



**COTSWOLD**  
Grass Seeds  
— SINCE 1974 —

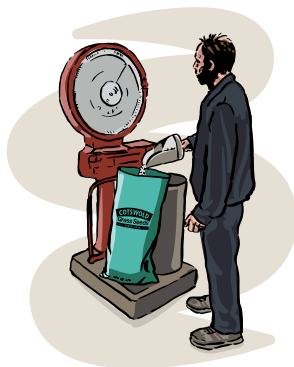
**2025**

# SEED CATALOGUE

51st EDITION



**The right advice...**



**bespoke mixtures...**



**fast delivery.**

## INDEX

<b>WELCOME</b> ..... 01	Herbal Grazing Leys .....23	<b>WILDFLOWERS</b> ..... 48
<b>SPECIES: Grasses</b> ..... 02	Long Term Leys.....26	Wildflower Directory .....50
<b>SPECIES: Legumes</b> ..... 04	<b>ROOT CROPS</b> ..... 28	<b>GAME</b> ..... 52
<b>SPECIES: Herbs</b> ..... 05	<b>EQUINE</b> ..... 30	<b>LAWN &amp; LANDSCAPE</b> ..... 56
<b>OVER-SEEDING</b> ..... 06	<b>GREEN MANURES</b> ..... 32	
<b>SILAGE &amp; HAY</b> ..... 08	<b>CHEWING IT OVER with</b>	<b>FIRST HAND CASE STUDIES:</b>
Hay Leys.....08	<b>Lizzie Arnold</b> ..... 35	Garry Hickman ..... 09
Silage.....10	<b>SFI</b> ..... 36	Waldegrave Estates.....17
Red Clover Leys.....12	Legume Fallows.....37	Mark Spendlove..... 22
Sainfoin.....14	SFI Herbal Leys .....38	Dave Loggin ..... 25
Lucerne .....15	Cover Crops .....40	David Newman &
<b>GRAZING &amp; FORAGE</b> ..... 16	<b>ENVIRONMENTAL</b> ..... 43	Tracy Russell ..... 34
Grazing.....16	Pollen & Nectar .....43	Jeremy Buxton ..... 41
Dual Purpose Swards.....18	Farmland Birds.....45	Justin Newman .....47
Drought Resistant Leys.....20	Resource Protection .....46	



### Cotswold Seeds Knowledge Hub

Visit our knowledge hub for extensive advice, guidance and free downloads:

- Sowing & Growing Guides
- How to Guides
- Species Guide
- Science & Research
- Policy & Subsidies
- Events



See page 42

FarmED is our 107 acre demonstration farm based in Oxfordshire.



**FarmED**

Focused on regenerative agriculture, it provides learning spaces and events that inspire, educate and connect farmers and growers to build sustainable farming and food systems.

FarmED runs numerous courses throughout the year and farms an 8 year crop rotation trial plot. For more information see page 42 or scan the QR code to visit the website.





# Welcome to the 2025 Cotswold Seeds Catalogue

Myself and the team have seen a challenging year through all aspects of farming and I hope that by working together, the industry can meet these challenges head on, ensuring this vital sector and community becomes stronger and more adaptable as a result.

According to the Met Office, the last 2 years have seen wider extremes of weather conditions across the UK. 2023 brought a very wet winter, with some areas receiving a third more rainfall than normal, interspersed with higher than average temperatures in June and September, resulting in a wet, but second warmest year since 1884. Then 2024 brought a slow spring, a wet summer and a lack of sunshine hours. Gratefully, November brought some relief with drier conditions.

Getting crops established reliably through a resilient farming system is really important and deep rooting plant species are vital to boost soil health. They really stand out in dry conditions but there is also an important place for these plants on heavy ground, improving water infiltration, demonstrating their flexibility on both heavy and light land to combat these weather challenges.

The Sustainable Farming Initiative seems a useful stepping stone to exploring options which include these deep-rooted species with a decent payment attached, however mixed messaging around funding and grants has cast some doubt on relying on these schemes. If these issues can be ironed out, SFI could be a way of taking some of the risk from annual cropping and help spread cash flow across the year.

While many of the SFI options do have some criteria to adhere to, it's worth considering how these mixes can be tailored to the farming system as well as considering what job the mixes will do, the soil type and establishment methods.

While we wrestle with the ever changing weather, pressures on agriculture and the political climate, be assured that Cotswold Seeds will be sticking to our key values of truly independent advice, bespoke mixtures and rapid delivery.

Sam Lane, *Director of Seeds & Technical*



## Payment

Account customers receive 28 days credit.  
Payment can also be made by card, cheque, BACS and PayPal.  
Payable to: Cotswold Seeds Ltd  
Barclays Bank  
Acc. no. 80278661  
Sort code 20-20-15

Paypal payments, please use:  
orders@cotswoldseeds.com  
IBAN: GB92 BARC 2020 15802786 61  
SWIFTBIC: BARCGB22

T&Cs apply - available on website/invoices.  
Confirmed farming group members can order online and be invoiced via their farming group account - select this option during checkout and you will be prompted for your membership number.

## Free delivery on orders over £75

Orders placed by 12 noon on the phone or online are normally despatched the same day to most parts of the UK (not weekends & stock permitting). We try and use our own vehicles for delivery where possible, and use third party carriers for all other areas. We always endeavour to mix your seed and dispatch on the day of ordering.

## Seed varieties

In the event of shortages we reserve the right to use alternative varieties in our mixes without notice. Please check website for latest updates.



PayPal™

© Copyright: Cotswold Seeds Ltd  
ISBN: 978-1-8380163-8-8

Orders & Advice

01608 652552

cotswoldseeds.com

# Grasses



Grassland is the single most important source of forage for British farmers.

Our climate is ideal for grass growth, making grazed grass easily the cheapest source of forage for livestock. In order to capitalise on this great natural resource, extensive research over many decades has improved UK grassland productivity and its on-farm utilisation dramatically.

However, of the 50 or so different types of grass found in the UK, only a handful are cultivated on any scale, with the most important outlined here.

Ryegrass, which comes in many different forms, is the most widely sown of all grasses. Ryegrasses have high sugars and respond to nitrogen fertiliser better than any other grass species. These two qualities have made it the most popular grass for silage over the last sixty years (since the Plough Up policy of WW2 and the advent of cheap nitrogen fertiliser).

Increased demand resulted in the development of new varieties led by Sir George Stapledon at the Aberystwyth Plant Breeding Station. Other plant breeders across Europe followed suit and, as a result, we now have a comprehensive range of varieties to select from.

## How Long Do Ryegrass Leys Last?

Perennial ryegrass based leys last between three and five years reliably. On good soils they can last longer, but all eventually deteriorate as unsown species such as meadowgrasses and bents increase to make up more of the sward.

There are differences within ryegrass species and between individual varieties. Generally, late heading perennial ryegrasses such as Toddington are very persistent with good ground cover. Earlier heading ryegrasses such as Kirial, a hybrid type, offer early season growth but do not persist as well.

In all circumstances, ryegrass leys should be considered temporary and should not be routinely extended beyond the duration recommended for each mixture. Over-seeding is a good way to prolong their life (see page 6).

### 1 Perennial Ryegrass (*Lolium perenne*)

This is the most persistent type of ryegrass and by far the most widely sown. It yields around 13t DM per hectare which is lower than Italian ryegrass. However, it is more flexible in use because it can be grazed or cut and made into silage, haylage or hay. There are many varieties to choose from, some are very leafy with little stem and are excellent for grazing, others have much earlier, upright growth which make them well suited to silage making. Most perennial ryegrasses last around five years or more.

### 2 Westerwold Ryegrass (*Lolium westerwoldicum*)

Westerwold is the highest yielding ryegrass with similar forage quality to the well known Italian ryegrass. Westerwold is capable of extremely fast growth, is generous in response to nitrogen fertiliser and is grown largely for silage production. It is an annual, surviving for one season only. It may be sown in the autumn for production the following spring and summer, or planted in the spring for summer cropping. When sown in the spring it is ready for cutting after only 12 weeks and further growth will follow where soil moisture is plentiful.

### 3 Italian Ryegrass (*Lolium multiflorum*)

This is a short lived grass lasting for two years. It is very high yielding and reliably provides up to 18t DM per hectare on soils that suit it. (All ryegrasses yield less on light soils, especially in low rainfall areas.) It has a very open growth habit with fewer tillers than other grasses and is therefore better suited to cutting than grazing. Modern varieties offer high yields and good disease resistance.

### 4 Hybrid Ryegrass (*Lolium x boucheanum*)

This form of ryegrass is perhaps one of the best grasses available to the intensive farmer. The hybrid is a cross between the Italian and perennial forms of ryegrass and shares characteristics of both. The dominant parent determines how the variety performs in the field. Most hybrid varieties have the Italian gene dominant and the best cultivars provide the same or similar high yields

as Italian ryegrass. But, as they also contain some of the persistent genes of the perennial ryegrass parent, they last longer. The genes of the perennial ryegrass parent produce a plant with more tillers and more leaf which gives increased ground cover, making it better for grazing.

### Tetraploid Ryegrass

Modern plant breeding has produced tetraploid ryegrass varieties. These are available in Italian, hybrid and perennial form. With double the number of chromosomes of the standard diploid varieties their characteristics differ. Tetraploid ryegrasses are highly palatable which leads to higher voluntary intakes, of great value in seed mixtures. However, they also tiller less than diploids which means that they do not cover so much ground, leaving more soil showing. They are also less persistent. For these reasons, tetraploids should be used at low levels in long term grazing leys but can be used at higher levels in silage leys.

### 5 Cocksfoot (*Dactylis glomerata*)

Of all the grasses, cocksfoot has the deepest roots and, when grown on dry or free-draining soil, offers continued growth in dry weather while adding plenty of organic matter to hungry, thin soils. Cocksfoot provides 'early bite' in spring and quick recovery after grazing or cutting. It is very good for up to four years provided it is grazed hard as it will then remain leafy. There are some newer varieties which are leafier, with less stem, remaining palatable and therefore better for grazing.

### 6 Timothy (*Phleum pratense*)

Possibly the most important long term agricultural grass, Timothy is commonly found in pasture throughout the UK. It will grow abundantly on heavy ground and, although it only has a shallow root structure, persists well on lighter land in dry years. It is very persistent and disease free. The forage it produces is acceptable to most stock and it can be made into silage and hay or grazed. Another form of Timothy, smaller catstail (*Phleum bertolonii*), is shorter, less dominant and lower yielding but is a useful component of mixtures for environmental purposes.

## 7 Meadow Fescue (*Festuca pratensis*)

A long duration grass that is often sown with Timothy to provide hay or grazing. For longer term leys it is an alternative to perennial ryegrass, especially in upland areas. It will grow on nearly all soils ranging from light, brashy types to stiff clays. It has the same growth habit as perennial ryegrass and, although more persistent and drought tolerant, is slower to establish.

### Festulolium

A recent development in plant breeding has produced this natural hybridisation of ryegrass and fescue, combining the stress resistant genes of fescue with the bulky yield of ryegrass, improving drought resistance with high yield.

## 8 Common Bent (*Agrostis capillaris*)

This delicately flowered grass is included in the majority of agri-environmental mixes. As it has a tiny seed it is added to mixes at low levels. It is a creeping grass and, although of little agricultural value, is very common in old grasslands. It is adaptable to most soils and is drought tolerant.

## 9 Creeping Red Fescue (*Festuca rubra rubra*)

This common grass has creeping roots which enable it to remain green in dry times and give pasture a good bottom. Sometimes this can also be a disadvantage as it stifles some of the more delicate species and should therefore be used with caution. An alternative fescue, such as sheeps, red or slender creeping red will allow the development of finer species. However,

creeping red fescue is an inexpensive seed and can be included in simple mixtures, particularly those for low grade amenity use.

## 10 Meadow Foxtail (*Alopecurus pratensis*)

A tufted perennial which is widespread throughout the British Isles. It is commonly found in low-lying areas, particularly river meadows. Nutritious and palatable to stock, it is one of the first grasses to flower in the spring. When making hay, it makes a useful contribution to yields.

## 11 Red Fescue (*Festuca rubra commutata*)

Also known as chewings fescue, this is a fine leaved, tufted grass. It is distinguished from creeping red fescue by an absence of creeping rhizomes. It tolerates drought well and is common on well-drained, gravelly, chalky and sandy soils in the south. It forms a dense turf and is one of the main species used with bent to form lawns.

## 12 Sheeps Fescue (*Festuca ovina*)

The finest leaved and least aggressive fescue which allows other delicate species room to establish. It only grows to 15 – 25cm, is very hardy and can be found in all areas of the UK. Although it provides only low levels of production, the forage it produces is of reasonable quality. It will grow on most soils and tolerates low fertility situations.

## 13 Crested Dogstail (*Cynosurus cristatus*)

Traditionally a grazing grass, this compact, tufted perennial is found in abundance in sheep pastures. It is not aggressive and grows well late into the season when other grasses are giving up. It grows in most areas, even on clay soils, but is found naturally in dry areas. It has good winter greenness but is inclined to produce wiry stems if not cut or grazed.

## 14 Smooth Stalked Meadowgrass (*Poa pratensis*)

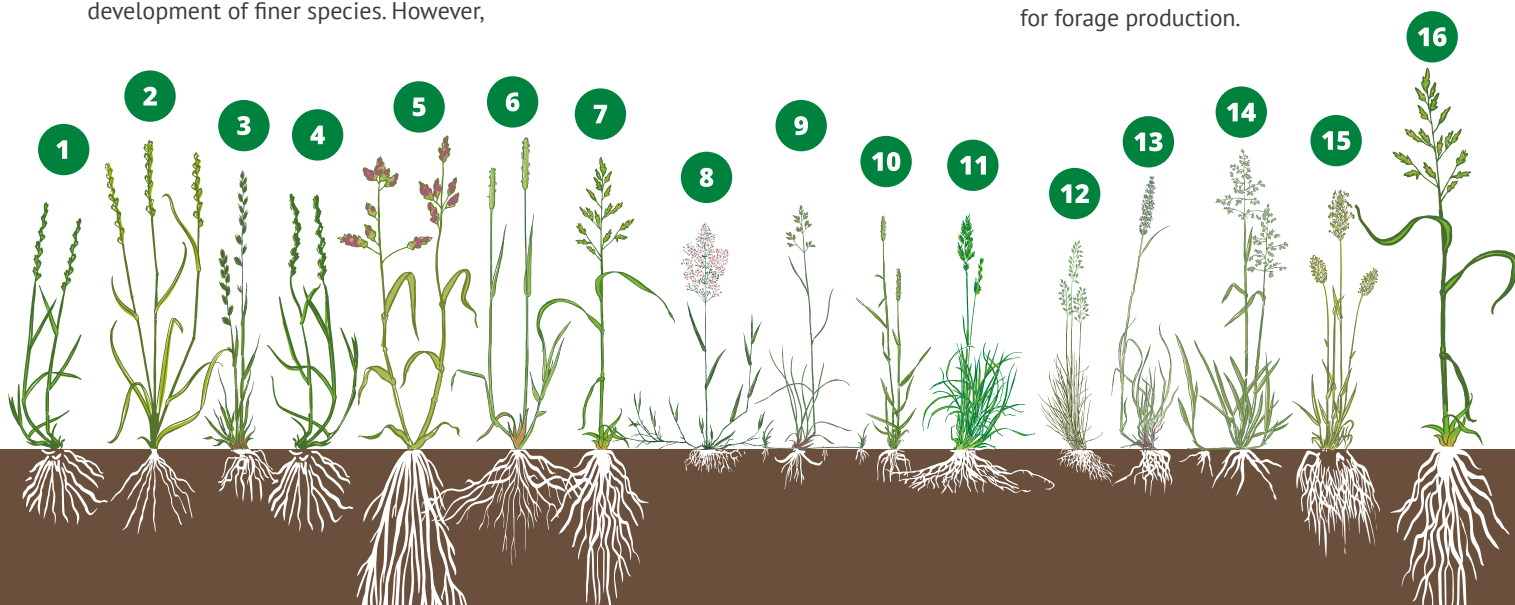
This perennial has creeping rhizomes and is very drought resistant. It is common throughout the UK, particularly on lighter soils. It should not be sown late in the autumn as it is slow to establish. Shallow sowing is also essential as the seed needs light to germinate. Early to grow in the spring, once topped or cut it tends not to re-flower so regrowth is leafy.

## 15 Sweet Vernal Grass (*Anthoxanthum odoratum*)

An early flowering grass, strongly scented with coumarin, often found in old pastures and meadows and sometimes included in seed mixtures to give scent to hay. It has a high proportion of stem to leaf and so is unpalatable to stock. It is an attractive grass but seed is expensive so is usually included at a low levels in seed mixtures.

## 16 Tall Fescue (*Festuca arundinacea*)

The largest fescue which forms sizable, dense tussocks. It can grow to six feet tall, particularly on damp or wet soils. On light soils it is drought resistant but it is less palatable than meadow fescue and so is less attractive to farmers for forage production.



# Legumes



Legumes provide healthy, nutritious forage and free nitrogen.

All legumes share the ability to collect nitrogen from the air and make it available in the soil for plant growth.

Legume-rich forage is therefore low cost as it requires little or no nitrogen fertiliser. Legumes are also high in protein and, because they are particularly relished by livestock, improve animal performance.

There are twelve legumes commonly used including the true clovers, the medics, sainfoin, birdsfoot trefoil and vetches.

## True Clovers

### 1 White Clover (*Trifolium repens*)

White clover is probably one of the most valuable plants in existence and is the most popular forage legume. It differs from other clovers in having a stolon (or stem) that runs along the ground. This produces edible leaves and flower heads at low levels, making it ideal for grazing. It is long lasting and drought resistant and grows on nearly all soils. White clover has received more research funding than any other legume and so is well understood. In common with most fodder legumes, it is best grown with grasses which increase total forage yield and produce a flexible sward which can be cut or grazed.

White clover has a high protein content at around 20-25%. Perennial ryegrass contains about 16%. Combining these two together in the field increases the overall protein content of forage by 2-3% to around 20%.

The extra protein available from clover leys has a direct impact on live weight gains. At the same time, grazing animals consume more as they find clover very palatable. This all results in animals fattening faster compared to those on non-clover leys.

#### A leaf size for every purpose

There is a large range of white clovers available, classified by leaf size, with the tolerance for close grazing increasing as leaf size decreases. Medium-leaved varieties, such as AberSwan and AberDai, are good for grazing, silage or hay. Large-leaved strains, such as Alice, give slightly higher yields but are less persistent when grazed and are therefore for cutting only.

### 2 Red Clover (*Trifolium pratense*)

Red clover produces a third more yield than white clover but is less persistent, only lasting for between two and four years. It is normally used to produce silage, although it can be grazed occasionally.

It is an erect and dominant plant that is best sown with aggressive ryegrasses. However, it may be included in more complex seed mixes but its inclusion rate must be low to counter its aggression. It grows on nearly all soils except acidic ones where alsike clover should be used.

#### Oestrogen and livestock fertility

Red clover contains oestrogen which can cause concern to livestock breeders. Freshly grazed forage causes most concern but the problem can be avoided by moving breeding animals off red clover around conception. Cattle are not normally affected but ewes should be taken off red clover at least a month either side of tupping.

#### Varieties

Modern plant breeding programmes have increased disease and pest resistance and improved persistence with varieties such as Milvus and Global.

There are two distinct types of red clover: early and late flowering. The former starts spring growth earlier in May followed by another growth flush. The latter flowers 10-14 days later after its one main growth period.

### 3 Alsike Clover (*Trifolium hybridum*)

A perennial which is slower to grow in the spring than red clover and is slightly lower yielding but otherwise has similar characteristics. Good for heavy and acidic soils.

### 4 Crimson Clover (*Trifolium incarnatum*)

An annual which can be sown after an early harvested cereal to provide winter sheep keep. It can also be used to give soil a fertility boost in a short period of time.

### 5 Persian Clover (*Trifolium resupinatum*)

An annual used to provide a quick boost to soil fertility on most soil types. It provides a good forage which may be grazed or conserved.

### 6 Berseem Clover (*Trifolium alexandrinum*)

Also known as Egyptian Clover, this is a short term, fast growing annual clover, which quickly provides large amounts of biomass and improves soil fertility. The least winter hardy of the true clovers.

## Other Key Legumes

### 7 Lucerne (*Medicago sativa*)

No one can really understand why so little lucerne (or alfalfa) is grown in the UK, when worldwide there are 13 million hectares cropped for forage. There are however a small number of UK farms now retrying this capable legume. Cut three times a year, it produces a protein-rich 14t DM per hectare without nitrogen fertiliser and on dry land.

Lucerne is a large plant with a similar erect growth habit to red clover. It is deep rooting, very drought resistant and has a yield high enough to be grown on its own. However it is usually sown with a companion grass such as meadow fescue or Timothy which fill in the bottom of the crop.

Lucerne is useful to dairy farmers wanting to produce a high protein silage that is complementary to maize. It can be quite slow to establish and is only suitable for free-draining land that is not acidic.

### 8 Sainfoin (*Onobrychis viciifolia*)

Along with other forage legumes, sainfoin offers free nitrogen and extra protein content. But it has other benefits that mark it out as unique.

Sainfoin is capable of growing on the thinnest of alkaline soils, particularly the dry chalk and limestone land in the south of



# Herbs



Drought resistant and mineral rich.

England. It is extremely drought-resistant and never stops growing, even in prolonged dry spells. Its root structure leaves soil in excellent condition and sainfoin can be considered an invaluable part of a light land rotation. It penetrates soil and rock to a great depth where it seems able to extract nutrients better than any other species.

## Boosting livestock production and health

Sainfoin contains tannins which aid protein absorption resulting in faster liveweight gains when compared to any other forage. This may also help reduce the amount of methane produced by ruminants, very useful from an environmental perspective. These tannins have another benefit: they mean sainfoin never causes bloat. Trials have shown that as little as 20% of sainfoin in the diet can offset the risk of bloat to near zero.

Sainfoin has a remarkable effect on wormy lambs, being a natural anthelmintic. EU projects 'Healthy Hay' and 'LegumePlus' have confirmed that feeding sainfoin disrupts the lifecycle of parasitic worms, so improving livestock performance yet further.

### 9 Sweet Clover (*Melilotus* spp.)

Also known as yellow blossom, this biennial which has a feed value similar to lucerne can produce huge quantities of green material in July if sown in May. It is also a very good green manure, fixing a great deal of nitrogen and adding huge amounts of organic matter to the soil.

### 10 Yellow Trefoil (*Medicago lupulina*)

This is a low growing, short-lived plant which sheds seeds freely and so regenerates itself. It is sometimes included in seed mixtures to give early spring growth which is unusual as most legumes are quite late to start growing.

### 11 Birdsfoot Trefoil (*Lotus corniculatus*)

Like sainfoin, this legume contains tannins and is best suited to poorer soils where it outperforms other legumes. Including birdsfoot trefoil in seed mixes may offer other medicinal benefits, something that is currently being researched.

### 12 Vetches (*Vicia sativa*)

This legume, also known as tares, when sown in the autumn or spring can provide one large crop for silage, and is excellent at out-competing weeds, fixing large amounts of nitrogen and improving soil structure.

Deep-rooting herbal leys are becoming popular on many farms as they offer huge benefits to livestock and soil structure. Using deep-penetrating roots instead of diesel-consuming tractors, herbal leys are an alternative way to aerate soil.

Agricultural herbs also provide minerals, essential for normal, healthy animal growth. Single species grass swards are often found to be lacking in these micro-nutrients. Deep-rooting herbs are a rich source of these and are currently being researched by agricultural scientists. Many expert farmers consider that adding these valuable plants to seed mixtures is a logical step.

### 13 Chicory (*Chicorium intybus*)

A true 'ground breaking' plant with deep roots that can penetrate plough pans and grow well on the driest soil. This high-yielding perennial is a rich source of minerals and has anthelmintic effects. It is therefore excellent for sheep or cattle threatened by intestinal parasites.

### 14 Ribgrass (*Plantago lanceolata*)

This reliable perennial herb, also known as ribwort plantain, is relatively low yielding but has deep roots and is grown for its vitamin and mineral content (especially copper, calcium and selenium).

### 15 Yarrow (*Achillea millefolium*)

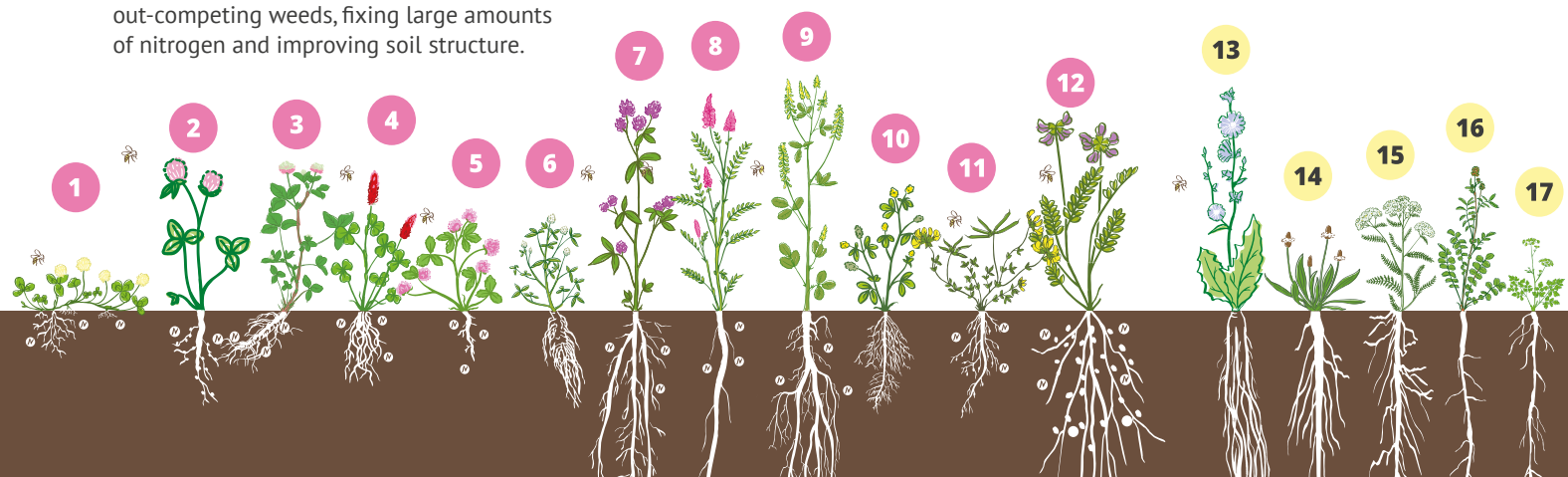
Yarrow is a deep-rooting perennial and a rich source of vitamin A.

