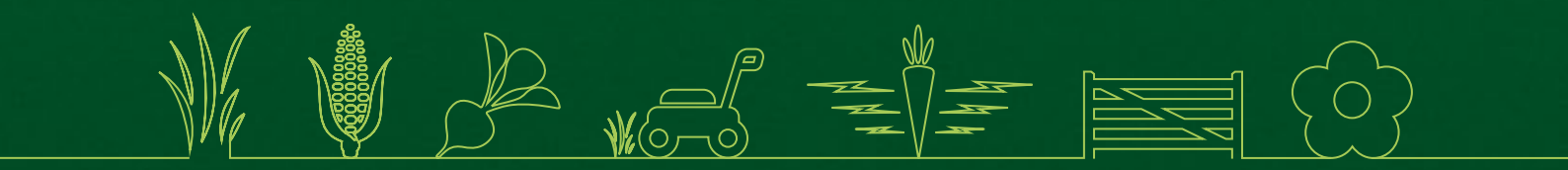
Green Farm Seeds

SEED 2023 CATALOGUE

- GRASS
- MAIZE
- ROOTS
- AMENITY & SPORT
- CATCH & COVER CROPS
- GAME COVER & STEWARDSHIP
- WILDFLOWERS



SUSTAINABILITY & PRODUCTIVITY

www.greenfarmseeds.com

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Green Farm Seeds
PROVEN
RELIABLE
BEST VALUE
GRASS SEED

GRASS SEED 2023

Green Farm Seeds

WESTERWOLDS

(1 year cutting)

NEW

100% Westerwolds
Suxyl (Diploid)
Pack Size: 25kg

Heading date depending on sowing date

Sowing Rate (Kg/Acre) **12.5 to 15**

Overseeding Rate (Kg/Acre) **10**

Bred by RAGT SEMENCES

Benefits

- The highest yielding Ryegrass for silage production
- A rapidly establishing annual catch crop species with a short growing period
- Usually Spring sown due to limited Winter hardiness
- Very responsive to fertility
- Suxyl is very late heading, maintaining forage quality
- Frequent cutting required to maintain forage quality
- Suitable for routine or emergency catch cropping
- Could head 10 weeks after Spring sowing
- **Suitable for biogas production**

PREMIER ITALIAN RYEGRASS BLEND

(1-2 year cutting)

30% Sendero Italian Ryegrass **NEW**
30% Syntilla Italian Ryegrass
40% Arman Italian Ryegrass (T) **NEW**
Pack Size: 25kg

Heading date 18th May

Sowing Rate (Kg/Acre) **12.5 to 15**

Overseeding Rate (Kg/Acre) **10**

Best Seller

Benefits

- Economically priced, high yielding Italian Ryegrass mixture
- **Uses only fully listed and trialed UK varieties**
- Higher % of diploid species increases plant population and sward density
- A very vigorous mixture, providing rapid establishment
- Sendero and Arman newly listed with superior feed quality yields and disease resistance
- Suited to late sowings after Maize or Cereals
- Ideal for utilising residual soil nutrients
- Italian Ryegrasses offer long growing seasons for cutting, do not over graze them
- Very responsive to nitrogen fertiliser
- **Suitable for biogas production**

Economy version also available.

MEGAYIELD

(1 year Cutting)

Sowing Rate (Kg/Acre) **12.5 to 15**

1 Year Multicut

50 % Suxyl Westerwolds
50 % Arman Italian Ryegrass (T) **NEW**
Pack Size: 25kg

DSV

Benefits

- Mega yields of grass forage, quickly
- Well suited to Multicut systems
- Very vigorous to establish, ultra-high yielding cutting mixture
- Ideal for Spring sowing with maximum summer yields, Westerwolds will flower in year of sowing
- Responds well to high fertility and existing soil nutrients
- Higher nutritional value forage than 100 % Westerwolds
- If used as a catch crop will improve soil structure and organic matter content
- **Suitable for biogas production**

PIT FILLER

(2 year cutting)

4.0kg	Kireal	Hybrid Ryegrass (T)
3.0kg	Syntilla	Italian Ryegrass
4.0kg	RGT Cordial	Hybrid Ryegrass (T) **NEW**
3.0kg	Sendero	Italian Ryegrass **NEW**

Pack Size: 14kg

Heading date 20th May

Sowing Rate (Kg/Acre) 14

Overseeding Rate (Kg/Acre) 10

Improved Formula

Benefits

- Inclusion of hybrids ensures full 2 year production
- Premium quality short term cutting mixture based on yield and digestibility
- Varieties used ensure maximum digestibility from silage
- Close heading dates allow easy prediction of cutting
- Superb mixture for continuous cutting, will reach 70 D in 4-5 weeks after defoliation
- Extremely good disease resistance and winter hardiness
- Vigorous to establish varieties allow early or late sowings
- **Available with RED CLOVER**

TOP CUT

(3-4 year cutting & grazing)

3.0kg	Fedoro	Festulolium Hybrid (T) **NEW**
2.0kg	Kireal	Hybrid Ryegrass (T)
3.0kg	RGT Cordial	Hybrid Ryegrass (T) **NEW**
3.0kg	Seago	Intermediate Ryegrass
3.0kg	Glenariff	Intermediate Ryegrass

Pack Size: 14kg

Heading date 21st May

Sowing Rate (Kg/Acre) 14

Overseeding Rate (Kg/Acre) 10

Improved Formula

Benefits

- Festulolium Hybrid included in mix for persistency of yield and plant resilience
- Top Cut uses the highest yielding Ryegrasses under conservation management
- A cutting ley with the advantage of supplying very good grazing
- Top Cut produces high yields with excellent recovery from cutting
- Excellent D-values ensure Top Cut provides the highest possible quality silage
- No clover ensures ease of management
- Top Cut is highly digestable with excellent full season growth
- **Suitable for biogas production**

Economy version also available.

TOP CUT & RED CLOVER

(3-4 year cutting)

2.25kg	Fedoro	Festulolium Hybrid (T) **NEW**
2.35kg	Kireal	Hybrid Ryegrass (T)
2.20kg	Seago	Intermediate Ryegrass
2.20kg	Glenariff	Intermediate Ryegrass
3.00kg	Red Clover	GFS Blend (50% Atlantis & 50% Trevio) **NEW**

Pack Size: 12kg

Heading date 21st May

Sowing Rate (Kg/Acre) 12

Nitrogen N Fixer

Benefits

- A highly productive and persistent 3-4 year Red Clover and grass ley
- Can provide 3 cuts per year of high protein forage
- Red Clover can fix up to 150 kg N ha (120 units per acre) annually
- A valuable 3 - 4 year break crop fixing Nitrogen
- Red Clover tap root improves soil structure
- Red Clover can increase the crude protein content of the silage to approx 20%

GFS MULTICUT

(THE ULTIMATE Long Term Cutting)

3.50kg	AberZeus	PRG Intermediate Dip
3.50kg	AberGreen	PRG Intermediate Dip
3.00kg	AberClyde	PRG Intermediate Tet
3.00kg	AberGain	PRG Late Tet

Pack Size: 13kg

Average heading date 29th May

Sowing Rate (Kg/Acre) **13**

Overseeding Rate (Kg/Acre) **10**

100% Aber MIXTURE

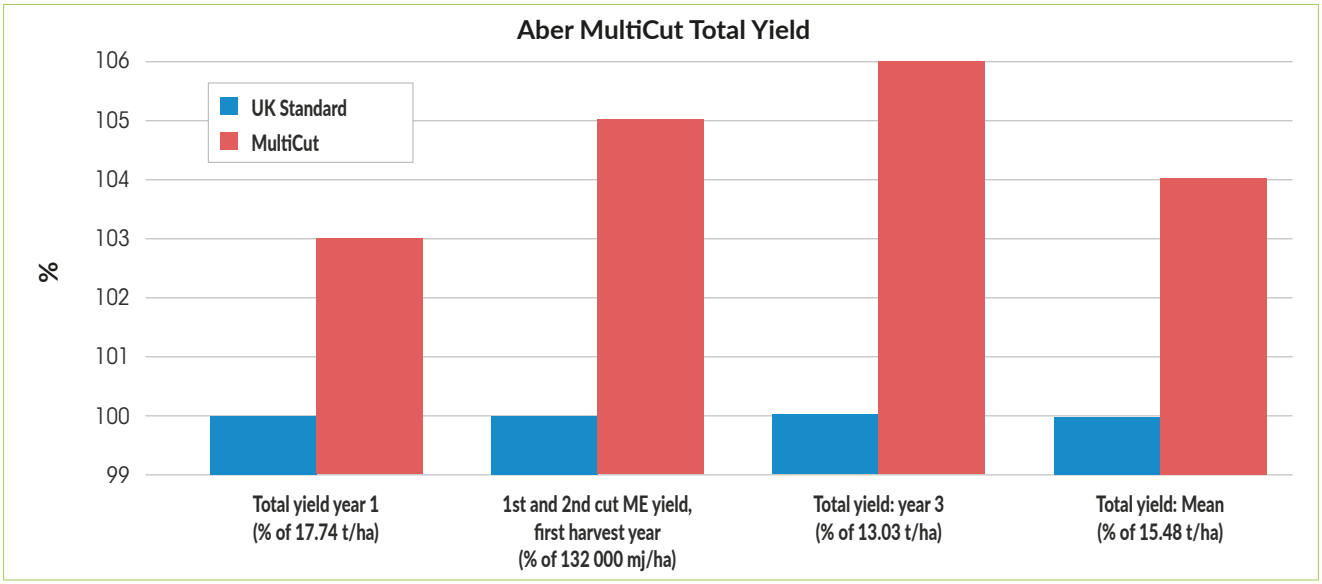
GFS MULTICUT non Aber version also available.

