local Agrii contact, Fertiliser Product Manager or call Customer Services on 01480 418333.

GRASSLAND NUTRITION

Grassland Nutrition

Grass breeding programmes have developed significantly in recent years with major improvements in yield and quality. However, if the soil nutrition and pH are not right then these improvements won't be recognised.

Optimum pH levels of between 6-6.5 for grass ensures that nutrient availability is maximised. Getting the basics right is fundamental to efficient production. Regular soil sampling on a three-four yearly basis will not only ensure a good understanding of soil nutrient status but also cost of production.

To gain a full understanding of nutrient availability, Agrii recommends a broad-spectrum soil analysis. Agrii can also provide analysis of forage to help understand any nutritional imbalances.

Nitrogen is the major nutrient required in the greatest quantity and the driver of yield. As a rule of thumb, grass will typically utilise 2.5 kg N/ha/day to optimise yield and quality.

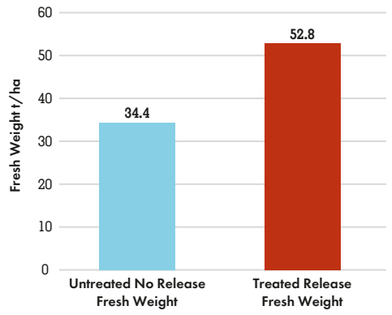
Phosphorus is important in the development of roots and for plant tiller survival, and if short will result in plants being susceptible to drought, with stunted growth resulting in later maturing crops. A shortage of phosphate will impact the uptake of nitrogen and also due to its immobility, a deficiency cannot be rectified quickly.

Potassium is probably the most important element when it comes to producing quality forage, it's involved in a number of functions within the plant, including protein production and the transport of nutrients, and if deficient will result in the plant being more susceptible to stress.

In grazing systems where most of the potash ingested is returned to the soil, the demand is low, however in cutting systems with high levels of offtake, the demand is higher dependent on the intensity of the system.

As a rule, spring applications of phosphate, when crop demand is greatest, will give the best results. Products such as **Agrii Protected Phosphate (A.P.P)** and **Agrii-Start Release** are especially useful when trying to improve P availability. **Agrii Protected Phosphate (A.P.P)** can be applied to phosphate fertilisers to protect phosphate from lock up, Agrii-Start Release can be applied to the soil to free up phosphate bonded in soils. **Agrii-Start Release** also suits soils that are naturally high in P.

Release Silage Trial



The graph above shows the results from an on-farm trial where farm standard fertiliser applications were compared with, and without **Agrii-Start Release**.

18.4 tonnes (35%) fresh weight yield uplift

Optimum pH for availability of nutrients

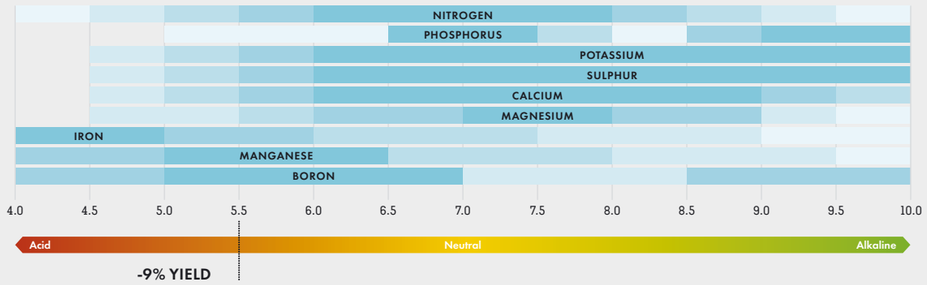


Figure 2: Graph showing the optimum pH for availability of various nutrients

Agrii has a wide range of products designed to improve nutrient use efficiency and lower carbon footprints compared to standard fertilisers. We can formulate fertilisers specific to individual requirements and have a range of fertilisers that are targeted towards animal health, containing elements such as Selenium.

Unlock your soil's potential

Why Lime?

- Improved fertiliser utilisation
- Improved soil structure
- Acid-favouring weed prevention
- Disease prevention
- Higher yields
- Inhibits transposition and movement of heavy metals
- Increased microbial activity

Soil acidity	% of fertliser utilised			% of total fertiliser wasted
	Nitrogen	Phosphate	Potash	
pH 5.0	53%	34%	52%	51%
pH 5.5	77%	48%	77%	29%
pH 6.0	89%	52%	100%	16%
pH 7.0	100%	100%	100%	0%

Source for '% of fertiliser utilised' figures – ALA

Are you optimising your fertiliser utilisation?

An acidic soil could mean you are wasting between 16% and 51% of your applied fertiliser.

Lime for livestock leys

Liming pastures can lead to more palatable and nutritious grasses.

The raised pH will encourage grasses such as perennial rye grass and clovers whilst replacing low calcium content grasses such as Meadow Foxtail, Agrostis and other weed grasses.

It is also important to note that the necessary micro-organisms on clover roots, required to fix nitrogen, will die in acidic conditions so a high pH must be maintained.

LIMING AND TESTING SERVICES:

- Complete service
- Testing to liming
- All types of lime to suit all requirements
- LGP spreaders
- In-field pH mapping
- GPS pH mapping
- 24 hour service

PRODUCTS AVAILABLE:

- Magnesium limestone
- Ground limestone
- Calcium limestone
- Gypsum
- Basic slag
- Granulated lime:
  - Calcifert
  - Calcifert S
  - Calcifert Boron plus Zinc

R&T Liming
Lime Testing, Supply and Spreading Service

Contact your local Agrii R&T Representative to protect your profit!

Email: **r&tliming@agrii.co.uk** Tel: **Julie Woodall 07966 533033**

www.agrii.co.uk

Agrii™

ORIGIN
SOIL NUTRITION

SWEETGRASS® PLUS
with sodium, cobalt and selenium

What is SWEETGRASS® PLUS?

Grass needs more than just nitrogen. SWEETGRASS PLUS® provides sodium, cobalt and selenium for balanced nutrition for high yielding nutritious grass. It improves sward palatability, and milk and meat production for optimum economic returns.

For further information, scan the QR code:

Why use SWEETGRASS® PLUS?

- Contains nitrogen for grass growth and sulphur for nitrogen use efficiency, increasing dry matter, true protein and D-value.
- Contains sodium to improve palatability, and is proven to increase D-value, sugar content, DM intake, milk yield and butterfat.
- Contains sustained release selenium on every granule to increase fertility, auto-immunity and liveweight gain.
- Contains sustained release cobalt on every granule for vitamin B12 and has a key role in nerves, blood and energy, plus liveweight gain.

VITA-GRASS®
for animal health

What is VITA-GRASS®?

VITA-GRASS® adds small amounts of selenium, cobalt and iodine to every granule of standard grazing and silage fertilisers.

For further information, scan the QR code:

Why use VITA-GRASS®?

- Contains selenium, cobalt and iodine, all vital micro-nutrients for animals.
- Contains dual-action forms of nutrient for early uptake and extended availability.
- Improving soil levels is a low cost way to long-term supplementation.

Home-grown grass is the lowest cost feed on livestock farms. From a nutrient perspective, we need to consider the balance between quantity and quality of grass silage.

What nutrients are needed to optimise dry matter (DM) yield per hectare?

What nutrients are needed to optimise the feed value of silage for animal health and performance?

Contact your local Agrii Agronomist to help establish the nutrient status of the soil and any organic manure inputs. A Nutrient Management Plan can then be generated to optimise production levels by fulfilling the requirement of the crop with the correct fertiliser.

Grassland Weed Control

Grass is the biggest crop in the UK, some 4.5 million hectares are claimed for under the BPS scheme in England compared to circa 2.7 million hectares of cereals, that's without figures from Wales and Scotland.

This area includes grass in all its forms, from old permanent pastures to high yielding Italian ryegrass leys, and everything in between. The crops will all have different end uses; dairy, beef, sheep, pretty much anything with four legs and a rumen, (and of course horses!) and not forgetting more recently, forage for digesters and other industrial uses.

It can also be utilised in a number of ways including, grazing, being made into silage, haylage, hay or zero grazed. The one thing that all of these grass crops will have in common is that just like any crop, they can and do suffer from weed competition, leading to a reduction in yield and quality.

Always remember the effort and time taken to establish and maintain a grass ley can be the same in terms of fixed cost input whether the crop is poor, average or good and assuming that all the other factors like pH, drainage, fertility, nutrition and correct varieties used are under control, why would you want weeds to be the limiting factor on yield?

As growers, we are legally bound to try to control injurious weeds under the 1959 Weeds Act.

If we don't control weeds the seed return can be huge:

1 YEAR'S WEED
= 7 YEARS SEED

A few things that may be less obvious but nonetheless important, include:

- Toxicity – we all know that ragwort can kill, but several weeds can be a stomach irritant, chickweed and buttercups being examples.
- Docks reduce quality and energy content in silage as well as yield.
- Buttercups cause dermatitis in horses and thistles encourage the spread of Orf in sheep.

Photo courtesy of Nufarm

Broadleaved Docks

and curled docks can produce over 25,000 seeds per plant and they can survive in soil for well over 20 years. They have 65% of the feed value of grass and it is estimated that there can be 12.5 million seeds in the top 15 cm of permanent pasture. They love fertile intensively managed grassland and a 10% dock problem can lead to a 10% yield reduction.

Docks like open swards, so don't overgraze or let the grass get poached. Improving fertility won't help as docks like fertile pasture. Topping also won't work, as they have a large tap root and seeds will keep germinating. Luckily chemical control can work well. Products such as Cardinal where clover isn't part of the sward, or alternatively hormone based products such as "Thrust" or "Pasturemaster" with the addition of fluroxypyr will give good control of small weeds and control aerial growth on established weeds. Timing and application methods are critical.

If clover is a major part of the sword the product choice is limited. Fortunately Corteva have introduced ProClova which is clover safe.

Thistles

are another major grassland weed. Creeping thistle is a perennial and another major grassland weed. They can typically produce over 1,000 seeds per plant, which can remain viable for over 5 years. The root fragments can also remain viable for several years. In its first year, the root system can cover 5 m^2 and the second year up to 80 m^2.

Spear thistle however, is a biennial plant and grows from seed which then flowers in the second year. It has a 70 cm tap root and can produce around 100 seeds per seed head. These seeds can remain viable for 3 years and seed can be blown up to 30 m. Animals won't graze close to thistles, and work suggests that one plant removes 0.5 m^2 from the grazing area.

Thistles tend to thrive in areas where nutrition is poor and overgrazing occurs, so in this situation looking at soil status can lead to improvements. Topping can help but won't work on its own. It can even up the growth stage of the weeds and stimulate another flush ready to spray. A good grass crop will help, thistles don't like competition. Look at fertility, take a soil test and apply the appropriate nutrition. Herbicide control can be very successful with products like 'Prevail' or MCPA where crops are due to be conserved or ensiled.

