



SUPERIOR GRASS & FODDER CROPS 2020

HF
Seeds

ENGLAND & WALES

HF Seeds

ENGLAND & WALES

HF Seeds mixtures have been chosen by profitable farmers since the early 1950's. The confidence that farmers have in using HF Seed has been justified by outstanding performance over many years, through sound principles of selecting varieties and species that will be resilient, high yielding and the first step in increasing livestock production due to their digestibility, density, hardiness and disease resistance.

From wet, exposed farms at over 1200 feet above sea level in the Scottish Highlands to free draining, low lying arable ground which can grow cereals and roots in the south of England, HF Seeds have mixtures that are proven to perform – each and every year. HF Seeds have been part of the worlds biggest breeder of grass and clover since 1996, DLF Seeds and our own DLF breeders working in the UK, Ireland, continental Europe, North America and New Zealand have supplied us with robust, flexible varieties, which have been trialled across the UK and Ireland and offer farmers an easy route to increasing yields of meat and milk. This increased livestock performance comes from higher yields of dry matter, with better disease resistance and increased sward density, as well as the now well publicised benefits of using grass varieties with much higher levels of digestible fiber. Breeding grass varieties with less ligneous fiber and more cellulose means we are developing grass mixtures that allow ruminant animals to do what they have been designed to do – extract more energy from every mouthful consumed. This higher level of digestible fiber is measured as digestible neutral detergent fiber (DNDF) which we at HF Seeds call FIBER ENERGY.

With our recent purchase of the biggest seed breeder in the southern hemisphere, P G G Wrightsons of New Zealand, we are looking forward to their exciting portfolio of grasses, clovers and particularly leafy brassica crops for use in the UK and Ireland.

Farming is facing a very challenging time, with pressure on livestock farming from all sorts of different sources. We must respond as best we can with efficient and environmentally sound ways of producing safe and nutritious food. Sowing HF grass mixtures will give you a good start in reducing other costly inputs, allowing greater use of home produced protein and energy. The EFA and AECS mixtures on pages 26 and 27 of this brochure can help mixed/ arable farmers start to restore their organic matter contents back to where they should be, making their soils better able to cope with water-logging, drought, mineral deficiencies and capturing considerable amounts of carbon.

With the backing of DLF, HF Seeds continues to go from strength to strength.



HF Seeds always have the best new varieties on the SRUC list and HF Mixtures consistently give us yield and palatability, but without compromising persistency. Over the years I have found that HF seeds mixtures have all the answers and help me get the best out of my grass.

Alan Simpson
Mains of Leslie, Inch, Aberdeenshire
Seed Supplied by Agrii

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We use a combination of HF Surecrop and HF11 for our grass mixtures. Farming 300 acres, mainly grass, we aim for two cuts of silage with the first cut around the end of May. Good quality silage is key to what we do at Bruceland and we find that no other grass seed mixtures can offer the same level of yield and quality as the HF mixtures do.

Ronald Simes
Bruceland Farm, Elgin
Seed Supplied by Scotgrain Agriculture

Leading the field for over 50 years



HF Mixture Quality

Good grass mixture design begins with the assessment of individual variety characteristics and then uses this information to combine mixture components in different proportions to produce the best possible mixture for the intended duration and purpose of the final sward.

High yields of dry matter will always be one of the most important considerations, along with sward density and digestibility. It is important to also consider the ability of the mixture to perform under stress, drought or otherwise, its palatability and how resistant the mixture is to certain diseases – such as crown rust, mildew and increasingly dreschlera. Winter hardiness and density are the two main contributing factors leading to good persistency. HF Seeds mixtures are renowned for their persistency across harsh northern areas and their longevity, due to consistent performance over many years.



Species	UK Minimum Germination	HF Minimum Germination	HF Average 2019 Germination
Italian Ryegrass	75.0%	90.0%	91.0%
Perennial Ryegrass	80.0%	90.0%	94.0%
Timothy	80.0%	90.0%	95.0%

04 Germination

There is a minimum germination for all certified seed used in the UK, but these standards are actually quite low. HF Seed varieties are selected from our own seed stocks that are at least 10% higher germination than the UK certification minimum standard. More live seeds in every bag is very important in producing dense, long lasting swards.

Purity

UK grass seed certification also allows the possibility of the presence of relatively high levels of serious grassland weeds. At HF Seeds we impose our own freedom from weeds standards, which are unequalled elsewhere.

This table shows the potential number of weed seeds which could be sown (per acre) each time a field is reseeded. The advantages of HF Seeds rigorous purity standards are easy to see.

Possible Weed Seed Numbers per acre	UK Minimum Purity Standard	HF Minimum Purity Standard
Docks	1,250	0
Couch	30,000	2,500
Blackgrass	25,000	2,500



Selecting the Best Forage – Genomic Selection

We all want it – more yield, higher quality, better stress tolerance and strong disease resistance.

Achieving top performance on all these traits simultaneously is a tremendous task and cannot be done without modern genetic techniques. The information about how each trait performs is the ryegrass genome and it is hidden behind the plant cell walls which we need to access. Through traditional breeding, ryegrasses make incremental improvements with every breeding cycle. DLF have developed ways of improving several traits at the same time by looking at the DNA code (the genes that actually determine plant performance) and with the help of a very large computer, selecting the best offspring from a cross – based on a simple DNA test, rather than waiting for 2 or 3 years for field data.



HF FIBER ENERGY VARIETIES		
Nifty	Intermediate Perennial Ryegrass	Diploid
Elyria	Intermediate Perennial Ryegrass	Diploid
Diwan	Intermediate Perennial Ryegrass	Tetraploid
Cavendish	Late Perennial Ryegrass	Diploid
Cancan	Late Perennial Ryegrass	Diploid
Smile	Late Perennial Ryegrass	Diploid
Thegn	Late Perennial Ryegrass	Tetraploid
Twymax	Late Perennial Ryegrass	Tetraploid
Nashota	Late Perennial Ryegrass	Tetraploid

Ruminant animals chew the cud to extract as much energy as possible out of each mouthful

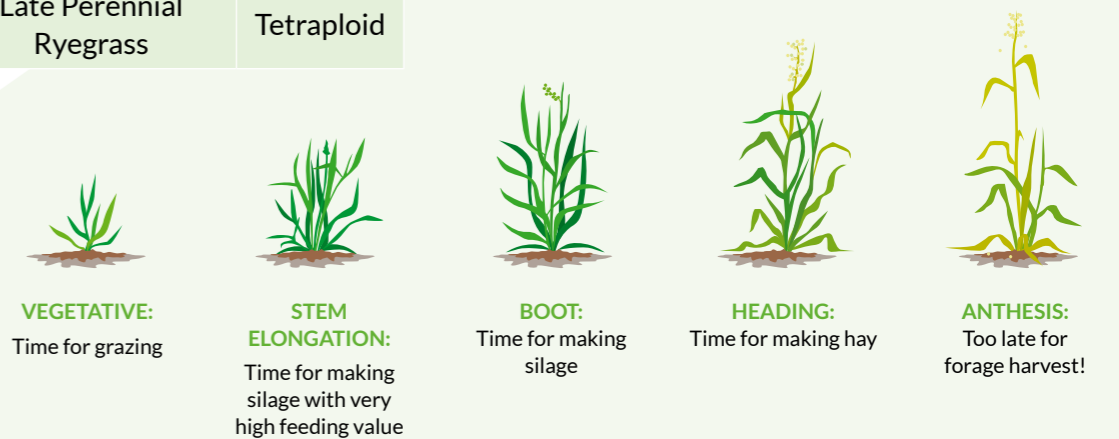
This is what they do naturally and what makes them ruminants. By increasing the digestibility of the fiber through careful breeding, using the latest genomic breeding techniques we at DLF have been able to develop grass varieties with higher levels of digestible fiber, leading to more meat or milk from each kilogram of dry matter consumed.