### 16 Burnet (*Sanguisorba minor*)

On light, alkaline soils this is a long lived perennial forage. All parts of the plant are palatable and it is extremely drought resistant.

### 17 Sheeps Parsley (*Petroselinium crispum*)

A short lived but useful herb, suits lighter soil types.





# Over-Seeding

Over-seeding is a simple, effective and low cost way to improve worn leys or old pasture without ploughing or reseeding.

Around a quarter of the grass seed sold in the UK is used for over-seeding. This seed is sown to improve worn or damaged leys and for patching up recent sowings which have not taken well.

To many farmers, over-seeding has advantages over the plough. It's cheap, quick and low risk, with existing grass being retained and improved without loss of forage or time.

Not all grasses and clovers are suitable for over-seeding. The best results come from the large seeded and vigorous strains of tetraploid ryegrass.

Of these, the Italian and hybrid forms are the quickest and best for cutting, with perennials being ideal for grazing leys.

White clovers usually give good results when sown into warm, moist soils especially where careful post-sowing grazing management is practiced.

## Sowing and Growing

### Suitable soils and optimum pH

Over-seeding can be a beneficial way of boosting forage production without the risk or establishment delay or a full reseed.

### When to sow

When soil temperatures are above 7°C, usually between March and September. Sufficient soil moisture is vital. Avoid seeding into competitive swards during May and June when excessive grass growth will smother new seedlings. Sowing directly after 2nd or 3rd cut silage can offer a mid year sowing window in some districts.

### How to sow

Broadcast or shallow drill into hard grazed or cut leys. Before sowing, create a tilth using a strong tine harrow. After sowing, roll thoroughly using a ring or flat roller, or tread in with sheep. Grass drills such as the 'Moores Unidrill', 'Simtech' or 'Aitchison'

can be used. Check sowing depth carefully when setting up the machine. Clover should never be sown deeper than 1cm. Spinners such as the 'Stocks' are good for applying small quantities of clover.

### Management

Stock can be left on the field for up to 10 days post sowing, to keep on top of the old sward, after this period take stock off. Gentle grazing should be resumed around five weeks after sowing. Cattle or sheep may be employed, but sheep should not be left on for long as they will graze too close, damaging new seedlings.

### Nutrient requirements

N fertiliser applications should be delayed until the new grass or clover seedlings are well established and able to tolerate the competitive growth that fertiliser brings. P and K levels should be maintained at ADAS Index 2, along with soil pH. Sowing and Growing.



Ryegrass over-seeding  
Shropshire

*The best results come from the large seeded and vigorous strains of tetraploid ryegrass.*

Grass

Legume

Herb

## Mixes: Ryegrass

## Ryegrass Over-Seeding

Short Term 2-3 Years

Code: MIXOS

Ideal for the short term improvement of silage leys. The mixture is very competitive and provides good early spring growth. First cut is usually taken between the second and third weeks of May.

- 7.00 kg certified FABIO tet. Italian ryegrass
- 3.00 kg certified ABERIMAGE tet. hybrid ryegrass

**10.00 kg/acre - £37.40**

25.00 kg/ha - £93.50

## Ryegrass Over-Seeding

Longer Term 4-5 Years

Code: MIXOSL

A flexible mixture for grazing or cutting fields which require longer term improvement. The grasses will provide growth from spring through the summer.

- 5.00 kg certified ABERIMAGE tet. hybrid ryegrass
- 5.00 kg certified CALIBRA tet. perennial ryegrass

**10.00 kg/acre - £42.00**

25.00 kg/ha - £105.00

## Ryegrass &amp; Clover Over-Seeding

Longer Term 4-5 Years

Code: MIXOSLC

A combination of ryegrasses and a half-rate of persistent clovers, this mixture can be grazed by sheep or cattle and can also be cut for silage.

- 4.50 kg certified ABERIMAGE tet. hybrid ryegrass
- 4.50 kg certified CALIBRA tet. perennial ryegrass
- 0.80 kg certified MERWI white clover
- 0.20 kg certified RIVENDEL wild white clover

**10.00 kg/acre - £55.30**

25.00 kg/ha - £138.25

## Additions

**Bottom grass**

The addition of a bottom or 'late' grazing-type ryegrass can help to fill in the sward in open leys.

Add 2kg of grazing ryegrass

**£9.90 per acre**

Sowing & Growing Guides available online



## Mixes: Clover and herbs

## White Clover Over-Seeding

Long Term Grazing

Code: MIXOSC

This persistent mixture combines medium and small leaved clovers which provide grazing for sheep or cattle. It may also be used for silage making.

- 0.80 kg certified ABERSWAN white clover
- 0.80 kg certified MERWI white clover
- 0.40 kg certified RIVENDEL wild white clover

**2.00 kg/acre - £35.00**

5.00 kg/ha - £87.50

## White Clover Over-Seeding

Dairy Graze or Silage

Code: MIXOSCD

Using highly productive medium and large leaved white clovers this mixture is ideal for dairy grazing or silage making. It can also be grazed by sheep occasionally if required.

- 1.00 kg certified BARBLANCA white clover
- 1.00 kg certified MERWI white clover

**2.00 kg/acre - £35.00**

5.00 kg/ha - £87.50

## Herbal Over-Seeding

Deep-Rooting Herbal ley

Code: MIXHOS

Deep rooting herbal leys are becoming more and more popular. Grass-only swards lack protein rich clovers and mineral rich herbs. Ideally, herb-rich swards are best established by reseeding but where this is not possible this mixture can be oversown into a grass-only sward.

- 0.50 kg commercial sainfoin
- 0.50 kg certified ALTASWEDE late flowering red clover
- 0.30 kg certified MERWI white clover
- 0.30 kg certified LEO birdsfoot trefoil
- 0.15 kg commercial sweet clover
- 0.10 kg certified RIVENDEL wild white clover
- 0.20 kg certified AURORA alsike clover
- 0.40 kg burnet
- 0.40 kg certified PUNA / ENDURE chicory blend
- 0.35 kg certified ENDURANCE ribgrass
- 0.25 kg sheeps parsley
- 0.05 kg yarrow
- 0.25 kg certified CALIBRA tet. perennial ryegrass
- 0.25 kg certified PARDUS meadow fescue

**4.00 kg/acre - £51.90**

10.00 kg/ha - £129.75

# Hay Leys

Grass only hay leys that offer high quality and bulk.



Grass

## Sowing and Growing

### Suitable soils and optimum pH

The ryegrass based leys are best suited to fertile and moisture retentive soils. Ryegrass can suffer on drought prone soils, so a dry land option could be to add a deeper rooting, inexpensive festulolium plant to the mixture - please enquire when ordering.

### When to sow

These mixes should be sown in autumn, to provide full cutting yields the following year. The Westerwold Hay mix allows a spring sowing and still produces a seed head and full yield in this year. The other mixes will not head if spring sown.

### How to sow

A non-selective herbicide should be used before seedbed preparation. Drill into a fine, firm seedbed. Rolling to retain moisture and break down clods before and after sowing with a Cambridge or flat roller is essential. Broadcast seed should be harrowed lightly after sowing and before rolling.

### Management

Annual weeds should disappear as the new seeds begin to take over, or they can be grazed out with stock. Cutting usually begins in June and takes place before and during flowering. Graze excess growth after the required cut has been taken by November to avoid winter kill.

### Nutrient requirements

These leys should receive 70kg ha of nitrogen. Excessive applications of nitrogen can cause the plant to become sappy and difficult to dry. As cutting and removing depletes P and K levels, they should be maintained around ADAS index 2.



Sowing & Growing Guides available online



## Mixes

### Westerwold Hay Mix

One Year Ley

Code: MIXWWH

This flexible cutting option, produces a short term, clean, high quality hay, due to its rapid growth and high biomass it can be difficult to dry properly. This mix has been designed to include high levels of diploid westerwold which contains less moisture and dries evenly, speeding up the hay making process.

- 12.00 kg certified LIFLORIA dip. westerwold ryegrass
- 2.00 kg certified POLLANUM westerwold ryegrass

**14.00 kg/acre - £42.70**

35.00 kg/ha - £106.75

## Mixes

### Hard Horse Hay

Two Year Ley

Code: MIX9

Devised specifically for the production of hay or haylage. With good disease resistance it produces a consistent sample of hard hay. Although grazable, it's principally a cutting ley. Sow in autumn to provide stemmy hay the following spring.

- 8.00 kg certified BARMULTRA II tet. Italian ryegrass
- 6.00 kg certified SYNTILLA Italian ryegrass

**14.00 kg/acre - £48.50**

35.00 kg/ha - £121.25

### Hay and Graze

Four Year Hay/Haylage Ley

Code: MIXHG

A longer term option for the hay and haylage producer with upright hybrid ryegrass and longer lasting perennial ryegrass. Diploid varieties are included for faster drying. Sow in autumn to provide a crop the following spring, or cut earlier in the year for haylage. Also provides high quality summer and autumn grazing.

- 5.50 kg certified PIROL dip. hybrid ryegrass
- 5.50 kg certified BOYNE perennial ryegrass
- 2.00 kg certified COMER Timothy

**13.00 kg/acre - £59.98**

32.50 kg/ha - £149.95

### Traditional Hay Maker

Long Term Hay Ley

Code: MIXHM

A Timothy dominant long term mix, producing coarse, bulky hay crops especially on clay soils. For 'softer' meadow hay options call for advice.

- 5.00 kg certified BOYNE perennial ryegrass
- 5.00 kg certified SENU meadow fescue
- 3.00 kg certified COMER Timothy

**13.00 kg/acre - £69.70**

32.50 kg/ha - £174.25

## Additions



### Sweet vernal grass

To create a sweeter smelling hay sample.

Add 0.1 kg of sweet vernal grass

**£6.80 per acre**



First Hand

## Garry Hickman



The haylage enterprise started completely by accident. 'We were growing silage for the cattle, but when our equipment broke down, the grass dried out. By the time we'd baled it, it had turned into very nice haylage. A horse owner saw it and wanted to buy it, and that set the ball rolling. I love visiting yards and seeing the horses do well, knowing I've played a part growing their forage.'

Garry describes his market as 'anyone with horses' and customers are all over the country, from Wales down to Dorset. 'We grow between 200-300 acres of seeds for haylage every year, producing square 300kg bales and smaller 150kg bales. We also cater for yards who want lower sugar meadow grass haylage. We always get two cuts off the seeds, about six weeks apart, and in exceptionally wet years, we may even get a third.'

'The two-year hard hay-haylage mix combines tetraploid and diploid Italian Ryegrass. I've never requested my own personal mix. I've always just been led by Cotswold Seeds. With so many varieties coming out every year, there's no way I would know what's best, but they do. They know we're farming on heavy Warwickshire clay and they put a mix together for me that suits our ground. We've never yet had a bad crop from Cotswolds.'

Garry has noticed a trend away from ryegrass and a move towards Timothy but he's not branched into that. 'We tend to wrap the haylage in the field and the stalks of the Timothy are very hard and sharp, and if we're not careful it punctures the plastic. To me it seems a false economy to put cheap plastic around the quality haylage we produce and we keep coming back to Silotite. It has a bit more elasticity than a lot of others.'

'We are a bit old-fashioned with our cultivations,' says Garry. 'It depends on the autumn weather and conditions. We're always following with a wheat crop so where we can we will plough, though we have done min til. Everything is drilled. The grass is down for two years, we hopefully only have to spray once in the first spring to take out volunteers and weeds, which tends to be charlock and rape.'

We put a small amount of Potash on; the analysis will say we have potash in our soil, but it's not always available to the plant. We always add a minimum of 46 units of phosphate. Over the last few years we've dropped the amount of nitrogen. For the first cut I'm putting no more than 50 units onto the acre and less than 35 units for the second cut. I would rather forfeit a little bit of grass than have it fall over and go wet and rotten in the bottom because we can't get to it quick enough.

What about machinery? 'We use an old four-string New Holland D1000 baler, absolutely ideal for what we're doing. We run Class mowers, two Vicon tedders and a Fella rake, and tractor loaders which are more versatile for field work and towing than Loadalls. With changing weather patterns, kit's got to be reliable. We need to go when we need to go!!!'

'When we first started making haylage, there were very few people doing it,' remembers Garry. 'Now, a lot of people have jumped on the bandwagon, so there's a lot of competition. I just want to keep going as long as I enjoy it. You've got to have a passion for farming or you're not going to make a good job of it.'

'It's expensive to keep horses and a lot of yards have gone. There are less horses than there used to be. We don't spend money now on advertising because we just don't need to. We're lucky to have established a strong reputation over thirty years and a lot of our customers have been with us for that length of time, any new business comes in through word of mouth.'

<b>Farm Type</b>	<b>Haylage</b>
<b>Location</b>	<b>Warwickshire</b>
<b>Size</b>	<b>500 Acres</b>
<b>Soil Type</b>	<b>Clay</b>
<b>Mixes Used</b>	<b>Two-Year Hard Horse Ley</b>

For over thirty years, Garry Hickman has been growing grass as a break crop between arable crops to produce haylage for the equine market under the NutriGrass brand in Warwickshire.

Garry describes himself as 'very much a townie' with no background in farming. He was born and raised in Coventry but his childhood was spent on a farm where his father was evacuated during the second world war, this is where he developed a passion for farming.

After graduating from Moreton Morrell College he worked on arable and dairy farms where he milked for 10 years. He then moved to another arable farm, which grew grass leys as part of the rotation. He and another farm worker pooled their savings and bought suckler cows, and later also ventured into beef and sheep.



# Silage

Good silage comes from a good ley.

Good silage depends on many factors. These include appropriate fertiliser applications, growth stage when cut and how the crop is wilted and ensiled. But most important is to select the right species to fit the persistence required and management regime.

Ryegrass leys have been the building blocks of silage leys for the last 60 years with many types available.

Short term options like Westerwold can last for 12 months, Italian Ryegrass will last for two full years. Hybrids (a crossing of Italian and Perennial) will last 4 years and Perennial Ryegrass varieties can last for 5 years and more.

Westerwold provide a flexible short term silage option for one full year. They can be sown later than most species in the autumn, providing early grazing in the spring and subsequent silage cuts. Westerwold also produce a stem and seed head from a spring sowing, making them suitable for Hay production in the same year.

Nitrogen fixing, lower input Red Clover silage leys are also popular (see more info on pages 12 & 13).

## Vetch

This is a short term annual with a high protein and mineral content. Vetch is fast to grow and can be sown alone for silage or grazing and is also suitable for mixing with cereals such as oats for whole-crop silage. Quick to establish, it can also be sown with grass and clover mixes to produce extra yield.

### What is festulolium?

Festulolium is a natural hybridisation of ryegrass and fescue species, combining the stress resistant genes of fescue with the bulky yield of ryegrass. It provides a more resilient species, with a better tolerance of drought or waterlogged soils, while still providing high yielding, very palatable forage. Festulolium is generally an upright grass, suitable for cutting.

## Sowing and Growing

### Suitable soils and optimum pH

Ryegrass species are best suited to fertile and moisture-retentive soils and will tolerate slightly acidic pHs (6.2-6.5). They can suffer on drought prone land.

### When to sow

Highest reliable yields come from autumn sowings (August-September). Spring sown crops (March – May) are dependent on sufficient moisture and often yield 1/3rd less than autumn sowings. (apart from Westerwold Leys which can produce a full yield from a spring sowing).

### How to sow

Drill into a fine, firm seedbed at 10-20mm. Rolling with either a Cambridge or flat roller before and after sowing is recommended to firm up the seed bed. Broadcast seed should be harrowed lightly after sowing and before rolling.

### Management

Depending on the mix used, the important first cut can be taken from arch/April, further cuts will follow on soils that have adequate moisture and N. Early cuts just prior to heading will give high D-values and good regrowth. Cut frequently to encourage high D-value leafy growth. Graze excess growth by November to avoid winter kill. When spring sown these leys can be ready for cutting after only 12 weeks.

### Nutrient requirements

100kg N/ha for the first cut with 60-80 kg of N applied per subsequent cut. As cutting depletes P and K levels, these should be maintained at ADAS Index 2.

### Yield potential

Westerwold:	18t DM/ha
Italian ryegrass:	18t DM/ha
Hybrid ryegrass:	14t DM/ha
Perennial ryegrass:	13t DM/ha

Typical silage analysis has a dry matter of 30%, a crude protein of 16%, a D-value of 70 and an ME of 11MJ.

Grass

Legume

## Mixes

## Quick Bulk Westerwold

Intensive One Year Ley

Code: MIXQB

A very fast growing ley which can be sown in the spring or autumn and is primarily grown to produce silage. However, it can be grazed and the crop can provide 'early bite' when sown in the autumn. It is therefore a cheap alternative to cereal rye which was formally grown for this purpose.

- 10.00 kg certified POLLANUM westerwold ryegrass
- 4.00 kg certified WINTERSTAR II westerwold ryegrass

**14.00 kg/acre - £42.70**

35.00 kg/ha - £106.75

## Maximum-Yield

Two Year Silage Ley

Code: MIXA

Optimum balance between the highest quality and yield for silage, Maximum-Yield produces the all-important first cut between the second and third week of May. At this time the grasses will have high D-values and soluble carbohydrate content which ensures good silage fermentation.

- 10.50 kg certified BARMULTRA II tet. Italian ryegrass
- 3.50 kg certified SYNTILLA Italian ryegrass

**14.00 kg/acre - £48.50**

35.00 kg/ha - £121.25

## Festulolium Silage Ley

Two Year Dry Land Ley

Code: MIXAF

This mix contains one of the festulolium varieties on the UK recommended list. It is a hybridisation of Italian ryegrass and meadow fescue, combining the bulky yield of Italian ryegrass with the stress resistant genes of fescue. An improved mixture for dryland, showing better resilience during the dry summers. Both species will head in the third week of May and can be relied on for 2 years.

- 8.00 kg certified ABERNICHE festulolium
- 6.00 kg certified BARMULTRA II tet. Italian ryegrass

**14.00 kg/acre - £59.90**

35.00 kg/ha - £149.75

## Hybrid Silage Ley

Three - Four Year Ley

Code: MIXB

Early growth, high yields and good persistence make hybrid ryegrasses worth considering when the ley is expected to remain down for more than two years. Utilising excellent hybrid varieties, this ley is comparable, in terms of output, with Italian ryegrass. It should also be noted that the grazing potential of this ley is superior.

- 8.00 kg certified ABERIMAGE tet. hybrid ryegrass
- 4.00 kg certified ABEREVE tet. hybrid ryegrass
- 2.00 kg certified TODDINGTON perennial ryegrass

**14.00 kg/acre - £57.30**

35.00 kg/ha - £143.25

## Westerwold and Vetch

Six Month Ley

Code: MIXWWV

A good balance between a vigorous grass and a fast growing short term legume, this mixture can be used to provide a very large cut or early spring grazing. As westerwold will regrow after cutting this ley can be left for a further cut or grazed if required. To minimise the risk of ryegrass seed being shed, it is advisable to cut before the seed heads are visible.

- 10.00 kg certified POLLANUM westerwold ryegrass
- 15.00 kg certified EARLY ENGLISH vetch

**25.00 kg/acre - £79.98**

62.50 kg/ha - £199.95

## Maximum D-Value

Four - Five Year Silage Ley

Code: MIXC

Maximum feed value can only be obtained from well made high D value silage. This ley will provide optimum digestibility and yield during the third week of May. Yields are boosted by utilising hybrid ryegrass with high quality aberspey perennial ryegrass, noted for its very good D-value on the recommended list and providing good summer and late season grazing.

- 6.00 kg certified ABERSPEY tet. perennial ryegrass
- 4.00 kg certified BOYNE perennial ryegrass
- 3.00 kg certified ABERIMAGE tet. hybrid ryegrass
- 1.00 kg certified ABEREVE tet. hybrid ryegrass

**14.00 kg/acre - £63.80**

35.00 kg/ha - £159.50

## Additions



## White Clover

White clover can be added to improve nutritional value. Add 1kg of white clover **£17.50 per acre**

## Festulolium

Swap ryegrass for festulolium for improved drought tolerance. **Please call for advice**



Sowing & Growing Guides available online







# Red Clover Leys

Red clover leys produce a protein rich 15t DM per hectare without nitrogen fertiliser.

Red clover produces silage with a 2-3% higher protein content than a grass-only equivalent. This, combined with its high intake characteristics, leads to improved milk and meat production.

Red clover is drought tolerant and like many fast-growing legumes it's able to 'fix' up to 250 kg N/ha. To provide enough free nitrogen for a successful crop, legumes need to be included at high proportions in a mixed sward.

Legumes do not fix nitrogen all year round. For this natural chemistry to occur, the soil needs to be warm and, in the UK, this usually means that nitrogen fixation occurs between April and September.

## With or without grass?

Red clover can be sown as a monoculture at 5-6 kg/acre for silage, but a mixture with grasses is preferable since this gives higher total forage yield and makes better silage. Mixtures of 9 kg/acre grasses and 3 kg/acre red clover are commonly sown to provide the correct balance. A pure stand of red clover generally yields lower than the grass and clover mixture at about 5-6t DM/ha.

For a one or two year ley Italian ryegrass is an excellent component, but for a duration of three years or more a mixture of hybrid and perennial ryegrass is a better option.

To allow full expression of the red clover, it is best to use tetraploid varieties of ryegrass since they tiller less densely than diploids. Their early-season growth also coincides with the flowering pattern of the red clover. They are then at the same maturity stage and digestibility is similar.

## What you need to know about oestrogen

When it comes to sheep grazing red clover leys there is one question that keeps coming up. Will the oestrogen in red clover affect ewe fertility? Red clovers contain varying amounts of this compound and some sheep farmers are concerned that it may lower conception rates. This is possible, but with the right management it is unlikely that red clover will be of much concern to breeders. To be clear, oestrogen in red clover has no known detrimental effects on fattening lambs. It is when it is fed to breeding ewes caution should be exercised.

If leys contained only red clover then it is possible that ewe fertility could be reduced. But there are relatively few confirmed cases and it is common practice to avoid flushing ewes on leys that contain low levels or no red clover. This is safe.

Oestrogen from red clover leys is very mobile and does not remain long or accumulate in the blood. Also once ewes are in lamb it may be considered safe to graze or feed red clover silage. It is worth noting that red clover in silage also contains oestrogen.

Plant breeders are possibly able to offer a solution. Back to the variation in plants. Just as there is variation in yield and persistence there is also variation in oestrogen content. Some varieties have been identified as containing low levels of oestrogen. Now this might sound like a great solution to a potential problem but whilst some do contain less, they can be significantly lower yielding than top rated varieties.

This presents a problem when choosing a variety. However there will be instances where yield is less important. For example low input and organic farmers often have more acreage under red clover. They rely on them more than conventional farmers and there may be a case to use low



4 year Red Clover Ley  
21st May, Shropshire



Grass

Legume

## Mixes

## Fast and Vast

One - Two Year Mixture

Code: MIXFV

This short term ley is for those wishing to produce a large amount of forage with little or no nitrogen fertiliser. Yields are high, especially on rich, moist soils and the majority of crops are made into silage. In addition to red clover, the mixture also contains crimson clover and vetch which increase yield over a short period of time. It can be relied upon for one full year of production or left down for a second.

- 8.00 kg certified EARLY ENGLISH vetch
- 2.00 kg certified AVISTO red clover
- 1.00 kg certified KARDINAL crimson clover
- 4.50 kg certified FABIO tet. Italian ryegrass
- 4.50 kg certified SYNTILLA Italian ryegrass

20.00 kg/acre - £89.00

50.00 kg/ha - £222.50

## Short Term Red Clover Ley

One - Two Year Mixture

Code: MIXCG03

An intensive silage ley lasting for up to two years which requires little or no nitrogen fertiliser. First cut is to be expected during the third week of May.

- 3.00 kg certified AVISTO red clover
- 6.00 kg certified BARMULTRA II tet. Italian ryegrass
- 3.00 kg certified SYNTILLA Italian ryegrass

12.00 kg/acre - £66.90

30.00 kg/ha - £167.25

## Longer Term Red Clover Ley

Four Year Mixture

Code: MIXCG06

Persistent and high yielding, this ley is tried, tested and highly successful. It is usually cut in the third or fourth week of May and incorporates the best red clover with hybrid and perennial ryegrasses, giving yields nearly as high as our two year red clover ley.

- 3.00 kg certified MILVUS red clover
- 3.50 kg certified ABERIMAGE tet. hybrid ryegrass
- 3.50 kg certified ABEREVE tet. hybrid ryegrass
- 2.00 kg certified CALIBRA tet. perennial ryegrass

12.00 kg/acre - £74.90

30.00 kg/ha - £187.25

## Additions



## Vetch

Vetch may be added to red clover and ryegrass mixes to increase yield in the first growing season.

Add 10kg of vetch

£33.00 per acre



Sowing & Growing Guides  
available online



oestrogen red clovers so that ewes can be tugged on red clover leys on these farms. Plant breeders including those at Aberystwyth are currently working in this area and so it is possible that given time, seed of higher yielding, low oestrogen red clover varieties may become more widely used.

The considerable benefits of high protein, drought tolerance and free nitrogen fixation should more than make up for any concerns about oestrogen.

## Sowing and Growing

## Suitable soils and optimum pH

Grows on most soils, including the drought prone. The optimum pH is 6.0-6.5 for N fixation, but red clover will tolerate 5.6.

## When to sow

Sow from April/May until early September. Red clover mixtures can be undersown in an arable crop, or after harvest provided there is enough time for the plants to develop sufficiently prior to winter cold. On light soils in dry districts autumn sowings perform better as these will have well established roots capable of better growth in dry seasons.

## How to sow

For sound establishment, a well cultivated, firm, level seedbed is needed to ensure that the small clover seeds are drilled uniformly at a shallow depth of 10mm. The use of a roller prior to and after sowing is essential. Rolling twice after sowing can help establishment.

## Management

The competitiveness of red clover against weeds is low at the early establishment phase particularly if sown alone.

Topping is of value and 'clover-safe' herbicides are available, though they can check red clover development to some degree. To avoid clover sickness (a combination of soil-borne sclerotinia and stem eelworm) a five year gap should be allowed between leys containing red clover.