As always, timing and method of application is critical. These mixtures are only suitable where clover is not an important part of the sward.

GRASSLAND WEED CONTROL

Grassland Weed Control

COMMON NETTLE

Common Nettle propagates from the roots and chopping them up will make the problem worse. They can grow up to 1 metre tall and as with docks they reduce yield and quality of the grass and can reduce the grazed areas like thistles. They will germinate if the sward is open through poaching or overgrazing, or if the soil is disturbed. Topping can help as it reduces the vigour so that spraying can be more effective. Treat pre-flowering with herbicides such as "Blaster pro" for patches in a knapsack sprayer and "Forefront T" for overall application, or one of the previously mentioned mixes. Remember, they're not clover safe.

CREEPING BUTTERCUP

Creeping Buttercup propagates from root stolons and seeds. It is a perennial plant that likes bare ground, and generally poor, acidic soil. Livestock don't like it due to its acrid taste and it can also cause stomach irritation. To help control against creeping buttercup, check the soil pH and lime accordingly. Improving soil structure and drainage will also help and herbicides such as "Sickle" or "Forefront T" or mixtures of 2,4D MCPA like "PastureMaster" will be the most effective, however these are not clover safe.

DANDELION

Dandelion is a perennial plant with a deep tap root producing up to 200 seeds per flower per year which are efficiently spread by the wind. Dandelion is often associated with lower fertility sites and where swards are regularly overgrazed or constantly grazed very tightly. Growers should try to ensure the grass has adequate recovery time by moving animals regularly, ensure the sward has appropriate nitrogen and sulphur and are advised to take routine soil samples to ensure pH and soil nutrient levels for grass growth are maintained. Younger grass tends to be more vigorous and responsive to nitrogen than permanent pasture and is therefore more competitive with faster recovery times. It is for this reason that reseeding or overseeding can be effective against dandelion. Poorly drained sites can also favour dandelion so remedial work to ditches and soil structure should be undertaken where necessary. Herbicides such as "Sickle" can be effective in reducing dandelion numbers, but it is critical to apply before flowering. Target mid-April once soils reach 10°C at 10 cm but applications should be avoided around periods of frost. Be aware that "Sickle" is unsafe to clover and will severely reduce populations within the sward.

RAGWORT

Ragwort is a biennial plant that grows as a rosette in the first year, then flowers in the second year. It can grow up to a metre tall. If the crown becomes damaged, then it may flower every year. The plant is poisonous at any stage and is extremely unpalatable when the plant is alive. Stock will eat it as it dies or wilts, hence the reason for keeping any stock out of pasture that has been treated until the plants are completely dead and rotted. It can also be a problem to stock when dry in bales or ensiled. Overgrazing and poaching, particularly on heavy land can make it worse. Topping is allowed but not a good option as it assists persistency of the ragwort. Hand pulling is effective but very labour intensive and you need to wear appropriate PPE. Herbicides such as "Forefront T", "Pasturemaster", or "Thrust", are also effective but ensure that the above safety measures are taken before stock is allowed back in the field. Remember these herbicides are not clover safe.

CHICKWEED

Chickweed is an annual and propagated by seed. It will grow slowly at low temperatures and the tops normally die back in winter, but roots remain healthy. A big problem in autumn reseeds and undersown cereals. It grows aggressively, competing strongly for light, water and nutrients during the establishment phase, so can be very competitive in reseeds. To help control chickweed it can be grazed early, but make sure the grass is rooted firmly enough and do the "pull test" so you don't graze out the young seedlings. Herbicides applied early such as "Sickle" or fluroxypyr will give good control but remember they are not clover safe.

Grassland weed control: Top Tips

Assuming that you've remedied the cultural issues that may be a problem; drainage, pH and nutrition, and you now want to apply a herbicide, here are a few tips to help you get the best from the treatment.

Chemical options are becoming limited now compared to in the past. Product stewardship is very important, so make sure you take care with what you're applying and when. Avoid drift and spraying near watercourses.

One of the reasons "old" products like Mecoprop are no longer recommended on agricultural grassland is because of the levels found in watercourses.

Revocations and product labels are constantly changing, and it can be difficult to stay legal so speak to your Agrii Agronomist for advice. Make sure you spray at the right growth stage, this is when the weeds are growing fast, usually before flowering in warm "growy" conditions. Check the label or speak to your Agrii Agronomist for advice. Observe grazing and cutting intervals, as they can all be different – ranging from 7-28 days depending upon product.

Use the correct rate of product and apply in an appropriate amount of water, 100 l/ha isn't enough on a thick mass of weeds, a minimum of 200 l/ha or more is better. Spray the target! If the weeds are 15 cm tall, the boom should be 50 cm above them or 65 cm from the ground to ensure proper coverage. Use the correct nozzle, flat fans are fine, but not if they're worn out.

If you are reseeding and clover is an essential part of the ley and weeds are a problem, consider a no clover grass mixture.

Control the weeds with the appropriate herbicide and over sow the clover at a later date.

If you are in a hard water area, consider the use of a water conditioner such as H2Opti to add to the tank prior to the herbicide. Hard water has a high concentration of minerals, usually calcium and magnesium.

These are positively charged, and many pesticides are attracted to them and become locked up, consequently they are not available in the spray solution.

Adding a water conditioner to the tank first prevents this happening, and you end up applying all the herbicide you intended to.

We can test your water, please speak to your Agrii Agronomist for more information.

Before applying any herbicides and pesticides mentioned in the grassland weed control section of this brochure, always consult your agronomist to make sure it's the right product for the weeds identified and to keep the original sown species in your grass sward if required.

ALWAYS READ THE LABEL. ALWAYS USE HERBICIDES AND PESTICIDES SAFELY. PLEASE FOLLOW PRODUCT STEWARDSHIP GUIDELINES AND CHECK EXPIRY DATE.

GRASSLAND WEED CONTROL

Equine Mixtures

HORSE AND PONY

PLUS PERENNIAL RYEGRASS

Horse and Pony Plus Perennial Ryegrass contains mostly perennial ryegrasses which are fibrous and prostrate in growth to reduce soil exposure.

Horses graze with their lips so the pasture is grazed down like a sheep sward.

The Timothy component will grow earlier even in a wet cold spring.

The creeping red fescue spreads quickly by rhizomes and is able to help fill any gaps on areas of heavy usage.

If your horses are shut up, then this mix is also suitable for hay production. This mixture is not suitable for horses prone to laminitis.

- **4.50 kg Nifty** Intermediate Diploid PRG
- **2.50 kg Timuco** Late Diploid PRG
- **3.00 kg Wetherby** Late Diploid PRG
- **1.00 kg Comer** Timothy
- **2.00 kg Maxima** Strong creeping red fescue
- **13.00 kg/acre**

LAMI-LESS HORSE AND PONY

The levels of protein and sugars that are in perennial ryegrasses are said to be increasing the chance of laminitis in horses.

As an alternative to our standard horse and pony mix, this mixture is made up of fescues and meadow grasses and does not contain PRG.

The mix will thrive on a wide range of soil types and will create a dense sward for the horses to travel on.

This long term mix is suitable for both grazing and hay production.

- **2.00 kg Comer** Timothy
- **4.00 kg Laura** Meadow fescue
- **2.50 kg Maxima** Strong creeping red fescue
- **2.50 kg Tower** Tall fescue
- **2.50 kg Evora** Smooth stalked meadow grass
- **0.50 kg Jorvik** Browntop bent
- **14.00 kg/acre**

Hay

Specialist hay production requires specialist mixtures. For hay to wilt down evenly, the use of 100% diploid species is needed. Tetraploids are a bigger leafier plant with more water in their cell walls. If both diploids and tetraploids are used then you will get an uneven conditioning of the sward. When reseeding the hay mixtures below, they need to be autumn sown so the plant goes through a vernalisation period and produces a stem and a seed head the following year. If spring sown, the plant may only produce lush leafy forage in the year of sowing.

ST HAY MASTER

SHOT TERM HAY MIXTURE

This mix will produce high yielding quality hay for up to two years.

- **5.00 kg Sendero** Diploid IRG
- **5.00 kg Fox** Diploid IRG
- **4.00 kg Nifty** Intermediate Diploid PRG
- **14.00 kg/acre**

LT HAY MASTER

LONG TERM HAY MIXTURE

Lasting six years plus, this mix will produce high yields of hay with the option of quality aftermath grazing.

- **2.00 kg AberZeus** Intermediate Diploid PRG
- **4.00 kg Nifty** Intermediate Diploid PRG
- **4.00 kg Timuco** Late Diploid PRG
- **2.00 kg Wetherby** Late Diploid PRG
- **1.00 kg Comer** Timothy
- **13.00 kg/acre**

Haylage

Haylage tends to be cut earlier in the season and is left to wilt for a shorter period of time in the field compared to hay. As haylage is cut wet, we can mix both diploids and tetraploids together to maintain overall higher yields. When reseeding the haylage mixtures below, they need to be autumn sown so the plant goes through a vernalisation period and produces a stem and a seed head the following year. If spring sown, the plant may only produce lush leafy forage in the year of sowing.

ST HAYLAGE MASTER

BULK MASTER – SHORT TERM HAYLAGE MIXTURE

Producing high yields of quality haylage, this mix will last up to two years.

- **40% Bigdyl** Diploid IRG
- **40% Melsprinter** Tetraploid IRG
- **20% Barmultra II** Tetraploid IRG
- **25 kg bags sow at 14.00 kg/acre**

LT HAYLAGE MASTER

LONG TERM HAYLAGE MIXTURE

Lasting six years plus, this mix will produce high yields of quality haylage with the option of quality aftermath grazing.

- **4.00 kg AberZeus** Intermediate Diploid PRG
- **2.00 kg Nolwen** Intermediate Tetraploid PRG
- **3.00 kg Timuco** Late Diploid PRG
- **4.00 kg Wetherby** Late Diploid PRG
- **13.00 kg/acre**

Environmental Schemes & Multi-Species Leys

Within the SFI options, Multi-species leys are becoming more popular as they can provide many benefits for livestock, biodiversity and soil health.

Following the roll out of the SFI 2024 expanded offer, there are now two differing mixture criteria, depending on when you signed up. If you signed up to the original SAM3, you must follow the voluntary guidance in the SFI hand book, which is to use five grass species, three legume species and five herb species.

If you have signed up to the new CSAM3, the voluntary guidance as a minimum is to use one grass species, two legume species and two herb species. CSAM3 does have different nutrient management requirements compared to the original SAM3 scheme, so confirming this with the guidance is vital. The Agrii mixtures have been designed to suit a wide range of different management regimes, maximise quality and production whilst also meeting the aims of the schemes.