MORE MEAT WITH DLF

DLF FIBER ENERGY

MORE MILK WITH DLF

Young immature leafy grass always produces forage with high digestibility but the plants have not bulked up enough so yields are low. If we leave grasses to bulk up for a larger crop then the digestibility historically falls, as illustrated below.



HF Mixture Selector

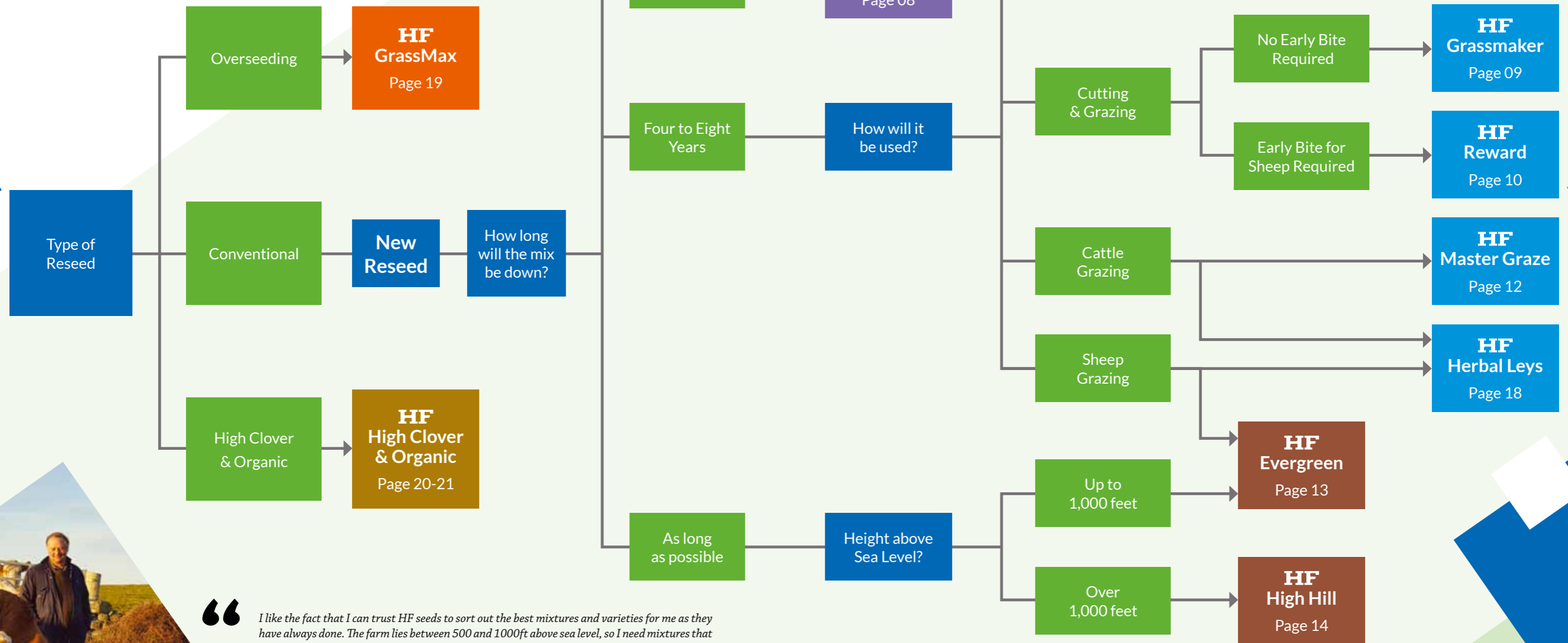
HF mixtures are designed and formulated to meet specific sward uses.

Significant differences between mixtures are not always obvious but even small differences can change the way in which the final sward behaves. Selection of the wrong mixture will inevitably mean that the sward will not perform up to expectations simply because it is the wrong mix for the job.

The HF mixture selector is designed to help answer many of the common questions in mixture selection, however it is not possible to cater for every situation and if in doubt contact HF Seeds for further advice.

01506 674800 FOR ALL YOUR FORAGE SOLUTIONS

For specialist mixtures such as Reliant, Horse Paddock, Dry Land and new Herbal Leys see pages 14 - 18



I like the fact that I can trust HF seeds to sort out the best mixtures and varieties for me as they have always done. The farm lies between 500 and 1000ft above sea level, so I need mixtures that are flexible and robust, allowing me to concentrate on other parts of my business.

Stuart Simpson
Tawnagorm, Sauchen, Aberdeenshire

Seed supplied by Agrii

DISCLAIMER

Any information provided in this catalogue is given in good faith and to the best of our existing knowledge. Any advice should therefore be taken as a general guide only and not relied upon for all conditions and circumstances. HF Seeds cannot accept any legal liability for information given in this guide. In any instance where there are shortages of specified varieties HF Seeds reserves the right to substitute equivalent varieties.

SHORT TERM MIXTURES



Great bulk and quality are exceptionally important to us at Meikle Ussie along with excellent dense grazing and that is what we always get from HF Seeds.

James Brown and Partners
Meikle Ussie, Dingwall

Seed Supplied by
Scotgrain Agriculture

HF Yielder

1 to 2 year mixture

FOX
Italian Ryegrass

CAZZANO
Tetraploid
Italian Ryegrass

PERSEUS **PLUS**
Italian Ryegrass
Plus™

Mainly Cutting Mixture

Yielder is designed for maximum yield over two full production years

- The top yielding mixture
- High tetraploid content ensures high quality silage
- Capable of 3 or 4 quality cuts per year
- Not suitable for undersowing a cereal as too aggressive

Recommended sowing rate:
13-14 kg/acre 32-35 kg/HA

Mainly Cutting Mixture

Dividend is a high performance mixture suitable for Cutting or Grazing

HF Dividend

3 year mixture

PERSEUS **PLUS**
Italian Ryegrass
Plus™

LOFA **PLUS**
Hybrid Ryegrass
Plus™

SOLID
Tetraploid
Hybrid Ryegrass

TETRAGRAZE
Tetraploid
Hybrid Ryegrass

DIWAN
Tetraploid
Intermediate
Perennial Ryegrass

SEAGOE
Tetraploid
Intermediate Perennial Ryegrass

HF CUTTING CLOVER BLEND
White Clover

- Contains a high proportion of RYEGRASS PLUS™ Grasses for big yields and stress tolerance
- Will provide 3 full years of quality silage or grazing
- High tetraploid content for rapid fermentation in the pit or grazing palatability
- HF CUTTING White Clover blend included at low percentage rate but may be changed to Red Clover

Recommended sowing rate:
13-14 kg/acre 32-35 kg/HA



We are on heavy land here and it can be quite a challenge to get re-seeding done. We have started overseeding in the late summer with HF mixtures and have had much bigger and better grass crops since. Switching to using HF Grass seeds has allowed us to go to 3 cuts per year, where we used to only manage 2 cuts, so we have been able to reduce production costs.