Benefits

- The mixture contains Aber High Sugar Grass varieties that provide abundant early season growth and maintain quality and yield throughout the season
- Aber High Sugar Grasses enhances silage fermatation and forage quality
- Leafy long term cutting ley with consistently high D values
- Very persistent, lasting 4 years plus
- High energy silage or zero grazing cuts all season long
- Multicut will not go stemmy and lose forage quality mid to late season
- Excellent ground cover for improved production, prevents weed ingress and will carry machinery
- Improved sward density helps with soil protection
- The highest possible energy yielding mixture under a cutting regime (MJ/ha)
- AberGain in the highest conservation yielding tetraploid 108% with the highest ME of 111%

MultiCut extras over standard UK recommended grass

530kg Dry Matter in year one. 5,300 MJ of ME/ha in 1st, 2nd cuts
(Worth 1,000 litres of milk per year)



Red Clover option available (2kg Red Clover & 11kg of grasses)

- Improving tolerances to stem nematode and sclerotinia
- Increase the protein content of the sward
- Improves soil structure
- Convert atmospheric Nitrogen in to a plant usable form
- **Leave a longer period between cutting to ensure clovers fulfil their full potential (6 weeks)**

Nitrogen N Fixer

Red Clover is low in dry matter and water soluble carbohydrates. Therefore for effective fermentation, the crop will need to be wilted and or an effective additive applied.

MAGNIVA PLATINUM GRASS

Green Farm Seeds

working with Germinal
Sowing future seeds.

Aber HIGH PERFORMANCE GRASS

Aber® varieties now stand out as the top performers on the independently compiled Recommended Grass and Clover List (RGCL) for Great Britain and feature strongly in the newly launched Irish Pasture Profit Index (PPI).

- **Innovation, research and technology, for future growth**
- Top ranking ryegrasses on independent Recommended Lists (UK & Ireland)
- Higher D-value (quality) drives increased milk yield or live weight gain per hectare
- Bred at IBERS Aberystwyth University to perform under UK conditions
- Multi-award winning varieties
- Proven to reduce Methane/greenhouse gas emissions and improve soil protection

Research

- Into disease and pest resistance on grass and clover varieties
- Improved tolerances of flooding, drought and nutrient (P & K) use efficiency
- Improving human health aspects of meat and milk consumption

Your route to higher production from forage

Aber Germinal
Sowing future seeds.

Visit **www.greenfarmseeds.com**

HI-D BRITISH BRED

(Long Term cutting & grazing)

2.0kg	AberZeus	Intermediate Ryegrass
2.25kg	AberGreen	Intermediate Ryegrass
2.0kg	AberSpey	Intermediate Ryegrass (T) **NEW**
3.0kg	AberLee	Late Ryegrass NEW
3.0kg	AberGain	Late Ryegrass (T)
0.45kg	AberSwan	White Clover **NEW**
0.30kg	AberDai	White Clover

Pack Size: 13kg

Sowing Rate (Kg/Acre) 13

Well Proven Formula

100% Aber MIXTURE

No clover option available.

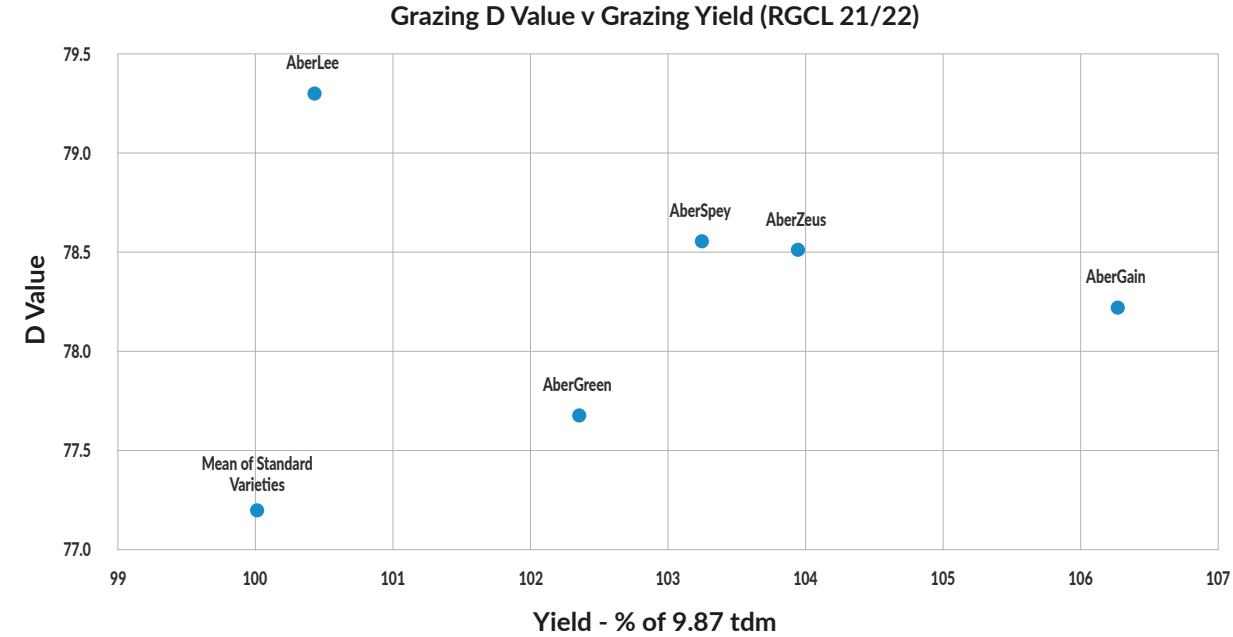
Premier HiD non Aber version also available.

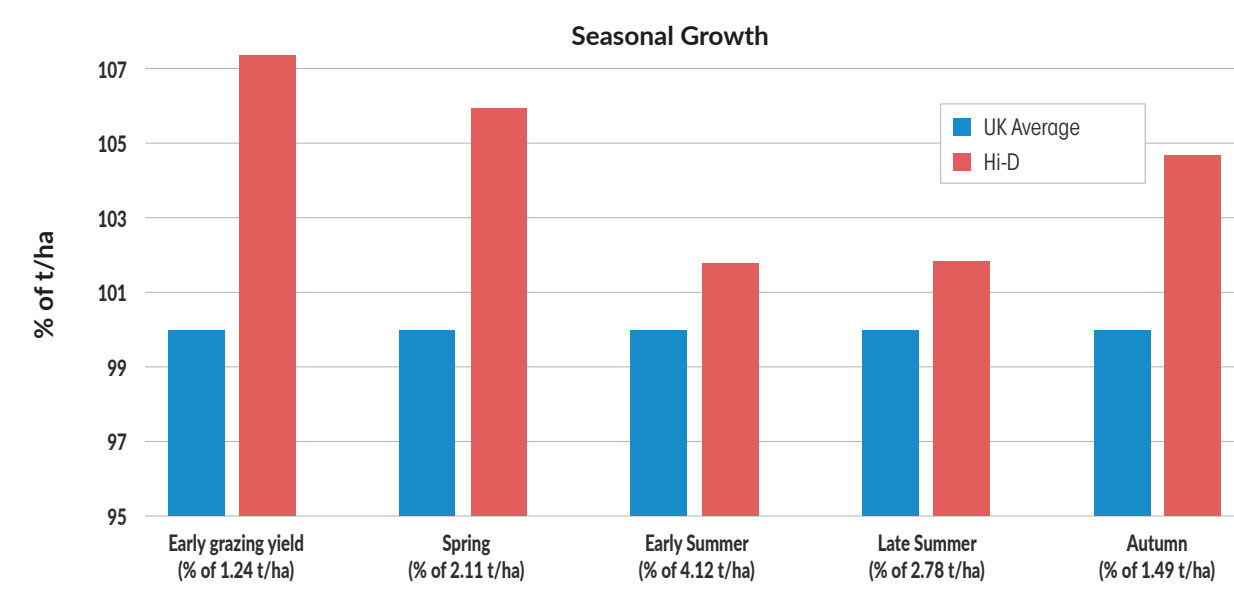
Benefits

- **Hi-D combines varieties with the highest digestibility available, this produces the highest energy yield (ME) for both grazing and conservation**
- Hi-D is made up exclusively of the very latest high-performance Aber High Sugar Grasses increasing profits per ha
- All varieties selected have higher D Value than 76.7%, which is the average of all recommended varieties improving dry matter intakes (see graph)
- AberGreen top performing variety winner of the NIAB gold cup for quality
- AberGreen Pasture Profit champion for ground cover continuously
- Inclusion of new varieties AberLee (late dip), AberSpey (Int Tet) and AberSwan (White Clover)
- The newest Aber varieties have the highest grazing D Value: AberLee 79.3, AberSpey and AberZeus both 78.5 D Value
- Improved the overall disease resistance AberLee and AberSpey
- Improved autumn ground cover with exceptional winter Hardiness for 2022/23
- The combination of Aber varieties gives Hi D the highest 3rd year ground cover for improved sward density and optimum grazing performance
- Improved balance to the seasonal growth pattern with higher mid and late season grazing yields.
- The highest 1st Cut D Value – AberLee 74.9, AberSpey 74.7, AberGreen 74.1
- This mixture is a carefully balanced selection of varieties to give guaranteed performance which exceeds the average of the UK list for quality, yield, seasonal growth, persistency and disease resistance
- AberSwan the medium leaved white clover which out yields all the larger leaved varieties of white clover.

HI-D (ULTIMATE IN GRASS PERFORMANCE)

Germinal
Sowing future seeds.