## Nutrient requirements

Red clover will fix its own N, but P and K levels must be maintained at an ADAS Index 2. A small quantity of N can be applied in the autumn or early spring to enhance initial growth. This should not exceed 25kg N/ha.

## Yield potential

Forage yield in the establishment year of a spring-sown sward is circa 60% of that possible in the first harvest year which should be around 15t DM/ha.

The yield is spread over 2-3 cuts per year. Typical silage analysis has a dry matter of 30%, a crude protein of 19%, a D-value of 72 and an ME of 12MJ.

# Sainfoin

High yielding silage or hay crop with occasional grazing for dry, alkaline soils. Bloat free and a natural anthelmintic.

## Sowing and Growing

### Suitable soils and optimum pH

Performs best on free-draining alkaline soils. Do not sow on land below pH 6.2.

### When to sow

Always sow sainfoin into warm soils in the spring (Late April/ May)

### How to sow

Sainfoin seed can be undersown to spring cereals or directly sown into a worked seedbed in April or May at around 30mm. If undersown, the cereal sowing rate should be reduced to 40 kg/acre. For autumn sowing, sow by mid August latest.

### Management

A sainfoin ley should be managed carefully to maximise performance. Sainfoin produces a cut of silage in early June or hay may be taken if preferred. Sainfoin should be cut during early flowering but this may be delayed without much loss of feed value if needed. Regrowth is less after the first cut and may be cut again or grazed. Grazing should be light and quick to avoid damage to the plant. Never set stock it or it will become thin. For regular multiple cuts consider Lucerne.

### Nutrient requirements

Sainfoin requires no N or P but K levels must be maintained at ADAS Index 2 to safeguard yields. Yield potential

### Yield potential

14t DM/ha annually. Typical silage analysis has a dry matter of 14%, a crude protein of 18%, a D-value of 62 and an ME of 9.5 MJ.

However, sainfoin produces better results than this analysis indicates as its high tannin content protects the protein in the rumen so increasing absorption and producing higher liveweight gains, also reducing belt and the worm burden in stock.



**Sainfoin Ley**  
8th June, Hampshire



There are few crops quite like sainfoin. It is a high-yielding, drought-resistant plant which needs no nitrogen fertiliser and little phosphate. It won't cause bloat, is a natural anthelmintic and, with rumen-protected protein, produces top quality meat and milk.

Sainfoin has deep-penetrating roots making it highly suitable for the dry, alkaline soils of England. In these times of fluctuating fertiliser, feed and veterinary drug prices, alongside increased demands for sustainability, there are few crops that tick as many boxes.

It grows best on stony brash or chalks, but does not like wet soils where red clover should be chosen in preference.



Sowing & Growing Guides  
available online



## Sainfoin

Four Year Cutting or Grazing

Code: SAI

On the right ground this is a superb crop. Lasting for four years or more, it is extremely valuable for finishing lambs.

■ 35.00 kg commercial sainfoin

**35.00 kg/acre - £129.50**

87.50 kg/ha - £323.75

## Companion Grass Option

Four Year Mixture

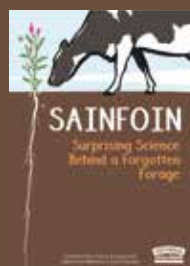
Code: MIXLUC

We recommend the use of a non-competitive grass mixture to be sown with sainfoin. The grass fills the base of the crop, increasing yield and soluble sugars to improve silage fermentation. The grass seed element should be surface sown and rolled in.

■ 2.00 kg certified SENU meadow fescue  
■ 1.00 kg certified COMER Timothy

**3.00 kg/acre - £16.95**

7.50 kg/ha - £42.38



For more information on sainfoin, please download our growers guide - **Sainfoin - Surprising science behind a forgotten forage.**

Visit [cotswoldseeds.com](http://cotswoldseeds.com) to download your copy.

Grass Legume

# Lucerne

Reliable yields for silage on dry gravels.

Lucerne is highly productive and reliably provides three to four cuts of protein-rich silage annually, even through drought, and lasts for around five years. Lucerne must be grown on naturally alkaline and free draining soils or gravel. It is slower to establish than ryegrass and does require careful management but, if agronomic guidelines are followed, there is nothing complicated about it.



Lucerne baled  
30th May, Oxfordshire



## Sowing and Growing

### Suitable soils and optimum pH

Gravels and free-draining soils with a pH 6.5-8.

### When to sow

Lucerne must be sown into warm soils and is often undersown to a spring cereal crop as it is slow to establish. Reducing the cereal seed rate by a third and cutting it as arable or wholecrop silage will give lucerne the best start. Alternatively, sow in the summer following an early-harvested cereal such as winter barley. The middle of August is the latest date for sowing.

### How to sow

The seed of lucerne is small and needs to be sown to a maximum depth of 15mm otherwise a patchy, thin crop will result. Roll before and after sowing to help achieve fast germination and weed competitiveness. Sowing with a companion grass mix helps out-compete weeds enabling lucerne leys to be left down for longer. Aim to obtain a clean seedbed prior to sowing.

### Management

Following a direct spring sowing a light cut may be taken in mid August. From a summer sowing or an undersowing there will be little to cut in the first year. Leave until the following spring when it should be cut for the first time in early June at almost full flowering. Thereafter cut at the bud stage as this provides the ideal balance between yield and quality. Two or three further cuts follow at six week intervals. After cutting, the crop needs wilting so that it contains less than 70% moisture when made into baled silage. Hard or frequent grazing should be avoided especially during its first year as the crop will not tolerate it. Lucerne can also cause bloat when grazed.

### Nutrient requirements

Although lucerne requires no N once established it can be beneficial to apply 25kg N/ha to an autumn sowing to promote rapid plant development. P and K requirements are higher than for grass and should be maintained at ADAS Index 2 to maintain yields.

### Yield and nutrient data

14t DM/ha annually. A well fermented lucerne/grass silage has a dry matter of 30%, a crude protein of 20%, a D-value of 60 and an ME of 9.7MJ.



Sowing & Growing Guides  
available online



## Culture



### To Fix N

The use of culture to provide the correct type of bacteria to initiate nodulation is considered essential. Mix with seed on the day of sowing.

Sachet for 25 kg of seed

£10.00 plus VAT

## Lucerne

### Four Year Cutting Crop

Code: MILKY

Lucerne should be sown as a four or five year temporary ley. For specialist use it may be made into hay for the equine market where it is known as alfalfa.

- 8.00 kg certified MILKY MAX lucerne

8.00 kg/acre - £87.20

20.00 kg/ha - £218.00

## Companion Grass Option

### Four Year Mixture

Code: MIXLUC

We recommend the use of a non-competitive grass mixture to be sown with lucerne. The grass fills the base of the crop, increasing yield and soluble sugars to improve silage fermentation. The grass seed element should be surface sown and rolled in.

- 2.00 kg certified SENU meadow fescue
- 1.00 kg certified COMER Timothy

3.00 kg/acre - £16.95

7.50 kg/ha - £42.38

Fast Delivery

01608 652552

cotswoldseeds.com





# Grazing

## The cheapest forage.

Whether you want grass to grow in the uplands or the lowlands, on dry or wet soil, on acidic, neutral or alkaline soils, we can provide a seed mix to suit.

The number of species in our grazing mixtures varies from 1 - 18, providing a huge range of choices to meet the requirements of the diverse grazing systems on farms across the country.

Pioneers of grassland management such as Andre Pochon, Robert H Elliot and William Lamin developed complex mixtures of grasses and legumes for grazing and cutting. In recent times however, intensively bred strains of ryegrass in temporary leys have been very popular as they respond well to nitrogen fertiliser and give the high yields required by intensive farmers.

### Clover versus N fertiliser

Nitrogen fertiliser is one of the largest costs to livestock farmers. In light of volatile fertiliser prices, many farmers are sowing high-clover leys to lower the cost of forage production as white clover and other nitrogen fixing legumes can reduce or replace the need for artificial nitrogen.

### Single species versus diversity

While some have good reason to grow single species swards, sowing mixtures of grasses and clovers offers real benefits. A single grass alone will often be lower yielding and more vulnerable to failure or poor performance due to pests, disease or the effects of unusual weather. A diverse mixture is therefore more reliable and preferable to sowing a single species. This is especially important for leys which are expected to last for more than one year. Higher yields from mixtures of grasses and clovers are due to better seasonal distribution of growth: grasses give high yields during May and June, clovers produce theirs in July and August. Critically, it's the contribution of both grass and clover that provides the optimum balance between bulk yield and feed value. Grasses tend to have higher annual yields, but are lower in protein than clovers. Animals grow faster and do better on a mix of clover and grass.

### Drought resistant swards

In recent summers extended dry periods have put a real strain on livestock farmers battling to ensure they have sufficient forage year round. Grass species such as cocksfoot and clover continue to produce even when there has been no rain for weeks, and many of our mixes are designed with these conditions in mind.

### The case for clover

Red clovers can be broken down into two distinct types: early and late flowering with a difference between flowering periods of 10 - 14 days.

Early or double cut red clover – These are most popular and are commonly used for silage as they re-grow well to provide a second cut later in the year.

The late varieties such as Altaswede can be used on late, wet ground to provide one large single cut later in June.

### White clover

White clover is classified according to leaf size, which break down to small, medium and large, the size of the leaf dictates what type of use it is most suited to.

Small Leaf Clover - The very small, low yielding but extremely persistent type is known as 'wild white'. Little clovers like S184 are extremely persistent, filling the base of the sward and can be grazed hard especially with sheep.

Medium Leaf - Medium leaved varieties such as AberSwan and Merwi offer yields well in excess of the wild whites. They are also more competitive, persistent and offer good early spring growth.

Large Leaf - The large leaf types such as Barblanca are the highest yielding. However, large leaved varieties do not survive well when grazed hard with sheep. Therefore these are best sown in silage or cattle grazing leys. For most situations it is best to sow a mixture of types to allow for grazing or silage.



First Hand

## Waldegrave Estates



<b>Farm Type</b>	<b>Dairy &amp; Arable</b>
<b>Location</b>	<b>Wells, Somerset</b>
<b>Size</b>	<b>800 Acres</b>
<b>Soil Type</b>	<b>Mainly Shallow Loam Over Limestone</b>
<b>Mixes Used</b>	<b>Pochon Dairy &amp; Longer Term Red Clover Ley</b>

Waldegrave Farms, in the Mendip Hills, Somerset, is one of Cotswold Seeds' oldest customers, the mixtures mainly used for silage and grazing.

The 230 herd of dairy cows are paddock grazed and milked twice a day. 'We are very exposed on top of the Mendips with a cold east wind, so we get a lot of frost and the grass is always late,' says Farm Manager, Penny Wiseman. 'It's a short grazing season for us because of the late spring.'

The farm went organic in 2000, driven by Lady Waldegrave, the principal tenant, who was running a cookery school and was interested in healthy food and farming with nature.

'Ian Wilkinson recommended introducing plenty of red and white clover to help build fertility in the organic system,' explains Penny. 'We've always alternated the Pochon Ley with

a 3 year Red Clover Ley. Red clover makes very good silage but there are diseases that affect red clover if you reseed with it without a break.'

The advice is to have a four to five year break between red clover leys. We have 10 fields that we reseed every 4 years and we've always alternated between red clover and white clover, which isn't prone to the same disease. We do that religiously. In the early days we had a much longer rotation, with wheat and triticale, then things like vetch and oats and peas and barley, so we could get a four year break and then go back to a red clover mix but nowadays we do a much shorter rotation of red then white clover and we've never had any problems. We particularly like the Milvus red clover because that will last four to five years. If the grass looks a bit sketchy we just overseed grass onto the red clover to keep it going another year. That's why we like Cotswold Seeds because the bespoke mixtures are so versatile. We can say we want that mixture without the clover just to overseed.'

**'We like Cotswold Seeds because the bespoke mixtures are so versatile. We can say we want that mixture without the clover just to overseed.'**

After harvest, a crop of winter wheat is followed by a custom cover crop of mustard and rape over the winter. 'The mustard and rape takes up whatever nitrogen is in the ground and then in spring you plough it back in which releases nitrogen for a crop of spring barley undersown with a clover ley. Having that winter cover crop reduces the risk of soil erosion and also helps suppress weeds.'

The method of reseeding is to plough, power harrow and drill the spring barley and then immediately overseed with a grass seed mix pretty much on the surface. A Stocks Ag Turbojet Seeder mounted on a Browns harrow works well 'because it's really easy to calibrate'. The grass seed is broadcast and then followed with a set of tines before rolling. 'The seed comes out of tubes low to the ground which is perfect, because you can do it when it's windy, which is pretty much all the time here! It's also ideal for the small seeds like clovers because it ensures they are not sown too deep. If we are lucky during establishment, after the whole crop is harvested in June/July, we can then get a good cut.'

'One improvement we hope to make is that it can be difficult to get muck to some of the fields, but we are considering investing in our own muck spreader to give more flexibility with timing of spreading and to hopefully do more spreading in early spring, which would be beneficial to encourage earlier spring grass growth on these exposed hills.'

We have started exploring SFI options. We're using SAM3 herbal leys and we're also doing IPM2 wildflower grass margins and are looking to do some AHL2 winter bird food. Apart from ensuring we have a viable business, one of our other important aims is to try and farm with wildlife. We've got a lot of brown hares and skylarks on the farm.

'I always use Cotswold Seeds because the mixtures are so versatile and the seeds are always reliable, good quality,' says Penny. 'They are always able to give me what I want. Deliveries are quick too.'



# Dual Purpose Swards

Self-sufficient leys that provide high protein grazing with little or no nitrogen fertiliser.

## Sowing and Growing

### Suitable soils and optimum pH

These ryegrass-based leys grow on all but the most waterlogged soils. They are best suited to pH6 or above but will grow to pH5.6.

### When to sow

Seed can be sown between March and mid September when soils are warm and sufficient moisture is available.

### How to sow

A very firm seed bed is required as white clover and Timothy seeds are small and benefit from shallow sowing at around 10mm. Rolling at least once after sowing is strongly recommended. If under-sowing, do not choose a thick crop, a thinly sown spring cereal is ideal. Clover seed mix is best sown by broadcasting with a spinner but can also be shallow sown with a proper grass seed drill.

### Management

As the main period of grass growth is during May and June, it makes sense to take a cut of silage or hay during this time. Additionally, where grass growth exceeds grazing demand more can be cut and round-baled as silage. Ideally, these leys should be rotationally grazed with an interval of 3-5 weeks for recovery.

### Nutrient requirements

These leys should receive no more than 100kg N/ha with the biggest demand (60kg N/ha) in March and April if a silage cut is to be obtained. Pochon Dairy requires very little or no N as the high clover content (30-50%) will fix N in the soil.

### Yield potential

12t DM/ha should be achieved.

These mixtures are ideal for those looking to graze and/or cut a medium to long term ley. With white clover included in all three, they are largely self-sufficient in nitrogen. Of course the benefits derived from clover are proportional to the amount in the sward, both in terms of animal nutrition and nitrogen fixing.

If using the mix for silage or hay, the ley should be shut up at least six weeks before cutting, with the best combination of yield and quality coming from grasses that are just beginning to produce a seed head and clovers in bud or early flower. A first cut of silage is ready during late May. These leys will provide a second cut but are usually grazed.

These three mixes are among our most popular. The 'Milk-Meat' combination has been in use since the Second World War and sown on, we estimate, over a quarter of a million acres.

## Managing and Feeding Ryegrass Only Swards (MIX3 & MIX4)

Use these mixes for intensive systems on moisture retentive soils where Nitrogen can be used or slurry is available. These mixes create dense swards making them suitable for higher stocking rates. Consider deeper rooting mixes for drought prone districts.

Mix3 starts growing early in the spring, this suits lighter, land that can support early turn out.

Mix4 is a medium and late heading mix that suits heavier soils, creating a dense sward and growth right into the Autumn. Yields of 13t DM/ha can be achieved, both mixtures can also be cut for high quality grass silage throughout the season.

Drill in two directions to create a thicker, denser sward and roll well after sowing. Be wary of grass to grass reseeds, in this situation consider a break crop.

Optimum sward height for grazing is 7-10cm.

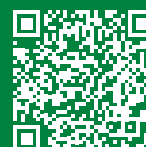
Mix3 includes Hybrid Ryegrass for an 'early spring bite', around 20 acres (8ha) is advisable to provide early grazing for 100 cows.

Graze these mixes hard in spring to encourage leafy regrowth in the summer, undergrazing can lead to stem production and lower quality. Graze down to 4cm at the end of the season to avoid winter damage.

Nitrogen fertiliser will be required from mid February in mild districts to April in more northern and upland areas. Provided moisture is available a mid season N application will boost grass growth (60kgs/ha). On land where late season grass can be utilised, a further dressing (40kg N/ha) can be applied in late August. P & K should be maintained at ADAS index 2.



Sowing & Growing Guides available online



Grass

Legume

## Mixes

## Early Bite

## Sheep and Hay Ley

Code: MIX1

Ideal for producing early grass on light land, this ley will provide good growth throughout the year and is especially good for lamb production. It is also suitable for hay or silage and can be expected to last for at least three years. Contains white clovers, making grazing more palatable and increasing live weight gains.

- 4.00 kg certified ABERIMAGE tet. hybrid ryegrass
- 4.00 kg certified BOYNE perennial ryegrass
- 2.00 kg certified TODDINGTON perennial ryegrass
- 1.40 kg certified COMER Timothy
- 0.20 kg certified ABERSWAN white clover
- 0.20 kg certified MERWI white clover
- 0.20 kg certified RIVENDEL white clover

**12.00 kg/acre - £64.70**

30.00 kg/ha - £161.75

## Pochon Dairy

## Two-Four Year Silage/Grazing Ley

Code: MIXCG02

Designed specifically for the dairy farmer wishing to produce silage and high quality grazing. This ley has an open growth habit allowing the white clover plenty of space to exploit. Including Aberystwyth ryegrass and white clovers, this mixture is principally intended to be grazed by the dairy cow. For sheep grazing use 'Pochon' Persistent (see page 27).

- 3.00 kg certified ABERIMAGE tet. hybrid ryegrass
- 2.00 kg certified ABEREVE tet. hybrid ryegrass
- 2.50 kg certified BOYNE perennial ryegrass
- 3.00 kg certified TWYMAX tet. perennial ryegrass
- 0.50 kg certified ABERSWAN white clover
- 0.50 kg certified MERWI white clover
- 0.50 kg certified BARBLANCA white clover

**12.00 kg/acre - £72.10**

30.00 kg/ha - £180.25

## Intensive Dairy Graze - Late

## Five Year Plus Ley

Code: MIX4

A proper late, thick-bottomed sward for summer grazing or late silage making on heavier soils. A high sowing rate of palatable grasses including high sugar 'Aber' varieties with consistent D values and late diploid DLF varieties with very good crown rust and drechslera scores, to ensure grazing remains palatable late into the autumn. This mix costs more than other ryegrass mixes but provides an ideal grazing sward for at least five years.

- 4.00 kg certified BOYNE perennial ryegrass
- 4.00 kg certified ABERSPEY tet. perennial ryegrass
- 4.00 kg certified TWYMAX tet. perennial ryegrass
- 3.00 kg certified SWAN perennial ryegrass

**15.00 kg/acre - £72.00**

37.50 kg/ha - £180.00

## Milk-Meat Cut or Graze

## Five Year Plus Ley

Code: MIXMM

Our best selling dual purpose ley, equally suitable for cattle or sheep. This mixture combines the benefits of high yielding Boyne, with Twymax, which consistently holds its quality late into the season, along with highly palatable Timothy and white clover. It can be sown for silage and hay or intensively grazed. This versatile high D-value ley will yield well on all soil types.

- 2.30 kg certified BOYNE perennial ryegrass
- 2.00 kg certified TWYMAX tet. perennial ryegrass
- 4.45 kg certified CALIBRA tet. perennial ryegrass
- 2.00 kg certified TODDINGTON perennial ryegrass
- 1.75 kg certified COMER Timothy
- 0.20 kg certified MERWI white clover
- 0.20 kg certified ABERSWAN white clover
- 0.10 kg certified BARBLANCA white clover

**13.00 kg/acre - £73.90**

32.50 kg/ha - £184.75

## Intensive Dairy Graze - Early

## Four - Five Year Ley

Code: MIX3

To provide quality grazing throughout the season this mixture includes tetraploid ryegrasses which will increase palatability and voluntary intake. Containing early, mid and late season grasses, this ley is suited to light land, requires early grazing and can help to extend the grazing season. The inclusion of the 'Aber' strains ensures D-values remain high.

- 3.00 kg certified ABERIMAGE tet. hybrid ryegrass
- 2.00 kg certified BOYNE perennial ryegrass
- 2.50 kg certified CALEDON tet. perennial ryegrass
- 2.50 kg certified ABERSPEY tet. perennial ryegrass
- 2.00 kg certified TWYMAX tet. perennial ryegrass
- 2.00 kg certified SWAN perennial ryegrass

**14.00 kg/acre - £63.88**

35.00 kg/ha - £159.70



**Milk-Meat Cut & Graze**  
25th June, Oxfordshire

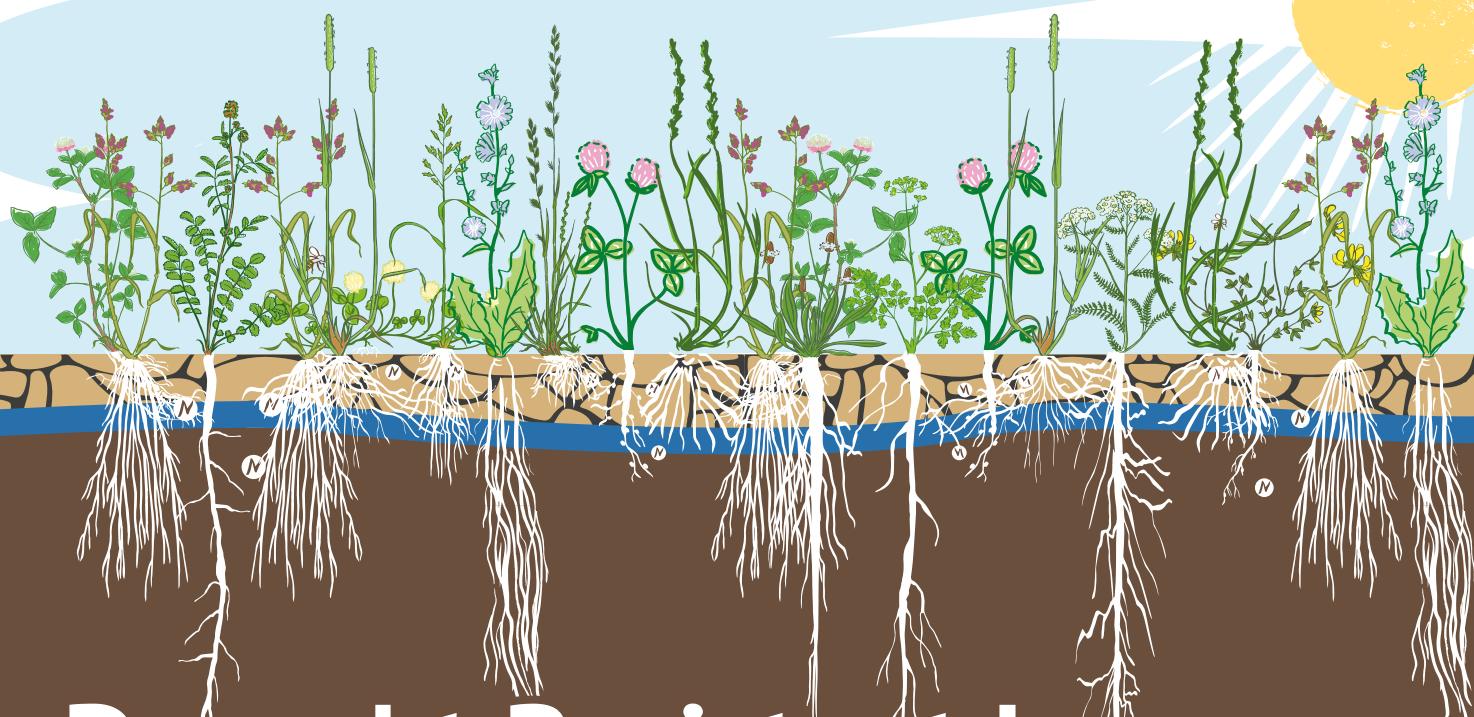
## Additions



Red Clover: 1 kg red clover  
Cover Crop: 3 kg westerwold  
Heavy Land: 2 kg Timothy  
Light Land: 2 kg cocksfoot  
Anti Bloat: 5 kg sainfoin

**£12.25 per acre**  
**£9.15 per acre**  
**£13.30 per acre**  
**£12.20 per acre**  
**£18.50 per acre**





# Drought Resistant Leys

Drought can devastate forage crop yield. Avoid the severe consequences by choosing deep-rooting mixtures.

## Sowing and Growing

### Suitable soils and optimum pH

These mixes are designed for light, free-draining land with a pH of 5.6-7.

### When to sow

Sow between April and early September. Avoid late autumn sowing when mixtures contain clovers.

### How to sow

Sow into a fine, firm seedbed at around 10mm. Seed can be broadcast on a windless day, harrowed lightly and rolled. Alternatively, seed may be drilled in two directions into a well consolidated (rolled) seedbed.

### Management

These leys depend upon developing a large number of deep roots. To achieve this these leys should be allowed to accumulate a lot of leaf and should then be heavily grazed (rotationally) before being allowed to repeat the cycle. Set stocking is less effective. Leys containing cocksfoot should be grazed frequently and cut young to ensure that growth remains leafy.

### Nutrient requirements

N fertiliser (40kg N/ha) can increase early spring growth but high applications will impede clover growth and content which needs to be high for summer grazing production. P and K levels should be maintained at ADAS Index 2.

### Yield potential

Cocksfoot-based leys: 12t DM/ha

Ryegrass-based leys on dry, light land: 7t DM/ha

Ryegrass-based leys with rainfall: 12t DM/ha

The dry conditions suffered by many in recent years demonstrates the need for grass mixtures which continue to yield even during prolonged spells of drought. By combining deep-rooting grasses and clovers with differing growth habits, it is possible to provide summer grazing from dry soils.

Recent weather has shown that ryegrass does not thrive in dry conditions. However there are other grasses, such as meadow fescue, Timothy and cocksfoot, which can be relied upon. These species can offer great benefits over ryegrass to those in challenging conditions. If you farm on dry land then these leys are well worth considering.