Paul Magnay
Smallholms Farm, Chapelknowe,
Dumfriesshire
Seed Supplied by Solway Agriculture

MEDIUM TERM MIXTURES

HF Grassmaker

4 to 8 year mixture

NIFTY
Intermediate
Perennial Ryegrass

BOYNE
Intermediate Perennial Ryegrass

ELYRIA
Intermediate
Perennial Ryegrass

SEAGOE
Tetraploid
Intermediate Perennial Ryegrass

TRIWARWIC
Tetraploid
Intermediate Perennial Ryegrass

TODDINGTON
Late Perennial Ryegrass

CANCAN
Late
Perennial Ryegrass

NASHOTA
Tetraploid
Late Perennial Ryegrass

WINNETOU
Timothy

HF DUAL PURPOSE CLOVER BLEND
White Clover

Dual Purpose Mixture

A flexible, rotational mixture renowned for its consistent yield and performance, under different management regimes

- Available available as a high clover and a no clover option
- Contains the very best and most productive varieties
- Persistence is ensured by top class sward density and winter hardiness
- Specifically formulated for high FIBER ENERGY, giving increased meat or milk production per kg of dry matter

Recommended sowing rate:
13-15 kg/acre 32-35 kg/HA



We have 330 acres and need lots of high quality silage for our 300 cows and followers. HF Seeds mixtures consistently produce for us, even on high ground up at Shap.

Christopher and Richard Drake
Whitestone Farm, Morland, Penrith
Seed Supplied by Stephen Walker
of CS Walker, Penrith



Feeding over 330 pedigree Holsteins requires consistent high silage yields and quality forage. HF Grassmaker and HF Reward are the mixtures of choice for us. We take 3 cuts every year with aftermath grazing.

Harry Thompson
Randalstown, County Antrim



HF Reward

4 to 8 year mixture

GENESIS
Early Perennial Ryegrass

ELYRIA
Intermediate Perennial Ryegrass



NIFTY
Intermediate Perennial Ryegrass



DIWAN
Tetraploid Intermediate Perennial Ryegrass



TRIWARWIC
Tetraploid Intermediate Perennial Ryegrass

TODDINGTON
Late Perennial Ryegrass

CANCAN
Late Perennial Ryegrass



THEGN
Tetraploid Late Perennial Ryegrass



NASHOTA
Tetraploid Late Perennial Ryegrass



COMER
Timothy

HF DUAL PURPOSE CLOVER BLEND
White Clover

Dual Purpose Mixture

Similar to HF Grassmaker but containing early Perennial Ryegrass for early bite

- Specifically formulated for early spring growth
- Designed for early sheep grazing, prior to first cut silage
- Offers great flexibility to beef and sheep farms
- High inclusion of White Clover, the same as HF Grassmaker

Recommended sowing rate:
13-15 kg/acre 32-35 kg/HA

HF Master Silage

3 to 5 year mixture

LOFA
Hybrid Ryegrass Plus™



TETRAGRAZE
Tetraploid Hybrid Ryegrass

BOYNE
Intermediate Perennial Ryegrass

DIWAN
Tetraploid Intermediate Perennial Ryegrass



SEAGOE
Tetraploid Intermediate Perennial Ryegrass

TIMING
Late Perennial Ryegrass

NASHOTA
Tetraploid Late Perennial Ryegrass



THEGN
Tetraploid Late Perennial Ryegrass



Intensive Cutting Mixture

Specifically designed for 3, 4 or even 5 cuts

- Formulated for high yields at first cut and subsequent cuts
- Designed for fast regrowth and quality, leafy silage
- Contains a substantial proportion of High FIBER ENERGY varieties
- High sugar grasses and no Timothy ensures top quality silage

Recommended sowing rate:
13-15 kg/acre 32-35 kg/HA



I am delighted with the quantity and high quality silage that we make from our HF Seeds mixtures.

Geoff Hewitt
Quothquan Biggar, Lanarkshire
Seed Supplied by Roadhead Farm Feeds.

The photo shows the Krone display team for Scotgrass 2019 working at Roadheads

Dual Purpose/Cutting Mixture

Cutward is a high performance mixture suitable for Cutting or Grazing

- Designed with later heading varieties for later areas
- Varieties selected for high cutting yield and quality
- Slightly higher inclusion of Timothy for colder and later areas
- Excellent winter hardiness and sward density

Recommended sowing rate:
14-15 kg/acre 32-35 kg/HA

HF Supersward

4 to 8 year mixture

NIFTY
Intermediate Perennial Ryegrass



BOYNE
Intermediate Perennial Ryegrass

DIWAN
Tetraploid Intermediate Perennial Ryegrass



TIMING
Late Perennial Ryegrass

TODDINGTON
Late Perennial Ryegrass

NASHOTA
Tetraploid Late Perennial Ryegrass



ASPECT
Tetraploid Late Perennial Ryegrass

HF CUTTING CLOVER BLEND
White Clover



HF Master Graze

4 to 8 year mixture

ELYRIA
Intermediate
Perennial Ryegrass



NIFTY
Intermediate
Perennial Ryegrass



DIWAN
Tetraploid
Intermediate
Perennial Ryegrass



TODDINGTON
Late Perennial Ryegrass

SMILE
Late Perennial Ryegrass



CANCAN
Late Perennial Ryegrass



NASHOTA
Tetraploid
Late Perennial Ryegrass



ASPECT
Tetraploid
Late Perennial Ryegrass

HF GRAZING CLOVER BLEND
White Clover

Intensive Grazing Mixture

The ultimate cattle grazing mixture

- High tillering varieties selected for a dense, leafy sward that cattle will graze out very bare
- Formulated to even out grass production for the whole grazing year
- Palatable, high sugar varieties with excellent sward density and with good levels of DNDF
- A high inclusion of HF Grazing White Clover blend and no Timothy leads to improved animal performance

Recommended sowing rate:
13-15 kg/acre 32-35 kg/HA



“

On returning home from New Zealand I was determined to get more kilograms of live weight gain from grassland. That's when I started using HF Seeds. Following discussions with Paddy Jack and Reg Thornthwaite it was decided on a medium to long term ley and supergraze was chosen because of high tillering, leafy sward with high sugars. Chicory was then added to the mix to improve protein for growth. This allowed me to rear hogs and shearlings all year round. I run 1700 ewes and followers and if the grass isn't right the stock doesn't do as well.