Aber Advantage	Grazing	Cutting
ME yield of Aber®Hi-D	137,668 MJ/ha	184,744 MJ/ha
Average of comparable varieties	129,914 MJ/ha	178,147 MJ/ha
Extra ME yield of Aber®Hi-D	7,754 MJ/ha	6,597 MJ/ha
Aber advantage Milk	**1,266 litres/ha**	**1,282 litres/ha**
Aber advantage Meat	**253 kg/ha**	**340 kg/ha**

HI – INTAKE

(Long Term pasture with Timothy)

Sowing Rate (Kg/Acre) 14

Overseeding Rate (Kg/Acre) 10

Premium Grazing Mix

2.00kg	Boyne	Intermediate Ryegrass
2.00kg	Kendal	Late Ryegrass **NEW**
2.50kg	Bijou	Late Ryegrass (T)
3.00kg	Aston King	Late Ryegrass **NEW**
3.00kg	Oakpark	Late Ryegrass
1.00kg	Lischka	Timothy
0.50kg	GFS	White Clover Blend

Pack Size: 14kg

Available with Puna II Chicory and Tonic plantain (page 20)

Benefits

- Improved grazing D value, ground cover and disease resistance for 2023
- An extremely productive blend of the highest grazing D Value varieties
- All varieties exhibit brilliant grazing and aftermath digestibility with good disease resistance
- Hi-Intake's consistent growth throughout the season allows ease of grazing management
- Kendal has very high conservation and energy yields
- Clover content based on highly productive well proven varieties
- Late diploid PRGs provide excellent ground cover, persistency and winter hardiness
- Suitable for all livestock types with no compromise on feed quality

Economy version also available.

MULTI-SPECIES

(Long-term herbal grazing ley)

NEW

Sowing Rate (Kg/Acre) 14.45

DSV

2.00kg	Fedoro	Festulolium (Tet)
2.00kg	Boyne	Intermediate (DIP)
2.00kg	Aston King	Late (DIP)
2.00kg	Bijou	Late (Tet)
1.50kg	Aturo	Timothy
1.00kg	LiHerald	Meadow Fescue
0.25kg	Liflex	White Clover (Legume)
0.25kg	Gabby	White Clover (Legume)
0.35kg	Diplomat	Red Clover (Legume)
0.35kg	Rozeta	Red Clover (Legume)
0.50kg	Puna II	Chicory (Herb)
0.25kg	Tonic	Plantain (Herb)
2.00kg	Candy	Vetch (Legume)

Pack Size: 14.45kg

Benefits

- A bio-diversity multi-species herbal ley which will adapt and thrive in diverse locations and soil types
- Suitable for all soil types, particularly productive in drier or drought conditions
- Ideal for intensive rotational grazing of dairy cows, youngstock and lamb finishing
- Good full season production
- Will produce an extremely palatable and persistant sward
- 1st cut will be taken followed by high quality aftermath grazing (no chicory option)
- Multi-species leys combine different plant types with complimentary characteristics
- These mixtures contain nitrogen fixing legumes combined with nitrogen lifting grasses
- Varying sward growth habits maximise light, moisture and nutrient uptakes
- Very effective at improving the soil profile with the deep rooting species
- Enhanced production and livestock performance particularly in low input systems with reduced fertiliser
- Improved nutritional potential from several sources of protein, energy and minerals

UNDER SOWING MAIZE CROPS

Soil protetion mixtures

Benefits

- Nutrient storage and protection against nutrient leaching & discharge
- Increased biological activity and humus levels in soil in short crop rotations
- Erosion protection and immediate soil coverage after the harvest
- The use of under sown crop as forage in the autumn and following season.
- 200kg/ha of humus can be achieved from 15kg/ha of ryegrass seed
- Root penetration promotes microbes and earthworms whilst improving soil structure and stability
- Improves tilth for the following crops
- Under sown crop allows application of slurry or biogas substitutes directly after maize harvest
- Under sown maize crops can be used as cover crops to meet greening requirements for Basic Payment Scheme, qualify for EFA's and cross compliance adherence
- Can be treated as grass to obtain the NVZ 'N' Loading derogation.
- Under sown grass allows for easier harvesting in wetter periods
- Undersowing trials have shown no significant effect on yield, ME or starch content of the maize crop.

GFS PREMIER IRG MIX

(1 year ground cover and forage)

Sowing Rate (Kg/Ha) **15**

30% Diploid Italian Ryegrass
30% Diploid Italian Ryegrass
40% Tetraploid Italian Ryegrass (T)

Pack Size: 25kg

- To be sown after the maize has reached 6 leaf stage to avoid plant competition
- Well suited and proven for the economic under sowing of maize crops
- The most vigorous option available with the greatest harvest production
- Will continue to grow late in season providing Autumn forage, green cover and exploitation of water
- Potential of a high yielding grass forage crop the following spring
- A robust and easy mixture to establish

GUIDELINES

- Drill, not broadcast, keeping the under sown grass 15cm away from the maize rows to avoid competition and allow light absorption
- Pendimethalin is safe to use pre-emergence
- Mestrione mixes are safe to use post-emergence.
- Sacrifice undersown grass if barnyard grass becomes a weed problem.

Landwrx Drill

Corn Borer

For effective control of the corn borer pest the maize stubble must be intensively shredding / flail topping after harvest. This will also encourage tillering of the undersown grasses increasing sward density and production.

GFS COCKLE PARK MIXTURE

The original general purpose grass seed mixture

2.50kg	Early Perennial Ryegrass
2.50kg	Intermediate Perennial Ryegrass
2.75kg	Late Perennial Ryegrass
1.50kg	Timothy
2.50kg	Cocksfoot
1.25kg	Red Clover Blend
0.50kg	Medium Leaved White Clover
0.50kg	Wild White Clover

Pack size: 14kg

Benefits

- Developed in the 1900's at Cockle Park, demonstrating the importance of white clover in pastures
- Traditional general purpose seed mixture suitable for extensive production of hay, silage or grazing
- Simple type of mixture using a robust range of grass and legume species
- For use on a wide range of soil types and elevations
- Demonstrates the unique compatibility and benefits of the species included when sown together
- Significant tap roots break up hard pans and provide drought tolerance
- Very productive late into the summer especially in drought conditions
- Cocksfoot benefits from frequent grazing, also recovering rapidly after defoliation
- **Option to include herbs**

GFS WETLAND MEADOW

Permanent productive wetland

4.00kg	LiHerald	Meadow Fescue
3.00kg	Lischka	Timothy
3.00kg	Aston King	Late Perennial Ryegrass
3.00kg	Oakpark	Late Perennial Ryegrass
0.30kg	Alsike	Clover
0.40kg	Liflex	Medium White Clover
0.30kg	Altaswede	Red Clover

Pack size: 14kg

Benefits

- Species and varieties selected for wet soils, for example traditional flood plains and water meadows
- Once established a productive meadow will evolve which will cope with occasional silt covering
- This mixture is specifically developed to provide quality forage when sown in heavy land prone to waterlogging
- Meadow fescue increases sward density
- This mixture only contains long term, late heading and hardy grass species
- Deep rooted species improve soil structure, increase field drainage and improve the mineral content of the forage
- Late heading diploid perennial ryegrasses are the most suited perennial ryegrass for wetter conditions
- Persistently flooded areas spring sowing is recommended to ensure establishment before winter flooding
- Meadow Fescue and Timothy are the only other two species that will thrive in wetter conditions whilst still producing high yields and persistent sward.
- Alsike clover is suited to a wide range of conditions and is tolerant of moderate flooding
- Flexible mixture offering all seasons grazing and if shut up a hay or a later silage cut

GFS PROLIFIC

(Landsberger Mix) 1-2 year forage and soil improver

Sowing Rate (Kg/Acre) 21

Regenerative agriculture

4.00kg Sendero Italian Ryegrass Diploid **NEW**
4.00kg Syntilla Italian Ryegrass Diploid
2.00kg GFS Red Clover Blend
1.00kg Crimson Clover
10.00kg Vetch
Pack size: 21kg

The ultimate winter green manuring and forage mix, that delivers high green and dry matter yields with a vast root mass

Benefits

- Developed in 1928 as the Landsberger mixture a well proven, high yielding, protein rich nitrogen fixing crop
- Deep rooting Nitrogen fixing, prolific growth with excellent ground cover and weed suppression
- Quick and easy to establish, non-brassica, Vetches and clovers are the most prolific nitrogen fixing species
- Suited to almost all soil types and aspects, Spring or Autumn sown
- Very effective at seeking out, mopping up and utilising soil nutrients
- Above average capacity for humus production and increasing biological activity of the soil
- Versatile growth can be grazed, ensiled or mulched as a cover crop.
- Little or no nitrogen fertilizer required

Nitrogen N Fixer

EQUINE MIXTURES

HORSE & PONY PADDOCK

(Long Term multi purpose)

Sowing Rate (Kg/Acre) 14

Overseeding Rate (Kg/Acre) 10

Suitable for Equine

Paddock Fertiliser in 25kgs
See page 73

YARA

2.50kg Early Ryegrass
2.00kg Intermediate Ryegrass
3.00kg Late Ryegrass
3.00kg Amenity Perennial Ryegrass
2.50kg Creeping Red Fescue
1.00kg Timothy
Pack Size: 14kg

Herbal Option available

Benefits

- Provides good quality, palatable grazing for horses
- Produces a dense, hardwearing easy to manage sward
- Creates a good crop of hay if the paddock is closed up
- Creeping Red Fescue minimises trampling damage in wet conditions
- Suitable for exercise ground as well as providing feed
- Saves money on supplementary feeds
- **High seed rate** ensures good establishment
- **Also suitable for patching worn paddocks**

TRADITIONAL MEADOW/HAY

(Permanent Pasture/Non Ryegrass)

CSS OPTIONS: SW1, SW2, SW3, SW4, SW7, SW8, WT1, WT2

7.0kg Meadow Fescue x 2
1.5kg Timothy
1.5kg Smooth Stalked Meadow Grass
2.8kg Creeping Red Fescue
1.0kg Crested Dogstail
0.1kg Meadow Foxtail
0.1kg Sweet Vernal Grass

Pack Size: 14kg

Benefits

- Once established a very persistent sward will be produced
- A traditional style mixture based on non aggressive grass species
- Ideal for low input and a more environmental approach to livestock farming
- Suitable for full season grazing or the production of meadow hay
- The diversity of species increases Winter hardiness and drought tolerance
- Inclusion of Clover, herbs and Wildflower options available
- **Suitable for Non Ryegrass Equine pastures**
- **Low sugar content makes it ideal for laminitis and dietary issues in equine**