## Growing grass on droughty land

Pioneers of grassland farming, Robert H Elliot and William Lamin, developed complex ley mixtures comprising deep-rooting species such as cocksfoot, chicory and red clover.

Then, as now, some farmers were reluctant to use too much cocksfoot (see page 2), as it was inclined to grow coarse and clumpy. However, this is only a problem when seed is sown too thinly, allowing the cocksfoot too much freedom, or when it is allowed to become too mature when making hay.

Elliot observed first hand at Clifton Park that his deep-rooting four year ley provided good quality forage and improved soil so much that he was able to grow subsequent cash crops for four years with little fertiliser input. Lamin, who used a simplified version of Elliot's mix, observed "...it's like throwing money away to put ryegrass on dry land."

It's worth noting that although ryegrass is vulnerable to drought and is one of the first grasses to stop growing, it does recover very quickly when rain comes and can make a valuable contribution after prolonged dry periods.

## Mixes

Grass

Legume

Herb

## Light Land Beef/Sheep

Long Term Ley

Code: MIX5

A long term ley that combines perennial ryegrass with drought-resistant cocksfoot. Good year-round production can be achieved which can be used for grazing or silage. Cocksfoot needs frequent grazing but recovers quickly after defoliation. The blend of persistent white clovers and Timothy makes the sward extremely palatable. It is also very productive late into the summer.

- 3.00 kg certified DONATA cocksfoot
- 3.00 kg certified CALIBRA tet. perennial ryegrass
- 2.50 kg certified BOYNE perennial ryegrass
- 2.30 kg certified TODDINGTON perennial ryegrass
- 1.50 kg certified COMER Timothy
- 0.30 kg certified ABERSWAN white clover
- 0.20 kg certified RIVENDEL white clover
- 0.20 kg certified ABERACE wild white clover

**13.00 kg/acre - £77.47**

32.50 kg/ha - £193.68

## Cholderton

Four Year Plus Grazing/Cutting Ley

Code: MIXCM

A ley developed on the thin, chalk soils of Wiltshire which provides good growth for early grazing or cutting. It regrows powerfully through the spring and into the summer, giving an outstanding second cut yield. The ley tolerates dry conditions due to the deep roots of cocksfoot and red clover.

- 1.50 kg certified ABERIMAGE tet. hybrid ryegrass
- 4.00 kg certified CALIBRA tet. perennial ryegrass
- 2.20 kg certified BOYNE perennial ryegrass
- 2.00 kg certified DONATA cocksfoot
- 1.00 kg certified COMER Timothy
- 1.00 kg certified LOFA festulolium
- 0.50 kg certified MILVUS red clover
- 0.40 kg certified ABERSWAN white clover
- 0.30 kg certified MERWI white clover
- 0.10 kg certified RIVENDEL white clover

**13.00 kg/acre - £78.79**

32.50 kg/ha - £196.98

## 'Lamins' Drought Resistant

Four Year Grazing For Dry Land

Code: MIXCG04

This is a traditional humus building, drought resistant ley which is ideal for continuous grazing. This 'Clifton Park' type mixture will provide good quality forage which is high in protein. It starts early in the spring and will grow well through the summer and into the autumn. Birdsfoot trefoil has been added to this mixture after witnessing its ability to stay green throughout the dry summer of 2018.

- 5.00 kg certified DONATA cocksfoot
- 2.00 kg certified BARDOUX tall fescue
- 1.50 kg certified COMER Timothy
- 1.20 kg certified SENU meadow fescue
- 1.00 kg certified ALTASWEDE late flowering red clover
- 0.50 kg certified MERWI white clover
- 0.20 kg certified LEO birdsfoot trefoil
- 0.40 kg certified PUNA / ENDURE chicory blend
- 0.30 kg burnet
- 0.30 kg certified ENDURANCE ribgrass
- 0.05 kg yarrow
- 0.05 kg sheeps parsley

**12.50 kg/acre - £104.17**

31.25 kg/ha - £260.43

## Chicory Grazing Ley

Three - Four Years

Code: MIXCL

This high-protein, mineral-rich, drought resistant mixture combines one of the most well-known varieties of chicory with clover and a small quantity of ryegrass. It will last for three to four years.

- 2.50 kg certified PUNA / ENDURE chicory blend
- 0.20 kg certified ENDURANCE ribgrass
- 1.50 kg certified ALTASWEDE late flowering red clover
- 0.60 kg certified MERWI white clover
- 1.70 kg certified TWYMAX tet. perennial ryegrass

**6.50 kg/acre - £82.57**

16.25 kg/ha - £206.43

## Additions



Cover crop: 3 kg westerwold  
Cover crop: 3 kg Italian ryegrass  
Cover crop: 10 kg vetches  
Anti bloat: 5 kg sainfoin

**£9.15 per acre**  
**£10.95 per acre**  
**£33.00 per acre**  
**£18.50 per acre**



Sowing & Growing Guides  
available online



**Drought Resistant Ley**  
1st July, Oxfordshire

First Hand

## Mark Spendlove



<b>Farm Type</b>	<b>Traditional Mixed</b>
<b>Location</b>	<b>Northamptonshire</b>
<b>Size</b>	<b>500 Acres</b>
<b>Soil Type</b>	<b>Ironstone To Medium Clay Loam</b>
<b>Mixes Used</b>	<b>Herbal Leys</b>

Mark Spendlove grows herbal leys to produce good quality grazing and silage and to reduce overheads. His farm is 'traditional mixed. We grow grain, graze sheep and keep a suckler herd of 100 cows, crossed with Hereford bulls, to produce supermarket spec cattle. 'I say to folks, we're newcomers, we've only been up here 75 years,' quips Mark. We are both farmers and custodians of the land.'

Mark explains the drivers for herbal leys.

'We're in a very dry area, we have to manage with just eighteen inches of rainfall per year. Traditionally, we were growing ryegrass mixtures with clover. The old adage says that 50% of your grass will have grown by the end of May and that's when the clover gets up and gets away. But with the lack of rain, and ryegrasses being shallow rooted, the ley tailed off after the first cut. Then complex herbal leys became available and we haven't turned back.'

'Originally the herbal leys included a proportion of ryegrass along with a range of other species, but as we have fine tuned the mixes we have reduced the ryegrass and opted for Timothy, cocksfoot and festuloliums which are deeper rooting for reaching moisture. The clovers are providing the protein and the chicory is very deep

rooting for making drainage channels, along with plenty of earth worm activity. In the dry season, the leys are still green. Everything does a job.'

Mark has seen their need for nitrogen fertiliser drop off massively. 'The leys are fixing their own nitrogen, and the residue that's left over helps to grow the next cash crop. So there's a double win. The other benefit is keeping the feed lorries away because we're now producing 95% of our feed. The leys are brilliant for fattening lambs. My son-in-law and daughter are selling finished lambs, 50kg plus, with absolutely no purchased feed; it's purely this aftermath grazing.'

**'The leys are fixing their own nitrogen, helping to grow the cash crop. So there's a double win. The other benefit is keeping the feed lorries away because we're now producing 95% of our feed.'**

'The seed isn't cheap compared to ryegrass based mixes, but you're saving on nitrogen, and thanks to new SFI schemes in England we're now being paid to grow these mixes which is yet another bonus. Though farmers absolutely need the subsidies, the leys would stand up on their own. We're producing food, looking after wildlife, looking after the soil, and we're paid to do it. What's not to like?'

Mark prefers to establish the leys in spring. 'We've tried autumn but clovers can be slow and less reliable if we do not have an open autumn. When it comes to machinery for establishment, Mark keeps things simple.

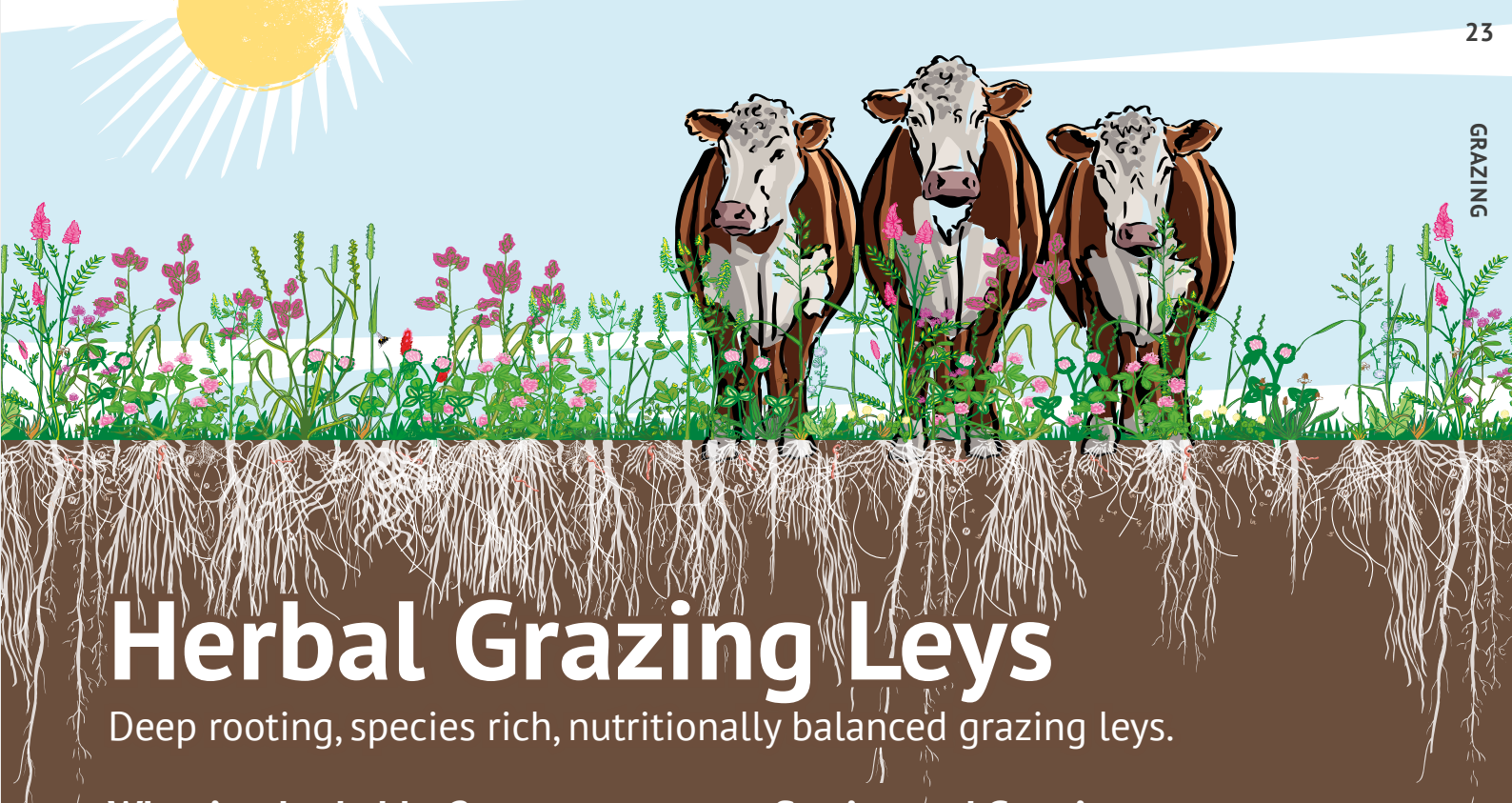
'A reliable establishment is key, we have a very simple tine drill with leading discs. We either use it for direct drilling when the conditions are right or as a seed broadcaster when we've had to make a seed bed. We basically just dribble it on the surface and the chains on the back work it into the ground. It's essential to roll it, probably twice.

'For cutting duties we operate a mower that has a rubber roller conditioner on the back which crimps the stem to let the moisture out. We don't use a tedder to move the crop because the machine will knock it about too much; you'll get leaf shatter and lose the protein. We pick the grass up with a self-loading forage wagon. The silage is destined for the pit and the speed at which we can clamp is what governs the speed of the operation. We use an additive to help with stability and improve fermentation because the silage can be sappy and higher in moisture than grass only mixtures.

Mark typically leaves leys in the ground for four years. In terms of management he advises 'Give the ley a chance and be patient. Don't leave cattle on for a prolonged period and certainly not in wet weather. You'll be able to fatten lambs on it. There is talk about the clovers affecting the oestrogen cycling of ewes, so just be a little wary of that. Production in year one can take a while, especially from a spring sowing, you could top it to help tiller it out. Then next year you'll comfortably get three mowings of silage off of it.'

Mark uses Cotswold Seeds 'because they have been specialising in complex mixes for 50 years. I just ring up Sam and leave it to him to pick the varieties of grass, legumes and herbs that are going to suit our land. He knows us and the farm. I can't fault them.'





# Herbal Grazing Leys

Deep rooting, species rich, nutritionally balanced grazing leys.

## What is a herbal ley?

A herbal ley is a complex seed mixture of grasses, legumes and herbs, which bring a range of benefits to forage, livestock health and soil fertility. Herbal leys can often include a mixture of up to 18 species, depending on the aims of the ley, location and soil type.

They have traditionally been used to build soil fertility and structure in an arable rotation, acting as a minimal input, four year break crop, but they bring significant benefits not only to the soil health, but also to the health and diet of livestock and the wider environment.

The deep rooting species in the mixture add drought tolerance when grown on thin soils or during dry summers, remaining green and palatable for much longer than other forage mixtures. They work especially well on dry, light land where ryegrass leys prone to burning up in mid summer.

The mixture of species also ensures a longer growing season and certain species included in the mixtures such as sainfoin, chicory and birdsfoot trefoil, have anthelmintic properties, which helps to reduce the worm burden in livestock, creating less reliance on artificial wormers and your vet.

The deep rooting herbs, notably chicory, mine the soil for important nutrients and minerals, making them available to the grazing livestock and lowering the need for bought in concentrates. The high legume content of these leys reduces the need for expensive artificial nitrogen, since they fix their own N, feeding the other grasses and herbs in the mixture, and again helping to reduce costs.

## Sowing and Growing

### Suitable soils and optimum pH

Ideally suited to medium and light soil types with a pH of 6.0-8.0.

### When to sow

Sow from April until early September.

### How to sow

Sow into a fine, firm seedbed after an application of FYM. These leys contain many small-seeded species and are best broadcast as this leads to more even plant distribution. Roll twice after sowing for maximum seed to soil contact and consolidation.

### Management

Graze lightly while the crop is establishing. Once growing well, rotationally graze allowing at least 28 days or more for recovery and regrowth. Using electric fencing, ration an area per day (e.g. about one acre for 100 cattle) but adjust this area to match growth and stock requirements. Over-grazing will damage chicory crowns. Surplus production from Herbal Leys can be made into silage.

### Nutrient requirements

No N is required, P and K should be maintained at ADAS Index 2.

### Yield potential

Yields of up to 13t DM/ha for the Herbal Ley can be achieved.



Herbal Ley  
3rd June, Norfolk

## Mixes

Grass

Legume

Herb

## Simple Herbal Ley

Four Year Grazing/Cutting/AD Ley

Code: MIX23

The Simple Herbal Ley is designed for farmers needing a stepping stone to more diverse mixes. It can be used as a dual purpose cut and graze, notice chicory has been excluded to make silage management easier.

- 3.20 kg certified CALIBRA tet. perennial ryegrass
- 2.00 kg certified ABERWOLF perennial ryegrass
- 1.80 kg certified LOFA festulolium
- 1.40 kg certified DOLINA Timothy
- 1.00 kg certified DONATA cocksfoot
- 1.00 kg certified PARDUS meadow fescue
- 0.50 kg certified MILVUS red clover
- 0.30 kg certified MERWI white clover
- 0.20 kg certified BARBLANCA white clover
- 0.05 kg certified LEO birdsfoot trefoil
- 0.30 kg burnet
- 0.25 kg certified ENDURANCE ribgrass

12.00 kg/acre - £78.33

30.00 kg/ha - £195.83

## Herbal Heavy Land Ley

For Medium and Clay Soils

Code: MIX22

Still deep rooting but without cocksfoot this grazing mix suits heavier soils and lasts up to five years.

- 2.00 kg certified CALIBRA tet. perennial ryegrass
- 1.75 kg certified SENU meadow fescue
- 1.60 kg certified LOFA festulolium
- 1.60 kg certified TWYMAX tet. perennial ryegrass
- 1.60 kg certified COMER Timothy
- 1.50 kg certified BARDOUX tall fescue
- 0.50 kg certified MILVUS red clover
- 0.50 kg certified ALTASWEDE late flowering red clover
- 0.50 kg certified MERWI white clover
- 0.30 kg certified LUZELLE lucerne - (rhizobium inoc.)
- 0.25 kg commercial sweet clover
- 0.20 kg certified AURORA alsike clover
- 0.50 kg burnet
- 0.40 kg certified PUNA / ENDURE chicory blend
- 0.30 kg certified ENDURANCE ribgrass

13.50 kg/acre - £103.56

33.75 kg/ha - £258.90

## Herbal Grazing Ley

Four Year Drought Resistant Ley

Code: MIX20

Based on Newman Turner's original recommendations, this all round mixture provides wholesome and substantial forage for grazing and occasional cutting. This 18 way mixture provides grazing for early turnout and continues to produce forage right through the summer and autumn. Containing deep-rooting ingredients, this ley not only improves soil structure but also draws up essential vitamins and minerals for the ruminant animal.

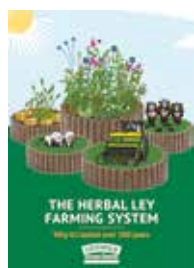
- 1.60 kg certified DONATA cocksfoot
- 1.40 kg certified BARDOUX tall fescue
- 1.25 kg certified TODDINGTON perennial ryegrass
- 1.00 kg certified CALIBRA tet. perennial ryegrass
- 0.80 kg certified LOFA festulolium
- 0.50 kg certified COMER Timothy
- 0.40 kg certified SENU meadow fescue
- 2.50 kg commercial sainfoin
- 0.50 kg certified MERWI white clover
- 0.35 kg certified LUZELLE lucerne - (rhizobium inoc.)
- 0.30 kg certified MILVUS red clover
- 0.25 kg certified LEO birdsfoot trefoil
- 0.20 kg commercial sweet clover
- 0.20 kg certified AURORA alsike clover
- 0.20 kg certified ALTASWEDE late flowering red clover
- 0.60 kg burnet
- 0.50 kg certified PUNA / ENDURE chicory blend
- 0.30 kg certified ENDURANCE ribgrass
- 0.10 kg sheeps parsley
- 0.05 kg yarrow

13.00 kg/acre - £103.50

32.50 kg/ha - £258.75



Sowing & Growing Guides  
available online



Interested in herbal leys? Learn more about their benefits and how they've stood the test of time in our 32 page farmers guide - **The Herbal Ley Farming System**.

Visit [cotswoldseeds.com](http://cotswoldseeds.com) to download your copy.



Legume & Herb-Rich Sward  
15th June, Ludlow



First Hand

## Dave Loggin



<b>Farm Type</b>	<b>Mixed, With Horse Livery</b>
<b>Location</b>	<b>Northamptonshire</b>
<b>Size</b>	<b>400 Acres</b>
<b>Soil Type</b>	<b>Sandy</b>
<b>Mixes Used</b>	<b>Legume &amp; Herb Rich Sward (MIXGS4), Sainfoin</b>

Dave's grandfather bought the farm in the 1950s and it was later split between Dave's uncle and father. Dave has been slowly taking over the reins on his father's half. It's a traditional mixed system, with Zwartbles sheep, Red Poll cattle and arable fields growing winter and spring barley, with spring oats as a break crop. Some of these oats are traditionally fed to the horses at his uncle's livery.

The soil on Dave's half of the farm is slightly acidic sandy soil. 'It needs plenty of muck because it's sandy soil and luckily it gets a lot because that's where the livestock are based. On my uncle's half, it's all limestone brash and alkaline pH.'

Dave started growing legumes and mixed swards to access ecological payments and more recently through Countryside Stewardship. He was instantly impressed.

'Sown during the spring, the ley got six weeks of rain and then the record-breaking drought of 2022. But it stayed alive. There were brown fields of grass everywhere and just this one field of green. We were thrilled. By 2023 when we had our first cut, it was so thick you couldn't walk through it. Just amazing and all the animals went mad for it.'

Dave doesn't feed his livestock any compound feed and started growing high legume, diverse leys under CS for the GS4 Herb Rich Sward option. Interestingly after feeding a few tester bales of forage to not just the livestock, but also some of the horses, he found this sort of forage boosted the condition of some of the higher performance horses, such as race horses liveried on the farm. The unique forage also had an 'amazing' added bonus that it seemed to have a calming effect on some of the horses as Dave explains below.

'Forage tests showed not only was it very high in protein, but the different legumes provided different forms of protein that worked well together in the gut to aid digestion. Some of the horses had stomach ulcers and would just stop eating after the stress of a race; one particular horse lost 30-40 kilos! Within two weeks of adding a small amount of legumes as an additive in with his haylage, he was back to his pre-racing weight and is now off gastroguard (a stomach ulcer treatment). The legumes seem to be a stomach calmer which inevitably improves performance and results.'

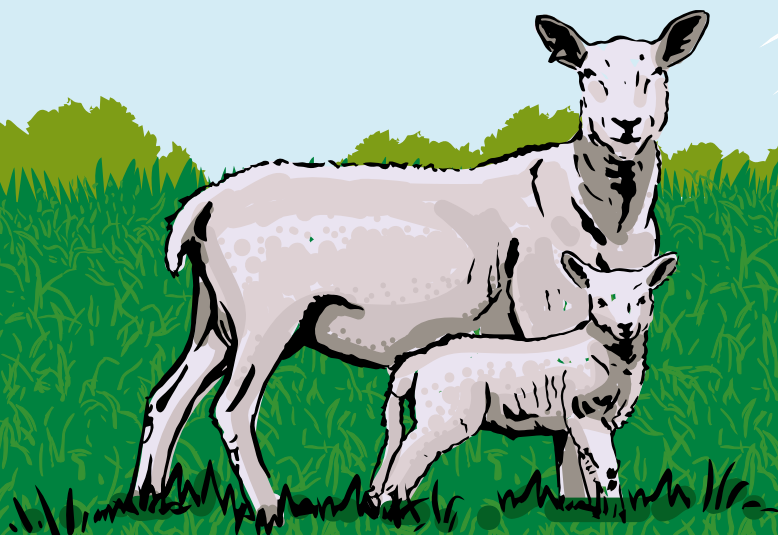
**'Forage tests showed not only was it very high in protein, but the different legumes provided different forms of protein that worked well together in the gut to aid digestion.'**

Dave explains another interesting observation that seemed to be improved by supplementing his grass haylage. 'We had difficulty loading another horse for shows and point-to-points; a horse's hooves show ripples when the animal is stressed. But once we started offering a small amount of this forage, her nerves disappeared and she would easily walk onto the trailer. The owner is thrilled and we put it down to the legumes as that's the only thing that changed.'

Dave explains that with these sort of mixes he has seen differences in seed establishment reliability depending on the soil type its sown on. 'We had a couple of attempts on more acidic soil and it was good for the first year but it had no longevity as the grass would out-compete it, but the thinner, limestone brash has been very successful.'

Dave would like to grow more legumes in the rotation. 'In a perfect world, I'd grow legumes for four years, then a year of low input heritage wheat to make good use of the nitrogen that's gone into the soil, then back to the legumes. It would be great to sell the legumes to horse owners, but persuading them could be a long haul as it's a very different looking feed and they are very much used to a 'grassy' looking hay or haylage bales. But as far as we are concerned, it's an all-round positive.'





# Long Term Leys

Good traditional leys that will produce grass for years to come.

Long term leys are ideal for self-sufficient beef and sheep farmers wanting to produce profitable stock with the emphasis on seasonal production, live weight gain and finishing healthy animals.

The long term ley mixtures contain perennial ryegrass or meadow fescue along with Timothy and clover for good year-round production. Clover is an excellent protein source which increases production, reduces inputs and maintains profit margins.

All grasses have a lifespan. Some such as Timothy and meadow fescue are very long lived and so can be considered permanent. Most ryegrasses are suited to short or medium term leys, but some varieties of late perennial ryegrass are persistent and suited to long term leys.

## Under Sowing a Spring Cereal

Since the advent of the *Norfolk Four Course* rotation, by Coke of Holkham, leys have often been sown underneath a spring sown cereal. This when done correctly protects the vulnerable new ley from hot weather and leaves a new ley well established after the cereal has been harvested. Any cereal can be under sown but barley and oats are most popular.

The competition factor should be reduced to a minimum by sowing the cereal, at two thirds the normal rate, and the ley seeds mix at the same time. The cereal should be drilled in and the grass seed mix broadcast on the surface, then harrowed and rolled. Some farmers wait until the cereal is up with 3 or 4 leaves before sowing as there is less risk of having a lot of green material going through the combine at harvest. This is really only advisable in high rainfall areas and not usually necessary in drier districts.

Sometimes, if the weather is bad, it is not possible to sow before the cereal has germinated. In this case sowing of the ley mix should be delayed until the cereal is through and well established with 3 or 4 leaves.

## Sowing and Growing

### Suitable soils and optimum pH

These leys are suitable for all soils apart from light ones. Ideally pH6-7.

### When to sow

These long-lasting leys take time to germinate and become established. It is therefore essential to sow when growing conditions are good and not too early in the spring before the soil is warm. They are often sown in spring but autumn sowings can be contemplated provided the seed is in by early September.

### How to sow

With long term leys it is extremely important to control perennial weeds prior to sowing. A cover crop of westerwold or forage rape can provide additional bulk in the year of sowing. These mixes can alternatively be undersown to a spring cereal which has been drilled at a reduced rate. Once sown, roll immediately to ensure good soil-to-seed contact.

### Management

Light grazing with sheep or young cattle will consolidate new plants, encourage grass to tiller and control annual weeds (known as the 'golden hoof'). Cutting for silage or hay is best left until the ley is well established in its second season.

### Nutrient requirements

These leys should receive no more than 100kg N/ha with the biggest demand (60kg N/ha) in March and April if a silage cut is to be obtained. Pochon Persistent requires very little or no N as the high clover content (30-50%) will fix N in the soil.

### Yield potential

Yields of 12t DM/ha should be achieved.

## Mixes

## Pochon Persistent

High Clover Long Term Grazing Ley Code: MIXCG01

For over thirty years Pochon has proven very successful on a wide range of conventional and organic farms. This mix is suitable for taking a cut of silage, but is mainly for rotational grazing. Including the best strains of high yielding white clovers from Aberystwyth, it gives excellent mid-summer production without artificial N.