Alastair Mackintosh
Home Farm, Ravenglass,
Cumbria

Seed Supplied by Reg
Thornthwaite Agricultural
Supplies



HF Evergreen

8 year+ mixture

GENESIS
Early Perennial Ryegrass

ELYRIA
Intermediate
Perennial Ryegrass



NIFTY
Intermediate
Perennial Ryegrass



DIWAN
Tetraploid
Intermediate
Perennial Ryegrass



SEAGOE
Tetraploid
Intermediate Perennial Ryegrass

CANCAN
Late Perennial Ryegrass



TODDINGTON
Late Perennial Ryegrass

ASPECT
Tetraploid
Late Perennial Ryegrass

COMER
Timothy

MAXIMA
Creeping Red Fescue

HF DUAL PURPOSE CLOVER BLEND
White Clover

Permanent Mixture

The famous versatile long term mixture giving quality forage for many years

- A dual purpose mixture which has become synonymous with quality permanent grass
- Very persistent and winter hardy which contribute to its longevity
- Includes high levels of White Clover and Timothy
- Will produce plenty of early grass, even in harsher parts of England and Wales

Recommended sowing rate:
14-16 kg/acre 35-40 kg/HA

“

We like to sow our HF Mixtures with Westerwolds to get a good cut in the year of sowing. The following year the HF Grass thickens out and gives us an excellent persistent sward.

Ian McHattie
Newfield Farm, Elgin

Seed supplied by Scotgrain Agriculture



HF High Hill

8 year+ mixture

ELYRIA
Intermediate
Perennial Ryegrass



NIFTY
Intermediate
Perennial Ryegrass



GLENROYAL
Late Perennial Ryegrass

SMILE
Late Perennial
Ryegrass



ALFONSO
Tetraploid
Late Perennial Ryegrass

COMER
Timothy

MAXIMA
Creeping Red Fescue

HF GRAZING CLOVER BLEND
White Clover

Permanent Mixture

The long term grazing mixture

- Designed to survive in harsh upland areas and to produce high grazing yields
- Ingredients are selected for cold, snow tolerance and winter hardiness
- Contains a high inclusion of dense, leafy late Perennial Ryegrasses
- High content of both HF Grazing Clover blend and Timothy for lower input situations

Recommended sowing rate:
14-16 kg/acre 35-40 kg/HA



We run over 400 ewes and 30 suckler cows on this upland farm. Over the last 4 years we have re-seeded a lot more ground reducing our meal bill and pushing profits up I often undersow with a little Tyfon for that extra bite to fatten lambs.

Patrick Brolly
Foreglen Co, Derry

Permanent Mixture

A traditional mixture for more extensive or drought prone areas

- Contains Cocksfoot for early grass, winter survival and drought tolerance
- Formulated to provide season long production and outstanding persistency
- Can be closed off and cut for hay or silage
- Varieties and species selected for very good sward density

Recommended sowing rate:
14-16 kg/acre 35-40 kg/HA

HF Reliant

8 year+ mixture

GENESIS
Early Perennial Ryegrass

NIFTY
Intermediate
Perennial Ryegrass



DIWAN
Tetraploid
Intermediate
Perennial Ryegrass



SMILE
Late Perennial
Ryegrass



ALFONSO
Tetraploid
Late Perennial Ryegrass

COMER
Timothy

DONATA
Cocksfoot

MAXIMA
Creeping Red Fescue

HF GRAZING CLOVER BLEND
White Clover

HF Haymaker

4 to 8 year mixture

NIFTY
Intermediate
Perennial Ryegrass



ELYRIA
Intermediate
Perennial Ryegrass



BOYNE
Intermediate Perennial Ryegrass

TODDINGTON
Late Perennial Ryegrass

TIMING
Late Perennial Ryegrass

COMER
Timothy

DOLINA
Timothy

LAURA
Meadow Fescue

HF DUAL PURPOSE CLOVER BLEND
White Clover

Hay Making Mixture

A modern mixture for traditional Haymaking

- A mixture of species used specifically in hay making
- Big yields of easily won hay (no Tetraploid Ryegrasses)
- Very high Timothy inclusion
- Good winter hardiness ensures consistent bulk for many years

Recommended sowing rate:
13-15 kg/acre 32-37 kg/HA



HF Horse Paddock

4 to 8 year mixture

PREMIUM
Intermediate Perennial Ryegrass

TODDINGTON
Late Perennial Ryegrass

MAXIMA
Creeping Red Fescue

COMER
Timothy

Equine Use Mixture

A hard wearing, persistent sward designed for horses

- Ryegrasses selected for top sward density ratings
- Formulated with attractive but low sugar forage to avoid laminitis
- Creeping Red Fescue binds the sward and helps repair poaching
- High Timothy content for grazing horses and to boost haymaking if required

Recommended sowing rate:
15 kg/acre 37 kg/HA

15 kg Pack



HF Dryland

3 to 5 year mixture

FOJTAN
Tall
Fescue Plus™
Festulolium by DLF

LOFA
Hybrid
Ryegrass Plus™
Festulolium by DLF

PERSEUS
Italian
Ryegrass Plus™
Festulolium by DLF

DIWAN
Tetraploid
Intermediate
Perennial Ryegrass
DLF FIBER ENERGY

ASPECT
Tetraploid
Late Perennial Ryegrass

DONATA
Cocksfoot

Drought Prone Areas Mixture

A specialist mixture for sandy/light soils

- All species are very deep rooting
- Will produce a large bulk of forage, even in drought prone soil
- Excellent disease resistance particularly crown rust which can be a big problem in hot, dry conditions
- Suitable for cutting or grazing

Recommended sowing rate:
15 kg/acre 37 kg/HA



HF CC

Over winter/early spring mixture

MERIBEL
Italian Ryegrass

EMERALD
Forage Rape

GREEN GLOBE
White Turnip

Sheep Grazing Mixture

Designed to produce autumn and spring grazing

- Green Globe is a white fleshed, green skinned turnip providing good winter forage
- Do not leave it to grow too tall or the Italian Ryegrass will suffer

Recommended sowing rate:
9 kg/acre 22 kg/HA

HF CD

Over winter/early spring mixture

MERIBEL
Italian Ryegrass

EMERALD
Forage Rape

Sheep Grazing Mixture

Similar to HF CC, without the white turnips

- Great early spring growth from the Italian Ryegrass
- Graze early to avoid damaging the Italian Ryegrass

Recommended sowing rate:
9 kg/acre 22 kg/HA



HF Multipurpose Landscaper

Long term mixture

TIMING
Late Perennial Ryegrass

MAXIMA
Creeping Red Fescue

Landscaping Mixture

Ideal for riverbanks, verges, fruit farms and orchards

- Extreme sward density and good wear tolerance
- Designed to be low maintenance
- Much lower sowing rate than an amenity type mixture
- Has an attractive appearance with a good dark green colour

Recommended sowing rate:
25 kg/acre 65 kg/HA



Having used HF mixes for 4 years now we find it gives us the perfect dual purpose mix, providing excellent silage yield at both 1st and 2nd cut whilst also performing well for grazing both mid and late season. It is the ideal mix for us laying down for 4-5 years within our arable rotation to then be utilised fully.