GFS LONGTERM HAY

(5 Year Hay/Grazing Mixture)

3.00 kg Temprano Early PRG
2.00 kg Boyne Int PRG
2.00 kg Glenariff Int PRG
2.50 kg Kendal Late PRG
3.00 kg LiHerald Meadow Fescue
1.50 kg Lischka Timothy

Pack Size: 14kg

Herbal option available

Benefits

- All **diploid** varieties ensure uniform leaf conditioning and drying
- Reliable, bulky and high yielding hay crops
- Very good all round disease resistance helps produce a clean dust free hay
- Inclusion of Timothy improves palatability and visual appearance
- Produces a softer hay than the short term Premier Hay
- Good sward density ensures out of season grazing production, an early hard graze will improve hay quality
- No clover and herbs ensure ease of weed control if required
- Suitable for most soil types and field conditions
- A very resilient and durable mixture

PREMIER HAYLAGE

(2 year Hard Hay / Haylage Mixture)

4.0kg	Syntilla	Italian Ryegrass
4.0kg	Sendero	Italian Ryegrass **NEW**
6.0kg	BarClamp	Hybrid Ryegrass **NEW**

Pack Size: 14kg

Benefits

- Varieties used have excellent disease resistance, producing a clean quality feed
- All **diploid** varieties are used for uniform drying
- Will provide good yields of both hard hay or haylage
- Two high yielding cuts per year can be achieved
- This mixture can be cut late May early June
- Very responsive to Nitrogen fertiliser
- All species vigorous to establish

GFS RENOVATION

4.00kg	Agricultural Ryegrass
4.50kg	Agricultural Ryegrass (T)
4.00kg	Agricultural Ryegrass

Sowing Rate (Kg/Acre) 12.5

Suitable for Equine

Economically Priced

Pack Size: 12.5 kg

Benefits

- All seed listed and fully certified
- Perfect for renovation / patching of poached or tired swards
- Ideal for improving gateways, feeding areas and tracks
- Improves productivity and stock carrying of the existing sward
- Increases flexibility in management of old swards
- This all Ryegrass mixture is ideal for direct and overseeding techniques

KEY POINTS TO GRASS & CLOVER ESTABLISHMENT

- Correct soil pH of grass and clover is 6.0 which also increases bacterial and worm activity
- P & K indexes of 2 are essential for strong grass and clover growth
- Compaction inhibits root growth and grass yield. Rectify at establishment
- Control any problem weeds. Effective prevention of weed invasion is better than cure
- Weed grasses can dominate reseeds if not effectively desiccated before planting
- Take measures to control possible pest attacks. Consider a break crop. This is particularly important when planting continuous grass
- Ensure a fine firm seed bed is achieved. Firmness guarantees contact between sown seed and moisture which equals germination
- Sow at a depth upto 10mm, any deeper and germination is severally reduced
- Roll and roll again to provide soil to moisture contact and germination
- Consider a seed bed fertiliser. A general recommendation for P & K indexes 2 would be 60N, 75P and 60K (kg/ha)
- Keep an eye out for slugs especially in wet seasons. Every three weeks eggs can hatch, in warm conditions this could be every ten days
- Graze down to 3 to 6 cm at intervals during early establishment phase

RESEED IT AND FEED IT – GET RESULTS FROM WHAT YOU SOW

BEFORE RESEEDING

Do you have a recent soil test result? It's a vital starting point.

Take action if the pH is below 6.0. Target a pH of 6.2. Give lime plenty of time to work; if applied before reseeding ensure it can be cultivated in. Make sure P and K are supplied as needed. If K is index 0, apply a maximum of 80-90 kg/ha at cultivation/planting and remainder later.

Typical lime amounts

	Lime t/ha		
pH	Sands & loamy sand	Sandy & silt loams	Clay loams & clay
5.5	2.8	3.5	4.2
5.7	2.0	2.5	3.0
5.9	1.2	1.5	1.8

P and K reseed requirements (kg/ha)

Index	Phosphate (P_2O_5)	Potash (K_2O)
0	120	120
1	80	80
2	50	60 (2-) 40 (2+)
3	30	0
>3	0	0

Nitrogen for reseeding (kg/ha)

	Low Soil N Supply	Moderate Soil N Supply	High Soil N Supply
Spring reseed	60 (split, with~30 in seedbed)		
Autumn reseed*	30-50	30	0
Grass-clover sward	No nitrogen required for establishment		

*Keep rate lower if the sown sward is under competition from weeds/volunteers or existing sward

FEEDING THE NEW LEY

Maintaining the nutrient status will help to retain the sown species, as well as optimising production. The establishment P and K can be deducted from the season's requirement for silage, grazing or hay. But do add any P and K above this if required, to ensure the sward does not become deficient.

Silage (conservation)

Type of cut/ley	Nitrogen N (kg/ha)	Sulphur SO_3 (kg/ha)
Short term, high yield ley, 1st cut	100-120; split, 40 in Mar	40
Medium term ley 1st cut	100; split, 40 in Mar	40
4-5 week "multi-cut early season"*	70-85 per cut (2.5 kg N per day)	25-35 per cut
Less intensive single cut	70-80	25-35

*Leave enough time for the N to be utilised by the plant – 2.5kg N/day, as a rule of thumb. So 5 weeks = 35 days = 87kg N/ha maximum

New leys are very likely to respond to sulphur so it is a vital addition

Grass-clover swards – N isn't always needed, although White Clover can cope with some, ensure the P and K is replenished, manures are useful here. A sulphur source without N would be a great extra addition.

Grazing

Aim for moderate but regular N dressings rather than big doses, 30-40 kg N/ha for first & second dressing, then around 30kg/ha. Include Sulphur at 40-60 kg SO_3/ha over the season, to a maximum of 125kg/ha. Sulphur will help increase yield, sugar and protein and may enhance plant disease resistance.

Nutrient guidance from SoilSense Ltd E: elaine.jewkes@soil-sense.co.uk T: 07981 900336

SoilSense

LUCERNE

Characteristics

- Lucerne is a high protein with high digestibility legume which is usually grown for cutting
- Lucerne's high protein makes it extremely useful as a complementary forage to grass and maize
- It has a deep tap root system and is able to withstand severe drought
- It is a productive plant with high nutritional value
- Lucerne can be grown successfully on a wide range of fertile free-draining sites and soil types
- Lucerne will not thrive in waterlogged soils, so the general advice is to avoid heavier land and cold wet soils
- To minimise the threat of pests and diseases, a period of five years should be allowed in the rotation between Lucerne crops
- Lucerne is a legume that leaves significant residual Nitrogen for following crops
- Lucerne forage increases animal fibre intake
- Don't over graze in the winter or drive on the crop in wet conditions to avoid damage to the crown
- Will remain productive and thrive for 3 – 4 years

Annual P and K requirements for 3-cut system (kg/ha)

SOIL P & K INDEX	0	1	2	3	4
P	130	105	80	20	0
K	340	290	250	90	0

Some of the P and K can be supplied in manures / slurry. Eg 40 m3/ha dairy cow slurry may supply up to 48kg/ha P and 140 kg/ha K.

Sowing and Establishment

Lucerne should be sown when soils are warm into a fine and firm seedbed to a depth of 0.5-1cm.
Spring sowing (from late April) tends to be more common with Lucerne as this ensures strong plants going into the first winter. Lucerne can be sown successfully up to the middle of August.

Inoculation Lucerne seed should always be inoculated with a culture of live Rhizobia Meliloti bacteria.

Crop Management

Key points in Lucerne persistency:

- Allow plants to flower once a year; this ensures storage of nutrients in the tap root to improve Winter hardiness and boost Spring growth
- Cut when 10% of flowers are showing (early bud stage)
- Aim for an optimum cutting height of 7cm to promote regrowth

Cutting, grazing and feeding Lucerne

Ensiling best practice to bale or clamp

- Aim for a target dry matter of 30-40% for clamp silage and 50% for bales
- Chop to 3-4cm and roll well in the clamp
- For bales, wilt to 40-60% dry matter and ensure at least four layers of plastic to minimise the risk of stems piercing the wrap
- Always use an additive as Lucerne is low in sugars and difficult to ferment, Lallemand MAGNIVA PLATINUM GRASS

Variety Choice

Our UK selected varieties are Flemish dormant types with medium thick stems. Good early Spring growth and a very vigorous growth in Summer and Autumn. The dormancy rate is 4-5. As well as high resistance ratings for stem nematode and Verticillium wilt.
UK proven varieties available: Daisy, Artemis and New RGT ETINCELLE **A protein explosion**

CHARACTERISTIC	RED CLOVER	WHITE CLOVER / GRASS	LUCERNE
Soil type	All types	All types	Well drained
Ideal pH	5.8-7.5	5.8-7.0	6.2-8.5
Establishment rate	Fast	Medium	Medium
Inoculation needed	No	No	Yes
Drought tolerance	High	Medium	Very high
Persistence	Low	Very High	Medium
Regrowth rate	High	High	High
Yield	10-15 tonnes DM/ha	4-10 tonnes DM/ha	10-15 tonnes DM/ha
Silage quality	ME 9.8-11 MJ/kg/DM	ME 9.8-12 MJ/kg/DM	ME 9.0-11 MJ/kg/DM
	CP 16-22%	CP 16-20%	CP 18-24%
	pH 4-4.5	pH 3.5-5.5	pH 4.3-4.4

Each type of grass has different growth and quality characteristics. When reseeding it is important to select the most appropriate grasses and clovers.