- 3.00 kg certified TODDINGTON perennial ryegrass
- 2.00 kg certified SWAN perennial ryegrass
- 3.00 kg certified CALIBRA tet. perennial ryegrass
- 2.50 kg certified TWYMAX tet. perennial ryegrass
- 0.80 kg certified ABERSWAN white clover
- 0.40 kg certified RIVENDEL white clover
- 0.30 kg certified ABERACE wild white clover

**12.00 kg/acre - £79.90**

30.00 kg/ha - £199.75

## Permanent Grass

Long Term Grazing or Cutting Code: MIX6

This versatile mixture contains persistent varieties ensuring good yields for cutting and grazing over many years. Timothy is extremely resistant to cold temperatures and provides good late-season growth. The thick-bottomed sward structure is obtained by using late perennial ryegrasses and highly nutritious white clover. This mixture is very hardy and can be grown in upland or lowland areas.

- 5.00 kg certified TODDINGTON perennial ryegrass
- 2.80 kg certified SWAN perennial ryegrass
- 2.50 kg certified BOYNE perennial ryegrass
- 1.70 kg certified COMER Timothy
- 0.40 kg certified ABERSWAN white clover
- 0.40 kg certified MERWI white clover
- 0.20 kg certified ABERACE wild white clover

**13.00 kg/acre - £80.95**

32.50 kg/ha - £202.38



**Special Long-term Hay Mix**  
14th September, Burford

## Long Lasting Upland

Dual Purpose Mix Code: MIXCG05

This ryegrass-free mix is very long lasting and will tolerate harsh upland conditions. It is very palatable and is best when rotationally grazed to allow a period of recovery and regrowth. It can also be cut for silage or hay with the best quality forage coming from swards which are cut before heading.

- 7.50 kg certified SENU meadow fescue
- 3.00 kg certified COMER Timothy
- 1.00 kg certified ALTASWEDE late flowering red clover
- 0.80 kg certified ABERSWAN white clover
- 0.20 kg certified ABERACE wild white clover

**12.50 kg/acre - £88.53**

31.25 kg/ha - £221.33

## Additions



Westerwold can provide cover during establishment and increase yields in the first year. A small amount of forage rape can be added to offer early grazing and cover.

Add 3 kg of westerwold  
Add 0.25 kg forage rape

**£9.15 per acre**  
**£1.20 per acre**



Sowing & Growing Guides  
available online





# Root Crops

Fodder crops provide essential forage when grass is restricted. They are also a vital break crop.

Once sown, brassicas quickly produce a fodder crop. Adding muck or fertiliser to the crop makes it as productive as possible. This then feeds a larger number of livestock, so returning more dung to the soil, making the most of a very beneficial cycle. Once the decision has been made to break up a ley or pasture, many farmers sow a brassica fodder crop. These are not troubled by grass pests or diseases and thrive on the nitrates released by the decaying sward.

## Reduce feed costs

These short-term catch crops are sown in late spring or summer to provide valuable home-grown fodder for buffer feeding dairy cows or finishing lambs in autumn or winter, when other sources of forage are limited. Turnips and rape grow quickly, needing just 10 weeks. Kale, swede and hardy turnip take a bit longer but are much more winter hardy and excellent for late-winter grazing. All are highly beneficial break crops which reduce grassland weeds and pest attacks.

## Summer feed for dairy cows

Stubble turnips are palatable, energy-rich and offer dairy farmers the opportunity to prevent a feed shortage over the summer. To allow the rumen to adjust, cows should be introduced gradually to the crop for the first few days.

## Lamb finishing

Lambs can be successfully fattened on fodder brassicas, gaining around 100-150 grams per day. The addition of a small quantity of hay, barley or concentrates is beneficial. Root crops, especially when grown on free-draining soils, are excellent for late autumn and winter use.



**Stubble Turnips**  
9th January, Worcestershire

## Sowing and Growing

### Suitable soils and optimum pH

These crops will grow on most soil types provided they are well-textured and can give a fine tilth when cultivated. However, it's important to sow on well-drained ground for winter grazing. Optimum pH 6.2.

### When to sow

Fast growing crops Like stubble turnips and forage rape can be sown anytime from spring through till early autumn providing soil moisture is sufficient. The slower growing crops such as maincrop turnip, swede, fodder beet and kale should be sown in late spring (April – June).

### How to sow

Root crops (except fodder beet) can be direct drilled with a Moore Uni-Drill (or similar). If a root crop is to follow a grass ley, glyphosate can be applied to the grass prior to mowing. Once the grass is removed, seed can be direct drilled into its stubble and can establish quickly unhindered by weeds. A good dose of slurry or FYM should be applied before sowing if possible.

### Management

Electric fencing allows the crop to be fed at a controlled rate and should be long enough to give all stock access to the crop face. By doing this there is also less wastage through trampling. Ideally, a grass 'runback' should be provided for animals to lie on.

### Nutrient requirements

These crops need 70kg N, 50kg P and 50kg K per hectare.

### Yield potential

	DM/Ha	CP (%)	D-Value
Leafy Turnip	4.0t	18	68
Stubble Turnips	4.5t	17	69
Maincrop Turnips	6.0t	9	80
Swede	8.5t	11	82
Fodder Beet	14.0t	12	78
Kale	9.0t	17	68
Forage Rape	4.5t	19	68
Hybrid Rape/Kale	6.0t	19	68



## Mixes

## Early Fold Root Mix

Fast Growing and Cheap Seed

Code: MIXEF

This is a fast growing mixture capable of producing up to 45 tonnes per hectare with a dry matter content of 10% in approximately 10-12 weeks. Three acres feeds 100 sheep (complete diet) or 50 cows (quarter of diet) for a month.

- 1.50Kg certified SAMSON stubble turnip
- 0.50Kg certified RAMPART forage rape

2.00 kg/acre - £10.50

5.00 kg/ha - £26.25

## Summer Early Graze Forage Mix

Fast Growing and Cheap Seed

Code: MIXSEG

An alternative to the Early Fold Root Mix above. Good for sowing in May and June and grazing during autumn.

- 1.00 kg certified AVALON leafy turnip
- 1.00 kg certified RAMPART forage rape

2.00 kg/acre - £11.80

5.00 kg/ha - £29.50

## Straights

## Fodder Beet

This root crop provides a huge yield which is highly digestible and has a high energy content. It should be sown in April and, because the seed is pelleted, can only be sown with a precision drill. **Seed is only available in one acre packs (50,000 seed units).** Robbos variety is suitable for leaf lifting harvester and Feldherr for hand harvesting or grazing in situ.

Robbos

£115.00 per acre

Feldherr

£115.00 per acre

## Forage Rape

This protein rich green forage can be ready to graze in as little as 12 weeks and is ideal for fattening lambs. The Rampart variety exhibits very good frost tolerance and is extremely late flowering. Sowing rate 4.00 kg/acre.

Rampart

4.00 kg/acre - £19.20

10.00 kg/ha - £48.00

## Stubble Turnip

Turnips are grown in most areas of the UK as a highly digestible catch crop, ready within 10-12 weeks from sowing. Sowing rate 2.00 kg/acre.

Samson

2.00 kg/acre - £10.80

5.00 kg/ha - £27.00

## Straights

## Kale

Kale is high yielding, protein rich and winter hardy. Usually grazed between September and March, depending on sowing time. Full crop ready in 20 weeks. Sowing rate 2.00 kg/acre.

Pinfold

2.00 kg/acre - £33.80

5.00 kg/ha - £84.50

Maris Kestrel

2.00 kg/acre - £41.70

5.00 kg/ha - £104.25

## Hybrid Rape/Kale

Introduced to capitalise on the benefits of both rape and kale, this fodder crop is ready in 12 weeks from drilling. Many farmers favour this crop as it can offer good regrowth. Choose Redstart for winter hardiness and strong regrowth or Interval for good yields and high palatability. Sowing rate 3.00 kg/acre.

Redstart

3.00 kg/acre - £26.10

7.50 kg/ha - £65.25

Interval

3.00 kg/acre - £17.55

7.50 kg/ha - £43.88

## Maincrop Turnip

This is the hardier type of turnip which requires 20 weeks growth and is suitable for grazing late into the winter. Hardy turnips yield around a third more than stubble turnips. Sowing rate 2.00 kg/acre.

Green Globe

2.00 kg/acre - £17.50

5.00 kg/ha - £43.75

## Swede

This crop is ideally suited to cooler, wetter parts of the north and west of Britain. For stock or pot. Sowing rate 1.50 kg/acre.

Gowrie

1.50 kg/acre - £108.00

3.75 kg/ha - £270.00



Sowing & Growing Guides available online



# Equine

Horses' requirements are sometimes different to that of sheep and cattle. These mixes have been created specifically with equine needs in mind.

## Sowing and Growing

### Suitable soils and optimum pH

These mixes are suitable for most soil types, mixes containing forage herbs prefer lighter soils which are less grass dominant.

### When to sow

Sow from April to September when soil temperature is above 7°C. Ryegrass based mixes or surface mixes with high sowing rates can be sown later than non ryegrass grazing mixes.

### How to sow

Mixes can be broadcast or drilled but sown no deeper than 1cm. Always roll after sowing, if using a Cambridge roller, roll the field twice for maximum consolidation.

Surface mix sowing rates vary. High rates are used on areas that receive lots of use and need fast establishment, low use areas or areas that are being patched up have scope to reduce the sowing rate

### Management

New swards can be lightly grazed around five or six weeks after establishment. Overgrazing should be avoided, swards should be given regular rest periods of a few weeks throughout the growing season to recover.

Surface mixes can be topped 4-5 weeks after sowing and again 4 weeks later to encourage the sward to thicken and plants to tiller, creating a denser surface.

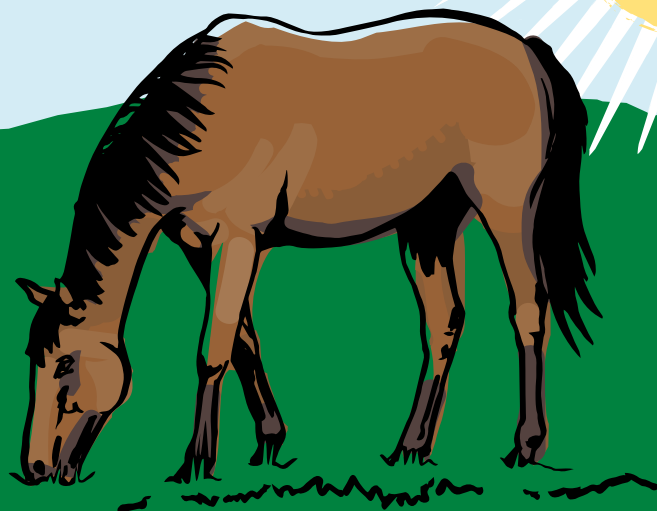
Annual weeds will disappear when grazed. Perennial weeds should be controlled prior to seeding. Selective herbicides can be used on docks, thistles and nettles.

### Nutrient requirements

Soil nutrient levels should be checked every 2 years and deficiencies corrected. If fertilising, take horses off for 2 weeks after application to allow the nutrients to be absorbed properly. Slow release N fertiliser products are available to reduce a strong flush of grass directly after application e.g. 'Paddock Royale' (approx 2x 25kg bags per acre, Yara Guidelines).

### Why is it so important to get your pasture right?

It is generally believed that wild horses had the ability to self-medicate, roaming freely to forage for different plant species that would naturally provide them with the macro and micro nutrients, minerals and vitamins that they need. Due to a number of factors such as herbicide use and popularity of



aggressive species such as ryegrasses the diversity of species and consequently the nutritive value in swards has declined. It has become increasingly popular to address the shortfalls in the pasture by feeding concentrates and supplements, but this is not the healthiest option for the horse or for the environment.

There are a number of health issues that can be directly related to pasture management, nutritional content of the pasture and time spent eating grass or conserved grass (hay or haylage). These include laminitis, developmental orthopaedic disease, gastric ulcers, colic, respiratory diseases, mud fever, and wormer resistance. By getting the right mix of grass, legume and herb species for your land and your horse's needs the aim is for your horse to gain the majority, if not all, of its nutritional requirements from forage, relying less on concentrates and spending more time out in the field whatever the weather.

## Surface & Repair Mixtures

Good grass surfaces are key for exercising horses safely and effectively. High sowing rates create dense turfs which withstand heavy equine usage. The species chosen ensure a uniform surface and maximum cushioning for the horses without affecting performance, if managed correctly.

Over-seeding can be a useful, low cost way of regenerating existing pasture which has become thin and tired with age or damaged through over-grazing or use. The existing grass sward is a very competitive environment for any new seeds to establish so ryegrass is usually used for over-seeding because it is the quickest to germinate and suitably aggressive.

## Surface Mix

### Racecourse, Gallop and Cross Country

Permanent

Code: MIX8

This mixture is very dense and resilient and contains spreading grasses with the ability to fill bare patches.

- 50% certified MAXIMA creeping red fescue
- 25% certified JUBILEE turf/dwarf ryegrass
- 25% certified EVORA smooth stalked meadowgrass

50-160 kg/acre

125-400 kg/ha - £5.40 per kg

## Equine Grazing Mixes

Grass

Herb

## Standard Horse Pasture

Long-Term Grazing And Hay

Code: MIX7

This is our standard mix which provides a fast establishing dense turf for grazing or the occasional cut of hay. It does contain ryegrass so would not be suitable for horses or ponies that are prone to laminitis or Equine Metabolic Syndrome.

- 4.00 kg certified TODDINGTON perennial ryegrass
- 2.00 kg certified BOYNE perennial ryegrass
- 2.00 kg certified MAXIMA creeping red fescue
- 1.60 kg certified COMER Timothy
- 1.20 kg certified SENU meadow fescue
- 1.20 kg certified WAGNER red/chewings fescue
- 1.00 kg certified EVORA smooth stalked meadow grass

**13.00 kg/acre - £69.00**

32.50 kg/ha - £172.50

## Equine Pasture Mix

Long Term And No Ryegrass

Code: MIX13

This is a persistent, non-ryegrass mix providing good quality forage with a low sugar content. Although this mix will take a little longer to establish than a ryegrass based mix, it will provide a dense, resilient turf with balanced forage for grazing and hay.

- 3.60 kg certified SENU meadow fescue
- 2.50 kg certified EVORA smooth stalked meadow grass
- 2.40 kg certified WAGNER red/chewings fescue
- 2.30 kg certified COMER Timothy
- 2.20 kg certified MAXIMA creeping red fescue
- 1.00 kg certified BORNITO sheeps fescue

**14.00 kg/acre - £79.64**

35.00 kg/ha - £199.10

## Natural Pony Paddock

Long Term With Herbs And No Ryegrass

Code: MIXPP

This non-ryegrass mix contains a very wide selection of grasses and herbs, improving drought tolerance, forage value and fibre content, providing a healthy, balanced diet. The absence of ryegrass species lowers the risk of laminitis due to a lower sugar and higher fibre content. This mix is slower to establish than those with ryegrass.

- 3.00 kg certified SENU meadow fescue
- 2.25 kg certified MAXIMA creeping red fescue
- 2.00 kg certified COMER Timothy
- 2.00 kg certified EVORA smooth stalked meadow grass
- 2.00 kg certified WAGNER red/chewings fescue
- 1.00 kg certified DONATA cocksfoot
- 1.00 kg certified BARDOUX tall fescue
- 0.15 kg certified TEETOP common bentgrass
- 0.15 kg certified TENO smaller catstail
- 0.25 kg burnet
- 0.15 kg certified ENDURANCE ribgrass
- 0.05 kg sheeps parsley

**14.00 kg/acre - £88.35**

35.00 kg/ha - £220.88

## Equine Over-Seeding

Longer Term Four To Five Years

Code: MIXEQOS

A long duration non-ryegrass mixture for over-seeding grazing pastures where more forage is required.

- 2.75 kg certified SENU meadow fescue
- 1.50 kg certified COMER Timothy
- 1.50 kg certified EVORA smooth stalked meadow grass
- 1.00 kg certified MAXIMA creeping red fescue
- 0.75 kg certified WAGNER red/chewings fescue
- 0.50 kg certified DONATA cocksfoot

**8.00 kg/acre - £46.78**

20.00 kg/ha - £116.95

## Paddock and Gateway Repair

Over-Seeding

Code: MIXPAD

A high sowing rate of fast-establishing mixture which provides a thick grass cover for use on poached areas or to improve pasture quality.

- 4.40 kg certified TODDINGTON perennial ryegrass
- 4.30 kg certified JUBILEE turf/dwarf ryegrass
- 4.30 kg certified MAXIMA creeping red fescue
- 4.00 kg certified POLLANUM westerwold ryegrass
- 1.50 kg certified EVORA smooth stalked meadow grass
- 1.50 kg certified WAGNER red/chewings fescue

**20.00 kg/acre - £93.23**

50.00 kg/ha - £233.08

## Pasture Over-Seeding

Longer Term Four To Five Years

Code: MIXOSH

A long duration ryegrass mixture for over-seeding grazing pastures where more forage is required.

- 8.00 kg certified TODDINGTON perennial ryegrass
- 2.00 kg certified SWAN perennial ryegrass

**10.00 kg/acre - £49.50**

25.00 kg/ha - £123.75



Sowing & Growing Guides  
available online







# Green Manures

Protecting and enhancing our soils.

## Summer Sown Mixes

Summer green manures are planted from late spring onwards on bare ground and are incorporated before the sowing of a winter cash crop. A good summer green manure will be ready for turning-in after only 8-10 weeks. These crops give good leaf canopy cover to block out light, suppressing weed growth.

These green manures can be sown on their own or as an understory to a main crop and last between 2 and 6 months. As legumes will only fix nitrogen when the soil is above 8°C they are effective between April and August.

## Overwinter Mixes

Winter green manures such as rye or westerwold scavenge excess nitrogen from previous crops which prevents it leaching over the winter. The nitrogen held within the green manure crop is then released when it is incorporated.

Legumes like vetch can be used for winter cover and, provided that these are sown by September, can fix up to 200kg N/ha for use by the following cash crop. The canopies of these plants also protect against soil erosion.

## Longer Term Leys

Slower growing perennial legumes such as red and white clover are used to add nitrogen to the soil over a long period.

Red clover fixes upwards of 200kg N/ha which is released rapidly after incorporation. To delay the release of nitrogen, clover is mixed with grass which is higher in carbon and acts like a sponge, holding the nitrogen for longer. This is especially important for subsequent autumn-sown crops where the nitrogen demand is highest 6 or 7 months after the green manure crop.

## Sowing and Growing

### Suitable soils and optimum pH

These will grow on most soil types with a pH above 5.6.

### When to sow

Sow summer mixes in warm soil between May and July. If undersowing, seed should be broadcast from mid April in damp conditions before the host crop canopy closes in. Cover for the winter should be sown by late September although rye and vetch can be sown into October.

### How to sow

Rye and vetch seeds can be drilled at up to 25mm. All other mixes should be drilled or broadcast at no more than 10mm.

### Management

Summer green manures will be ready for incorporation after 8-10 weeks normally at the onset of flowering. Winter green manures can be incorporated in April or May. Westerwold ryegrass will regrow after cutting so can be left through the summer for further cutting or mulching. To minimise the risk of ryegrass seed being shed, cut before the seed heads are visible.

### Yield potential

The amount of N fixed by legumes depends on the success of the green manure. Generally, a reasonable crop can fix over of 100kg N/ha from a spring or summer sowing. Rye can scavenge and hold 90% of soil N, westerwold about 70% and vetch and red clover can fix upwards of 200kg N/ha if left to grow.



Phacelia Green Manure  
26th July, Ayrshire

Cereal

Brassica

Legume

Herb

Grass

## Short term mixes

## Summer Quick Fix

## Nitrogen Boost

Code: MIXSQF

The purpose of this mixture is to build soil N in a short time. It is a fast-growing, annual mixture that is at its best when sown into warm soils.

- 1.00 kg certified TILNEY mustard
- 0.30 kg certified IRIS fodder radish
- 1.50 kg certified KARDINAL crimson clover
- 1.20 kg certified CLEOPATRA berseem clover
- 1.00 kg commercial sweet clover
- 0.50 kg certified PASAT persian clover

5.50 kg/acre - £36.28

13.75 kg/ha - £90.70

## Summer Green Manure

## Early Sown N-Fixer

Code: MIXCCE

In warm soils, this mix can provide 150kg of N per hectare from a summer sowing. Very rapid growth with the potential to leave in over winter.

- 1.35 kg certified FABIO tet. Italian ryegrass
- 0.90 kg certified TILNEY mustard
- 0.60 kg certified IRIS fodder radish
- 0.20 kg certified DIAKON tillage radish
- 0.85 kg certified KARDINAL crimson clover
- 0.55 kg commercial sweet clover
- 0.45 kg certified CLEOPATRA berseem clover
- 0.10 kg certified KRYNIA red clover

5.00 kg/acre - £25.73

12.50 kg/ha - £64.33

## Yellow Trefoil/White Clover

## Intercrop Mixture

Code: MIXINT

This mixture will fill the base of a main crop brassica or cereal without affecting its yield. It reduces weed competition, adds organic matter and fixes nitrogen.

Trefoil rarely interferes with harvest as it is low growing. This strong growth suppresses weeds, especially if left in for a second year.

- 1.80 kg certified ABERACE wild white clover
- 1.20 kg certified VIRGO PAJBIERG yellow trefoil

3.00 kg/acre - £51.54

7.50 kg/ha - £128.85



Sowing & Growing Guides  
available online



## Overwinter mixes

## Rye/Vetch

## Overwinter Mix

Code: MIXRYEV

Growing a N lifter and fixer together is a reliable way of improving soils over the winter. An excellent weed suppressor. Available from September.

- 80% certified HUMBOLT forage rye
- 20% certified EARLY ENGLISH vetch

25.00-75.00 kg/acre

£1.71 per kg

## Ryegrass/Vetch

## Overwinter Mix

Code: MIXWWW

An economical, effective option for overwinter soil management. Adds large amounts of N and organic matter.

- 10.00 kg certified POLLANUM westerwold ryegrass
- 15.00 kg certified EARLY ENGLISH vetch

25.00 kg/acre - £79.98

62.50 kg/ha - £199.95

## Longer term mixes

## Fertility Builder

## One-Two Year Mixture

Code: MIXFB

A grass and clover mix is the most effective green manure of all for improving soil fertility and structure. To realise its full potential it should be grown for at least one full year before incorporation.

- 5.85 kg certified CALIBRA tet. perennial ryegrass
- 2.65 kg certified KRYNIA red clover
- 0.50 kg certified MERWI white clover

9.00 kg/acre - £67.24

22.50 kg/ha - £168.10

## Humus Builder

## 2-4 Year Soil Structure Improver

Code: MIXHB

This mix utilises species with very strong tap roots for huge improvements to soil structure and organic matter levels, ideal on light or dry land.

- 4.00 kg certified KRYNIA red clover
- 3.00 kg certified SPARTA cocksfoot
- 0.50 kg certified PUNA / ENDURE chicory blend

7.50 kg/acre - £75.70

18.75 kg/ha - £189.25

First Hand

## David Newman and Tracy Russell



<b>Farm Type</b>	<b>Market Garden / Horticulture</b>
<b>Location</b>	<b>Buckinghamshire</b>
<b>Size</b>	<b>16 Acres</b>
<b>Soil Type</b>	<b>Sandy Clay Loam</b>
<b>Mixes Used</b>	<b>Vineyard Fertility Building Mix, Bespoke Herbal Leys &amp; Undersowing Mixtures</b>

David Newman and Tracy Russell, from Bucksom at Shabbington Field Farm are the winners of the 2024 Soil Farmer of the Year Award, the first market gardeners to be honoured with the title. Since 2008 they've rented sixteen acres on the 100 acre Shabbington Field Farm, growing produce ranging from baby leaf salad through to root vegetables and warm season crops such as peppers, cucumbers, chillies and melons in polytunnels. Most is sold through the farm shop, open for two half days a week, employing nine young people.

'Our whole system revolves around herbal leys,' explains David. 'The ley is down for three years, feeding the soil and grazed by sheep belonging to a neighbouring farmer. This means we're not using fossil fuels and tractors for topping, and the sheep dung is adding to the soil fertility. At the end of the third year, going into the following spring, we'll graze the ley down quite hard and

then plough before going into veg production for one year. The principle of regenerative farming is to ensure the soil is in better health than it was when we started, rather than just depleting or just maintaining it. For us that means not overcropping, so we only take a cash crop for one year out of four.'

There are 11 polytunnels and crops are rotated throughout to maintain soil health. 'We also use herbal leys in the tunnels and Cotswold Seeds are helping us trial other different mixes,' says David. 'Initially I was using the Vineyard Fertility Building Mix (annuals like crimson, berseem and persian clovers) and we've also undersown various mixtures including buckwheat, fenugreek, yellow trefoil and clovers to cover the soil and put that extra structure in for the winter months when the broad beans don't cover the whole soil.'

Finding a cover crop with good root structure that wouldn't compete with the cash crop is quite a challenge but we're keen to carry on feeding the soil even while we take the cash crop off. 'It's not been the best year because of the slugs but the establishment wasn't too bad.'

David is interested in strip tillage, creating a permanent clover understory with cropping in between. 'We're trialling cover crops that are spaced half a metre apart. As weeds grow up between the beds we flame weed before planting. This year I'm going to put winter salad brassicas in between. If it goes well then we will leave the strip tillage crop (clover) and establish another cash crop after the brassicas.'

David and Tracy like to experiment. 'As sponsors of the Soil Farmer of the Year, Cotswold Seeds have given us a budget to buy some seeds and we're using that in between the tunnels to introduce a Beneficial Insect Mix to grow wildflowers and grasses that will encourage predators such as beetles to eat the bugs that are a problem for us. The whole approach is about letting nature create balance.'

### 'The whole approach is about letting nature create balance.'

To this end, David and Tracy have also introduced agroforestry, with chickens to clear the ground under the tree lines, while a reservoir, fed from the land around, is used to water the market garden. It's great for wildlife too, providing a habitat for waterfowl, kites, curlews and newts, which help to control the slugs.