Iain Wilson
Tulloch Farms, Laurencekirk

Seed Supplied by Frontier Agriculture



HF Rapid Root

Forage Rape

Stubble Turnips

Kale

- Best for pre-Christmas use
- Can produce some regrowth if stems left intact
- Very quick to bulk up

Recommended sowing rate:
2.5 kg/acre 6 kg/HA

HF Winter Graze

Forage Rape

Stubble Turnips

Kale

- Sow this mix for post-Christmas use
- Very palatable and proven over many decades
- Can be sown after 2nd cut silage or after winter barley

Recommended sowing rate:
2.5 kg/acre 6 kg/HA



HF Gromore

3 to 4 year mixture

TONIC
Plantain – Ribgrass

HF RED CLOVER BLEND
Red Clover

HF GRAZING CLOVER BLEND
White Clover

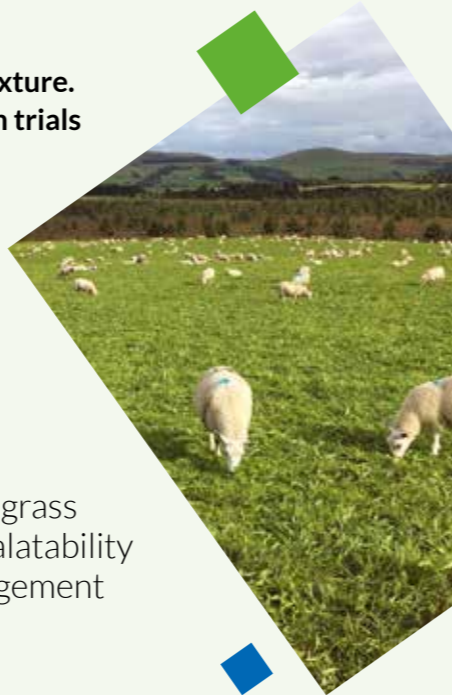
ASPECT
Tetraploid
Late Perennial Ryegrass

Rotational Grazing Mixture

HF Seeds most successful simple herbal mixture.
3 years of outstanding performance in farm trials

- Highly palatable and nutritious as long as it is well managed
- Tolerant of poorer soils, with slightly lower pH status and very drought resistant
- The clovers have been selected to withstand hard rotational grazing
- Aspect is a late, dense tetraploid ryegrass which is known for its exceptional palatability and ease of rotational grazing management

▶ **Recommended sowing rate:**
8 kg/acre 20 kg/HA



HF Rapid Gain

3 to 4 year mixture

CHOICE
Perennial Chicory

TONIC
Plantain – Ribgrass

HF RED CLOVER BLEND
Red Clover

HF GRAZING CLOVER BLEND
White Clover

ASPECT
Tetraploid
Late Perennial Ryegrass

Rotational Grazing Mixture

One of the newer mixtures from HF for sheep and cattle,
containing both perennial chicory and plantain

- Very high protein, energy and mineral content for big live weight gains
- Drought tolerant and shown to reduce worm burden in lambs
- Rotationally graze and best suited to lighter soils with a good pH
- Clovers help livestock performance and reduce nitrogen requirements

▶ **Recommended sowing rate:**
8 kg/acre 20 kg/HA



HF GrassMax™

DUAL PURPOSE

For cutting and grazing fields

DIWAN	Intermediate Perennial Ryegrass (T)
ASPECT	Late Perennial Ryegrass (T)
ALFONSO	Late Perennial Ryegrass (T)
HF DUAL PURPOSE CLOVER BLEND	White Clover

- The top selling overseeding mixture for cutting and grazing fields
 - Ryegrass varieties are selected for performance under both cutting and grazing
 - Very good resistance to all the main grass diseases
- ▶ **Recommended sowing rate:**
10 kg/acre 25 kg/HA

HF GrassMax™ ProNitro®

READY TO GROW

ASPECT	Late Perennial Ryegrass (T)
SOLAS	Late Perennial Ryegrass (T)
IONA	Medium Leaf White Clover

- Designed for overseeding fields where the existing sward remains competitive
 - Each seed is coated with ProNitro, a nitrogenous fertiliser with both fast and slow release
 - Increases successful seedling establishment by up to 30%
- ▶ **Recommended sowing rate:**
10 kg/acre 25 kg/HA



HF GrassMax™

CUT

For cutting fields

ASTONCRUSADER	Tetraploid Hybrid Ryegrass
DIWAN	Intermediate Perennial Ryegrass (T)
ALFONSO	Late Perennial Ryegrass (T)
HF CUTTING CLOVER BLEND	White Clover

- Ryegrass content is 100% large tetraploid seeds which establish aggressively and boost sugar content
 - Designed to improve silage yields in tired or open swards, sow after the last cut of the season
 - Is also available in a Red Clover option, with 30% inclusion (HF GRASSMAX RED)
- ▶ **Recommended sowing rate:**
10 kg/acre 25 kg/HA

HF GrassMax™

GRAZE

For grazing fields

ASPECT	Late Perennial Ryegrass (T)
SOLAS	Late Perennial Ryegrass (T)
KINTYRE	Late Perennial Ryegrass (T)
HF GRAZING CLOVER BLEND	White Clover

- All 3 varieties selected for grazing yield and low grass residuals as trialled in Ireland
 - Exceptionally palatable varieties, leading to easy paddock management
 - Can be drilled at any time during the grazing season
- ▶ **Recommended sowing rate:**
10 kg/acre 25 kg/HA

HF GrassMax mixtures are also available WITHOUT CLOVER

Iain MacKenzie
Sowing HF GrassMax into tired fields in Sutherland
Seed supplied by W & A Geddes, Brora
Photo by Kirsty MacKenzie



HF High Clover SHORT TERM

2 to 3 year mixture

ASTONCRUSADER
Tetraploid Hybrid Ryegrass

SOLID
Tetraploid Hybrid Ryegrass

LOFA
Hybrid Ryegrass Plus™
Festulolium by DLF

PERSEUS
Italian Ryegrass Plus™
Festulolium by DLF

SEAGOE
Tetraploid Intermediate Perennial Ryegrass

DIWAN
Tetraploid Intermediate Perennial Ryegrass
DLF FIBER ENERGY

HF RED CLOVER BLEND
Red Clover

Mostly Cutting Mixture

A High Performance Red Clover Mixture

- Red Clover is included at the optimum 25% rate to produce lots of high protein silage
- Contains aggressive, fast growing species that can compete with the Red Clover
- High sugar varieties included to give good fermentation
- Can give up to 3 cuts per year and can last for 3 full years

Recommended sowing rate:
12-14 kg/acre 30-35 kg/HA



All the HF High Clover Mixtures are available as Organic Mixtures
Organic seed inclusion at 50% for 2020

HF High Clover GRAZE

5 year+ mixture

ELYRIA
Intermediate Perennial Ryegrass
DLF FIBER ENERGY

NIFTY
Intermediate Perennial Ryegrass
DLF FIBER ENERGY

EVOCATIVE
Late Perennial Ryegrass

GLENROYAL
Late Perennial Ryegrass

SMILE
Late Perennial Ryegrass
DLF FIBER ENERGY

ASPECT
Tetraploid Late Perennial Ryegrass

THEGN
Tetraploid Late Perennial Ryegrass
DLF FIBER ENERGY

HF GRAZING CLOVER BLEND
White Clover

Mostly Grazing Mixture

Leafy, dense swards

- Varieties are selected for their grazing performance
- Contains mostly late Perennial Ryegrass that can withstand heavy grazing
- High FIBER ENERGY varieties leading to excellent animal performance
- The small and medium leaf clovers are selected for their persistency under grazing