The Agrii SFI SAM3 & CSAM3 Grazing mixtures have been designed to produce high yields of good quality forage for all livestock. The inclusion of Nifty Intermediate Diploid will help to create a dense sward, and along with the legumes and herbs, providing a resilient, valuable, and nutrient rich forage during periods of dry weather.

(SAM3/1) Agrii SFI SAM3 Grazing

- **4.80 kg Perseus** Festulolium
- **6.50 kg Nifty** Intermediate Diploid
- **2.50 kg AberGain** Late Tetraploid
- **0.80 kg Tower** Tall fescue
- **1.15 kg Comer** Timothy
- **0.50 kg Laura** Meadow fescue
- **1.10 kg Grazing** White clover blend
- **0.75 kg Red clover blend**
- **0.35 kg Alsike Clover**
- **0.65 kg Plantain**
- **0.45 kg Chicory**
- **0.20 kg Sheeps Burnet**
- **0.20 kg Sheeps Parsley**
- **0.05 kg Yarrow**
- **Packed in 20.00 kg Bags**
- **Suggested Seed Rate 12.00-14 kg/acre**

(CSAM3/2) Agrii SFI CSAM3 Grazing

- **3.45 kg Nifty** Intermediate Diploid PRG
- **4.20 kg Nolwen** Intermediate Tetraploid PRG
- **5.15 kg AberTest** (HSG) Late Diploid PRG
- **3.60 kg Nashota** Late Tetraploid PRG
- **1.10 kg Grazing** White clover blend
- **1.00 kg Red clover blend**
- **0.65 kg Chicory**
- **0.85 kg Plantain**
- **Packed in 20.00 kg Bags**
- **Suggested Seed Rate 12.00-14 kg/acre**

*Whilst every effort is made to ensure the details supplied are correct, Agrii cannot be held responsible for any inaccurate information and growers should refer to the SFI handbook for clarity on the rules of the scheme.

The Agrii SFI SAM3 & CSAM3 Cutting mixtures will produce large cuts of quality silage which will also provide forage with variety when fed. If left to over mature, Chicory can become woody and cause fermentation issues when baled and wrapped as the stems can easily pierce film. Rejections of this woody material can also happen when fed, for these reasons, this mixture does not include Chicory.

(SAM3/3) Agrii SFI SAM3 Cutting

- **4.80 kg Perseus** Festulolium
- **2.50 kg Nifty** Intermediate Diploid
- **6.50 kg Nashota** Late Tetraploid
- **0.80 kg Tower** Tall fescue
- **1.15 kg Comer** Timothy
- **0.50 kg Laura** Meadow fescue
- **1.10 kg Cutting** White clover blend
- **0.75 kg Red clover blend**
- **0.35 kg Alsike Clover**
- **0.65 kg Plantain**
- **0.20 kg Sheeps Burnet**
- **0.20 kg Sheeps Parsley**
- **0.45 kg Sainfoin**
- **0.05 kg Yarrow**
- **Packed in 20.00 kg Bags**
- **Suggested Seed Rate 12.00-14 kg/acre**

(CSAM3/4) Agrii SFI CSAM3 Cutting

- **5.50 kg Perseus** Festulolium
- **4.75 kg Nifty** Intermediate Diploid
- **6.50 kg Nashota** Late Tetraploid
- **1.00 kg Cutting** White clover blend
- **1.20 kg Red clover blend**
- **0.75 kg Plantain**
- **0.30 kg Sheeps Parsley**
- **Packed in 20.00 kg Bags**
- **Suggested Seed Rate 12.00-14 kg/acre**

The Agrii SFI SAM3 & CSAM3 No Red Clover mixtures have been formulated for the grazing of Livestock. It does not contain any Red Clover to ensure it does not cause bloat in cattle when grazed. Red Clovers also contain oestrogen which can affect the fertility of breeding ewes. The varied species within the formulation will provide a resilient, valuable, and nutrient rich forage during periods of dry weather.

(SAM3/5) Agrii SFI SAM3 No Red Clover

- **5.30 kg Perseus** Festulolium
- **6.00 kg Nifty** Intermediate Diploid
- **2.50 kg AberGain** Late Tetraploid
- **0.80 kg Tower** Tall fescue
- **1.15 kg Comer** Timothy
- **0.50 kg Laura** Meadow fescue
- **1.55 kg Grazing** White clover blend
- **0.10 kg Birdsfoot Trefoil**
- **0.55 kg Alsike Clover**
- **0.65 kg Plantain**
- **0.45 kg Chicory**
- **0.20 kg Sheeps Burnet**
- **0.20 kg Sheeps Parsley**
- **0.05 kg Yarrow**
- **Packed in 20.00 kg Bags**
- **Suggested Seed Rate 12.00-14 kg/acre**

(CSAM3/6) Agrii SFI CSAM3 No Red Clover

- **3.45 kg Nifty** Intermediate Diploid PRG
- **4.40 kg Nolwen** Intermediate Tetraploid PRG
- **5.15 kg AberTest** (HSG) Late Diploid PRG
- **3.60 kg Nashota** Late Tetraploid PRG
- **1.35 kg Grazing** White clover blend
- **0.55 kg Alsike Clover**
- **0.65 kg Chicory**
- **0.85 kg Plantain**
- **Packed in 20.00 kg Bags**
- **Suggested Seed Rate 12.00-14 kg/acre**

*Whilst every effort is made to ensure the details supplied are correct, Agrii cannot be held responsible for any inaccurate information and growers should refer to the SFI handbook for clarity on the rules of the scheme.

The Agrii SFI SAM3 & CSAM3 No Red Clover & No Chicory mixtures have been formulated following popular demand for such options and they supply the flexibility to be cut or grazed by all livestock. Red Clover is not included within the mixtures to ensure that bloat in cattle is not caused when grazed. Red Clovers also contain oestrogen which can negatively affect the fertility of breeding ewes. Chicory is also not included in the mixture options as if left to over mature, Chicory can become woody and cause fermentation issues when baled and wrapped as the stems can easily pierce film. Rejections by livestock of this woody material can also occur when fed.

(SAM3/7) Agrii SFI SAM3 No Red Clover & No Chicory

- **5.30 kg Perseus** Festulolium
- **6.00 kg Nifty** Intermediate Diploid
- **2.50 kg Nashota** Late Tetraploid
- **0.80 kg Tower** Tall fescue
- **1.15 kg Comer** Timothy
- **0.50 kg Laura** Meadow fescue
- **1.55 kg Dual Purpose** White clover blend
- **0.10 kg Birdsfoot Trefoil**
- **0.55 kg Alsike Clover**
- **0.65 kg Plantain**
- **0.45 kg Sainfoin**
- **0.20 kg Sheeps Burnet**
- **0.20 kg Sheeps Parsley**
- **0.05 kg Yarrow**
- **Packed in 20.00 kg Bags**
- **Suggested Seed Rate 12.00-14 kg/acre**

(CSAM3/8) Agrii SFI CSAM3 No Red Clover & No Chicory

- **3.70 kg Nifty** Intermediate Diploid PRG
- **4.65 kg Nolwen** Intermediate Tetraploid PRG
- **5.00 kg AberTest** (HSG) Late Diploid PRG
- **3.60 kg Nashota** Late Tetraploid PRG
- **1.35 kg Dual Purpose** White clover blend
- **0.55 kg Alsike Clover**
- **0.85 kg Plantain**
- **0.30 kg Sheeps Parsley**
- **Packed in 20.00 kg Bags**
- **Suggested Seed Rate 12.00-14 kg/acre**

The Agrii SFI SAM3 and CSAM3 Overseeding mixtures can be drilled into existing pastures where a grower is looking to increase the population of grass, legumes, and herb species within the sward to meet the aims of the scheme. As with all overseeding, any thatch in the base of the existing sward should be removed to allow good seed to soil contact and to also enhance light penetration to the young and emerging seedlings. For increased establishment, do not drill deeper than 10mm.

(SAM3/9) Agrii SFI SAM3 Overseeding

- **9.90 kg Perseus** Festulolium
- **1.80 kg Tower** Tall Fescue
- **1.00 kg Comer** Timothy
- **1.00 kg Laura** Meadow fescue
- **2.00 kg Dual Purpose** White clover blend
- **1.50 kg Red clover blend**
- **0.50 kg Alsike Clover**
- **1.30 kg Plantain**
- **0.60 kg Chicory**
- **0.20 kg Sheeps Burnet**
- **0.16 kg Sheeps Parsley**
- **0.04 kg Yarrow**
- **Packed in 20.00 kg Bags**
- **Suggested Seed Rate 10.00 kg/acre**

(CSAM3/10) Agrii SFI CSAM3 Overseeding

- **7.00 kg Perseus** Festulolium
- **6.90 kg Nolwen** Intermediate Tetraploid PRG
- **2.00 kg Dual Purpose** White clover blend
- **1.50 kg Red clover blend**
- **1.10 kg Chicory**
- **1.50 kg Plantain**
- **Packed in 20.00 kg Bags**
- **Suggested Seed Rate 10.00 kg/acre**

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The Agrii SFI SAM3 & CSAM3 Overseeding No Red Clover & Chicory mixtures provide the same benefits of our standard Agrii SFI SAM3 Overseeding mixtures and comes with the same establishment advice but does not contain Red Clover or Chicory. Red Clover is not included within the mixtures to ensure that bloat in cattle is not caused when grazed. Red Clovers also contain oestrogen which can negatively affect the fertility of breeding ewes. Chicory is also not included in the mixture options as if left to over mature, Chicory can become woody and cause fermentation issues when baled and wrapped as the stems can easily pierce film. Rejections by livestock of this woody material can also occur when fed.

(SAM3/11) Agrii SFI SAM3 Overseeding No Red Clover & No Chicory

- **9.90 kg Perseus** Festulolium
- **1.80 kg Tower** Tall fescue
- **1.00 kg Comer** Timothy
- **1.00 kg Laura** Meadow fescue
- **2.00 kg Dual Purpose** White clover blend
- **0.30 kg Birdsfoot Trefoil**
- **0.70 kg Alsike Clover**
- **1.40 kg Plantain**
- **1.50 kg Sainfoin**
- **0.20 kg Sheeps Burnet**
- **0.16 kg Sheeps Parsley**
- **0.04 kg Yarrow**
- **Packed in 20.00 kg Bags**
- **Suggested Seed Rate 10.00 kg/acre**

(CSAM3/12) Agrii SFI CSAM3 Overseeding No Red Clover & No Chicory

- **7.10 kg Perseus** Festulolium
- **7.10 kg Nolwen** Intermediate Tetraploid PRG
- **2.00 kg Dual Purpose** White clover blend
- **1.50 kg Alsike Clover**
- **1.70 kg Plantain**
- **0.60 kg Sheeps Parsley**
- **Packed in 20.00 kg Bags**
- **Suggested Seed Rate 10.00 kg/acre**

The Agrii Legume and Herb Overseeding Packs are designed to increase the legume and herb content in any existing sward. All thatch in the base of the existing sward should be removed to allow good seed to soil contact and to also enhance light penetration to the young and emerging seedlings. It is not advised to apply nitrogen fertiliser until the newly sown species are established as this will only encourage increased competition from the existing grasses. For increased establishment, do not drill deeper than 10 mm.