PERENNIAL RYEGRASS

Duration 6 years +

- Most effort by plant breeders has been concentrated on PRG
- Establishes rapidly, even from late autumn sowing
- High yields in first harvest year
- High sugar content makes it good for silage-making
- Produces dense and persistent swards so useful for long term leys and establishing permanent pasture

Good for all types of management e.g. silage or hay production, extensive or intensive grazing

Early Perennial Ryegrass
Head 1st 2 weeks May

- Early flowering varieties have an erect growth habit and the ability to bulk up quickly
- Grown well in early spring which is a valuable cutting or grazing attribute

Intermediate Perennial Ryegrass
Head last 2 weeks May

- Intermediate varieties have a more dense, prostrate growth habit compared to early PRG
- Persistency is good and yield potential is high especially mid-season
- Intermediate PRG often added to help put 'bottom' into short term mixtures

Late Perennial Ryegrass Head Mid June

- Late PRG varieties have good forage quality and palatability
- Dense growth habit gives extremely good tolerance to treading
- Yield is generally high and exhibit good mid-season and end of season growth

ITALIAN RYEGRASS

Duration upto 2 years

- Produces heavy crops of silage or hay
- Most popular species for regular cutting
- Very good early and late season growth
- Very responsive to fertility

Good for cutting, but can also be used for intensive spring grazing

HYBRID RYEGRASS

Duration upto 4 years

- Better ground cover and longer lived than IRG
- Good winter hardiness and disease resistance
- Mid-season digestibility better than IRG, but poorer than PRG
- Increased ground cover compared to IRG
- More drought resistant than IRG

Good for silage production and rotational grazing

TIMOTHY

Duration 6 years +

Very winter hardy and persists well in wet conditions

- Maintains production on poorer soils and better palatability compared to other species during summer months
- Grows at lower temperatures than ryegrass so can be good for early season grazing, especially in cold, late springs
- Good winter hardiness and ground cover
- Can be slow to establish and yields are likely to be lower than PRG

Good for extensive grazing and hay production

FESTULOLIUM

Duration 3-4 years

- A hybrid cross between a ryegrass and a fescue with similar yields to ryegrass.
- The fescue qualities improve the drought and flood tolerance compared to straight ryegrass
- Generally lasts 3- 4 years though there is some variation between varieties depending upon the parent combination.
- Versatile species which can grow on a variety of soil types

Potentially high yielding with good forage quality

MEADOW FESCUE

Duration 6 years +

- Nutritious and leafy species traditionally sown with Timothy in grass/clover leys
- Less vigorous and lower yield the Perennial Ryegrass.
- More suited to extensive rather than intensive grazing systems
- Popular in species rich and non-ryegrass mixtures.

Will tolerate wetter soil conditions

COCKSFOOT

Duration 6 years +

- Has very good winter hardiness
- Although it has some very good attributes it very easily becomes tussocky and unpalatable if uncut or grazed
- Cocksfoot is generally limited to leys where it has a particular contiribution

Good drought tolerance, traditionally added to leys sown on lighter soils can boost mid-season production potential

WESTERWOLDS

Duration 1 year

- Annual species which achieves rapid production within 12-14 weeks of sowing
- Regular cutting or grazing is essential to prevent serious decline in digestibility due to prolific heading ability.
- Rarely used in longer term ley mixtures due to short life span and fast growing ability meaning other species suffer.
- From a spring sowing of Westerwolds you would expect a typical silage yield of 13.5 tonnes DM/Ha
- Can be susceptible to winter kill

RED FESCUE

Duration 6 years +

- Winter hardy, early growing species used sparingly in modern mixtures.
- Will maintain production on poorer soils, very hard wearing
- Invariably thrives in cold, wet conditions
- Requires tight grazing to maintain leafiness and quality.

RED CLOVER DURATION – 2 -4 YEARS

Popular inclusion for silage leys due to high protein content, can also be used for aftermath grazing

- High protein content up to 19% in silage depending on percentage in sward
- High yields, even with no or low N fertiliser the Nitrogen fixing qualities can help with rising fertiliser costs.
- Modern red clovers easily produce two main cuts and a smaller autumn cut
- Competes well when grown with aggressive short term species such as Italian & hybrid ryegrasses

Good for cutting and finishing stock in Autumn

WHITE CLOVER

Duration Long Term

Most commonly included in medium long term leys

- High nutritional value, particularly protein and mineral content
- High palatability providing good animal performance
- Good drought resistance, frost tolerance and naturally nitrogen fixing.
- Can provide 150kg/ha (120 units/ acre) of nitrogen for grass growth
- Match leaf size to stock (small for continuous, hard sheep grazing; medium for frequent cutting and rotational mixed grazing; and large for cutting and cattle grazing)

Good for grazing and cutting

PUNA II CHICORY

Germinal
Sowing future seeds.

How is it best used?

- Pure stand, or in a mixed sward with grass and clover
- Medium – Long term rotationally grazed leys (2-6 yr persistency)
- Ideal for finishing lambs and provides high quality fodder for cattle
- High yield and forage value within grazing mixtures

What are the main benefits?

- Outstanding animal performance
- High mineral content, including zinc, potassium and copper
- Good tolerance to drought, acid soils and major pests
- Rapid regrowth after grazing
- Reduces the effect of internal parasites and does not cause bloat
- Can deliver lamb growth rates of 300-400g/day
- Provides high quality feed through the summer

Sowing Rate (Kg/Acre) **2.5**

Mixture Inclusion Rate (Kg/Acre) **1**

Finishing lambs on Puna II chicory

Typical mixture

18%	Puna II	Perennial Chicory
18%	Tonic	Plantain
27%	Aber®Chianti	Red Clover
18%	Aber®Claret	Red Clover
18%	Aran	Large White Clover

Pack Size: 13.5kg

Sowing Rate (Kg/Acre) **13.5**

Crop establishment

Sowing:

- Control broad-leaved weeds before sowing
- Sow in spring or (mixed swards only) early autumn
- Seed rate 0.5-2kg/ha (with grass/clover); 4-6kg/ha (pure stand); 4kg/ha (white/red clover)
- Well-drained soils
- Drill to a maximum depth of 10mm, or broadcast
- Use slug bait to improve establishment

Grazing management

- Graze when crop height reaches 150-200mm (when plants are resistant to uprooting)
- Rotationally graze for best results (ideally short, light spells)
- Grazing strategy should aim to avoid flower heads developing (except once in the autumn as this can aid persistency)
- Avoid damage to the crown (e.g. hard grazing in wet conditions), as this will reduce productivity and persistency
- Limit milking cows to 25% of total dry matter intake to avoid risks of milk taint
- If chicory gets out of control, either graze with cattle or top
- Grazing is preferable because topping can allow water to penetrate the hollow stem and this can kill the plant
- Growth rates will drop if temperature falls below 10°

TONIC PLANTAIN

Germinal
Sowing future seeds.

- Tonic Plantain is a broad leaved perennial herb with a fibrous root system which can produce a forage crop that can be fed to both cows and sheep
- Plantain suits a range of soil types and can be grown on its own or mixed with a grass and clover ley
- As herbs, both Tonic Plantain and Puna II Chicory are ideal companions in multi species swards along with other grasses and legumes

Sowing Rate (Kg/Acre) **2.5**

Mixture Inclusion Rate (Kg/Acre) **1**

Benefits

- It is highly productive and can produce improved live weight gain in livestock
- Improved dry matter production and quality at key times of the year. Tonic plantain can produce over 15 tonnes of dry matter per ha per year
- Tonic has a positive impact on animal performance by improving the supply of some trace elements
- Ideally suited to intensive or rotational grazing systems, with rapid regrowth post grazing in dry summers

ARABLE SILAGE MIXTURES

Arable silage mixtures offer an alternative or additional feed to grass or maize silage and are particularly suitable for farmers wishing to increase their levels of home-produced protein, and reduce their reliance on purchased feed and fertiliser. They produce cost effective, high quality forage of consistent quality and palatability with high yields of dry matter.

Benefits

- Harvest arable silage in early August, giving the use of land for the following winter
- A well balanced mixture of peas and cereals sown in March / early April can be ready for harvest in 12-14 weeks
- Can increase protein by 40-60% over straight cereals
- A high dry matter crop which does not require wilting, with high intake characteristics
- More long fibre to stimulate rumen – 'scratch factor'
- Well suited to areas of the UK where Maize production is marginal
- A low cost source of readily available starch and protein
- An excellent Winter forage for dairy cows, cattle and sheep
- A valuable cover crop for the establishment of grass or grass and clover leys
- High DM yields of starch and protein
- Reliable crop with rapid germination and short growing season
- With high intake characteristics

Undersowing

- Drill arable silage at a seed rate of 75% then broadcast grass seeds at a rate of 100% on the same day
- Then roll in

Standard Mixtures

Barley is the preferred cereal as it produces better feeding value than higher yielding Oats or Wheat which dilute the important contribution of the grain by producing high yields of straw, thereby reducing the digestibility.

A blend of high yielding spring barley, with high protein and high yielding peas with very good standing ability.

GFS BIP Mix
60% Spring Peas
40% Spring Barley

GFS PIB Mix
60% Spring Barley
40% Spring Peas

Sowing Rate (Kg/Acre) **75**

Undersowing Rate (Kg/Acre) **40-50**

Harvesting points

- Cut fermented cereal whole crop when the grain is at the soft/cheesy stage, at about 30-40% DM. There will still be green in the stems (50% green – 50% yellow)
- Once at the correct growth stage DONT DELAY, growth stages change rapidly and DM can change by 2% per day so cut without delay, go early rather than late
- Cutting height of about 10cm leaving rubbish in the bottom
- A short chop length and good compaction of the clamp is required to improve fermentation stability as the crop has a high DM content
- An additive is essential to improve fermentation we recommend Lallemand MAGNIVA PLATINUM WHOLECROP

Other species available:

- Oats
- Triticale
- Vetch
- Maple Peas
- Rye

Typical Barley and Pea Analysis – fermented

Fresh Yield	23-25 T/ha
Dry Matter	30-40%
ME	9-11 MJ/kg
Crude Protein	12-15%
pH	4.0-4.6
Starch	14-20%
D Value	70

BIP Gloucestershire June

ORCHARD MIXTURES

With the increasing number of commercial and heritage orchards being established and requiring maintenance, we have three well proven orchard grass seed mixtures.