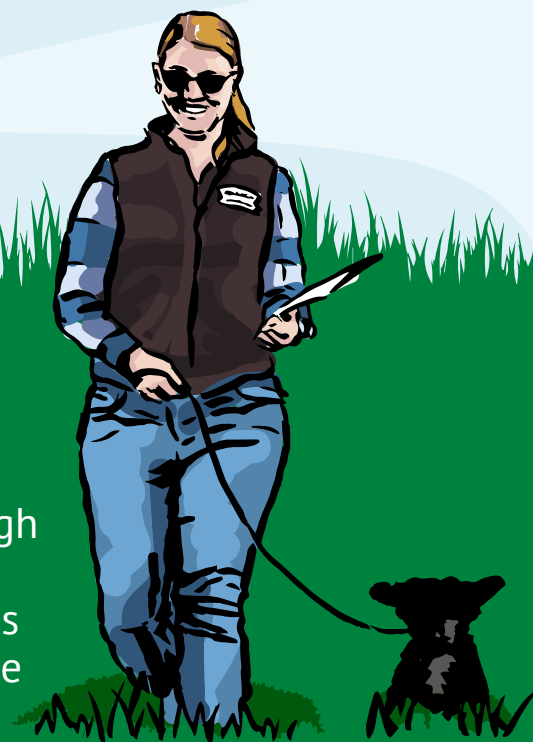
When it comes to establishing and terminating the crops, David and Tracy cultivate as little as possible. 'But because we're not using agrochemicals, it means there have to be a couple of hits with the cultivator or weed burner to knock out any problem weeds. In the poly tunnels where we're also trialling strip tillage we also added some soil improver. The herbal ley seeds are either broadcast, or 'if we want to be a bit more precise I've converted an old Stanhay precision drill set up to make rows 400mm apart. I've also got a multi drill which can do eight rows with about 40 mm spacing,' says David.

He's also considering investing in an air seeder. Tracy says it was a wonderful surprise to scoop the Soil Farmer of the Year accolade. 'It's so great to see others who are passionate about the soil! It's a passion that the couple share widely, running a kids club and workshops to 'get people excited about vegetables, plants and food and just get their hands into the earth.'



# Chewing it Over

Lizzie Arnold, our Technical Advisor, goes through some of the changes to SFI actions for the upcoming season, looking at how important it is to make sure you are choosing the right mixture for your farming system.



With 2025 approaching fast we can hopefully move into the season with a better understanding of SFI actions and with 102 SFI options now on offer there is certainly plenty to choose from!

The 2024 season provided plenty of challenges. It seemed to be another wet and unsettled spring with rainfall across March, April and May higher than the usual average. Compounded with the rain over the previous winter, soils were waterlogged and it left many in a difficult position of deciding whether to take the risk and sow in the spring or leave for later in the season. June and July provided an opportunity for sowings and planting, with temperatures rising steadily. Moving into the autumn the weather seemed regionalised, with downpours on one side of the fence and light or no rain on the other, again making it hard to find the right window.

We saw an increased amount of herbal leys being sown under the SAM3 action but there have been changes made for 2025; for those now applying, it is CSAM3. This action has been simplified to sowing one grass, two legumes and two herbs, though restrictions have been imposed on the use of fertiliser with no more than 40 kg of nitrogen applied per hectare per year. With a typical ryegrass sward, you could put anywhere between 100-200 kg of N on per hectare per year.

With the herbal ley mixtures we have developed over the years, our focus has never been on the use of artificial fertilisers; the legumes will do that job for you but it's all about what you are including and how much! Having a cover of between 30-40% legumes in the field will mean that approximately 150-200kg of N is fixed per ha, but to achieve this, diversity is required. Our mixtures have all been tailored to take into account soil types and what the mix is required to do in terms of grazing or cutting, but the most important thing for us is diversity because without this you won't reap the rewards a herbal ley has to offer!

With our ability to offer bespoke mixtures we can either alter current mixtures or create new ones from scratch to meet your needs. This flexibility gives you more freedom to experiment and try species that you maybe haven't used before and it also allows you to remove species from mixtures that perhaps haven't done so well on your ground.

**‘The most important thing for us is diversity because without this you won't reap the rewards a herbal ley has to offer!‘**

Over the past few years we've seen a big increase in interest in cover cropping and the actions under SFI seem to reflect this, with multiple cover cropping actions added. There are now options for both spring and summer as well as winter crops following maize. The spring or summer option (SOH2 or SOH3) can be taken out in the same season; this replaces the previous Legume Fallow (NUM3) which some planted in the spring then destroyed in the autumn of the same year. This can no longer be done, though the CNUM3 is once again rotational it must be kept through to the following season before it is moved.

With the introduction of new cover crop actions that can be planted throughout the season it seems as though importance has been put on issues including helping to regenerate the soil, protect soils from the elements, reduce nutrient run off and improve soil structure.

Whichever options you decide on, it's important to consider what will work for you on your farm and with your system. Once you've decided and been accepted, the next step is to select the mixture, what to sow and how to sow. Consideration whether to drill or broadcast; the majority of seeds are small and they shouldn't be buried below 10mm.

We have plenty of SFI mixtures available, both on the next few pages and also on our website. If you are unsure about any of these or would like to make adjustments just let us know. Remember we have the ability to tailor any mixtures to suit your needs. There are some schemes that will allow you to enhance your mixture by including wildflowers, for example, so if you can't find what you're looking for, just let us know and we can look at creating a bespoke mixture for you.

# SFI The Sustainable Farming Incentive

There are 23 options now available to farmers, the options have been grouped together into different actions, these range from actions for soils to actions for nutrient management. Each action will provide benefits for soil health and the environment.

The mixtures listed meet the requirements under the relative schemes and the box below provides a helpful check sheet to compare mixtures and SFI codes. If you are entering a scheme that is not listed or have any questions on SFI we can offer further advice and help to formulate bespoke mixtures that will suit your needs.

**“The Sustainable Farming Incentive (SFI) rewards farmers for farming practices that help produce food sustainably and protect the environment.” - GOV.UK**

CODE	SFI ACTION	SUGGESTED MIXTURE	PAGE
CSAM2 SOH2 SOH3 SOH4	<b>Multi-Species Winter Cover Crop</b> <b>Multi-Species Spring-Sown Cover Crop</b> <b>Multi-Species Summer-Sown Cover Crop</b> <b>Winter Cover following maize crops</b>	Quick Growth Cover Crop Spring Fallow Cover Crop Multi-Species 8 Way Cover Crop Diverse Grazeable Cover Crop	Page 40
CSAM3	<b>Herbal Leys</b>	Light Land Legume & Herb Rich Sward Heavy Land Legume & Herb Rich Sward Herbal Over-Seeding Mixture Simple Herbal Ley Stockless Arable 'High Clover' Fertility Builder Diverse Over-Seeding Heavy Land or Cutting Mix	Pages 38 & 39
CNUM3	<b>Legume Fallow</b>	Legume Only Fallow Mix Two Year Grass/Legume Fallow	Page 37
CNUM2	<b>Legumes on improved grassland</b>	Clover over-seeding Mixtures	Page 7
CAHL1	<b>Pollen and nectar flower mix</b>	The Operation Pollinator Mix Heavy Land Operation Pollinator Mix	Page 44
CAHL2	<b>Winter bird food on arable and horticultural land</b>	One Year Winter Bird Food Two Year Wild Bird Seed Enhanced Two Year Wild Bird Mix	Pages 44 & 45
CALH3 CAHL4 AHW3	<b>Grassy field corners/blocks</b> <b>4m to 12m grass buffer strip on arable and horticultural land</b> <b>Beetle banks</b>	Buffer Strip Grass Margin	Page 46
AHW1	<b>Bumblebird Mix</b>	Spring Sown Bumblebird Mix Autumn Sown Enhanced Bumblebird	Page 45
CIPM2	<b>Flower-rich grass margins, blocks or in-field strips</b>	Nectar Stewardship Mix Floristically Enhanced Field Margin	Page 43

# Legume Fallows

Flexible fallow mixtures to suit any rotations

## Two Year Grass/Legume Fallow (AB15, NUM3, CNUM3)

Two Year Mixture Including Grass And Legumes

Code: MIXAB15

Flowering crops on fallow land, lasting 2 years.  
Grass species inclusion improves ground cover during the winter and holds N fixed by the legumes.  
Call for advice if tailoring the grass species inclusion.

- 5.15 kg tet. perennial ryegrass
- 1.65 kg common vetch
- 0.30 kg alsike clover
- 0.40 kg crimson clover
- 0.80 kg red clover
- 0.80 kg late flowering red clover
- 0.25 kg birdsfoot trefoil
- 0.20 kg pre inoculated lucerne
- 0.20 kg white clover
- 0.25 kg yellow trefoil

**10.00 kg/acre - £68.90**

25.00 kg/ha - £172.25

## Legume Only Fallow Mix (AB15, NUM3, CNUM3)

Legume Only Two Year Mix

Code: MIXAB15LEG

A legume only fallow mix lasting 2 years, helping to boost soil fertility, topping will kill off the annual species like Vetch and Crimson Clover. Must sow at shallow depth.

- 3.90 kg common vetch
- 0.40 kg alsike clover
- 1.20 kg red clover
- 1.20 kg late flowering red clover
- 0.25 kg pre inoculated lucerne
- 0.35 kg crimson clover
- 0.25 kg birdsfoot trefoil
- 0.20 kg white clover
- 0.25 kg yellow trefoil

**8.00 kg/acre - £64.90**

20.00 kg/ha - £162.25



**Two year Legume & Grass Fallow**  
4th October, Wantage



Discover a whole lot more on cover crops and green manures in our updated practical guide - **Sort Out Your Soil 2nd Edition**

Call us on 01608 652552 or visit [cotswoldseeds.com](http://cotswoldseeds.com) to get your copy.



# SFI Herbal Leys

Reseed and over-seeding mixtures to satisfy SFI and Countryside Stewardship options

## Light Land Legume & Herb Rich Sward (GS4, SAM3, CSAM3)

Perfect For Light, Thin Land Prone To Drought

Code: MIXLIGHT

A deep rooting herbal ley, designed to stay green on land that burns up in the summer, softer leaved cocksfoot and tall fescue varieties boosts palatability.

- 1.30 kg certified DONATA cocksfoot
- 1.10 kg certified BARDOUX tall fescue
- 1.10 kg certified CALIBRA tet. perennial ryegrass
- 0.50 kg certified LOFA festulolium
- 0.60 kg certified TODDINGTON perennial ryegrass
- 0.50 kg certified COMER Timothy
- 2.20 kg commercial sainfoin
- 0.25 kg certified MILVUS red clover
- 0.25 kg certified ALTASWEDE late flowering red clover
- 0.25 kg certified LEO birdsfoot trefoil
- 0.13 kg certified AURORA alsike clover
- 0.20 kg certified MERWI white clover
- 0.35 kg certified LUZELLE lucerne - (rhizobium inoc.)
- 0.45 kg burnet
- 0.40 kg certified PUNA / ENDURE chicory blend
- 0.29 kg certified ENDURANCE ribgrass
- 0.10 kg sheeps parsley
- 0.02 kg yarrow
- 0.01 kg lesser knapweed

10.00 kg/acre - £79.86

25.00 kg/ha - £199.65



Herbal Ley  
15th July, Gloucestershire

## Heavy Land Legume & Herb Rich Sward (GS4, SAM3, CSAM3)

A Mix Of Species Suiting Heavier, Clay Ground

Code: MIXHEAVY

A mix specifically designed to include species that suit heavier, wetter land such as Timothy, meadow fescue, ryegrass and alsike clover.

- 2.00 kg certified CALIBRA tet. perennial ryegrass
- 1.50 kg certified SENU meadow fescue
- 1.20 kg certified COMER Timothy
- 1.02 kg certified LOFA festulolium
- 1.00 kg certified TODDINGTON perennial ryegrass
- 0.50 kg certified DONATA cocksfoot
- 0.30 kg certified MILVUS red clover
- 0.30 kg certified ALTASWEDE late flowering red clover
- 0.20 kg certified AURORA alsike clover
- 0.50 kg certified MERWI white clover
- 0.20 kg certified LEO birdsfoot trefoil
- 0.10 kg commercial sweet clover
- 0.10 kg sheeps parsley
- 0.43 kg burnet
- 0.30 kg certified PUNA / ENDURE chicory blend
- 0.30 kg certified ENDURANCE ribgrass
- 0.04 kg yarrow
- 0.01 kg lesser knapweed

10.00 kg/acre - £82.21

25.00 kg/ha - £205.53

## Herbal Over-Seeding Mixture (SAM3, CSAM3)

Deep-Rooting Herbal ley

Code: MIXHOS

A deep rooted over-seeding mix to add diversity to existing swards, this mix suits drier, light land (use MIXSHOS p.39 for heavy land or silage ground).

- 0.50 kg commercial sainfoin
- 0.50 kg certified ALTASWEDE late flowering red clover
- 0.30 kg certified MERWI white clover
- 0.30 kg certified LEO birdsfoot trefoil
- 0.15 kg commercial sweet clover
- 0.10 kg certified RIVENDEL wild white clover
- 0.20 kg certified AURORA alsike clover
- 0.40 kg burnet
- 0.40 kg certified PUNA / ENDURE chicory blend
- 0.35 kg certified ENDURANCE ribgrass
- 0.25 kg sheeps parsley
- 0.05 kg yarrow
- 0.25 kg certified CALIBRA tet. perennial ryegrass
- 0.25 kg certified PARDUS meadow fescue

4.00 kg/acre - £51.90

10.00 kg/ha - £129.75

Grass

Legume

Herb

Wildflower

## Simple Herbal Ley (SAM3, CSAM3)

Cutting And Grazing Ley

Code: MIX23

The Simple Herbal Ley is designed for farmers needing a stepping stone to more diverse mixes. It can be used as a dual purpose cut and graze, notice chicory has been excluded to make silage management easier.

- 3.20 kg certified CALIBRA tet. perennial ryegrass
- 2.00 kg certified ABERWOLF perennial ryegrass
- 1.80 kg certified LOFA festulolium
- 1.40 kg certified DOLINA Timothy
- 1.00 kg certified DONATA cocksfoot
- 1.00 kg certified PARDUS meadow fescue
- 0.50 kg certified MILVUS red clover
- 0.30 kg certified MERWI white clover
- 0.20 kg certified BARBLANCA white clover
- 0.05 kg certified LEO birdsfoot trefoil
- 0.30 kg burnet
- 0.25 kg certified ENDURANCE ribgrass

**12.00 kg/acre - £78.33**

30.00 kg/ha - £195.83

## Diverse Over-Seeding Heavy Land or Cutting Mix (SAM3, CSAM3)

Over-seeding Mix For Cutting Regimes And  
Med/Heavy Land

Code: MIXSHOS

This is an over-seeding mix aimed for cutting and grazing swards, chicory has been left out because it can become woody and stemmy. It will suit medium to heavy soils. For light land consider MIXHOS.

- 0.70 kg certified AVISTO red clover
- 0.40 kg certified MERWI white clover
- 0.25 kg certified LEO birdsfoot trefoil
- 0.24 kg certified AURORA alsike clover
- 0.50 kg burnet
- 0.40 kg certified ENDURANCE ribgrass
- 0.05 kg sheeps parsley
- 0.01 kg yarrow
- 0.50 kg certified CALIBRA tet. perennial ryegrass
- 0.45 kg certified PARDUS meadow fescue

**3.50 kg/acre - £43.60**

8.75 kg/ha - £109.00

## Stockless Arable 'High Clover' Fertility Builder (SAM3, CSAM3)

Fixing Free Nitrogen On Arable Land

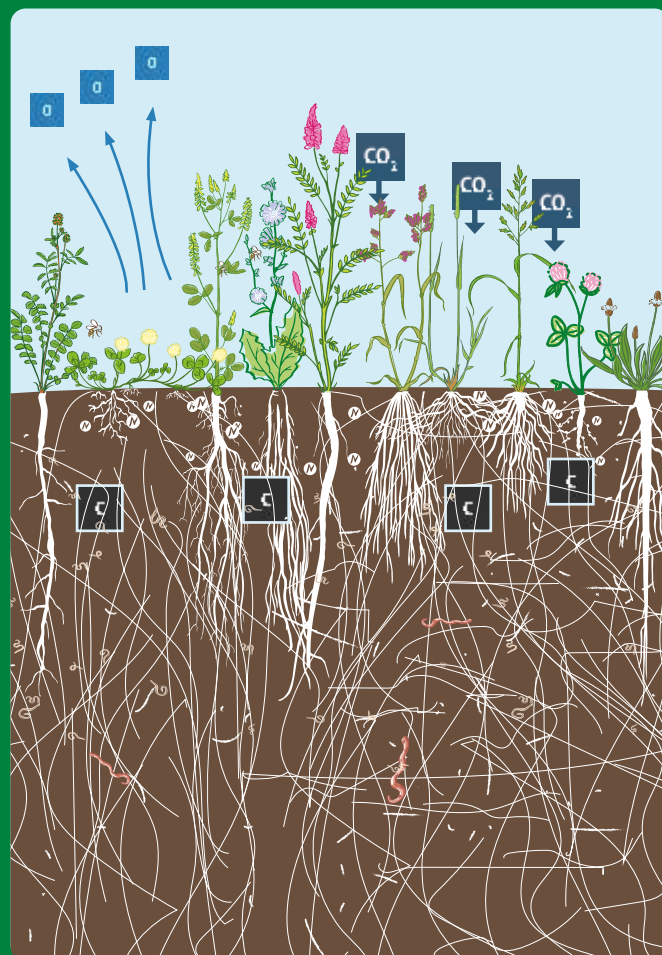
Code: MIXARABLE

A legume heavy mix that will last 3 years if required, this mixture can be flailed and mulched several times of year encouraging more N fixation.

- 3.00 kg certified CALIBRA tet. perennial ryegrass
- 1.00 kg certified LOFA festulolium
- 1.10 kg certified SPARTA cocksfoot
- 0.50 kg certified BARDOUX tall fescue
- 2.25 kg certified KRYNIA red clover
- 0.50 kg certified AURORA alsike clover
- 0.20 kg certified MERWI white clover
- 0.25 kg certified ENDURANCE ribgrass
- 0.15 kg burnet
- 0.05 kg sheeps parsley

**9.00 kg/acre - £73.04**

22.50 kg/ha - £182.60



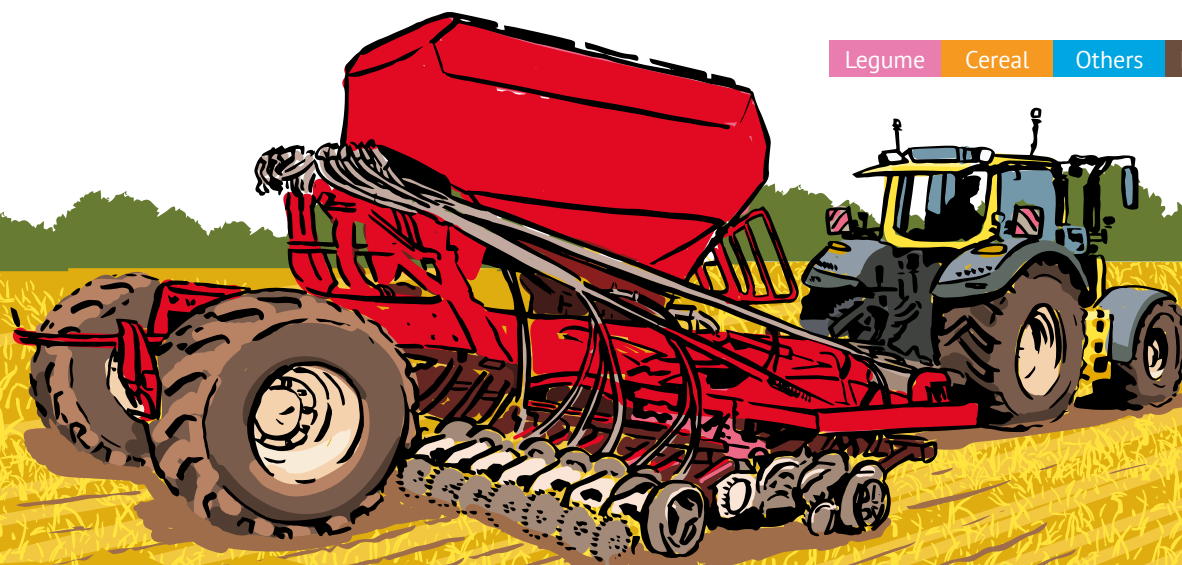
Sowing & Growing Guides  
available online



**Fast Delivery**

**01608 652552**

**cotswoldseeds.com**



# Cover Crops

Protecting and enhancing our soils.

## Quick Growth Cover Crop (SAM2, CSAM2, SOH2, SOH3)

Flexible, Fast Establishment

Code: MIXQCC

A mixture designed to establish rapidly, providing a flexible option to sow between an early harvested crop but before autumn planting, or as an autumn cover crop for rapid green winter cover.

- 2.60 kg certified mustard
- 1.40 kg certified fodder radish
- 0.50 kg certified crimson clover
- 0.50 kg certified phacelia

**5.00 kg/acre - £17.78**

12.50 kg/ha - £44.45

## Multi Species 8 Way Cover Crop (SAM2, CSAM2, SOH2, SOH3)

Surface Armour And Boosting Soil Health

Code: MIXMULTICC

Multi species mixture to reliably produce more biomass than a monoculture. This is a low cost mixture with highly diverse 8 way multi species content to maximise the benefits. Use to improve soil structure, nutrient availability, water holding capacity and to enhance and improve soil micro biology.

- 3.00 kg certified rye
- 0.70 kg certified black oats
- 1.80 kg certified vetch
- 0.60 kg certified mustard
- 0.40 kg certified fodder radish
- 0.50 kg certified spring linseed
- 0.30 kg certified phacelia
- 0.70 kg certified buckwheat

**8.00kg/acre - £20.67**

20.00 kg/ha - £51.68

## Diverse Grazable Cover Crop (SAM2, CSAM2, SOH2, SOH3)

Ground Cover And Livestock Forage

Code: MIXGCC

A great mix for a joint arable and livestock venture, the mix contains soil conditioning phacelia and fodder radish, combined with high protein vetch, forage rape and turnips improving palatability and liveweight gain for stock. N.B. Rye will be replaced with winter cereal if unavailable early in the season.

- 3.50 kg certified winter oats
- 3.20 kg certified rye
- 2.80 kg certified vetch
- 0.30 kg certified crimson clover
- 0.50 kg certified fodder radish
- 0.40 kg certified forage rape
- 0.25 kg certified stubble turnip
- 0.05 kg certified phacelia

**11.00 kg/acre - £23.90**

27.50 kg/ha - £59.75

## Spring Fallow Cover Crop (SOH2)

Fast Growing And Excellent Ground Cover

Code: MIXSFC

This short term mixture has been designed to establish quickly and provide plenty of cover on the ground. It is best sown from mid-April to the end of June making it a great option for the SOH2 scheme.

- 0.70 kg certified buckwheat
- 0.40 kg certified phacelia
- 0.30 kg certified spring linseed
- 2.00 kg certified crimson clover
- 1.00 kg certified vetch
- 0.60 kg certified berseem clover

**5.00 kg/acre - £19.89**

12.50 kg/ha - £49.73



First Hand

## Jeremy Buxton



**‘Cotswold Seeds are an integral part of our regenerative journey. There’s a point in the year where every single one of our fields has Cotswold Seeds mixtures growing in it.’**

The farm is used to grow cereals, cover crops and herbal leys, with livestock enterprises including a beef suckler herd and pigs producing meat for their farm shop. The beef cattle are 100% grass fed, grazing on the herbal leys that are part of the arable rotation and on cover crops throughout the winter. ‘The cows are producing nutrient rich beef for our shop and also helping to regenerate our soil.’

The herbal leys were sown five years ago, conventionally established by creating a seed bed using the Sumo and then drilling with a Vaderstad drill. Jeremy says they’ve produced a ‘fantastic amount of forage’ as they work to restructure the soil and improve soil biology. ‘On school visits we explain how the different rooting depths of the 18 plants mine different minerals and nutrients, drawing them up into the plants which are eaten by the cows and when we then eat the beef, we take on board all the nutrients.’

Jeremy describes SFI as a ‘game changer for a small farm like ours. The bespoke SFI Cover Crop and SFI/NUM3 Summer Legume Fallow mixtures from Cotswold Seeds, are fast-tracking our regenerative journey.’ The Summer Legume Fallow mixture includes phacelia, clover and vetches. Planted in spring, it produces ‘a beautiful mass of biodiversity that is brilliant for pollinators and small mammals.’

Jeremy has been trialling different methods of establishment. ‘Historically, we’ve put the cover crops in with an air seeder. Or we’ve used a stronger tillage machine like a Sumo, followed by a drill.’ His preferred method for termination is grazing. ‘We bring the cattle in to graze it off before going into winter wheat.’

This spring he pushed the boundaries. The field of spring barley was inter-seeded by drones into the standing crop, pre-harvest. ‘It was a mix that Sam at Cotswold Seeds put together for us, including mustard, radish, forage rape, turnips and some clover. In his experience the small seeded brassica seeds have been most reliable if broadcasting; they are thin shelled and do not need much moisture to germinate from a surface sowing. We decided to try the drones as they ticked many boxes for what we are trying to achieve in our regen system, such as minimal soil disturbance.’

I really believe that farmers can be the heroes in the fight to halt climate change and stopping biodiversity losses, by adopting regenerative management and practises.

Jeremy’s ultimate aim is to move away from growing global commodity crops and grow food for his local community, selling all farm produce direct from Eves Hill Farm. He believes in farming with nature, with the help of Cotswold Seeds. Cotswold Seeds are ‘an integral part of our regenerative journey. There’s a point in the year where every single one of our fields has Cotswold Seeds mixtures growing in it.’

<b>Farm Type</b>	<b>Mixed Regenerative &amp; SFI</b>
<b>Location</b>	<b>Norfolk</b>
<b>Size</b>	<b>250 Acres</b>
<b>Soil Type</b>	<b>Sandy Loam</b>
<b>Mixes Used</b>	<b>Cover Crops, SFI &amp; Herbal Leys</b>

After a spell working in media and living in Paris, Jeremy Buxton returned to the 250 acre family farm in Norfolk in 2012, where he and his wife embarked on a ‘regenerative journey’ driven by a desire to protect the farm and the planet for future generations.

‘I’ve got kids and I want them to have a future,’ Jeremy says. ‘So I wanted to ensure we have healthy living soils that we can farm for decades to come. We want to do our bit for biodiversity and climate change. I think farmers can have a massive impact and be the heroes in this whole situation.’

Gabe Brown’s book *Dirt to Soil* was a huge inspiration. Jeremy says it opened his eyes to what was happening globally in regards to climate change and was the real push towards changing the way he farmed. ‘It showed me that soil is our most important asset. So every decision we make now, we are asking ourselves, what effect that will have on the health of our soil? We want to demonstrate that farming, nature and the environment can work together.’