(L&HOV/1) Agrii Diverse Legume and Herb Overseeding Pack

- **1.70 kg Red clover blend**
- **0.50 kg Alsike Clover**
- **2.20 kg Dual Purpose** White clover blend
- **0.10 kg Yarrow**
- **2.50 kg Plantain**
- **1.00 kg Chicory**
- **1.00 kg Sheeps Burnet**
- **1.00 kg Sheeps Parsley**
- **Packed in 10.00 kg Bags**
- **Suggested Seed Rate 2-4 kg/acre**

(L&HOV/2) Agrii Standard Legume & Herb Overseeding Pack

- **2.00 kg Red clover blend**
- **3.00 kg Dual Purpose** White clover blend
- **3.00 kg Plantain**
- **2.00 kg Chicory**
- **Packed in 10.00 kg Bags**
- **Suggested Seed Rate 2-4 kg/acre**

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The Agrii Legume and Herb Overseeding Pack No Red Clover & Chicory provides the same benefits of our standard Agrii Legume and Herb Overseeding Pack and comes with the same establishment advice but does not contain Red Clover or Chicory.

Red Clover is not included within the mixtures to ensure that bloat in cattle is not caused when grazed. Red Clover also contains oestrogen which can negatively affect the fertility of breeding ewes. Chicory is also not included in the mixture options as if left to over mature, Chicory can become woody and cause fermentation issues when baled and wrapped as the stems can easily pierce film. Rejections by livestock of this woody material can also occur when fed.

(L&HOV/3) Agrii Diverse Legume and Herb Overseeding Pack No Red Clover & No Chicory

- 0.50 kg **Birdsfoot Trefoil**
- 0.50 kg **Alsike Clover**
- 2.20 kg **Dual Purpose** White Clover Blend
- 0.10 kg **Yarrow**
- 2.20 kg **Plantain**
- 2.50 kg **Sainfoin**
- 1.00 kg **Sheeps Burnet**
- 1.00 kg **Sheeps Parsley**
- **Packed in 10.00 kg Bags**
- **Suggested Seed Rate 2-4 kg/acre**

(L&HOV/4) Agrii Standard Legume & Herb Overseeding Pack No Red Clover & No Chicory

- 2.00 kg **Alsike Clover**
- 3.00 kg **Dual Purpose** White clover blend
- 3.00 kg **Plantain**
- 2.00 kg **Sheeps Parsley**
- **Packed in 10.00 kg Bags**
- **Suggested Seed Rate 2-4 kg/acre**

For more information about Environmental Scheme mixtures or to discuss your SFI options, please get in contact with your Agrii Agronomist or Crop Input Specialist.

To request a copy of our Conservation and Gamecover brochure please call our Seed Desk on 01277 898202 or email info@agrii.co.uk.

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Agrii | RHIZA | TELUS

Agrii's Digital Farming Service

Contour underpins RHIZA's mapping and VR services but has grown into much more. It is now used by Agrii agronomists for record-keeping, compliance, nutrient management planning, and VR planning.

Development is moving further towards land-use management and SFI compliance, recognising the wider demands on farmland today. The goal is simple: to make life easier for farmers and advisers while sharpening focus on efficiency and margin.

Planned integration between Contour and the UK's leading Farm Management System (FMS) will unlock even greater potential, allowing farm benchmarking and gross margin mapping directly within the platform.

THE OPPORTUNITIES?

- Reduced Risk
- Optimised Inputs
- Compliance Confidence
- Improved Establishment
- Time Saved

Amenity mixtures

TM1 (PM5) Golf & Bowling Greens

- \+ 40% **Wagner** Chewings fescue
- \+ 40% **Pinafore** Slender creeping red fescue
- \+ 20% **Jorvik** Browntop bent

= 100%

Sowing rate:	35g/m²
Overseeding:	25g/m²
Mowing height:	Down to 5mm

TM2 (PM20) Tees & Fairways/Fine Lawn

- \+ 20% **Wagner** Chewings fescue
- \+ 20% **Pinafore** Slender creeping red fescue
- \+ 60% **Sergei** Strong creeping red fescue

= 100%

Sowing rate:	35-50g/m²
Overseeding:	15-25g/m²
Mowing height:	Down to 10mm

TM3 (PM36) Cricket Wicket, Tennis & Tees Renovation

- \+ 50% **Chardin** Perennial ryegrass
- \+ 30% **Chloe** Perennial ryegrass
- \+ 10% **Monroe** Perennial ryegrass
- \+ 10% **Claudine** Perennial ryegrass

= 100%

Sowing rate:	35-75g/m²
Overseeding:	25-75g/m²
Mowing height:	Down to 5mm

TM4 Outfields, Fairways & Quality Lawns

- \+ 35% **Double** Perennial ryegrass
- \+ 35% **Maxima** Strong creeping red fescue
- \+ 25% **Trophy** Chewing fescue
- \+ 5% **Jorvik** Browntop bent

= 100%

Sowing rate:	35-50g/m²
Overseeding:	25-50g/m²
Mowing height:	Down to 15mm

TM5 (PM70) Sports Fields, Tees, Fairway & Renovation

- \+ 10% **Tetragame** Tetraploid ryegrass
- \+ 25% **Double** Tetraploid ryegrass
- \+ 10% **Chardin** Perennial ryegrass
- \+ 25% **Esquire** Perennial ryegrass
- \+ 30% **Sergei** Strong creeping red fescue

= 100%

Sowing rate:	35-50g/m²
Overseeding:	25-50g/m²
Mowing height:	Down to 12mm

TM6 (PM79) Sports Field Renovation

- \+ 40% **Double** Tetraploid Perennial ryegrass
- \+ 20% **Cleopatra** Perennial ryegrass
- \+ 40% **Esquire** Perennial ryegrass

= 100%

Sowing rate:	35-75g/m²
Overseeding:	25-75g/m²
Mowing height:	Down to 25mm

TM7 (PM65) Race Course, Gallops & Polo GROUNDS

- \+ 30% **Tetragame** Perennial ryegrass
- \+ 30% **Columbine** Perennial ryegrass
- \+ 30% **Monroe** Perennial ryegrass
- \+ 10% **Yvette** Smooth stalked meadow grass

= 100%

Sowing rate:	35-50g/m²
Overseeding:	25-50g/m²
Mowing height:	Down to 25mm

TM8 Economy Landscape, Lawns & Playing Fields

- \+ 30% **Double** Tetraploid Perennial ryegrass
- \+ 30% **Esquire** Perennial ryegrass
- \+ 20% **Maxima** Strong creeping red fescue
- \+ 20% **Corail** Strong creeping red fescue

= 100%

Sowing rate:	35-75g/m²
Overseeding:	25-75g/m²
Mowing height:	Down to 15mm

TM9 (PM60) Shaded Conditions

- \+ 10% **Sabrena 1** Rough stalked meadow grass
- \+ 30% **Wagner** Chewings fescue
- \+ 20% **Pinafore** Slender creeping red fescue
- \+ 40% **Sergei** Strong creeping red fescue

= 100%

Sowing rate:	35-50g/m²
Overseeding:	25-50g/m²
Mowing height:	Down to 25mm

Sowing rates & use

SPORTS GROUND	AVERAGE PITCH DIMENSIONS WHICH MAY VARY	SOWING AT 25g/m²	SOWING AT 35g/m²	SOWING AT 50g/m²	SOWING AT 75g/m²
Small Football Pitch (TM5 PM70)	90m x 45m	100	140	200	✗
Large Football Pitch (TM5 PM70)	120m x 90m	270	375	540	✗
Bowling Green (TM1 PM5)	40m x 40m	40	55	✗	✗
Cricket Wicket (TM3 PM36)	27m x 6m	4	6	8	12
Hockey Pitch (TM5 PM70)	90m x 55m	125	175	250	✗
Polo Pitch (TM7 PM65)	275m x 145m	1000	1400	2000	✗
Rugby Pitch (TM5 PM70)	100m x 70m	175	245	350	✗

Where to use each mixture

FUNCTION	TM1 (PM5)	TM2 (PM20)	TM3 (PM36)	TM4	TM5 (PM70)	TM6 (PM79)	TM7 (PM65)	TM8	TM9 (PM60)
Bowling Green	✓								
Landscaping								✓	
Caravans								✓	
Cricket Wicket			✓						
Cricket Outfield				✓					
Croquet	✓								
Lawn Economy								✓	
Lawn Fine		✓		✓					
Lawn Designer	✓								
Football					✓				
Gallops							✓		
Golf Fairway		✓		✓					
Golf Green	✓								
Golf Tee		✓							
Orchard						✓		✓	
Polo							✓		
Putting Green	✓								
Rugby					✓				
Sports Renovation						✓			
Shady									✓
Tennis			✓						

Insights and Innovations with

Tramlines Podcast

Tramlines is the farming podcast that delivers advice to growers on how to improve environmental performance and maximise farm profitability.

Tune in tri-weekly to hear experts and experienced farmers share tips, techniques, and research on topics like soil health, digital innovations, and more.

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Have you listened to our latest podcast? Future-Proofing Forage Against Weather Extremes.

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Introducing the Growers Spring Arable Guide 2026,

offering insights into Spring Seed options across various species.

Rodger Shirreff
National Seed Business Manager

We have previously called this guide a 'Yearbook' which no longer feels appropriate as too much now changes in a single season. Each year brings new data, new challenges and new opportunities. Our aim is to condense all of that into a Growers Guide that captures your attention and genuinely supports your decision-making.

Everyone has access to the information on recommended lists, but not everyone conducts independent, replicated trials across the country – we do! It's this work that enables us to give you the most complete understanding of each variety's strengths, weaknesses and real-world potential.

View the Yearbook on your laptop or mobile.

Lucerne

Lucerne is valued for its yield, drought tolerance and high protein levels which are around 18-24%.

Growing lucerne as a home grown traceable protein source can be more profitable than bought in protein for livestock. Lucerne is a legume meaning its roots naturally fix nitrogen making it a cost effective crop to grow.

When managed correctly, lucerne can last up to five years producing up to three-four cuts per year. Under the correct management lucerne can also offer some grazing potential. Different varieties of Lucerne have different dormancy ratings and for the UK grower, a dormancy rating of four-five is considered optimal for three-four cuts per year. Lucerne can be grown on a wide range of fertile free-draining sites and soil types. It is known for being a difficult crop to establish and is not suitable for high rainfall areas or heavy clay waterlogged soils as these can cause the tap root to rot.