Recommended sowing rate:
14-15 kg/acre 35-37 kg/HA

HF High Clover DUAL PURPOSE

4 to 8 year mixture

ELYRIA
Intermediate Perennial Ryegrass
DLF FIBER ENERGY

DIWAN
Tetraploid Intermediate Perennial Ryegrass
DLF FIBER ENERGY

EVOCATIVE
Late Perennial Ryegrass

SMILE
Late Perennial Ryegrass
DLF FIBER ENERGY

NASHOTA
Tetraploid Late Perennial Ryegrass
DLF FIBER ENERGY



THEGN
Tetraploid Late Perennial Ryegrass
DLF FIBER ENERGY

COMER
Timothy

HF RED CLOVER BLEND
Red Clover

HF DUAL PURPOSE CLOVER BLEND
White Clover

Dual Purpose Mixture

A very flexible mixture

- Contains high FIBER ENERGY varieties with excellent forage quality
- High percentage of tetraploids to help fermentation and aid the growth of clovers
- Small Red Clover inclusion to help with nitrogen fixation in the early years
- A high proportion of HF Dual Purpose Clover is included for increased production

Recommended sowing rate:
14-15 kg/acre 35-37 kg/HA

HF Alfalfa

Varieties that are suitable for sowing in northern UK climates

FADO

SALSA

DAISY

POWER 2.4

Mostly Cutting Crop

HF Alfalfa is a leguminous crop which suits light or medium soils

- Increased self-sufficiency with 18 – 20% protein
- Higher feed intakes and improved digestibility
- Fixes nitrogen for companion and subsequent crops
- Has a very long, deep tap root which makes Alfalfa drought tolerant and improves soil structure a lot

Recommended sowing rate:
10 kg/acre 25 kg/HA



HIF Grass Varieties

Variety	Species	Description	SAC	NIAB	
PERENNIAL RYE GRASSES					
Genesis	Early	Good dual purpose variety with excellent early growth.	1	✓	
Boyne	Intermediate	Very high yielding variety with very dense characteristics	1	✓	
Elyria	Intermediate	Exceptionally dense variety with excellent yields and quality	1	✓	
Nifty	Intermediate	Excellent ground cover combined with exceptional grazing yields & quality	1	✓	
Premium	Intermediate	Good mid season growth, a dual purpose variety	1		
Diwan	Intermediate (T)	Good all round variety offering good yields and high DNDF	1	✓	
Triwarwic	Intermediate (T)	Good grazing yields with exceptional crown rust resistance	2	✓	
Seagoe	Intermediate (T)	Good early & late season growth from this top performing variety	1	✓	
Astonchieftain	Late	Excellent grazing from this very late, dense leafy variety	1		
Evocative	Late	Superb late diploid scoring exceptionally well for yields and D Value	1		
Glenroyal	Late	Good mid and late season growth, with a very dense sward rating	1		
Smile	Late	High quality variety with excellent yields and autumn performance	1	✓	
Timing	Late	Good early summer growth with excellent crown rust resistance	2	✓	
Toddington	Late	Good dual purpose forage variety with good disease resistance & density	1	✓	
Alfonso	Late (T)	Exceptionally dense Tetraploid with good early and late growth	1	✓	
Aspect	Late (T)	Dense, winter hardy and exceptionally palatable	1	✓	
Kintyre	Late (T)	Excellent cutting yields & outstanding aftermath grazing	1	✓	
Nashota	Late (T)	Good density for a Tetraploid with high quality and yields	1	✓	
Thegn	Late (T)	Exceptional grazing yields and quality with excellent ground cover	1	✓	

Variety	Species	Description	SAC	NIAB
TIMOTHY				
Comer	Timothy	Excellent groundcover with top yields in both first and second cuts	1	✓
Dolina	Timothy	Winter hardy with good early & late season growth	1	✓
WHITE CLOVER				
Brianna	White Clover Large	New and extremely large white clover which has excellent scores in all categories	1	✓
Violin	White Clover M/L	Highest yielding clover on the recommended list, outstanding variety	1	✓
Dublin	White Clover M/L	Sister variety to Violin, it has exceptional yields under all managements	1	✓
Iona	White Clover Medium	Excellent growth throughout the season, rated AA for ground cover	1	✓
Buddy	White Clover Medium	Another top rated medium leaved clover from DLF, excellent early growth	1	✓
Rivendel	White Clover Small	A useful small leaved clover that is tried and tested scoring well in all categories	1	
RED CLOVER				
Amos	Red Clover (T)	Particularly high yielding at 1st cut and in year 1 and 2	1	✓
Magellan	Red Clover (T)	Highest yielding variety on the SAC list. Outstanding 3rd year production	1	✓
Sangria	Red Clover	A good strong French Red Clover that measures up well against others	N/A	N/A
ITALIAN RYEGRASS				
Fox	Italian	Consistent yields for 2 full production years with good crown rust resistance.	1	✓
Meribel	Italian	High yielding IRG that has the best D-Value rating of all diploids in its class	1	✓
Hunter	Italian (T)	An excellent tetraploid Italian Ryegrass that has good 1 st year growth	2	✓
HYBRID RYEGRASS				
Astoncrusader	Hybrid (T)	High yielding and dense in the first year of sowing and first cut, also very dense	1	
Solid	Hybrid (T)	High yielding dense hybrid with good winter hardiness	2	✓
FESTULOLIUM				
Lofa	Hybrid Festulolium	Excellent stress tolerance with fantastic early growth	N/A	N/A
Fojtan	Tall Fescue Festulolium	High yielding, winter hardy & persistent. No stems in regrowth	N/A	N/A
Perun	Italian Festulolium	Better persistence than a traditional Italian with high quality forage	N/A	N/A
Perseus	Italian Festulolium	Huge production of leafy growth from this late heading Festulolium	N/A	N/A



Fodder Beet

High yielding and palatable. High dry matter varieties sit lower into the ground, are more frost tolerant but often have a higher dirt tare. Medium dry matter varieties sit out of the ground more, are easier to harvest and may be grazed. Good weed control is essential when establishing fodder beets.

Variety	Colour	Comments
Alpes	Yellow	Easy lifting variety, very clean, popular
Bangor	Yellow	High yielding above the ground and excellent for grazing in situ
Monro	Red	Low DM, high yielding variety for grazing in situ
Jamon	Orange	Very palatable. Can be grazed in situ
Enermax	White	A dual purpose variety, very high yields, clean
Magnum	White	A well-known reliable variety. High DM, low growing

Forage Rape and Hybrids

This fast growing crop can be utilised by cattle and sheep and has a wide period of utilisation (mid summer and autumn). Highly digestible energy crop which is very palatable and is relatively simple to establish.

Variety	Type	Comments
Emerald	Forage rape	Very popular, fast establishing and palatable. Good disease resistance. Proven over many years in all areas
Spitfire	Rape x kale cross	High DM yields of palatable leafy growth. Stems have a low DM so are often grazed. Has good regrowth potential
Zoom (Composite)	Hybrid brassica and rape	A mixture of Winfred hybrid brassica and forage rape which is exceptionally quick to establish and has excellent leaf to stem ratio

“

This is a very fertile little field and although it doesn't look like it, it has had no fertiliser or muck. I was sure I had completely lost it to flea beetle and a cold spell in late spring, however I can hardly believe how it has been able to recover into such an outstanding crop. Zoom is a very appropriate name for the growth I've seen this year.