# FarmED

Courses | Events |  
Cafe | Venue Hire



FarmED is our 107 acre demonstration farm in Shipton-under-Wychwood, Oxfordshire, showcasing and trialling methods of regenerative agriculture and nature friendly farming.

## Ley Farming System

The 8 year crop rotation plots on the farm enables farmers and growers to see herbal leys in the ground. There are currently 5 years of herbal leys, heritage grains, wheat and rye with zero synthetic inputs, so an excellent opportunity for everyone to observe this agricultural system first hand.

Choose either a self-guided or guided farm walk to explore and investigate these trial plots.

## Agricultural Courses

FarmED offer a variety of courses, in partnership with Cotswold Seeds, covering many aspects of agriculture. These courses are suitable for all levels of knowledge and experience, and include:

**Introduction to Regenerative Agriculture**  
**Introduction to Agriculture**  
**Herbal Ley Establishment and Management**  
**Equine Grassland Management**



Visit [www.farm-ed.co.uk](http://www.farm-ed.co.uk) to find out more.

### MULTI-PARTNER RESEARCH PROJECT



Cotswold Seeds & FarmED outcomes are being informed by and contributing to the project.

The Centre for High Carbon Capture Cropping (CHCx3) is a four-year, £5.9M, multi-partner project that aims to:

- Help UK farmers capture more carbon and build farm resilience in grassland systems by measuring different amounts of carbon captured with increased sward diversity.
- Enable insetting/offsetting of emissions and offer new revenue sources in the carbon market.
- Support enhanced value chains for industries such as textiles or construction using biorenewables.

To find out more about the project please visit: [www.carboncapturecropping.com](http://www.carboncapturecropping.com)

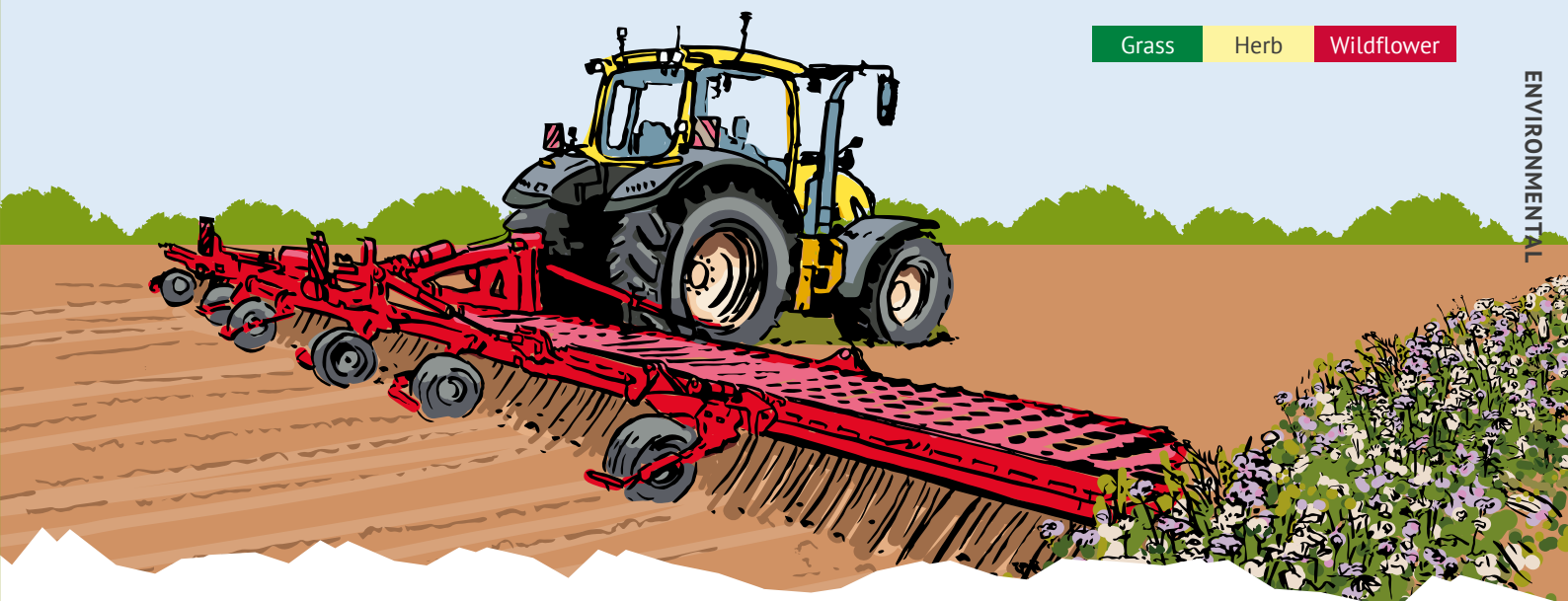
Funded by Defra under the Farming Futures R&D Fund: Climate Smart Farming. It forms part of Defra's Farming Innovation Programme, delivered in partnership with Innovate UK.



Grass

Herb

Wildflower



# Pollen & Nectar

Legume and flower margins.

Flowering mixtures to protect and enhance the landscape for pollinators



## Nectar Stewardship Mix (IPM2/CIPM2/AB8)

ELS/HLS/CSS/SFI Codes: EF1, HE10, AB8, IPM2, CIPM2

Long Term Pollen And Nectar

Code: MIXECOAB8

An economical pollen and nectar source satisfying the AB8 stewardship criteria of 90% grasses and 10% flowering species. It contains agricultural strains of Yarrow and Birdsfoot Trefoil and should last for 3-5 years.

- 5% certified crested dogstail
- 10% certified slender creeping red fescue
- 15% certified smooth stalked meadow grass
- 30% certified sheeps fescue
- 30.23% certified red/chewings fescue
- 2.50% native sainfoin
- 1.75% certified birdsfoot trefoil
- 0.75% yarrow
- 0.75% lesser knapweed
- 0.63% native red clover
- 0.63% salad burnet
- 0.63% ox-eye daisy
- 0.50% wild carrot
- 0.25% cornflower
- 0.25% lady's bedstraw
- 0.25% musk mallow
- 0.25% self heal
- 0.25% red campion
- 0.25% white campion
- 0.13% ribwort plantain

8.00 kg/acre 20.00 kg/ha

£10.22 per kg

## Floristically Enhanced Field Margin (IPM2/CIPM2/AB8)

ELS/HLS/CSS/SFI Codes: EF1, HE10, AB8, IPM2, CIPM2

Long Term Pollen And Nectar

Code: MIXAB820

Containing 7 grass species and over 10 true wildflower species. This mix will provide a long-term, diverse pollen and nectar source, with the inclusion of the suggested 2kgs per hectare wildflower component.

- 5% certified common bentgrass
- 5% certified smaller catstail
- 10% certified crested dogstail
- 10% certified slender creeping red fescue
- 15% certified smooth stalked meadow grass
- 20% certified sheeps fescue
- 24.82% certified red/chewings fescue
- 1% lesser knapweed
- 1% salad burnet
- 0.75% red campion
- 0.75% white campion
- 0.63% native sainfoin
- 0.63% wild carrot
- 0.63% ox-eye daisy
- 0.63% native red clover
- 0.63% self heal
- 0.63% musk mallow
- 0.63% hedge bedstraw
- 0.63% lady's bedstraw
- 0.63% yarrow
- 0.63% meadow buttercup
- 0.38% ribwort plantain

8.00 kg/acre 20.00 kg/ha

£16.97 per kg



## The Operation Pollinator Mix (AHL1/CAHL1/AB1)

ELS/HLS/CSS/SFI Codes: EF4, AB1, AHL1, CAHL1

Just Legumes

Code: MIXOP

Operation pollinator is a mixture of legumes without grasses to provide a flower-rich area. This mixture will work well on the lighter, free draining soils. If on clay ground see our Heavy Ground Operation Pollinator.

- 25.6% commercial sainfoin
- 20% certified alsike clover
- 17% certified late flowering red clover
- 16% certified red clover
- 10% certified birdsfoot trefoil
- 5% commercial sweet clover
- 5% certified crimson clover
- 0.6% wild carrot
- 0.4% lesser knapweed
- 0.4% ox-eye daisy

**5.00 kg/acre** 12.50 kg/ha **£11.51 per kg**

## Heavy Land Operation Pollinator Mix (AHL1/CAHL1/AB1)

ELS/HLS/CSS/SFI Codes: EF4, AB1, AHL1, CAHL1

Legumes And Wildflowers

Code: MIXHOP

This heavy land Operation Pollinator has been designed for the clay soils where species such as sainfoin can struggle to establish. The mixture will provide a valuable source of pollen and nectar for pollinators and other insects.

- 20% certified alsike clover
- 20% certified late flowering red clover
- 20% certified red clover
- 10% certified birdsfoot trefoil
- 9% certified crimson clover
- 8% commercial sweet clover
- 8% certified yellow trefoil
- 4% certified white clover
- 0.4% musk mallow
- 0.4% red campion
- 0.2% ox-eye daisy

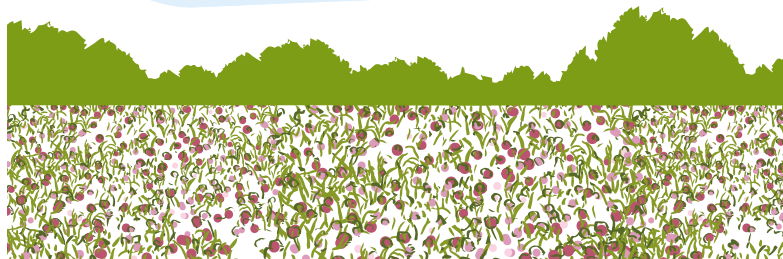
**5.00 kg/acre** 12.50 kg/ha **£13.84 per kg**



**One Year Winter Bird Food**  
29th July, Derbyshire

# Farmland Birds

Reducing the hungry gap.



## Farmland bird mixes

### One Year Winter Bird Seed (AHL2/CAHL2/AB9)

ELS/HLS/CSS/SFI Codes: EF2, AB9, AHL2, CAHL2

Survival Mixture

Code: MIXSM

This mixture should be sited on field margins or next to hedges or woodland. It contains a range of species which provides food for birds, including finches and sparrows, over one winter while also feeding small mammals.

- 16% certified spring linseed
- 14% certified spring barley
- 13% white millet
- 13% red millet
- 10% certified fodder radish
- 10% certified mustard
- 10% certified brown mustard
- 10% gold of pleasure
- 4% quinoa

**5.00 kg/acre** 12.50 kg/ha **£3.93 per kg**

### Two Year Wild Bird Seed (AHL2/CAHL2/AB9)

ELS/HLS/CSS/SFI Codes: EF2, AB9, AHL2, CAHL2

Farmland Bird Feeder

Code: MIXWBSS

This mix includes annuals for the first winter, while the biennial kale provides late seed in the second winter. It is a good food source for wild birds and is reliable if managed properly, as well as being more economical.

- 70% spring wheat (supplied separately)
- 14% kale
- 1.75% fodder radish
- 1.5% mustard
- 5% white millet
- 5% red millet
- 1.75% fennel
- 1% gold of pleasure

**20.00 kg/acre** 50.00 kg/ha **£4.05 per kg**

Grass

Legume

Herb

Cereal

Wildflower

C4 Plants

Others

Brassica



## Autumn Sown Bumblebird Mix (AHW1/AB16)

CSS/SFI Codes: AB16, AHW1

Two Year Mixture

Code: AB162021

Food source for birds, pollinators and insects.

- 34.99% winter wheat
- 30% forage rye
- 6.94% winter linseed
- 5.56% kale
- 1.39% brassica carinata
- 1.39% brown mustard
- 8.89% common vetch
- 2.78% balansa clover
- 2.22% birdsfoot trefoil
- 1.56% sweet clover
- 1.50% red clover
- 1.39% phacelia
- 1.11% fennel
- 0.28% red campion

**18.00 kg/acre** 45.00 kg/ha **£4.12 per kg**

## Spring Sown Bumblebird Mix (AHW1)

SFI Codes: AHW1

A Spring Sown Three Year Mixture

Code: MIXSBB

Sow this spring mixture from the end of April to June, use the Autumn sown option if sowing later. This diverse mixture will provide a pollen and nectar source for pollinators and a food source over winter for farmland birds.

- 35.54% spring barley
- 27.78% spring wheat
- 8.33% dwarf sunflower
- 6.67% spring linseed
- 5.56% kale
- 1.67% fodder radish
- 1.67% gold of pleasure
- 1.39% mustard
- 2.78% crimson clover
- 2.22% sweet clover
- 1.94% birdsfoot trefoil
- 1.67% red clover
- 1.39% phacelia
- 1.11% fennel
- 0.28% wild carrot

**18.00 kg/acre** 45.00 kg/ha **£4.09 per kg**

## Enhanced *Two Year* Wild Bird Mix (AHL2/CAHL2/AB9)

CSS/SFI Codes: AB9, AHL2, CAHL2

A Spring Sown Two Year Wild Bird Mixture

Code: MIXEWB

This enhanced mixture contains a wider range of biennial species for those struggling to reliably establish kale, chicory and fennel will seed in year two.

- 44% winter rye
- 20% spring barley
- 10% dwarf sunflower
- 10% grain sorghum
- 5% white millet
- 5% kale
- 1.25% hybrid rape/kale
- 1% fodder radish
- 0.75% mustard
- 0.5% leafy turnip
- 1.5% chicory blend
- 1% fennel

**20.00 kg/acre** 50.00 kg/ha **£3.56 per kg**

### Additions



Add 2 kg of Cheerful Sunflowers

**£10.60 per acre**



Enhanced Wild Bird Mix  
22nd June, Hampshire

# Resource Protection

Grassy areas to shield water courses and provide wildlife habitats.



## Sowing & Growing Environmental Mixes

### When to sow

For grass only or pollen and wildflower mixes sow between late March and early May, or August and early September. Legume based mixtures should be sown later into warm soils. Generally mixes containing wildflowers are sown in the autumn, especially if they contain Yellow Rattle. Sow Wild Bird seed mixtures when the risk of frost has passed in the spring.

### How to sow

Species included in pollen and nectar or grass mixtures are small in size and should be shallow sown into a fine but firm seedbed. They can be broadcast and harrowed or shallow drilled at 10mm. Both options should be well rolled after sowing for maximum seed to soil contact.

Wild Bird seed mixtures containing a range of annual species can be shallow drilled or broadcast and well rolled into a fine but firm seedbed. Two year Wild Bird mixtures containing high levels of cereals can be supplied separately, the cereals can be drilled in rows to a depth of 25mm, and the smaller seeds broadcast in a second pass.

### Management

Pollen and nectar and grass only mixtures can be lightly topped several times during establishment, normally 6-8 weeks after sowing, to control annual weeds and encourage tillering. They are also cut back as growth slows in the autumn.

Weed control in Wild Bird mixtures is difficult, its important to create a clean, weed free seedbed before sowing.

Grass

## Mixes

### Species Rich Parkland Grassland

ELS/HLS/CSS/SFI Codes: HK7, GS7

Low Maintenance Long Term

Code: MIXPGLM

A slow growing and manageable seed mix for those with low requirements from permanent grassland. This mixture can be grazed periodically or topped to keep a tidy appearance.

- 1% sweet vernal grass
- 3% certified meadow foxtail
- 4.13% certified smaller catstail
- 6.25% certified common bentgrass
- 10.63% certified crested dogstail
- 24.99% certified smooth stalked meadow grass
- 25% certified chewings/red fescue
- 25% certified sheeps fescue

16.00 kg/acre 40.00 kg/ha

£8.87 per kg

### Recreating Grassland

ELS/HLS/CSS/SFI Codes: HK7, ED2

Long Term

Code: MIXRG

The mixture below is suitable for sowing on most soil types ranging from clays to calcareous. Provides grass for grazing or hay production (if no forage is required use the mix above).

- 5% certified TEETOP common bentgrass
- 10% certified BORNITO sheeps fescue
- 15% certified WAGNER red/chewings fescue
- 20% certified COMER Timothy
- 20% certified EVORA smooth stalked meadow grass
- 30% certified SENU meadow fescue

10.00 kg/acre 25.00 kg/ha

£6.45 per kg

### Buffer Strip Grass Margin (AHL3 & AHL4)

SFI Codes: AHL3, AHL4, CAHL3, CAHL4

Two, Four or Six Plus Metre

Code: MIXGM

An ideal mixture for buffer strips on cultivated land. This mixture is suitable for ELS and can also be used in HLS.

- 5% certified TEETOP common bentgrass
- 10% certified SPARTA cocksfoot
- 20% certified COMER Timothy
- 20% certified SENU meadow fescue
- 20% certified EVORA smooth stalked meadow grass
- 25% certified WAGNER red/chewings fescue

10.00 kg/acre 25.00 kg/ha

£6.54 per kg



Sowing & Growing Guides available online





First Hand

## Justin Newman

Revisited



**'If you grow a diverse mix of plant species, as nature intended, it will look after itself - and keep my pigs happy. It's like a buffet, with all the different flavours and smells. What more could a pig want?'**

His aim was always to 'produce a pig that's been reared in its natural environment, living the happiest life that it can.'

To achieve this, Justin experimented with feeding them on a rotation of clovers, mustard, herbal ley, fodder, kale and stubble turnips.

'If you grow a diverse mix of plant species, as nature intended, it will look after itself - and keep my pigs happy. It's like a buffet, with all the different flavours and smells. What more could a pig want?'

He includes legumes in the mixture to fix nitrogen.

'I'm not a great believer in putting artificial fertiliser on the soil,' says Justin. 'To my mind, that's like a bodybuilder feeding himself with steroids to make himself bigger.'

The land at Happy Wallow Farm is challenging, with only about six inches of topsoil over hard ground. 'Where the soil is so compacted, you want a plant like chicory, with roots to break through that platform.' Justin has discovered that the pigs don't particularly like chicory however, but growing it in the rotation also protects other plants as it deters the pigs from digging and rooting them up right away. The south facing land is also very dry, and Justin has found that including mustard as a nurse crop in the drought-resistant herbal ley offers quick growing shade which prevents the ground from drying and aids the slower growing species underneath.

He keeps machinery to a minimum.

'I've got a chain harrow behind the quad or tractor, to pull out some of the dead grass and weed. I've got my rotavator which is handy on the tractor when you need to re-till the ground. There's less environmental impact than a seed drill. We walk up and down the hill, casting the seed by hand. Obviously that won't work on a bigger scale but it keeps our overheads down.'

The pork is sold through the Happy Wallow farm shop and it's a seasonal market. 'Here in Cornwall, if we get a proper summer, we sell a lot of barbecue produce. Then during the winter months it's pork joints and chops.'

'We get great feedback from the customers and butchers about how good our pork tastes and we get good feedback from people who buy our weaners. They say, 'what great taste,' and keep coming back for more, which can be a bit of a problem as we need to keep enough weaners to grow on ourselves!

'We use Cotswold Seeds because they have so much knowledge. I have their wallchart on my kitchen wall and I like to chat about what different plants we can use and then experiment.'

<b>Farm Type</b>	<b>Pastured Pigs</b>
<b>Location</b>	<b>Cornwall</b>
<b>Size</b>	<b>7 Acres</b>
<b>Soil Type</b>	<b>Fertile Loam</b>
<b>Mixes Used</b>	<b>Special Pig-Rooting Mix, Herbal Ley &amp; Fast &amp; Vast</b>

After successfully rearing pasture-fed pigs on just 0.7 acres, Justin Newman and his wife have increased the size of their Cornish small-holding to 7 acres, including some woodland.

'The land we're using for the pigs has increased dramatically,' Justin explains. 'We were fortunate enough to get some woodland too, so the aim now is to keep the pigs out on the herbal ley over the summer and then establish them in the woodland area during winter. The woodland is also useful when it's hot in the summer, providing the pigs with shade.'

Justin grew up on an arable farm with beef, dairy and lamb enterprises but after pursuing a career in the construction industry, he 'needed a bit more than sitting in the office every day.' Driven by a need to 'know where the meat on my plate is coming from,' he started pig-farming six years ago. 'I had no experience with pigs so I looked at different breeds and went for the Oxford Sandy and Blacks, which has proven to be a lovely breed to rear.'



# Wildflowers

During the last decade, we've seen an increasing demand for wildflower seeds which are being sown to recreate traditional meadows which have been in decline.

Wildflower meadows are either managed under an agri-environmental agreement, where a list of species and management prescription will be provided by Natural England, or often for aesthetic purposes alone. They take many years to evolve naturally and can't be instantly created just by sowing seeds.

Nevertheless, with proper preparation and management, excellent results can be achieved in a relatively short time.

**Visit our website for case studies and management advice.**

## Mixes

### Meadow Over-Seeding

Just Wildflowers

Code: MIXWFOS

This wildflower-only mixture can be sown into open swards that are free of aggressive grasses and weeds. *Due to some shortages of wildflower seeds the contents of this mixture may vary depending on stock availability. Please call or check our website for the latest information.*

**2.00 kg/acre** 5.00 kg/ha **£107.70 per kg + VAT**

### Cornfield Annuals

For One Summer

Code: MIXANN

This is a one year mix to provide a colourful display between June and August. Must be planted by April.

- 40% corn cockle
- 24% cornflower
- 22% field poppy
- 10% corn marigold
- 2% birdsfoot trefoil
- 1% crimson clover
- 1% persian clover

**6.00 kg/acre** 15.00 kg/ha **£43.37 per kg + VAT**

### Cotswold Wild Flora

Long Term

Code: MIXFLO

Our most popular mix combines annuals, for an exceptional display in the first year, with perennials which get better and better from year two onwards.

- 5% certified common bentgrass
- 5% certified smaller catstail
- 10% certified sheeps fescue
- 15% certified crested dogstail
- 15% certified smooth stalked meadow grass
- 29.7% certified red/chewings fescue
- 1.75% native sainfoin
- 1.5% salad burnet
- 1.15% white campion
- 1.1% self heal
- 1.1% lady's bedstraw
- 1% red campion
- 1% field scabious
- 1% meadow buttercup
- 0.8% musk mallow
- 0.7% lesser knapweed
- 0.5% ribwort plantain
- 0.5% wild carrot
- 0.5% yarrow
- 0.5% birdsfoot trefoil
- 0.5% ox-eye daisy
- 0.5% betony
- 0.3% kidney vetch
- 0.3% meadow cranesbill
- 0.1% cowslip
- 1.5% corn cockle
- 1% corn marigold
- 1% cornflower
- 1% field poppy
- 1% yellow rattle

**10.00 kg/acre** 25.00 kg/ha **£39.94 per kg**

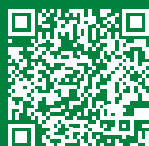


**Cornfield Annuals**

25th July, Chris Smith National Trust, Gower



Sowing & Growing Guides  
available online



## Mixes

Grass Wildflower Legume

## Woodland Edge and Shady Area

Long Term

Code: MIXWOOD

In open and semi-shaded areas a number of grasses and wildflowers will thrive many of which are in this mix.

- 2% commercial Tufted Hairgrass
- 10% certified common bentgrass
- 10% certified crested dogstail
- 15% certified wood meadow grass
- 24% certified slender creeping red fescue
- 24% certified red/chewings fescue
- 2% red campion
- 2% white campion
- 2% self heal
- 1% hedge bedstraw
- 1% betony
- 1% meadow vetchling
- 1% wood avens
- 1% tufted vetch
- 0.8% yarrow
- 0.7% greater knapweed
- 0.6% meadow buttercup
- 0.5% common sorrel
- 0.4% perforate st john's wort
- 0.3% teasel
- 0.2% garlic mustard
- 0.2% bluebell
- 0.15% upright hedge parsley
- 0.15% autumn hawkbit

**10.00 kg/acre** 25.00 kg/ha **£58.72 per kg**

## Chalk &amp; Limestone Soil Mixture

Long Term

Code: MIXCHA

This mixture is designed for chalk and limestone soil. Known to support a large selection of wildflower species which is why we have been able to create such a diverse mix.

- 2% quaking grass
- 2% Crested hair-grass
- 5% commercial sweet vernal grass
- 10% certified crested dogstail
- 10% certified smaller catstail
- 16% certified smooth stalked meadow grass
- 20% certified sheeps fescue
- 20% certified red/chewings fescue
- 3% native sainfoin
- 2% field scabious
- 1.7% salad burnet
- 1% lady's bedstraw
- 1% kidney vetch
- 1% meadow buttercup
- 1% self heal
- 1% birdsfoot trefoil
- 1% meadow cranesbill
- 0.5% small scabious
- 0.5% agrimony
- 0.5% ox-eye daisy
- 0.5% yarrow
- 0.3% wild carrot

**10.00 kg/acre** 25.00 kg/ha **£62.59 per kg**

## Acid &amp; Clay Soil

Long Term

Code: MIXACID

A suitable mixture for both acidic and heavy clay soil types. Prepare a well worked, weed-free seedbed and spread seeds at no more than 10mm deep.

- 5% certified meadow foxtail
- 5% certified rough stalked meadowgrass
- 15% certified crested dogstail
- 20% certified common bentgrass
- 20% certified red/chewings fescue
- 20% certified sheeps fescue
- 2% self heal
- 2% lady's bedstraw
- 1.3% lesser knapweed
- 1.2% betony
- 1.2% yellow rattle
- 1% ox-eye daisy
- 1% yarrow
- 1% hedge bedstraw
- 1% meadow buttercup
- 1% meadow vetchling
- 0.8% meadowsweet
- 0.6% sheeps sorrel
- 0.5% common sorrel
- 0.2% native red clover
- 0.2% ribwort plantain

**10.00 kg/acre** 25.00 kg/ha **£49.37 per kg**

## Damp Meadow

Long Term

Code: MIXDAM

Wetter soils require a slightly different seed mixture. This one should give reliable results on most damp soils and may also be used around water courses or ponds.

- 2% certified meadow foxtail
- 5% certified common bentgrass
- 10% certified crested dogstail
- 10% certified rough stalked meadowgrass
- 18% certified smooth stalked meadow grass
- 20% certified red/chewings fescue
- 20% certified sheeps fescue
- 2% great burnet
- 2% self heal
- 2% yellow rattle
- 1.5% lady's bedstraw
- 1.5% lesser knapweed
- 1.3% common sorrel
- 0.7% betony
- 0.6% meadowsweet
- 0.5% ribwort plantain
- 0.5% ox-eye daisy
- 0.5% meadow vetchling
- 0.5% greater birdsfoot trefoil
- 0.5% red campion
- 0.4% ragged robin
- 0.4% devil's-bit scabious
- 0.1% native red clover

**10.00 kg/acre** 25.00 kg/ha **£66.70 per kg**



# Wildflower Directory

## Agrimony

*Agrimonia*

Upright plant found in hedges and field edges. Late seeding.