ORCHARD MIXTURE WITH RYEGRASS

30% Dwarf Perennial Ryegrass
20% Chewings Fescue
40% Strong Creeping Red Fescue
10% Slender Creeping Red Fescue

Pack Size: 20kg

Sowing Rate (Kg/Acre) 25-50

Mowing Height (mm) 40-60

The addition of a turf type ryegrass is suitable, when rapid establishment is required.

Benefits

- Reduced maintenance mixtures
- Reliable to germinate and establish
- Fine grass which reduces growth and grass yield
- Dense hard wearing swards will be produced

ORCHARD MIXTURE WITHOUT RYEGRASS

50% Chewings Fescue
40% Strong Creeping Red Fescue
10% Slender Creeping Red Fescue

Pack Size: 20kg

Sowing Rate (Kg/Acre) 25-50

Mowing Height (mm) 40-60

The traditional low maintenance hard wearing orchard mixture.

Benefits

- Visually attractive with good quality cultivars
- Will tolerate regular or infrequent mowing
- Suited to a wide range of soil types
- Will help suppress weed infestation

ORCHARD MIXTURE WITH POLLINATORS

7% Hard fescue
30% Strong creeping red fescue
15% Amenity ryegrass
20% Chewing's fescue
10% Smooth-stalked meadow grass
4% Crested dogstail
2% Tall oatgrass
2% Meadow foxtail
3% Alsike Red Clover
2% Small leaved White Clover
1% Birdsfoot trefoil
1% Selfheal (n)
1% Oxeye daisy (n)
1% Ladys bedstraw (n)
0.5% Common knapweed (n)
0.5% Wild carrot (n)

Pack Size: 20kg (n = native)

New Formula

Benefits

- Long Term perennial /permanent flower, pollinator and grass mix
- Traditional species rich grass mixture that complement the flowers & pollinators
- Visually attractive grasses and flowers if left to go to head
- Dense low growing clovers in the mixture will continue to flower if orchard is mown
- Beneficial to all insects particular pollinators
- A dense slow growing sward will be created if mown
- If sown at a higher seed rate will help weed suppressions

Sowing Rate (Kg/Acre) 25-50

Mowing Height (mm) 60-80

GFS SPRINT MIX
(Racecourse & Gallops)

BARENBRUG

Sowing Rate (g/m²) 25-35

Overseeding Rate (g/m2) 15-25

Mowing Height down to (mm) 60

RPR REGENERATING Perennial Ryegrass

GFS Sprint Mix is a 100% perennial ryegrass seed mixture specifically formulated for the unique demands of racecourses and gallops.

GFS Sprint Mix includes NEW RPR (Regenerating Perennial Ryegrass) which offers unparalleled capacity for recovery from wear due to its stoloniferous creeping growth habit and also increases traction strength in the sward.

The lateral growth habit also results in fast infilling between seedling lines.

As used at Royal Ascot & Hickstead

Benefits
- Fast and vigorous establishment
- Strong & Robust growth habitats with good superior recovery from wear
- Excellent all-round disease resistance
- Ideal for renovation, repairing of damaged or worn racecourses.
- GFS Sprint Mix is designed to be maintained at 60mm+ height of cut.

MIXTURE SPECIFICATION

15%	Barlibro RPR	Perennial Ryegrass
40%	Bardorado	Perennial Ryegrass
25%	Drumbo	Perennial Ryegrass
20%	Barcristalla	Perennial Ryegrass

Pack Size: 20kg

GFS SPORTS FIELD
(Construction & Renovation)

Sowing Rate (g/m²) 35-50

Overseeding Rate (g/m²) 25-50

Mowing Height down to (mm) 12

DSV

33%	Turfgold	Sports Perennial Ryegrass
33%	Jubilee	Sports Perennial Ryegrass
34%	Translate	Sports Perennial Ryegrass

Pack Size: 20kg

Benefits
- A versatile mixture that produces a very hard wearing sward
- High shoot density with great vigour and all season colour
- Suitable for Winter and Summer games including football, rugby, hockey and cricket
- Ideal mixture for schools and sports clubs where space is at a premium
- Well proven premier quality mixture with excellent disease resistance
- Easily establishment with rapid germination
- Ideal mixture for the renovation of worn playing surfaces
- **Economy version also available**

STRI

GREENSCAPE

A hard wearing lawn **with Ryegrass.**

Description

Modern dwarf type Perennial Ryegrasses, producing a rapid lawn whilst being very hard wearing. Vigorous roots strengthen the turf and give it superior resilience and durability.

Suitability

This excellent, all-round mixture will perform well in the majority of general domestic situations.

Species

30% Dwarf Ryegrass
30% Dwarf Ryegrass
40% Strong Creeping Red Fescue

Pack Size: 10-20kg

Sowing Rate (g/m²) 35-50
Overseeding Rate (g/m2) 15-25
Mowing Height down to (mm) 13

QUALITY LAWN

Top quality family lawn **with Ryegrass.**

Best Seller

Description

A superior, neat, compact and durable turf is produced with uniformly fine leaves. The lower growth of these species, combined with rapid establishment, enables an attractive turf to be maintained and minimises the opportunity for weed establishment.

Suitability

Top quality lawn, capable of being closely mown whilst retaining a luxury appearance.

Species

22.5% Dwarf Ryegrass
22.5% Dwarf Ryegrass
15% Chewings Fescue
25% Strong Creeping Red Fescue
15% Slender Creeping Red Fescue

Pack Size: 10-20kg

STRI

Sowing Rate (g/m²) 35-50
Overseeding Rate (g/m2) 15-25
Mowing Height down to (mm) 10

GREENFINE

Quality lawn **without Ryegrass**.

Description

A quality fine textured mixture, reduces maintenance. Suitable for fine ornamental lawns.

Suitability

For a non Ryegrass lawn, where an attractive fine and relatively easy to maintain turf is required.

Species

50% Strong Creeping Red Fescue
35% Chewings Fescue
10% Slender Creeping Red Fescue
5% Browntop Bent

Pack Size: 10-20kg

STRI

Sowing Rate (g/m²) 35-50
Overseeding Rate (g/m2) 15-25
Mowing Height down to (mm) 13

GREENSHADE

For shady conditions with good drought resistance **without Ryegrass.**

Description

A top quality mixture specially formulated to produce an excellent lawn under shady conditions with good drought tolerance. A mixture of shade tolerant grasses that will maintain appearance and colour in dry conditions.

Suitability

For semi and relatively dense shaded areas under trees, next to high walls and hedges.

Species

10% Hard Fescue
25% Slender Creeping Red Fescue
30% Rough Stalk Meadow Grass
30% Chewings Fescue
5% Browntop Bent

Pack Size: 10-20kg

Sowing Rate (g/m²) 35-50
Overseeding Rate (g/m2) 25-50
Mowing Height down to (mm) 25

LANDSCAPING FERTILISER

We offer a range of professional turf fertilisers that have been specially designed to meet the requirements of amenity grasses and the environment.

Velscape
Pro Landscaping Fertiliser

Fertiliser

N Nitrogen	P Phosphate	K Potassium	Use
6	9	6	Preseed
12	11	18	+20So3 27Mg0 Spring & Summer **(Yara Complex)**
4	12	12	Autumn/Winter
15	5	10	All Season
10	2	1.7	Weed feed & Moss Killer 2.4D + Mecoprop + 8Fe

Moss Killer & Fertiliser

12% Fe	5% MgO	Black & Green™

Apply 35-50g/m²

Fe (Iron) is used for moss killing/suppression

Preseed
High phosphorus formulation to encourage root establishment and growth of newly seeded areas, ideal for laying of turf or for phosphorus amendment.

Yara Complex
High Nitrogen compound fertiliser to give a good all round growth and green up during the main growing season, also includes sulphur and magnesium trace elements. Dust Free.

Autumn/Winter
Standard release fertiliser designed to strengthen the plant as it approaches the colder months reducing risk of disease. Contains low levels of nitrogen so it does not encourage soft growth and disease.

All Season
Slow release formulation giving an all-round feed for up to 3 months. Ideal for use throughout the main growing season. 3 phased nitrogen release including Nutrilong V90.

Black & Green
A powerful granule containing high levels of both iron and magnesium. High levels of iron causes moss blackening and intense green up even at normal application rates. High levels of iron work alongside magnesium to support chlorophyl production. Can be applied year round so long as there is no risk of frost.

MAGNIVA PRODUCT RANGE

MAGNIVA Product	Recommended Crop	Ensiling condition	Dry Matter Range	Features	Packaging size Tonnes Treated (TT)	Suitable for LVA
MAGNIVA Classic	Grass	Wet Crop: Easy to ensile	up to 26% DM	Improves fermentation and feed value	25TT and 100TT	Y
MAGNIVA Platinum Grass Wet	Grass, clover or lucerne	Wet and challenging crops: difficult to ensile	20-30%	Increased efficiency of fermentation, improved digestibility, 15 days opening option, increased aerobic stability	50TT and 100TT	Y
MAGNIVA Platinum Grass Dry	Grass, clover or lucerne	Dryer crops	31-45%	Increased efficiency of fermentation, improved digestibility, 15 days opening option, increased aerobic stability	50TT and 100TT	Y
MAGNIVA Platinum Grass Dry (1.5 dose)	Haylage		>45%	Increased efficiency of fermentation, improved digestibility, 15 days opening option, increased aerobic stability		Y
MAGNIVA Platinum Wholecrop	Wheat, barley, triticale, oats	Dry crop	30-45%	Increased efficiency of fermentation, improved digestibility, 15 days opening option, increased aerobic stability	50TT and 100TT	Y
MAGNIVA Platinum Wholecrop & Platinum Maize	Milled wheat, barley, triticale or oats	Mature grain	45-75%	Increased efficiency of fermentation, improved digestibility, 15 days opening option, increased aerobic stability	50TT	
MAGNIVA Platinum Crimp	Crimped wheat, barley, triticale or oats	Mature grain	25-40%* *moisture content	Single application rate and non-corrosive compared to equivalent acid treatments. Increased efficiency of fermentation, 15 days opening option, increased aerobic stability	10TT and 25TT	
MAGNIVA Platinum Maize	Maize	Typical crop	28-40%	Increased efficiency of fermentation, 15 days opening option, increased aerobic stability	50TT and 200TT	Y
MAGNIVA Platinum Maize Elite	Maize	Challenged crop (drought, rain, pests)	25-45%	Increased efficiency of fermentation, improved digestibility, 15 days opening option, increased aerobic stability	50TT and 100TT	Y

Green Farm Seeds
PROVEN
RELIABLE
BEST VALUE
MAIZE

MAIZE SEED 2023

CAUTION
LIMITED SEED AVAILABILITY

Green Farm Seeds

GUIDE TO SUCCESSFUL MAIZE SILAGE

Drilling Date: Ideally mid-April to early May, early drilling improves dry matter yields, grain content and drought sensitivity.