Alyn Bridgeford
Ellon, Aberdeenshire

Seed Supplied by
Scotgrain Agriculture



Kale

The highest yielding leafy brassica. Grazed by sheep and cattle and occasionally ensiled. Good frost tolerance, but MUST be looked after with good fertility, weed and pest control.

Variety	Height	Use	Comments
Corsa NEW	Intermediate/Tall	Cattle & sheep	NZ bred with excellent winter hardiness and a high leaf to stem ratio (8% above Caledonian) Stem has high digestibility
Goldeneye	Very tall	Game cover	Strong stem and leafy top, club root tolerant
Gruner Angeliter	Very tall	Cattle	Winter hardy and very high yielding
Maris Kestrel	Medium short	Sheep	Popular leafy sheep grazing variety
Sovereign	Medium tall	Cattle & sheep	High leaf to stem ratio, winter hardy and club root tolerant. Our best selling kale

Stubble Turnips

Stubble turnips are a fast growing catch crop that are ready to start grazing from 10 to 12 weeks after sowing. Bulbing types are more winter hardy than leafy types, which have better root systems.

Variety	Type	Comments
Barkant	Bulb	Very popular high yielding variety with some winter hardiness. Roots are slightly smaller, but highly digestible
Rondo	Bulb	Small green bulb with excellent winter hardiness. Best variety for late use
Samson	Bulb	A good size and shape to this large bulb. Popular variety.
Vollenda	Bulb	Large leaves on this fast establishing tetraploid variety. Good bulb size and palatability
Avalon	Leafy	A new variety. Very leafy and covers the ground quickly
Tyfon	Leafy	It is a cross between a Chinese cabbage and a stubble turnip. Fast growing with reasonable potential for regrowth
Green Globe	Maincrop	Very high fresh yields from large, well anchored and palatable roots. Can be utilised to the end of January

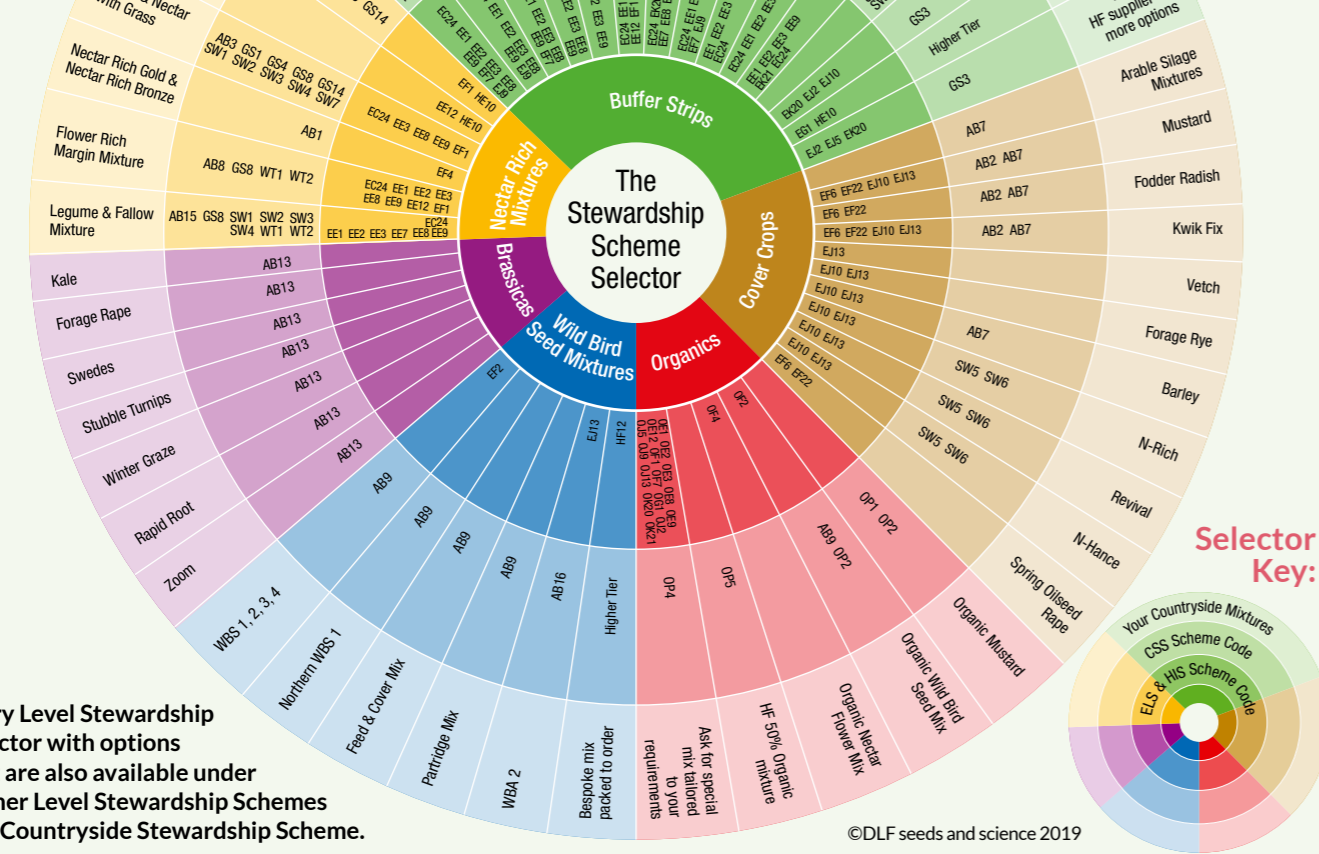
Swedes

Swedes are a full season crop that will last until the end of March or early April. They may be grazed in situ or lifted for stock feed or culinary use. They perform well in England producing 70 to 80 tonnes of fresh weight per hectare of high ME feed (12.8 to 13.1 MJ/kg DM).

Variety	Skin Colour	Flesh Colour	Dry Matter	Comments
Airlie	Light Purple	Creamy white	Low/Medium	Good disease resistance and very uniform
Gowrie	Purple	Yellow	Medium	Uniform, high yielding and has some club root tolerance and good mildew
Invitation	Purple/Bronze	Yellow	Very high	Very high yielding and winter hardy. Excellent resistance to club root and mildew
Kenmore	Bronze/Green	White	Medium	Good winter hardiness giving a wide window of utilisation. Big fresh yields
Lomond	Purple	Yellow	Medium/High	Good club root and mildew resistance
Marian	Purple	Yellow	Medium	A good culinary variety
Ruta Otofte	Dark Purple	Cream	Medium/High	Very popular variety with sheep farmers. Good winter hardiness

DISCLAIMER:
Any information provided in this table is given in good faith and to the best of our knowledge. If you would like further advice please contact your local Natural England Advisor.

Environmental Stewardship Scheme Selector



Entry Level Stewardship selector with options that are also available under Higher Level Stewardship Schemes and Countryside Stewardship Scheme.