Site selection & crop requirements

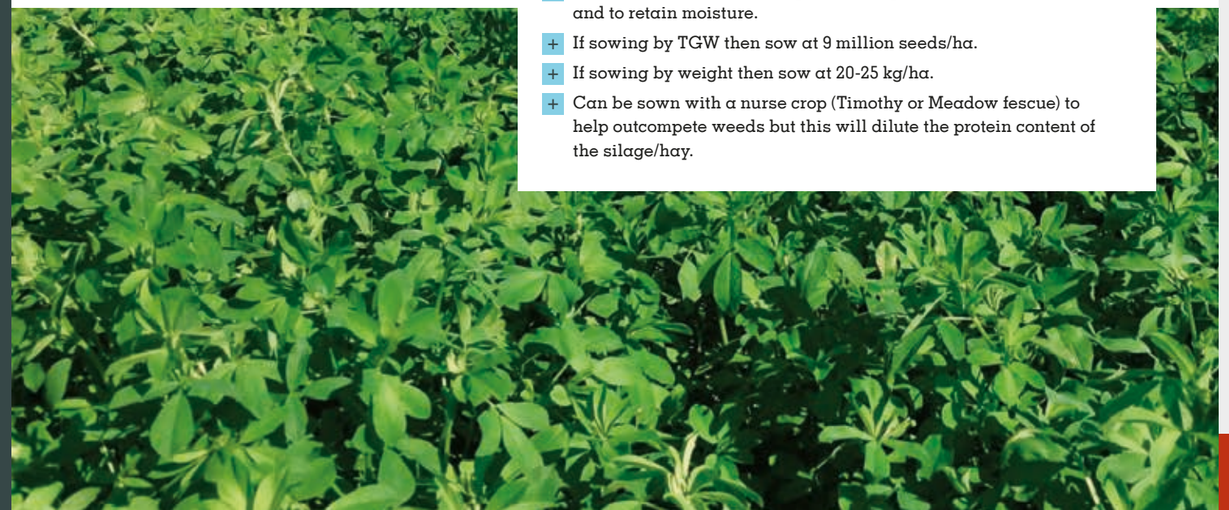
- Fertile and free-draining deep soils are required.
- Avoid clay and cold heavy waterlogged soils.
- Soil pH of 6.5-7 is needed and soil indices of at least 2 for both P & K.
- Adequate pH is important to ensure activity of N fixing Rhizobium bacteria within the root nodules.

Sowing & Establishment

- Producing three-four cuts per year from May to mid-October.
- Leave four-five weeks between cuts to build up root reserves. If cut too early you could reduce the persistency of the crop.
- Mid to late bud is identified as the best timing indicator for cutting.
- The last cut should be left to flower to build root reserves to improve winter hardiness and boost the following year's spring growth.
- Cut to a minimum height of 7 cm to avoid damage to the crown. This will also create good air flow under the swath to aid drying.
- Grazing must be managed carefully to minimise bloat. Back-fence to prevent grazing the regrowth. Rotational graze in five-six week intervals and do not graze hard in the winter as the crown could be exposed which could kill the plant.

Harvesting & Utilisation

- Make sure the seed is inoculated with a culture of live bacteria to ensure successful root nodulation and efficient nitrogen fixing.
- Sow into a warm, fine seed bed between mid April onwards and in southern England as late as mid-August.
- Drill at a depth of 0.5-1 cm or broadcast onto a firm fine seed bed.
- Roll before and after sowing to ensure good seed to soil contact and to retain moisture.
- If sowing by TGW then sow at 9 million seeds/ha.
- If sowing by weight then sow at 20-25 kg/ha.
- Can be sown with a nurse crop (Timothy or Meadow fescue) to help outcompete weeds but this will dilute the protein content of the silage/hay.



Chicory

Chicory is a broad leaf perennial herb that can last up to four years with the correct management.

It can be sown as a pure sward or mixed with grass and clover. Chicory is high yielding and has a high crude protein content of up to 25%.

It finishes lambs extremely well with DLWG of 300-400 g/day often being achieved.

Its long tap root mines valuable minerals from the soil depths making them available to livestock via the forage.

The long tap root also makes chicory tolerant to dry, drought prone soils which will help produce valuable forage in the drier summer months.

Chicory is not a legume so additional nitrogen is needed for growth and chicory does not cause bloat.

Site selection & crop requirements

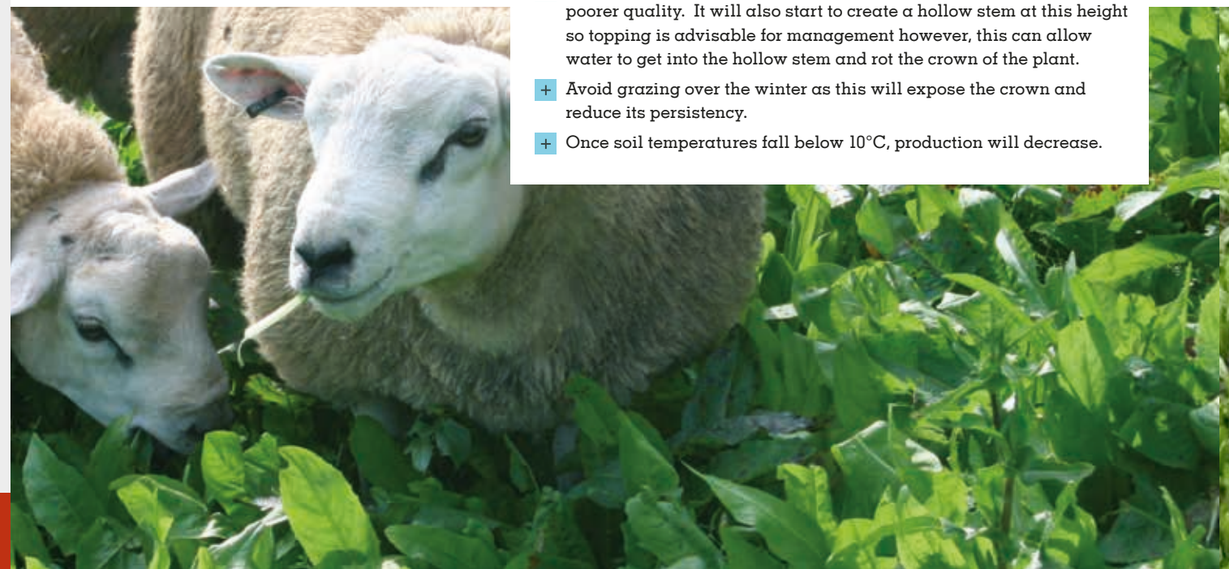
- Free-draining deep soils are required.
- Avoid clay and cold heavy waterlogged soils.
- Soil pH of 6 is needed and soil indices of at least 2 for both P & K.

Sowing & Establishment

- Control broad-leaf weeds before sowing as no licensed weed control is available for chicory.
- Sow during the spring, April onwards and no later than the end of August.
- Must be well established by the autumn before going dormant.
- Drill at a max depth of 1 cm or broadcast onto a firm fine seed bed.
- Seed rate as a pure sward 2.00 kg/acre.
- Seed rate as part of a grass and clover mixture 0.75-1 kg/acre.
- Seed rate as part of a red clover mix 2.00 kg/acre.
- Roll before and after sowing to ensure good seed to soil contact and to retain moisture.

Harvesting & Utilisation

- Once established, as long as the plants are not being pulled out of the soil, chicory can be grazed from about 8 weeks.
- In year one, light rotational grazing will be beneficial to the crop.
- Graze when the crop reaches 15-20 cm tall and leave residuals of 5 cm.
- Once the crop is past 30 cm tall it will become less palatable and poorer quality. It will also start to create a hollow stem at this height so topping is advisable for management however, this can allow water to get into the hollow stem and rot the crown of the plant.
- Avoid grazing over the winter as this will expose the crown and reduce its persistency.
- Once soil temperatures fall below 10°C, production will decrease.



Plantain

Ribgrass plantain is a narrow smooth leafed perennial herb that is mineral rich and will last up to four-five years.

It can be sown as a straight or mixed with grass and clover to increase grazing quality.

It produces a deep tap root which provides some tolerance to drought. Its deep tap root mines valuable minerals from the soil depths making them available to livestock via the forage.

Plantain will grow on a wider range of soil types compared to chicory, however it does not grow well in deep sands or waterlogged soils.

Unlike chicory which goes dormant in the winter, plantain will grow over the winter and is generally frost tolerant.

It has no specific P & K requirements however anecdotal reports from New Zealand suggest that good P, K & S (sulphur) fertility is required.

Plantain is not a legume and would need a source of nitrogen.

Site selection & crop requirements

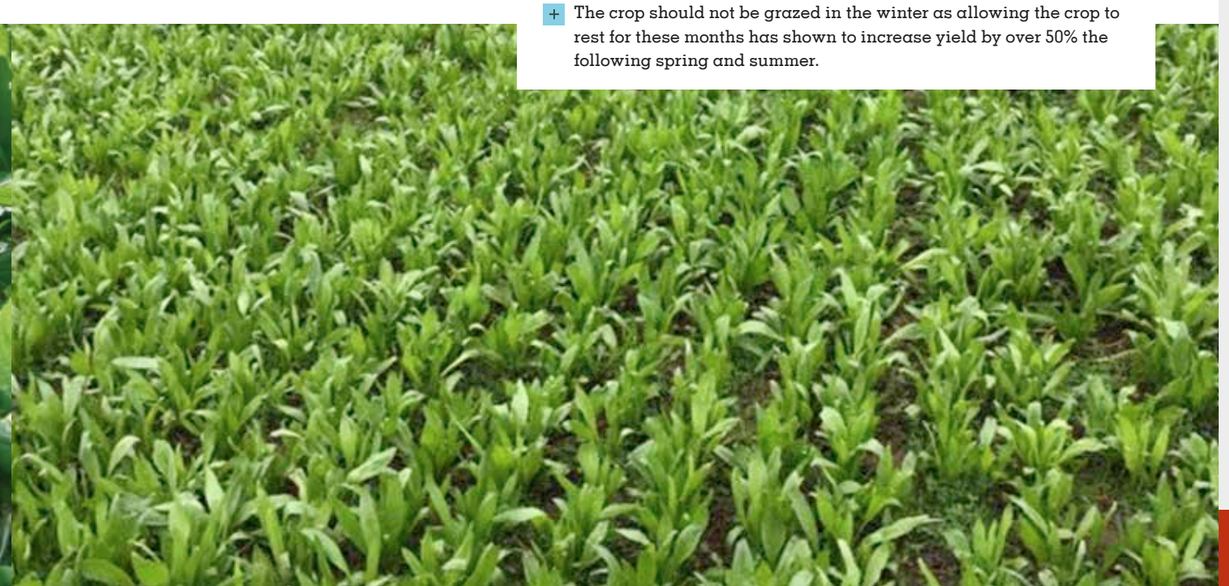
- Free-draining deep soils are required.
- Avoid heavy waterlogged soils and deep sands.