Soil Temperature: Consistently at 8˚C at sowing depth.

Seed bed: Ensure a moist loose / fluffy deep tilth with no compaction or water logging.

Sowing depth: The seed must be sown into moisture usually 35 - 40mm.

Starter Fertiliser: Significantly improves establishment by speeding up initial growth especially on nutrient low soils, whilst improving maturity, dry matter and starch yields. Proven as a crop investment.

Growth Fertilizer: **Vitally** important for maize yield & quality (see table opposite) consider Ennie-N as routine

Seed Dressing: See treatment options (Treatment legislation is likely to change again in 2023)

Seed Rates: Optimum seed rate of 45,000 seeds per acre yield of energy & starch (Silage)

Weed Control: Due to maize's lack of competitiveness in its early growth stages effective weed control is imperative to avoid crop failure.

Maize Eyespot: An increasingly common fungal disease affecting continuous maize at temperatures below 27°C. It will also affect harvest dates, starch levels and feed values. A preventative spray in mid July will control any potential occurrences. Combined with Ennie-N application.

Harvest Maturity: Immature harvesting reduces energy and starch yields by up to approximately 30%, adversely effecting silage performance.

Dry Matter:	Forage	30% - 35% Maximum animal intake
	Digestor	27% - 31% Maximum for anaerobic digestion fermentation
Chop Length:	Forage Long Chop	12mm - 15mm for rumen digestibility
	Biogas Short Chop	7mm - 10mm for extra surface area
	Very Wet	20mm - 25mm to reduce effuelent
	Very Dry	10mm to improve clamp compaction

Grain Cracking: To ensure maximum energy utilisation the corn cracker must be correctly adjusted to completely shatter all the grains to a powder.

Feed Out: Leave the clamp sealed for at least 4 weeks allowing the silage to stabilise and the grains to soften to maximise feed energy.

LALLEMAND Crop and Condition inoculants deliver high quality forage for both livestock and anaerobic digestors

MAGNIVA PLATINUM MAIZE ELITE

MAGNIVA PLATINUM MAIZE

If you have any questions or require extra information please call 01531 822833

MAIZE FERTILISER REQUIREMENTS

Correct nutrition is vital to provide a successful and economic maize crop.
Figures below based on peak uptake for a 20 t/ac (50 t/ha) maize crop, at 32% DM.

210 kg / ha	168 units / acre	Nitrogen (N)
55 kg / ha	44 units / acre	Phosphate (P)
220 kg / ha	176 units / acre	Potash (K)

Available nutrients for the next crop following spring application

	Kg per tonne			Units per ton		
	N	P	K	N	P	K
Cattle FYM	1.2	2.1	7.2	2.4	4.2	14.4
Broiler Litter	9	15	16	18	30	32
	Kg per cubic meter			Units per 1000 gal		
Cow Slurry	1.0	0.6	3.2	9	5.4	29
Pig Slurry	1.2	1.0	2.3	11	9	21

Source PDA

It is important not to exceed your local environmental guidelines

See Fertiliser section on page 79

MAIZE 2023 SEED TREATMENTS

Due to the de-registration of Mesurol (Methicard) Maize seed treatment, the seed treatments options for 2023 are listed below;

REDIGO M

Redigo (M) Fungicide (Bayer) is a **well proven** broad spectrum fungicide treatment for the control of Fusarium, Pythium and other damping off diseases. **No bird repellancy**.

Korit 420 FS

Korit fungicide and bird repellent (Syngenta) **standard**, a basic fungicide with protection against bird damaged in Maize.

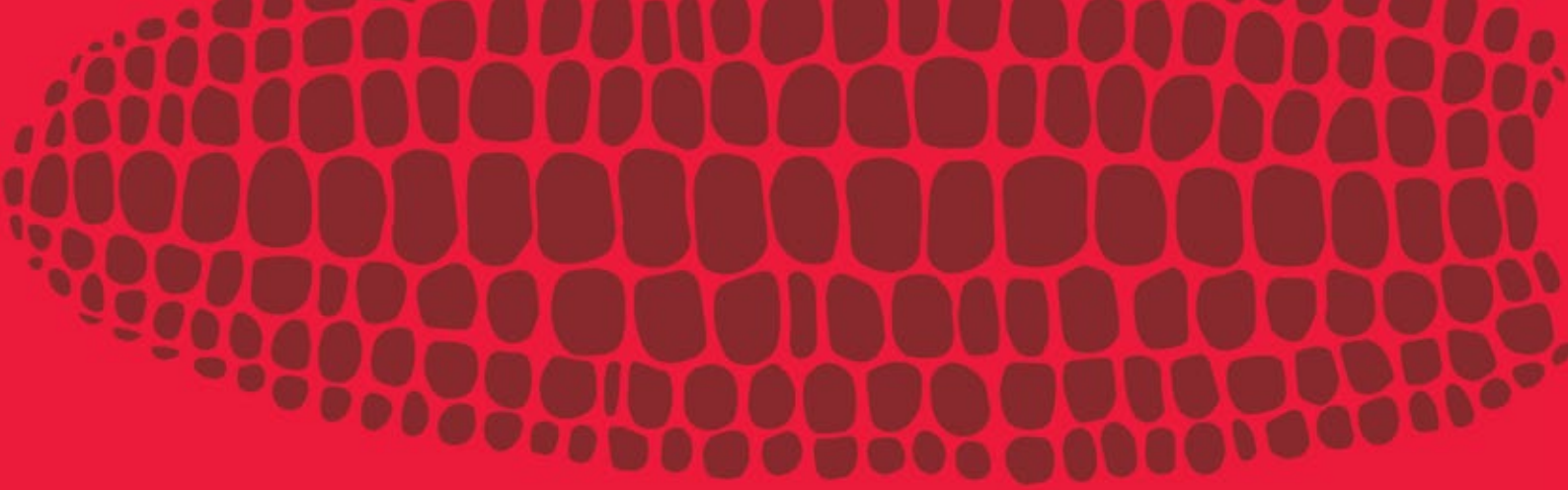
Force 20 CS

Force 20CS Premium Insecticide & Bird repellent (Sygenta) **optional**.

Broad spectrum Teflathrin insecticide effective against soil pests including wireworm, corn root worms, Millipedes Sowfly and Cutworms.

Force 20 CS is also proven to have positive effects on seedling emergence, initial root development and crop establishment

NEW To improve bird repellency all Force 20 CS treated seed will be combined with Korit 420 FS .



WHY BOTHER CHANGING VARIETIES

FOR AN ULTRA-EARLY MATURING MAIZE, BOASTING HIGH STARCH AND EXCELLENT DIGESTIBILITY, PLUS SUPERB EYESPOT AND LODGING AGRONOMICS.

I MEAN COME ON, WHO'S GOING TO DO THAT!

RAGT

RGT DUXXBURY

FORAGE MAIZE

INTELLIGENT SEED BREEDING
FOR LIKE-MINDED FARMERS.

BSPB

RAGTSEEDS.CO.UK

RAGT SEEDS | Grow to expect the best

RGT DUXXBURY (VERY EARLY F.A.O 160)

FORAGE MAIZE

A proven generation of early maturing maize from the same breeder as Agiraxx and Pixon which has shown consistency in 6 years of National Listing Trials.

In BSPB trials for an early variety Duxxbury has achieved the best scores for early Summer Lodging, Lodging, Green Snap and Brackling, therefore ensuring reliable, easy and early harvesting.

Duxxbury offers very early maturity even if sown relatively late after a spring silage cut or on less favourable sites. One of the earliest maturing varieties on the UK reccommended list

Characteristics

Maturity	11
Dry Matter Yield %	97
Dry Matter %	37.4
Starch Content %	35.6
ME (MJ/kg)	11.7
Cell Wall Digestibility %	59.2

BSPB figures

BSPB promoting innovation

Benefits

- Duxxbury combines excellent plant digestibility, energy and starch.
- Very good grain maturity reaching advanced true cob maturity
- Early whole plant dry down ensures good levels of dry matter in the clamp
- Very good starch yields from the early cob ripeness
- Excellent early vigour, standing power and produces well filled cobs reducing risk of microtoxin contamination in the clamp.
- Duxxbury is recommended for all less favourable, marginal maize growing sites or where early harvest date is of prime importance
- Very good eyespot resistance for an early maturing variety
- Duxxbury offers a good balance of plant dry down and grain maturity ensuring maximum utilisation and intake.
- **Available with wireworm treatment (limited)** Force 20 CS **combined with** Korit 420 FS

Korit & Redigo M treated, 50,000 seed packs

Bred by RAGT SEMENCES

RGT AGIRAXX EARLY F.A.O 170

FORAGE MAIZE

UK'S PROVEN MARKET LEADER

Still the UK's most proven allround Maize variety.