Countryside Stewardship Scheme Description			
CSS Higher Tier	CSS Mid Tier	CSS Code	CSS Option Title
Arable			
✓	✓	AB1	Nectar flower mixture
✓	✓	AB2	Basic overwinter stubble
✓	✓	AB3	Beetle banks
✓	✓	AB7	Wholecrop cereals
✓	✓	AB8	Flower-rich margins & plots
✓	✓	AB9	Winter bird food
✓	✓	AB13	Brassica fodder crop
✓	✓	AB15	Two year sown legume fallow
✓	✓	AB16	Autumn sown bumblebird mix
Grassland			
✓	✓	GS1	Take field corners out of field management
✓	✓	GS3	Ryegrass seed-set as winter food for birds
✓	✓	GS4	Legume and herb-rich swards
✓	✓	GS8	Creation of species-rich grassland
✓	✓	GS14	Creation of grassland for target features
Organic			
✓	✓	OP1	Overwintered stubble
✓	✓	OP2	Wild bird seed mixture
✓	✓	OP4	Multi-species ley
✓	✓	OP5	Undersown cereal
Soil and Water			
✓	✓	SW1	4-6m buffer strip on cultivated land
✓	✓	SW2	4-6m buffer strip on intensive grassland
✓	✓	SW3	In-field grass strips
✓	✓	SW4	12-24m watercourse buffer strip on cultivated land
✓	✓	SW5	Enhanced management of maize crops
✓	✓	SW6	Winter cover crops
✓	✓	SW7	Arable reversion to grassland with low fertiliser input
✓	✓	SW8	Management of intensive grassland adjacent to a watercourse
Wetlands			
✓	✓	WT1	Buffering in-field ponds and ditches in improved grassland
✓	✓	WT2	Buffering in-field ponds and ditches in arable land

ELS & HLS Description			
ELS Code	HLS Code	OELS Code*	ELS & HLS Description
Options for trees and woodland			
EC24			Hedgerow tree buffer strips on cultivated land
Options for buffer strips			
EE1		OE1	2m Buffer strips on cultivated land
EE2		OE2	4m Buffer strips on cultivated land
EE3		OE3	6m Buffer strips on cultivated land
EE8		OE8	Buffering in-field ponds in arable land
EE9		OE9	6m buffer strips on intensive grassland next to a watercourse
EE12	HE10	OE12	Floristically enhanced grass buffer strips (non-rotational)
			Supplement to add wildflowers to field corners & buffer strips
Options for arable land			
EF1		OF1	Management of field corners
EF2		OF2	Wild bird seed mixture
EF4		OF4	Nectar flower mixture
EF6		OF6	Overwintered stubble
EF7		OF7	Beetle banks
EF22	HF12		Enhanced wild birdseed mix plots (rotational or non-rotational)
			Extended overwintered stubble
Options to encourage a range of crop types			
EG1		OG1	Under sown spring cereals
Options to protect soil and water			
EJ2		OJ2	Management of maize crops to reduce soil erosion
EJ5		OJ5	In-field grass areas to prevent erosion and run-off
EJ9		OJ9	12m buffer strips for watercourses on cultivated land.
EJ10			Enhanced mgmt. of maize crops to reduce soil erosion & run off
EJ13		OJ13	Winter cover crops
Options for grassland outside the severely disadvantaged areas (SDAs)			
EK20		OK20	Ryegrass seed-set as winter/spring food for birds
EK21		OK21	Legume and herb-rich swards

* Use only organic seed mixes on OELS-eligible land. Where this is not possible, you must contact your Organic Inspection body for a derogation.

Nectar Flower Mixtures (AB1)

- Nectar Rich Gold**
 40% Sainfoin
 18% Winter Vetch
 10% Alsike Clover
 10% Red Clover
 10% Birdsfoot Trefoil
 10% Lucerne (inoculated)
 1.5% Musk Mallow
 0.5% Yarrow
-
- 100%**
 Sowing rate 10 - 15kg/ha
 Pack size 12kg

- Nectar Rich Bronze**
 50% Sainfoin
 20% Winter Vetch
 10% Red Clover
 8% Birdsfoot Trefoil
 5% Alsike Clover
 4% Crimson Clover
 3% Lucerne (inoculated)
-
- 100%**
 Sowing rate 10 - 15kg/ha
 Pack size 12kg

Flower Rich Margins (AB8)

- BGM 4 with Wildflowers & Fine Grasses**
 25% Chewings Fescue
 20% Hard Fescue
 15% Slender Red Fescue
 15% Creeping Red Fescue
 5% Sainfoin
 4% SSMG
 4% Crested Dogstail
 3.5% Winter Vetch
 2.25% Red Clover
 2% Browntop Bent
 1% Birdsfoot Trefoil
 1% Black Medick
 0.5% Alsike Clover
 0.4% Yarrow
 0.4% Oxeye Daisy
 0.4% Wild Carrot
 0.3% Red Champion (N)
 0.25% Ribwort Plantain
-
- 100%**
SIMPLE MIX
 Sowing rate 16 - 20kg/ha
 Pack size 20kg

- Flower Rich Margin Mixture**
 25% Slender Red Fescue
 15% Hard Fescue
 12% Chewings Fescue
 10% SSMG
 10% Crested Dogstail
 5% Smaller Cats Tail
 3% Browntop Bent
 3% Sainfoin
 3% Winter Vetch
 2.5% Birdsfoot Trefoil
 2.5% Black Medick
 2% Red Clover
 1.25% Oxeye Daisy
 1.20% Wild Carrot
 1.20% Yarrow
 1% Red Champion (N)
 1% Ribwort Plantain
 0.5% Musk Mallow
 0.5% Self Heal (N)
 0.25% Yellow Rattle (N)
 0.1% Salad Burnet (N)
-
- 100%**
QUALITY MIX
 Sowing rate 16 - 20kg/ha
 Pack size 10kg & 20kg

Legume & Herb Rich Mixture (GS4)

- 25% Late Perennial Ryegrass (D)
 20% Meadow Fescue
 15% Timothy
 10% SSMG
 10% Creeping Red Fescue
 10% Red Clover
 5.6% Sainfoin
 1.43% Lucerne (inoculated)
 1% Birdsfoot Trefoil
 1% Sheeps Burnet
 0.5% Ribwort Plantain
 0.25% Yarrow
 0.2% Sheeps Parsley
 0.02% Oxeye Daisy
-
- 100%**
 Sowing rate 32 - 37kg/ha
 Pack size 20kg

Winter Bird Feed (AB9)

- WBS 1**
1 Year Spring Sown
Attracts Tree Sparrows
 50% Spring Triticale
 40% Spring Barley
 5% White Millet
 3% Fodder Radish
 2% Red Millet
-
- 100%**
 Sowing rate 40kg/ha
 Pack size 20kg

- WBS 2**
1 - 2 Year Spring Sown
Attracts Grey Partridge
 45% Spring Triticale
 20% Spring Barley
 15% Spring Wheat
 7% Kale
 4% Fodder Radish
 4% White Millet
 3% Quinoa
 2% Red Millet
-
- 100%**
 Sowing rate 40kg/ha
 Pack size 20kg

There are many other options and mixtures for Stewardship in England and Wales.

For further advice in the specialist area of game cover, environmental stewardship and fodder crops or to request an HF Countryside brochure Please contact your HF distributor or phone HF Seeds direct on 01506 674800





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