Sowing & Establishment

- Soil temperatures should be around 10°C.
- Weed control pre-emergence is essential.
- Sow during the spring, April onwards and no later than the end of August.
- Drill at a max depth of 1 cm or broadcast onto a firm fine seed bed.
- Seed rate as a pure sward 4 kg/acre.
- Seed rate as part of a grass and clover mixture 0.5-1 kg/acre.
- Seed rate as part of a white clover mix 2-3 kg/acre.
- Roll before and after sowing to ensure good seed to soil contact and to retain moisture.

Harvesting & Utilisation

- Rotational grazing is best to fully utilise the crop's potential rather than set stocking.
- Plantain requires short, intensive periods of grazing with sufficient recovery periods in-between. Rotation length should not exceed four weeks with three weeks being the optimum.
- Graze when the crop reaches 20-25 cm tall and leave residuals of 5-8 cm to optimise utilisation and liveweight gain.
- The crop should not be grazed in the winter as allowing the crop to rest for these months has shown to increase yield by over 50% the following spring and summer.



White Clover

White clover is a great source of home grown traceable protein.

As it is a legume, white clover has the ability to fix up to 150 kg of nitrogen per ha/year which makes it beneficial to livestock farmers.

It is generally used in medium and long term mixtures for both cutting and grazing and will last long term under the correct management.

White clover grows and creeps above the ground by stolons and is split into three sizes, small, medium and large.

A general rule is that the smaller leafed varieties have a denser network of stolons compared to large leafed varieties, making them ideal for intensive sheep grazing. Medium leaf varieties are generally used for cutting and rotational grazing by sheep and cattle, whilst large leaf varieties are used for cutting and cattle grazing.

It is therefore extremely important to use the correct leaf size or blend of clovers to suit your management regime.

Due to its drought tolerance, summer production is often higher than grass mixtures containing no clover.

Site selection & crop requirements

- Suitable for a wide range of soil types.

Sowing & Establishment

- Sow when the soil temperature is 8°C.
- Sow from April to early September.
- Create a firm fine seed bed.
- Roll before and after sowing to ensure good seed to soil contact and to retain moisture.
- Drill at a max depth of 1 cm or broadcast.
- Seed rate as a pure sward 4 kg/acre.
- Seed rate as part of a grass mixture 0.5-1.5 kg / acre.
- Seed rate for undersowing with Cereals 2.00 kg / acre (small leaf variety)

Harvesting & Utilisation

- Multi-use in both cutting and grazing.
- Can be grazed all year round.
- Select the correct leaf size to suit your management.
  - Small leaf: intensive sheep grazing.
  - Medium leaf: cutting and rotational grazing by sheep and cattle.
  - Large leaf: cutting and cattle grazing.

Red Clover

Red clover is a legume and has the ability to fix up to 150 kg of nitrogen per ha/year, which makes it beneficial to livestock farmers.

Its deep tap root helps it survive on the lighter drier soil types and produce greater yields going into the summer months.

Its yield is twice that of white clover, and it is a great source of home grown traceable protein, which is excellent for finishing lambs and producing high protein silage.

Typically red clover lasts three years however with improvements in breeding, there are now varieties on the market that can last five years.

Red clover has a crown and damage to this crown by grazing over the winter months will reduce the persistency of the crop.

Red clover also contains oestrogen which can affect the fertility of ewes so don't graze red clover leys four to six weeks before and after tupping.

If not managed correctly, red clover can also cause bloat.

Site selection & crop requirements

- Suitable for a wide range of soil types.
- Avoid clay and cold heavy waterlogged soils.

Sowing & Establishment

- Sow when the soil temperatures are 8°C.
- Sow from April to mid-late August.
- Create a firm fine seed bed.
- Roll before and after sowing to ensure good seed to soil contact and to retain moisture.
- Drill at a max depth of 1 cm or broadcast.
- Seed rate as a pure sward 5-6 kg/acre.
- Seed rate as part of a grass mixture, up to 3 kg/acre.

Harvesting & Utilisation

- Can be grazed and cut two to three times a year.
- Avoid grazing hungry stock on red clover to prevent potential bloat issues.
- Don't graze breeding ewes four to six weeks either side of tupping as the oestrogen within red clover can affect their fertility.
- Only lightly graze in the autumn and don't graze over the winter to prevent exposing the crown, which could reduce the persistency of the plant.

Roots

Seed Selector

SPECIES	SUGGESTED SEED RATE KG/ACRE	SUGGESTED SEED RATE KG/HA	DRILL DATE	UTILISATION PERIOD	AVERAGE DM YIELD (T/HA)	AVERAGE FRESH YIELD (T/HA)	DRY MATTER %	CRUDE PROTEIN %	DIGESTIBILITY VALUE %	METABOLISABLE ENERGY (MJ/KG DM)	MORE INFO
Fodder Beet	40,000 - 50,000 seeds Sold in 50,000 packs	100,000 seeds	Late March - Late April	Oct - March	15 - 18	80 - 100	15 - 23	12 - 13	78	12.5 - 13	Page 52
Swedes	Precision Drill: 150g - 350g Drill: 1 kg Broadcast: 1.5 - 2 kg	Precision Drill: 370g - 860g Drill: 2.5 kg Broadcast: 3.7 - 5 kg	April - June	Sept - March	7 - 10	70 - 90	10 - 13	10 - 11	82	12.8 - 13.1	Page 54
Maincrop Turnips	Drill: 1 - 1.5 kg Broadcast: 2 kg	Drill: 2.5 - 3.7 kg Broadcast: 5 kg	June - July	Sept - Feb	5.5 - 6	50 - 60	9 - 10	17 - 18	68 - 70	10 - 11	Page 55
Kale	Drill: 1.5 - 2.0 kg Broadcast: 2.5 - 3 kg	Drill: 3.7 - 5 kg Broadcast: 6 kg - 7.5 kg	April - Early July	Late Aug - March	8 - 10	60 - 70	14 - 16	16 - 17	70 - 75	10 - 11	Page 57
Forage Rape	Drill: 2.5 kg Broadcast: 3 kg	Drill: 6 kg Broadcast: 7.5 kg	May - Early Sept	July - Dec	3.5 - 4	24 - 35	12 - 13	19 - 20	65	10 - 11	Page 59
Stubble Turnips	Drill: 1.5 kg Broadcast: 2 kg	Drill: 3.7 kg Broadcast: 5 kg	May - End Aug	July - Dec	4 - 5.5	40 - 50	8 - 9	17 - 18	68 - 70	11	Page 60
Lamb Tonic (Limited data)	Drill: 4 kg Broadcast: 4 kg	Drill: 10 kg Broadcast: 10 kg	April - End Aug	Perennial (up to 4 years)	10 - 11	65 - 75	14 - 15	21 - 22	68 - 75	11 - 12	Page 61
Autumn Keep (Limited data)	Drill: 2.5 kg Broadcast: 3 kg	Drill: 6 kg Broadcast: 7.5 kg	May - End Aug	July - Dec	5 - 6	45 - 55	10.5 - 11.5	18.5 - 19.5	65 - 70	10 - 11	Page 61
Meat Maker (Limited data)	Drill: 2.5 kg Broadcast: 3 kg	Drill: 6 kg Broadcast: 7.5 kg	May - End Aug	Aug - Jan	4.5 - 5.5	35 - 45	12 - 13	19 - 20	65 - 68	10 - 11	Page 61
Late Lamb (Limited data)	Drill: 7.5 kg Broadcast: 7.5 kg	Drill: 18 kg Broadcast: 18 kg	May - End Aug	Aug - Feb	11.5 - 12.5	65 - 75	16.5 - 17.5	15.5 - 16.5	65 - 70	10 - 11	Page 61

The figures are a guide and will vary with location, environmental factors and pest pressure.

Fodder Beet

Fodder beet is a high yielding crop that can be grazed in situ or lifted and clamped to feed over the winter.

This high energy feed is extremely palatable and will improve milk yields and daily live weight gain. The high dry matter types are generally a harder beet which sits deeper in the ground making them more winter hardy and suitable for lifting. The medium dry matter types are softer and are suitable for both lifting and grazing. Low dry matter types are very soft and are only suitable for grazing. These low dry matter types should be utilised first as they can be susceptible to frost damage.

Brick

A high yielding variety that is suited for lifting and not grazing. It is ideal for growers who are looking to produce a high quality feed with a very high dry matter % content. Brick is a true fodder beet and therefore exhibits cleaner roots, but will still deliver very high dry matter yields for maximum feed potential. Rhizomania tolerant.

Blizzard

Blizzard's characteristics makes it ideal for lifting and not grazing. Its high dry matter content allows growers extra harvesting flexibility. It will produce a very palatable feed, which is best chopped and fed to dairy or beef animals because of the high dry matter content.

Magnum

Magnum is a palatable variety which therefore increases dry matter intake in all stock. Due to its high dry matter content it is more frost resistant than other varieties with a high proportion of clean, white root in the ground. This makes it suitable for lifting rather than grazing.

Fosyma

Fosyma is a high yielding variety of similar dry matter % to Tarine. 40% of the rose coloured roots grow out of the ground, so it lends itself to grazing as well as lifting. It comes with an excellent agronomic package with excellent powdery mildew resistance and is rhizomania tolerant. It is also very resistant to bolting.

Robbos (Agrii's top selling variety)

Robbos consistently produces high dry matter yields from a medium DM content, meaning it's ideally suited for first time fodder beet growers. Its clean yellow roots are easily harvested and can be fed whole, chopped or grazed in situ for sheep, beef and dairy production. Because of this, Robbos is Agrii's top selling variety.

Blaze

Blaze has the potential to produce excellent dry matter yields with very clean, bright red roots. Trials show that low dirt contamination ensures high intake with no scouring. Blaze is a medium dry matter variety which enables the roots to be fed whole, chopped or grazed in situ for sheep, beef and dairy production.

Jamon

Jamon is a well known, tried and tested variety, which produces palatable clean orange roots. It's a medium dry matter type which makes it ideally suited for grazing or lifting and feeding whole, chopped or grazed in situ for all livestock types.

Other varieties available upon request. Primed fodder beet available upon request.

VARIETY	COLOUR	RELATIVE DRY MATTER YIELD % 100 % = 18.55 TONNES/HA	DRY MATTER CONTENT %	% ROOT IN GROUND
Brick RT	White	110	22.9	76.3
Blizzard	White	101	22.2	72.3
Magnum (c)	White	100	20.6	65.1
Fosyma RT	Red	116	22.1	65
Robbos	Yellow	100	19.9	60
Blaze	Red	96	18.7	57.1
Jamon	Orange	94	17.9	57

Data Source: Limagrain UK Trials 1998-2018 (c) = Control RT = Rhizomania tolerant

Energy Beet

Energy beet is becoming a vital crop for farmers due to its excellent digestion efficiency, which helps to achieve the performance required from AD plants.