Late



Flowers: June-Aug

## Devil's Bit Scabious

*Succisa pratensis*

Found in damp meadows and wetter (but not waterlogged) areas.

Late



Flowers: June-Sept

## Meadow Buttercup

*Ranunculus acris*

Found in older grasslands and damp grassy places with a long flowering period.

Early



Flowers: Apr-Oct

## Betony

*Stachys officinalis*

Found in shady areas, woodland fringes & hedge rows. Likes damp sites.

Late



Flowers: June-Sept

## Field Scabious

*Knautia arvensis*

Frequent in cornfields, grassland and roadsides on calcareous dry soils.

Late



Flowers: June-Oct

## Meadowsweet

*Filipendula ulmaria*

Found in and alongside meadows. Prefers wet ground. Strongly scented flowers.

Late



Flowers: June-Sept

## Birdsfoot Trefoil

*Lotus corniculatus*

Found in downlands and old pasture, esp. on calcareous soils, drought resistant.



Flowers: June-Sept

## Great Burnet

*Sanguisorba officinalis*

Oblong burgundy flower heads, found on wetter meadow ground.



Flowers: June-Sept

## Meadow Vetchling

*Lathyrus pratensis*

Yellow pea-like flower, grows in grassy fields and hedgerows.



Flowers: June-Sept

## Bluebell

*Hyacinthoides non-scripta*

Found in hedge-banks and woodland where they can form a distinctive blue carpet.

Early



Flowers: Apr-June

## Lady's/Hedge Bedstraw

*Galium verum/Galium mollugo*

Lady's bedstraw suits most soils. Hedge bedstraw prefers free-draining.



Flowers: June-Sept

## Musk Mallow

*Malva moschata*

Prolific on soils rich in nitrogen. Grows in hedgerows and grassland.



Flowers: June-Sept

## Cowslip

*Primula veris*

Found on chalky grassland and open calcareous woodland.

Early



Flowers: Apr-May

## Lesser Knapweed

*Centaurea nigra*

Also known as common or black knapweed. Good nectar source



Flowers: June-Sept

## Ox-Eye Daisy

*Leucanthemum vulgare*

Robust, reliable plant for alkaline soils. Found in meadows, pastures and banks.



Flowers: May-Sept



## Perennials continued

**Ragged Robin***Lychnis flos-cuculi*

Delicate ragged flowers usually found in damp meadows.

Early

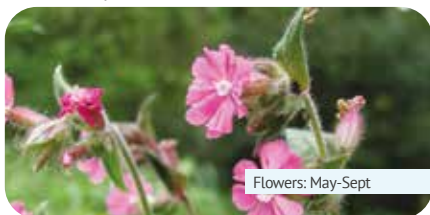


Flowers: May-Aug

**Red Campion***Silene dioica*

Often found in woodland and shady areas. Likes damp soils.

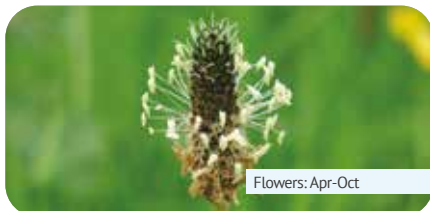
Early



Flowers: May-Sept

**Ribwort Plantain***Plantago lanceolata*

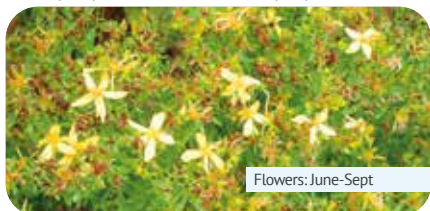
Established in most older grassland. Source of vitamins and minerals for grazing animals.



Flowers: Apr-Oct

**St Johns Wort***Hypericum perforatum*

Likes free-draining calcareous soils with a sunny aspect. Has medicinal properties.



Flowers: June-Sept

**Salad Burnet***Sanguisorba minor*

Found on dry, lime rich, calcareous soils. Liked by grazing animals.



Flowers: May-Sept

**Self Heal***Prunella vulgaris*

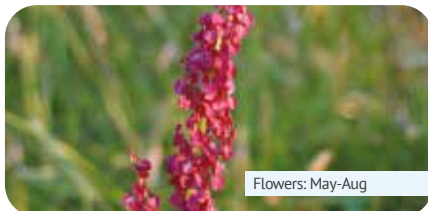
A low growing, creeping plant which is common in most grassland.



Flowers: June-Oct

**Sorrel***Rumex acetosa*

Grows well in loamy soils rich in nutrients.



Flowers: May-Aug

**Teasel***Dipsacus fullonum*

A tall plant found in field margins, particularly in the south of Britain.



Flowers: July-Sept

**Tufted Vetch***Vicia cracca*

Creeping, sprawling growth habit. Found in hedgerows and climbing up vegetation.



Flowers: June-Aug

**White Campion***Silene latifolia*

Frequent in roadside verges, hedgerows and waste ground.



Flowers: May-Oct

**Wild Carrot***Daucus carota*

Found in grassy places, field margins and roadsides. Prefers calcareous soils.



Flowers: June-Sept

**Yarrow***Achillea millefolium*

Found in grassland and grass margins, hedgerows and open spaces.



Flowers: June-Nov

Late

## Annuals

**Corn Chamomile***Anthemis arvensis*

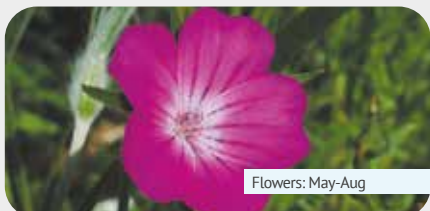
Corn field annual which thrives in loamy soils rich in nutrients.



Flowers: June-July

**Corn Cockle***Agrostemma githago*

A tall annual with an attractive vivid purple flower.



Flowers: May-Aug

**Cornflower***Centaurea cyanus*

A pretty bright blue solitary flower. Was used as a dye in champagne wine.



Flowers: June-Aug

**Corn Marigold***Crysanthemum segetum*

A former weed in spring-sown corn. Now rare on farmed land. Bold yellow flowers.



Flowers: June-Oct

**Field Poppy***Papaver rhoeas*

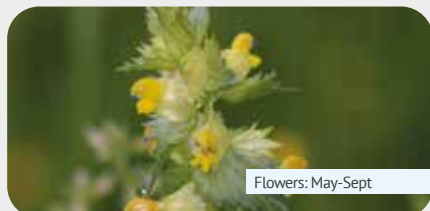
Found in arable fields and disturbed ground. Silky, deep scarlet flowers.



Flowers: June-Oct

**Yellow Rattle***Rhinanthus minor*

Parasitic plant which restricts grass growth allowing delicate wildflowers to establish.



Flowers: May-Sept

\*Please note wildflower seed sold as straight attracts VAT at the current rate of 20%

# Game

## Reliable game cover and food for any shoot.

The game cover section has been recently updated, it provides a wider choice of mixtures that have been in development for the last 3 years. The FlexiCover mixtures provide both 1 and 2 year options and can be used for both flushing and holding cover. The combination of grain sorghum and brassica species provides reliable cover all the way through the winter.

The new Cotswold Partridge mix combines species attractive to partridge and a broken canopy to protect against predators from above.

While our range is more comprehensive than ever before, no one mixture will fit all shoots and sites, so we are more than happy to talk through different species and options and tailor bespoke mixtures to fit.

### Game and Bird Food Crop Overview

Species	Duration	Sowing Time	Sowing Depth	Full Growth Height (cm)	Comments	Sowing Rate (kg/ac)	Feed	Cover
Maize	1 Yr	Late April-May	7.5 - 10	180 - 200	Cobless varieties available	11 - 14	✓	✓
R. Millet	1 Yr	April-June	2.5	100 - 120	Later seeding than W.Millet	5 - 10	✓	
W. Millet	1 Yr	April-June	2.5	100 - 120	Produces more seed than R. Millet	5 - 10	✓	
Reed Millet	1 Yr	April-June	2.5	100 - 120	Strong standing ability	5 - 10		✓
D. Sorghum	1 Yr	May-June	3 - 5	100	Sow in wide rows	8		✓
Giant Sorghum	1 Yr	May-June	3 - 5	180	Prone to brackling	12		✓
Grain Sorghum	1 Yr	May-June	3 - 5	100 - 120	Produces seed	8	✓	✓
Sunflower	1 Yr	Mid April onwards	5	90 - 175	Dwarf varieties reach 3ft	10	✓	
Buckwheat	1 Yr	May-June	3.5	90	Not frost hardy	20 - 30	✓	✓
Linseed	1 Yr	March-June	2	50 - 60	Good for Partridge	20	✓	✓
S. Cereals	1 Yr	March-May	2 - 3	70 - 80	Sow in spring for winter grain	50 - 75	✓	✓
W. Cereals	1 Yr	March-Sept	2 - 4	70 - 90	Sow in autumn for grain in Yr 2	50 - 75	✓	✓
Quinoa	1 Yr	May-June	0.5 - 1	90 - 140	Produces high protein seed	5	✓	
F. Rape/OSR	1 Yr	May-August	1	80 - 90	Flea beetle risk	4		✓
Mustard	1 Yr	May-August	1	80 - 120	Sow in august for late cover	6 - 10	✓	✓
Brown Mustard	1 Yr	May-August	1	80 - 100	More winter hardy than Mustard	2	✓	✓
Fodder Radish	1 Yr	May-August	1	80 - 120	Holds seeds late in season	6	✓	✓
Hybrid Brassica	1 Yr	April-August	1	90 - 120	Sow by mid Aug	3		✓
Gold of Pleasure	1 Yr	April-May	1	50 - 70	High seed shed	5	✓	✓
Kale	2+ Yr	April-June	1	70 - 110	2 year cover	3		✓
Sweet Clover	2+ Yr	April-June	0.5 - 1	120	Significant growth in Yr 2	6		✓
Chicory	2+ Yr	April-Sept	0.5 - 1	90 - 150	Lasts 3-4 Years	6	✓	✓
Canary Grass	2+ Yr	May-June	1	180	Main growth in Yr 2 onwards	3	✓	
Reed C. Grass	2+ Yr	May-June	1	200	More winter hardy than Canary Grass	3	✓	



## Mixes

## FlexiCover One Year Game Mix

Cover and Feed

Code: MIXFLEXI

This flexible mixture combines brassicas, sorghums and cereals. Sowing in wide rows allows game birds easier movement if pushing them into a flushing point or sow in narrow rows to create a denser holding cover, or windbreak alongside maize.

- 4.75 kg spring wheat
- 3.50 kg spring barley
- 3.50 kg grain sorghum
- 1.00 kg white millet
- 1.00 kg red millet
- 0.50 kg reed millet (Japanese)
- 0.50 kg forage rape
- 0.50 kg hybrid rape/kale
- 0.30 kg fodder radish
- 0.25 kg gold of pleasure
- 0.20 kg mustard

16.00 kg/acre - £49.13

40.00 kg/ha - £122.83

## FlexiCover Two Year Game Mix

Cover and Feed

Code: MIXFLEX2

The inclusion of kale can ensure this mixture lasts for two full years. During establishment protect against flea beetle and consider fertiliser to push the brassicas past the most susceptible stage of pest damage.

- 7.00 kg spring wheat
- 2.60 kg grain sorghum
- 1.00 kg white millet
- 1.00 kg red millet
- 2.25 kg kale
- 0.40 kg fodder radish
- 0.25 kg gold of pleasure
- 0.20 kg hybrid rape/kale
- 0.30 kg fennel

15.00 kg/acre - £77.98

37.50 kg/ha - £194.95

## Retrieve Mixture

Fast and Economical

Code: MIXRET

For a summer sowing after a failed spring crop, nothing beats these fast growing species. It can also be used for patching up poor stewardship bird mixes.

- 1.80 kg black oats
- 1.20 kg mustard
- 0.80 kg forage rape
- 0.50 kg fodder radish
- 0.40 kg leafy turnip
- 0.30 kg brown mustard

5.00 kg/acre - £18.61

12.50 kg/ha - £46.53

Legume Cereal C4 Plants Others Brassica Herb

## General Purpose Game Mix

Cover and Feed

Code: MIXGAME

This is our most popular game cover mix, combining a wide range of species providing feed and cover for pheasants, partridge and farmland birds.

- 2.00 kg dwarf sunflower
- 2.00 kg buckwheat
- 2.20 kg grain sorghum
- 1.00 kg white millet
- 1.00 kg red millet
- 0.60 kg hybrid rape/kale
- 0.40 kg fodder radish
- 0.40 kg gold of pleasure
- 0.40 kg kale

10.00 kg/acre - £49.99

25.00 kg/ha - £124.98

## Cotswold Partridge Mix

Cover and Feed

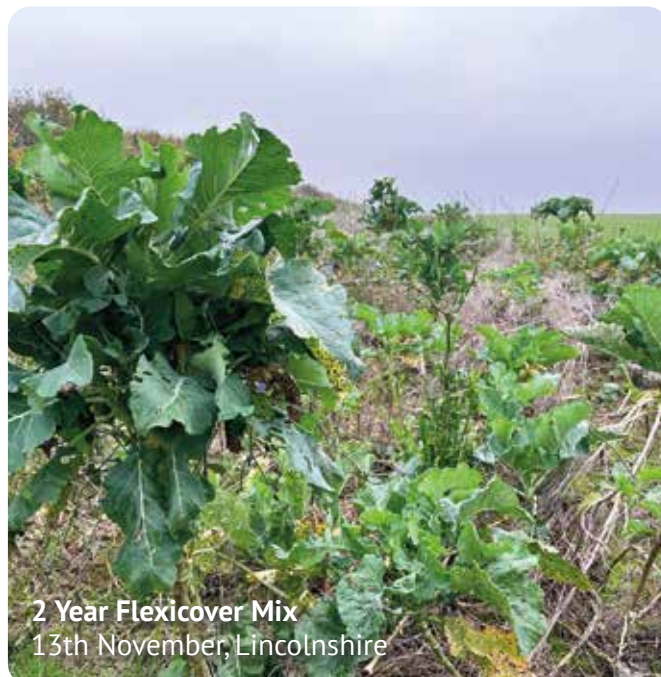
Code: MIXPART

The mix is designed to include species which attract partridge, as well as creating a broken canopy with room for birds to move through the cover.

- 5.00 kg spring barley
- 5.00 kg spring wheat
- 1.20 kg grain sorghum
- 0.40 kg white millet
- 3.00 kg spring linseed
- 0.40 kg gold of pleasure
- 0.20 kg forage rape
- 0.10 kg hybrid rape/kale
- 0.10 kg leafy turnip
- 0.20 kg crimson clover
- 0.20 kg persian clover
- 0.20 kg fennel

16.00 kg/acre - £43.35

40.00 kg/ha - £108.38



2 Year FlexiCover Mix  
13th November, Lincolnshire

## Game Mixes

## Quinoa/Kale Mix

Cover and Feed

Code: MIXQUI

This simple combination supplies the two key requirements of birds: cover and feed. The kale provides excellent winter cover and supports the quinoa plants. Quinoa can provide 1-2t per acre of high protein feed from late autumn.

- 1.00 kg quinoa
- 1.80 kg game kale
- 0.20 kg hybrid rape/kale

3.00 kg/acre - £40.66

7.50 kg/ha - £101.65

## Short &amp; Sturdy Game Cover Mix

Cover and Feed

Code: MIXSHORT

This mix is ideal for growing with maize to act as a windbreak on exposed sites or to create a flushing point in front of the gun line. The seed bearing grain sorghum, sunflower and millet also provide for farmland birds.

- 5.00 kg grain sorghum
- 0.40 kg white millet
- 0.40 kg red millet
- 2.20 kg dwarf sunflower

8.00 kg/acre - £42.88

20.00 kg/ha - £107.20

## Seed &amp; Shelter Millet Mix

Cover and Feed

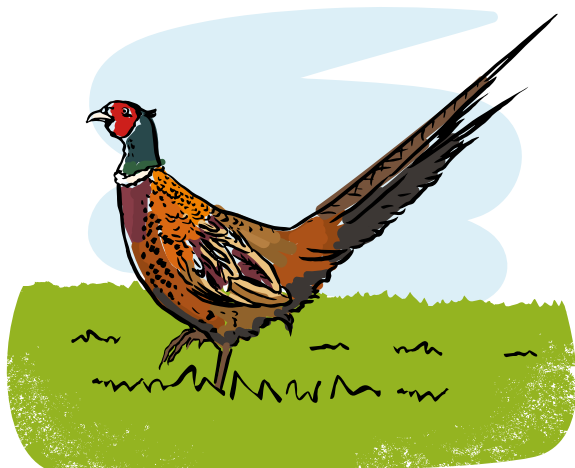
Code: MIXMIL

Combining red and white millet for a wider window of seed production and grain sorghum to provide cover. Broadcast or shallow drill in maize strips for a denser cover.

- 3.00 kg white millet
- 3.00 kg red millet
- 2.00 kg grain sorghum

8.00 kg/acre - £31.80

20.00 kg/ha - £79.50



## Sowing and Growing

Whether you run a small local syndicate or a large estate shoot it is important to produce good, reliable crops that provide plenty of shelter, cover and seed.

## When to sow

Most game crops are spring sown after frost risk has passed to provide cover and feed from late summer. Start planting the mixes of brassicas, millet, maize, sunflowers and canary grass in mid April, with dwarf sorghum better if drilled in May or June. The only exception is the quick-growing Retrieve Mixture which can be drilled anytime from April to early September.

## How to sow

A well worked weed-free seedbed is required, try to achieve a stale seedbed with several cultivation passes to stimulate weed germination before sowing. Seeds such as maize, sunflower and sorghum are usually drilled but small seeded species such as kale and mustard may be broadcast and well rolled after sowing.

If sowing a mix with a range of seed sizes, prioritise the smaller seeds, try to ensure the smaller seeds are not sown too deeply, as this can reduce the reliability of establishment, most larger seeds will cope with being sown slightly shallower.

Bespoke Autumn sown mixtures are available for cover in the following year.

## Management

For sites with a known weed burden of later germinating annuals like fat hen consider herbicide tolerant mixtures (speak to an adviser). Grass weeds can also be controlled by sowing broadleaf only mixtures tolerant to graminicides.

## Nutrient requirements

Game crops require P & K levels to be ADAS Index 2 and can benefit from 50kg N/ha in the seed bed. Farmyard manure is a very beneficial source of fertility, with its effects showing for several years.



Sowing & Growing Guides available online



Flexicover Game Mix  
15th September, Hampshire

Grass

C4 Plants

Others

Brassica

## Straights

## Dwarf Sunflower

A sturdy, multi headed type of sunflower, reaching between 1-1.5 metres in height.

**10.00 kg/acre - £53.00**

25.00 kg/ha - £132.50

## Tall Sunflower

Large amounts of food supplied through the winter, this tall type can reach 2 metres in height.

**Call for availability**



Bespoke Margin Mix  
1st October, Wiltshire,

## Canary Grass

This perennial grass is drilled in wide rows (60-90cm) and takes a year or so to become established. From the second year the seed heads will reach two metres and the crop can usually be relied upon for 10 years. Good for pheasants and partridges as well as linnets and wrens.

**3.00 kg/acre - £75.00**

7.50 kg/ha - £187.50

## Reed Canary Grass

Grows taller than Canary grass and is more suitable to northern climates because it tolerates extreme cold weather. Reed canary grass can be slow to establish, sometimes taking up to two years but it will tolerate a wide range of soil types.

**3.00 kg/acre - £72.00**

7.50 kg/ha - £180.00

## Cotswold Game Kale Blend

Code: MIXKALE

The kale mix combines tall, sturdy and leafy varieties for good access and cover.

**3.00 kg/acre - £50.70**

7.50 kg/ha - £126.75

## Dwarf Sorghum

An excellent windbreak around other crops, it is an annual crop with similar properties to maize.

**Only available in one acre packs.**

**8.00 kg/acre - £45.60**

20.00 kg/ha - £114.00

## Game Maize

A Game Maize blend of early and medium varieties to strike a balance between reliable establishment, winter longstanding and cob production.

**Limited availability, supplied in one acre packs (Korit treated seed).**

**£95.00 per acre**





# Lawn & Landscape

Seed mixtures that establish quickly to provide attractive, tough and low maintenance turf.

Great lawns are a distinctive feature of British gardens. Our mixtures contain the best modern varieties that require minimal maintenance so you can enjoy more time looking and less time mowing.

The right mix is just as important for other key grassy areas such as sports pitches and roadside verges. Creating the right species mix for these uses is vital to ensure the surface is correct for purpose and can be effectively managed.

## How much seed do I need?

- ▶ Measure the area of your lawn in square metres (multiplying the width by the length will give the area).
- ▶ Multiply the area by the sowing rate given for each mix (in grams per square metre), always using the highest sowing rate if you are creating a lawn on bare earth
- ▶ Divide the results by 1000 to give the number of kilograms required

Example:

Length of lawn = 10m, width = 4m, area of lawn = 40m<sup>2</sup>  
 40 x 70g (sowing rate) = 2800 = 2.8kg of seed required

Please note: One acre = 4000m<sup>2</sup>

	70 grams/m <sup>2</sup> High rate	50 grams/m <sup>2</sup> Medium rate	35 grams/m <sup>2</sup> Low rate
15 m <sup>2</sup>	1 kg	0.75 kg	0.5 kg
30 m <sup>2</sup>	2 kg	1.5 kg	1 kg
100 m <sup>2</sup>	7 kg	5 kg	3.5 kg
250 m <sup>2</sup>	17.5kg	12.5 kg	8.75 kg
500 m <sup>2</sup>	35 kg	25 kg	17.5 kg

## Mixes: Lawn

### Hard Wearing Lawn With Ryegrass

Code: MIXHAR

Designed to produce a tough and durable lawn which is easy to grow and live with. The grasses used produce a knitted turf and offer unbeatable toughness. We have supplied this mixture for 30 years and frequently hear positive reports from our customers. As well as being used as a lawn, this mixture will produce a suitable turf for caravan parks and airfields. Turf growers also like the blend as it establishes quickly.

- 50% certified dwarf/turf ryegrass
- 40% certified slender creeping red fescue
- 10% certified common bentgrass

50 - 70 g/m<sup>2</sup>

£5.99 per kg

### Ornamental Lawn Without Ryegrass

Code: MIXORN

A superb fine-leaved mixture with a superior finish. It is suitable for sites where a 'bowling green' finish is required. The mixture is slow growing and tolerates light shade but will require regular feeding and mowing, ideally with a cylinder mower, to keep its appearance.

- 80% certified slender creeping red fescue
- 20% certified common bentgrass

50 - 70 g/m<sup>2</sup>

£7.23 per kg

### Shady Lawn Without Ryegrass

Code: MIXSHA

A slow-growing mixture for low-light areas. A good turf can be produced from this mix, especially when the mowing height is increased to 2-3 inches.

- 30% certified slender creeping red fescue
- 30% certified red/chewings fescue
- 30% certified smooth stalked meadow grass
- 10% certified common bentgrass

50 - 70 g/m<sup>2</sup>

£6.87 per kg

## Mixes: Landscape

## Economy Landscape

With Ryegrass

Code: MIXECO

A low cost, fast establishing mixture, designed to cover large areas quickly. Suitable for banks and other non-prestigious areas.

- 50% certified turf/dwarf ryegrass
- 50% certified creeping red fescue

35 g/m<sup>2</sup>

£4.73 per kg

## Verge Mixture

With Ryegrass

Code: MIXRV

An all-round mixture which is used for verges, pipelines and other reinstatement projects.

- 35% certified turf/dwarf ryegrass
- 30% certified creeping red fescue
- 20% certified red/chewings fescue
- 10% certified smooth stalked meadow grass
- 5% certified common bentgrass

35 - 70 g/m<sup>2</sup>

£5.65 per kg

## Low Maintenance

Without Ryegrass

Code: MIXLM

A seed mixture which requires very little mowing or maintenance. It will tolerate shade and grows on all soils including infertile types.

- 70% certified sheeps fescue
- 20% certified red/chewings fescue
- 10% certified common bentgrass

35 - 70 g/m<sup>2</sup>

£6.14 per kg

## Mixes: Sport

## Rugby &amp; Football

Re-Seed and Renovate

Code: MIXSPO

This is a fast establishing mixture which can be used for all winter sports. It is also suitable for school playing fields and for over-seeding pitches at the end of the season.

- 80% certified turf/dwarf ryegrass
- 20% certified creeping red fescue

35 - 50 g/m<sup>2</sup>

£4.74 per kg

## Tennis Court &amp; Cricket Wicket

With Ryegrass

Code: MIXTEN

Ball bounce and speed are improved on dense and compact turf. Formulated to provide a firm and fast surface and give a true, sufficiently high bounce. Frequent mowing and rolling recommended for best results.

- 45% certified turf/dwarf ryegrass
- 30% certified red/chewings fescue
- 15% certified slender creeping red fescue
- 10% certified common bentgrass

50 g/m<sup>2</sup>

£6.04 per kg

## Additions



## White Clover

Nitrogen fixing clover.

White clover can be included on request. **Please call for advice.**



Sowing & Growing Guides  
available online



Hardwearing Lawn Mix  
Buckinghamshire



## COTSWOLD SEEDS

Cotswold Seeds was founded in 1974 and deals with over 20,000 farmers throughout the UK. The company has a specialist interest in grass and legumes, offering advice on growing and managing these crops to farmers and growers in the livestock, arable and horticultural sectors. The company, in conjunction with FarmED at Honeydale Farm, is also involved in a wide range of research projects.

Cotswold Seeds Ltd  
Cotswold Business Village  
Moreton in Marsh  
Gloucestershire, GL56 0JQ

Tel: 01608 652552  
[www.cotswoldseeds.com](http://www.cotswoldseeds.com)  
[info@cotswoldseeds.com](mailto:info@cotswoldseeds.com)



ISBN: 978-1-8380163-8-8  
DEFRA Reg. No. 165  
BSPB Licence No. 1476  
Soil Association Licence No. P5985  
Registered in England 1163604  
VAT No. 195 5792 09



Request or  
download at  
[cotswoldseeds.com](http://cotswoldseeds.com)