The key is to grow a high yielding, high dry matter type with a good agronomy package. Along with choosing a variety with high DM yields, consideration must also be taken to choose a variety with low dirt tares with a reduced root groove as this is of great benefit for optimal performance.

ELOQUENTA KWS

ELOQUENTA KWS represents a significant step forward in our breeding programme, delivering high dry matter yields that translate directly into strong gas or dry matter output per hectare. For biogas operators seeking high DM content, strong overall yield, and a low dirt tare, ELOQUENTA KWS brings all three. It can also be fed to livestock and is well suited for chopping and ensiling on top of maize or grass.

ALISHA KWS

A stalwart of the KWS beet portfolio, ALISHA KWS delivers excellent dry matter yields, translating into impressive gas output per hectare. It performs at its best from mid-March drilling onwards and offers strong tolerance to rust and powdery mildew – key traits for UK energy beet growers.

Versatile in use, ALISHA KWS can also be fed to livestock and is well suited to ensiling using the 'Brownie-style' system.

GUSTEA KWS

GUSTEA KWS represents a significant step forward in root yield potential for high dry matter varieties. Its impressive yields and well-formed roots make it ideal for chopping and feeding. Agronomically, it stands out with strong tolerance to cercospora and good resistance to bolting. GUSTEA KWS is also exceptionally well suited to ensiling in the 'Brownie-style' system.
Its DMC is 19.4-20.5%.

Other varieties available upon request.

Anaerobic Digestion

Agrii has been able to provide the UK's AD Industry with a unique insight into commercial feedstock production since 2012.

Based 20 miles east of Leeds, Agrii's Brotherton iFarm is home to an extensive Agrii R&D trials facility which focuses primarily on hybrid rye, forage rye, winter wheat, triticale and also maize.

The trials are specifically designed to supply leading technical management recommendations as well as screening many new genetic lines on an annual basis.

In addition to collating the UK's leading detailed agronomic data, we are also able to gain in depth methane production analysis from the 500kW AD Plant that is also based at the iFarm.

Throughout the year, iFarm events and tours take place at the site to demonstrate the most up to date developments which can range from information on drilling date, seed rates and variety traits to input programmes.

The Brotherton iFarm has also played a key role in Agrii's development of hybrid rye for grain and its place within today's UK market.

For more information on how Agrii can help you progress your AD business please contact:

John Charlton,
Crop Inputs Specialist
07469 284165

Philip Marr,
OSR and Renewable Energy Consultant
07867 317116

Swedes

Swedes are commonly known to be the only true winter hardy forage and will produce high dry matter yields and valuable high energy winter feed for outwintering stock.

Like any brassica, stock should be introduced slowly and have access to either a grass or stubble run-back. This cost effective crop is normally grazed in situ and it is important to choose a variety that will cover the period you want to graze. It is also very important to decide how you are going to sow your swede seed. If precision drilling, you must use (graded) grade H seed and if direct drilling or broadcasting, you will require natural seed.

Invitation

Invitation is a high dry matter type making it suitable for after-Christmas utilisation due to its good winter hardiness. It produces big uniform bulbs and has large leaves which will help increase the overall yield and help to extend the grazing period. It has excellent tolerance to powdery mildew and is also a clubroot tolerant variety. (There are different strains of clubroot so a five year rotation is recommended).

Gowrie

Gowrie is a medium dry matter type that produces high dry matter yields which can be utilised pre- and post-Christmas. Bred in Scotland, Gowrie is known as a dual purpose swede which is suitable for sheep and cattle grazing as well as being used as a culinary swede. It has good powdery mildew resistance and is also a clubroot tolerant variety. (There are different strains of clubroot so a five year rotation is recommended).

Lomond

Lomond is a medium dry matter type which produces high fresh and dry matter yields which makes it suitable for finishing lambs post-Christmas. Trials show that it suffers less from root rot and splits, making it more palatable throughout the grazing period. It has both powdery mildew and clubroot tolerance. (There are different strains of clubroot so a five year rotation is recommended).

Triumph

Triumph is a swede that delivers high yields of both root and leaf and is best utilised from November to February. Its good winter leaf retention enhances the overall yield of the crop, which will help to extend the grazing period. It's a medium dry matter type that produces uniform bulbs and has a high tolerance to root rot. It also has strong resistance to clubroot. (There are different strains of clubroot so a five year rotation is recommended).

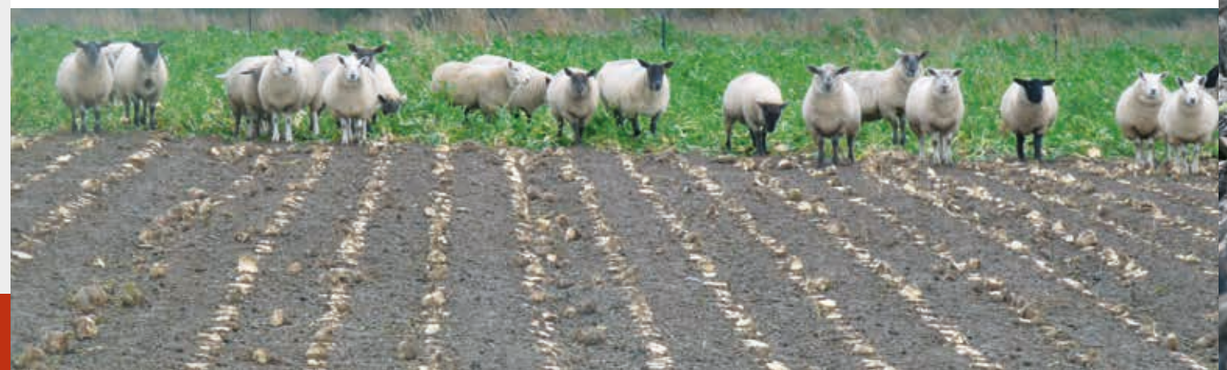
Marian

Marian is a medium dry matter type which has yellow coloured flesh and a purple skin. It is ideal for sheep and cattle grazing and is also extremely palatable as a culinary swede. Marian is best utilised from October until January and if you are looking to extend the grazing period then we would suggest maybe growing a higher dry matter type alongside Marian.

Magres

Magres is the professional's choice and used by many growers to supply the supermarkets with the flexibility to be used for livestock feed also. It's a high Dry Matter type with a uniform purple bulb and a flexible harvest date.

Other varieties available upon request.



Maincrop Turnips

Maincrop turnips produce high fresh yields of very palatable and easy to digest fodder. They are ideal for finishing lambs and also provide valuable fodder for beef and dairy cattle in the autumn and winter.

Drilling date will need to be considered to get the full potential of this crop as they have a growing period of 13-15 weeks in optimum conditions. Their growth habit is slightly slower compared to stubble turnips but will be more winter hardy. Both cattle and sheep should be introduced gradually to the crop and have access to a grass run-back. Silage, hay or straw should also be made available whilst grazing the crop. They should be grazed in situ and preferably strip grazed to reduce waste.

Massif

Massif is a yellow fleshed turnip which is winter hardy. It can be sown from May to August and will produce huge yields from a short growing period. It makes a good alternative to swedes.

Imperial Green Globe

Green Globe turnips produce a white fleshed turnip which is a slightly softer turnip compared to Massif. Its roots are well anchored into the ground and will produce high fresh yields.

Kale

Kale produces high yields and is high in protein, which can help bolster forage demands in the winter.

It's traditionally strip grazed behind an electric fence to help reduce waste, making it an economical crop to grow. A grass run-back is recommended and silage or hay should also be made available whilst grazing the crop. It can also be harvested and fed by zero grazing as well. Depending on sowing date, it is generally utilised from late August through to March which makes it suitable for outwintering livestock. Kale is higher yielding and more winter hardy than rape/kale hybrids however it will take longer to produce a crop.

Caledonian

Caledonian is a high yielding kale which has tall, thick stems making it suitable for dairy and beef cattle. It's a UK proven variety which has good digestibility and is also one of the most clubroot tolerant varieties. (There are different strains of clubroot so a five year rotation is recommended).

Bombardier

Bombardier is a variety that has been bred to enhance its feed quality and palatability. It is suitable for dairy, beef or lamb production. It will produce high dry matter yields and is suitable for autumn and winter utilisation. It is also a club root tolerant variety. (There are different strains of clubroot so a five year rotation is recommended).

Keeper

Keeper is a leafy, medium/short variety which has good resistance to lodging. It has a high dry matter content which produces quality winter keep, making it ideal for finishing lambs.

Maris Kestrel

Maris Kestrel is a short variety which has a high leaf to stem ratio. It has high digestibility values and good winter hardiness making it ideal for outwintering cattle or sheep. It has vigorous early growth and good resistance to lodging.

Pinfold

Pinfold is an excellent variety with thin stems and can be utilised by sheep, beef or dairy. Pinfold is winter hardy, but because of its rapid growth it can be used as a late summer/early autumn buffer feed.

SovGold

SovGold is a medium to tall kale variety with a fine stem and high leaf to stem ratio. Trials have shown SovGold to have greater utilisation and less wastage compared to competing kale varieties.

Other varieties available upon request.

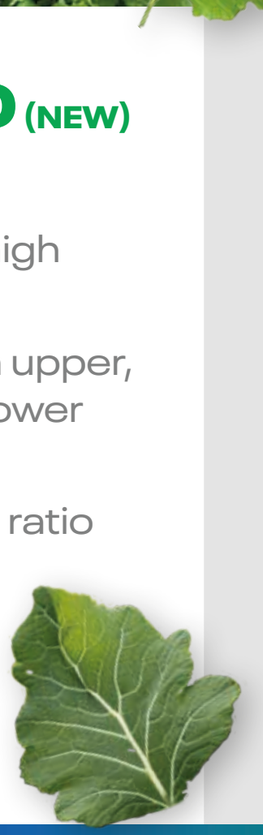
DLF SEEDS & SCIENCE

MAINSTAR
HYBRID BRASSICA

- Exceptionally high yielding
- The stem is very palatable
- Good frost tolerance
- Great regrowth potential

SOVGOLD (NEW)
KALE

- Exceptionally high yielding
- Very high ME in upper, mid and even lower stem
- High leaf: stem ratio
- Best utilisation of any kale



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Forage Rape

Forage rape is a fast growing leafy catch crop which is high in protein and can be ready to utilise between 10-14 weeks from sowing in optimum conditions.

Forage rape is ideally used for finishing lambs or flushing ewes and can also be grazed by cattle. The feeding of any brassica should be introduced gradually over a two week period and strip grazing throughout the season is recommended to help prevent waste. Ideally there should be a grass run-back along with access to hay or silage and water. The 'hybrid' types and true forage rapes can help to extend the grazing season as they have good winter hardiness and are longer lasting than stubble turnips.

They will also produce more yield from a later sowing compared to stubble turnips.

Interval (Rape/Kale Hybrid)

Interval is a rape/kale hybrid which is fast to establish. It has good disease resistance to mildew and Alternaria meaning that the crop is grazed well with minimal waste. It produces high yields of palatable forage which is ideal for finishing lambs and will also provide valuable fodder for beef and dairy cattle over the autumn/winter months. As it is a rape/kale hybrid it will be more winter hardy than some other varieties which will also help to extend the grazing season.

Redstart (Rape/Kale Hybrid)

Redstart is a rape/kale hybrid which has good winter hardiness and good late season yield potential. Its vigorous growth habit means it has a flexible utilisation period and depending when sown, it can provide summer, autumn and winter grazing. Its high energy and protein levels are suitable for cattle and sheep grazing and if managed correctly, it could offer some regrowth potential.

Unicorn (Rape/Kale Hybrid)

A new variety which can provide a highly palatable forage for autumn and winter grazing. Unicorn has some re-growth potential providing the stems are not fully grazed, and with this additional growth, dry matter yields per hectare can be boosted.

Rampart

Rampart is extremely palatable and has been bred with feed quality enhancements making it highly digestible fodder for lamb, beef and dairy production. This new generation of forage rape will be extremely fast to establish and will have the capability of producing high yields of high quality forage.

Hobson

Hobson has excellent resistance to powdery mildew and Alternaria. These are diseases that can make some crops unpalatable leading to high wastage in the field. Hobson is very palatable and digestible which makes it the variety for finishing lambs. It has one of the best winter hardiness scores in Limagrain's trials and is a reliable variety that has consistently performed in the UK.

Spitfire (Rape/Kale Hybrid)

Spitfire is a modern forage rape created by crossing rape with kale. It has excellent yields and has a low dry matter stem which produces high quality feed with good utilisation at grazing. It has rapid establishment to maturity and can offer some regrowth potential but this needs to be managed carefully to avoid damage to the lower stems.

Mainstar (Rape/Kale Hybrid)

Mainstar is a highly palatable modern early maturity rape with quality frost resistance and excellent regrowth potential after grazing. It is a very versatile brassica with extremely good aphid tolerance. The main strength of Mainstar is the early maturity leading to the potential for earlier grazing which will extend the grazing period for stock.

Stego

Stego Rape is a fast-growing, high-protein feed particularly well-suited to finishing lambs. It also offers potential for extended grazing of cattle through summer, autumn, and winter.

Other varieties available upon request.

Stubble Turnips

Stubble turnips are a low input crop which can help reduce winter feed costs for sheep and cattle, making them an economical crop to grow.

They are quick to establish and fast growing which means they can be ready to utilise between 10-14 weeks from sowing in optimum conditions. They have a higher Metabolisable Energy (ME) content compared to forage rape, but are lower in protein. There are two types of stubble turnips; bulb and bulbless. The bulb types are suitable for finishing lambs over the autumn/winter period and the bulbless (very leafy) types are ideal for summer buffer feed for cattle and sheep. The feeding of any brassica should be introduced gradually over a two week period and strip grazing throughout the season is recommended to help prevent waste. Ideally there should be a grass run-back along with access to hay or silage and water. To avoid milk taint, dairy cows should be fed stubble turnips immediately after milking or removed from the crop three hours before milking.

BULB TYPES

Samson (Agrii's top selling variety)

Samson produces large purple tankard shaped bulbs, which are palatable to both sheep and cattle. Samson is a tetraploid variety meaning that it is slightly sweeter than other varieties and trials show that it is preferentially grazed, which can lead to higher intake and liveweight gains.

Hector

Hector is a tetraploid stubble turnip with bulbs that sit further out of the ground than any other variety. This unique characteristic means Hector has better grazing utilisation that other varieties and less wastage.

Rondo

Rondo's growth habit means that it has good root anchorage which can help reduce wastage in the field. It produces a green skinned bulb and has excellent disease resistance. It is more frost tolerant than other varieties, making it ideal for later utilisation into early February.

Vollenda

Vollenda is a proven variety which is fast to establish and produces palatable large tankard bulbs. It has a high resistance to bolting and has fantastic disease resistance. Vollenda's good winter hardiness helps to provide valuable forage into February.

BULBLESS TYPES

Skyfall

Skyfall is a new variety that has been bred to provide palatable leafy forage that can be strip grazed by dairy, beef and sheep in the summer months when grass growth is declining. It can also be sown later in the year for autumn and winter grazing. In optimum conditions Skyfall can be ready to utilise between eight-nine weeks from sowing. Skyfall is known as the bounce-back brassica, and with the correct management it may have regrowth potential.

Other varieties available upon request.

Catch Crop Mixtures

Mixing different species together is becoming more popular as they provide the opportunity to capitalise on the individual species attributes, whether that be protein, energy or winter hardiness.

These home grown catch crop mixtures are an economical way to provide high yields of quality feed to all livestock and can help reduce the cost of bought-in feed.

Lamb Tonic

This mix will last four years and can be sown as a pure sward or added to a suitable grass mixture to help increase the mineral content of the forage. The herbs within the mix have deep tap roots, which mine minerals from the soil depths making them available to the livestock via the forage. Grazing hard over the winter could reduce the persistency.

- **1.25 kg Violin** White clover
- **0.75 kg Tonic** Plantain
- **3.00 kg Choice** Perennial chicory
- **5.00 kg/0.5 ha**

Meat Maker

The higher inclusion of forage rape within the mix will help protect the turnips from winter damage making it is suitable for autumn or winter utilisation. It will produce valuable forage with minimal effort.

- **1.95 kg Hobson** Forage rape
- **0.75 kg Rondo** Stubble turnip
- **0.30 kg Keeper** Kale
- **3.00 kg/0.5 ha**

Autumn Keep

This mix will establish fast and will provide valuable forage for autumn utilisation. It has good disease resistance with high palatability throughout the grazing season.

- **1.20 kg Hobson** Forage rape
- **0.60 kg Samson** Stubble turnip
- **0.90 kg Rondo** Stubble turnip
- **0.30 kg Keeper** Kale
- **3.00 kg/0.5 ha**

Late Lamb

This mix has been designed using varieties that have improved winter hardiness making it ideal for late utilisation. The Italian ryegrass ensures the crop has improved ground cover to help keep the animals cleaner and can also offer another grazing the following spring.

- **1.25 kg Rampart** Forage rape
- **1.25 kg Rondo** Stubble turnip
- **6.50 kg Italian ryegrass**
- **9.00 kg/0.5 ha**

Utilising Autumn Keep for finishing store lambs in North Yorkshire

Supplying over 3,000 finished lambs a year into deadweight and livestock markets, Roger Donaldson is a significant store lamb finisher. The basis of this is using forage mixtures to grow lambs to a finishing weight, sowing over 150 acres of Autumn Keep and Meat Maker a year.

Autumn Keep is sown after winter and spring barley is harvested, to feed the store cattle on the farm. Forage crops are then sown from late June through to Mid-September.

"We like to have Autumn Keep through and away by the middle of July, but have sown Meat Maker into September, if needed" says Roger.

Forage crops are ready to be grazed 12 weeks from sowing onward, but crops can be left well into the new year, to provide feed right up to March.

"We find the forage rape and kale in Autumn Keep hold the leaves of the turnips up, allowing them to fill out and tolerate frost" he explains.

The tankard-type stubble turnip, Samson, is quick to establish, competitive with the forage rape and utilises well with lambs.

Roger's soil type is mainly free draining sandy loams, with some areas of sandy clay loam. Fields are mainly level with gutters around them for drainage. Site selection is important to ensure livestock wellbeing, crop utilisation and limited environmental effects.

Lambs are grazed at around 15-20 per acre for around 8-10 weeks. Fields are set up with some fall-back on to grass headland and strawed areas, with water and mineral supplements. Turnips are block grazed with fences moved once a week to provide fresh grazing.

Once lambs have a suitable frame and condition, they are brought into finishing pens for 10-14 days, where they receive concentrate feed. This ensure lambs are clean to slaughter and any required treatment can be carried out. Lambs are finished at 42-46 kg to provide a carcass weight of 22 kg.

Gamecover

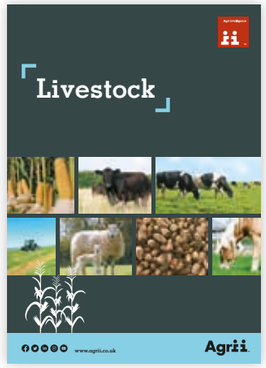
Agrii can offer a comprehensive range of gamecover mixes which are designed specifically to suit the different types of birds on your shoot.

Whether you need winter holding mixtures to provide cover and feed or driving cover, we have a wide range of mixtures to suit individual needs, with mixtures that can last both one and two years. We also have a range of herbicide-tolerant mixes for those sites with continuous gamecover or where weed burdens are high. Along with gamecover mixtures, we also offer game maize blends and straight gamecover species like kale, quinoa, millet, sunflowers, chicory and reed canary grass to name a few.

Other resources available from Agrii

Maize Brochure 2026

Cover Crops Brochure



Livestock Brochure

To request your free copy of any of these brochures, please contact our Seed Desk on 01277 898202 or email info@agrii.co.uk

GREEN HORIZONS

Working together for a sustainable future

What has been achieved since 2022?

2023

- Partnered with Agreena to enable farmers to join their carbon programme.
- Launched NUE framework to improve on-farm nitrogen efficiency.
- Installed 15 EV charge points across 6 Agrii sites.
- 576% increase in soil organic matter tests since 2019.

2024

- Designing and rolling out regen-ag programmes with Bunge and GB Seeds.
- 20% of van fleet now electric, up from 0% in 2019.
- Nearly doubled EV charging points to 26 across 12 logistics centres, with 10 more planned.
- Exploring transition of commercial fleet to CNG, hydrogen trucks, and HVO.

2025

- Launched 2 new sustainable grain contracts working with the food supply chain to reduce scope 3 emissions.
- Agrii have been the first agri-logistics company to take on a Mercedes Benz electric truck. This will enable us to reduce scope 1 emissions by ~18 - 22 tCO2e per truck annually.
- Established an NUE baseline through 300+ measurements across 47 UK trial sites. This is with the ambition of improving NUE by 20% by 2030.
- Opening of the new glasshouse at Throws Farm, which will help fast track the development of biologicals and identify solutions to improve NUE.

SDG = Sustainable Development Goal set by the United Nations to be achieved by 2030.

For further information please contact your local Agrii seed contact

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9	Angie Baker	07796 193895
10	Will Sanderson	07980 943538
11	Cas Sandy	07970 641741
12	Louise Rawlinson	07721 788943

For all your seed enquiries please contact your Crop Inputs Specialist on one of these numbers or your local Agronomist.

Alternatively please call:

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