A proven generation of high intake varieties from R.A.G.T offering maximum digestibility.

Combines high dry matter and starch yields resulting in a high energy and digestable forage.

Suitable for favourable and less favourable sites.

Characteristics

Maturity	9
Dry Matter Yield %	108
Dry Matter %	35.25
Starch Content %	34.2
ME (MJ/kg)	11.6
Cell Wall Digestibility %	57

Independent trials figures

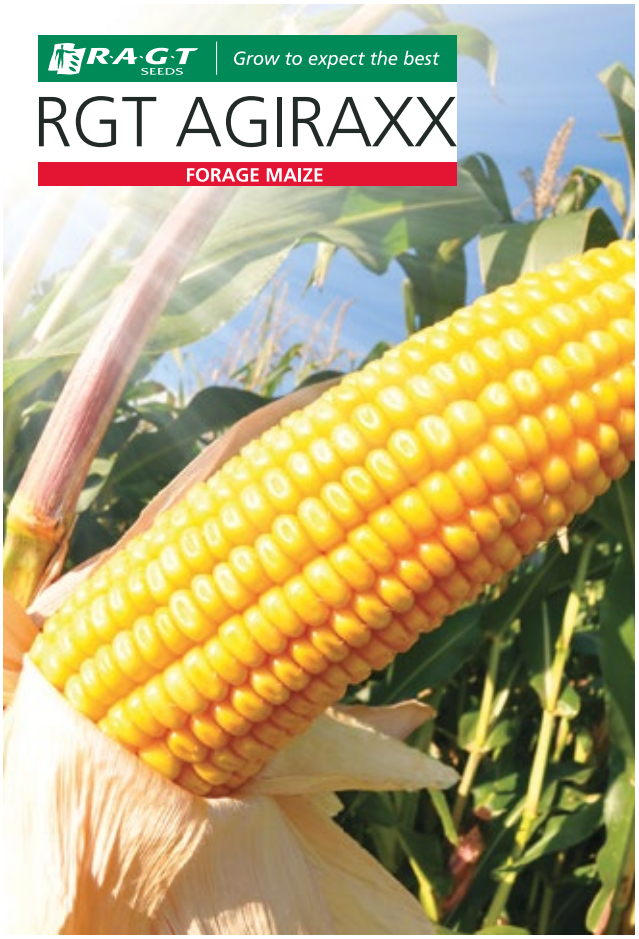
Benefits

- Agiraxx produces a sturdy leafy plant with excellent standing power even in exposed locations.
- Highest dry matter yields in Kingshay trials
- Very good grain maturity reaching advanced true cob maturity
- In trials Agiraxx produces the silage with the highest total digestibility
- High dry matter, starch and M.E yields ensure maximum livestock performance
- Early leaf dry down combines well with grain maturity allowing early harvesting
- A very bold plant with large uniform well formed and enclosed cobs
- A robust variety with good early vigour ensures rapid establishment

Winner of Gloucester Root, Fruit & Grain Maize Competition 2022

Korit & Redigo M treated, 50,000 seed packs

Bred by R.A.G.T SEMENCES



RGT PIXXON FORAGE MAIZE

EARLY/MAINSTREAM FAO 170

NEW FOR 2023

A new generation of early forage maize bred by RAGT

In 3 years of UK National Listing trials Pixxon is proving to be early and high yielding on all sites.

Pixxon is a farmer friendly variety with the bestww all round agronomic characteristics including lodging and disease resistance.

Characteristics

Maturity	9
Dry Matter Yield %	103
Dry Matter %	35.5
Starch Content %	33
ME (MJ/kg)	11.6
Cell Wall Digestibility %	59

NIAB/RAGT screening Trials Average

Benefits

- Very good cob presentation with strong full season cob retention
- Exceptional all round standing power and disease resistance including fusarium and smut
- Early maturity with no yield or quality penalties
- High starch, cell wall digestibility and ME will produce an energy dense and digestible forage
- Pixxon will be suitable for marginal later sowing or earlier harvesting situations
- **Available with wireworm treatment (limited)** Force 20 CS **combined with** Korit 420 FS

Korit & Redigo M treated, 50,000 seed packs

Bred by RAGT SEMENCES

LikeIT

MAINSTREAM F.A.O 180/190

A very robust good looking hybrid with extremely good early vigour on all soil types.

In 2021/22/23 BSPB trials LikeIt shows high scores for all round disease resistance, with the best Standing power and Lodging scores.

LikeIt presents an exceptionally large cob which is fully enclosed.

Characteristics

Maturity	8
Dry Matter Yield %	104
Dry Matter %	34.3
Starch Content %	33
ME (MJ/kg)	11.3
Cell Wall Digestibility %	60

BSPB promoting innovation

Best allround for standing power

Benefits

- LikeIt shows very good early vigour combine highest standing power scores
- High cell wall and whole plant digestibility %'s in UK National List Trials
- Good all round disease tolerance including Eyespot and Fusarium
- LikeIt is bred from Europe's most proven breeding programme
- Proven to be stable in a wide range of growing and soil situations
- A versatile variety which is reliable for forage, energy and grain production
- LikeIt's high energy density is ideal for rations involving high proportions of maize silage and anaerobic digestion.
- Excellent cob retention with the highest lodging and brackling scores
- **Well suited and proven for Biogas and Grain production**

Korit & Redigo M treated, 50,000 seed packs

Bred by KWS Marketed by DSV

SMOOTHI (MAINSTREAM F.A.O 200)

Very consistent single cross variety, producing large strong plants with very good grain fill and uniform cobs.

A dual use maize variety with slight stay green good digestibility and excellent forage qualities making it suitable for forage or biogas.

Characteristics

Maturity	7
Dry Matter Yield %	107
Dry Matter %	32
Starch Content %	32
ME (MJ/kg)	11.5
Cell Wall Digestibility %	59

Benefits

- Consistently high fresh and dry matter yields on the 2021 & 2022 BSPB lists
- Extremely good standing power and lodging resistance in all situations (Highest BSPB scores 2021 & 2022).
- A robust plant type with good early vigour and forage production
- Large root system gives excellent drought tolerance
- Big strong plant for its maturity group, with high dry matter yield
- A slightly greener plant results in a highly digestible good quality silage is clamped with high ME
- Exceptionally good all round disease resistance
- Produces enclosed well-formed mature cobs
- **Well suited and proven for high yielding Biogas production**

BSPB promoting innovation

Highest yielding on 2021/22/23 BSPB LISTS

Korit & Redigo M treated, 50,000 seed packs

Bred by Lidea FRESH IDEAS FOR AGRICULTURE

BUDGET

FAXXANA (F.A.O 210)

- A proven European maize variety with good yields
- Produces a strong bulky plant with full cobs
- Most suited to favourable sites and early sowing
- An economically priced and robust variety
- Successfully used for forage and grain production
- Excellent all round agronomic characteristics and plant health

Korit & Redigo M treated, 50,000 seed packs

Characteristics

Maturity	6
Dry Matter Yield %	102
Dry Matter %	32.4
ME (MJ/kg)	11.1

Bred by RAGT SEMENCES

BAOBI CS (BIOGAS F.A.O 240)

- Maximum yield potential from a robust plant type
- Large Plant and cob size with broad leaves
- Highest scores for summer and harvest lodging
- The best for methanisation thanks to its excellent yield and methanogenic potential
- Exceptionally good early seedling vigour
- Stay green plant type with fast cob dry down

Very Heavy Yielder

Korit & Redigo M treated, 50,000 seed packs

Characteristics

Maturity	5
Dry Matter Yield %	116
Dry Matter %	28 - 30
ME (MJ/kg)	11.1

Bred by Lidea FRESH IDEAS FOR AGRICULTURE

ROOT SEED 2023

Green Farm Seeds

ROOT CROP SELECTOR

Forage crops provide an extremely cost effective way of supplementing livestock rations during times when fodder may be scarce, during dry spells in summer and the cold winter months. They will supply substantial quantities of palatable material at relatively low production costs, balancing the amount of bought-in feed required.

1. When do you want to use the crop?
2. When will the land for growing fodder crops become vacant?
3. How many animals will a fodder crop feed?

Crop	Average Sowing Rate Kg per Hectare		Sowing Date Guide	Utilisation Period	Days to Grazing	Average Drill Depth cm	Suggested guide to seedbed Fertiliser (kg) ha		
	Broadcast	Direct Drill					N	P	K
Fodder Beet	-	50,000 seed/acre	March - May	October - March	180+	2.5 - 3	110	50	50
Stubble Turnip	4	3	April - September	June - December	80 - 100	1 - 2	75	40	40
Maincrop Turnip	4	3	May - July	October - January	100 - 130	1 - 2	40	80	100
Forage Rape	10	6	May - September	July - December	60 - 100	1 - 2	20	40	40
Rapid Root Mixture	6	5	April - September	July - December	80 - 100	1 - 2	60	50	50
Winter Graze Mixture	8.5	7.5	July - September	September - February	80 - 100	1 - 2	60	50	50
Swede	5	Grade H 1	April - June	August - March	170+	1 - 2	40	80	100
Kale	7.5	4	April - July	September - March	150 - 220	1 - 2	100	50	120

DISCLAIMER These tables are given in good faith and intended for general guidance only. Weather, local conditions and crop rotations must always be taken into account.

For all brassicas a soil pH of at least 6.0 is required. Please call for further advice.

TURNIPS

Fast-growing turnips produce higher yields of Winter or Summer feed more quickly than any other crop sown at the same time. Turnips produce palatable, easy-to-digest fodder for both sheep and cattle and can shorten the Winter concentrate feeding period by months. Turnips are multi-purpose and can be sown for grazing in Summer, Autumn and Winter.

Tankard shape enhances utilisation and reduces risk of choking associated with round bulbs

Stubble Turnips Yield and Feed Quality	
Average Dry Matter Yield	3.5 - 4.5 tonnes/ha
Average Fresh Yields	38 - 45 tonnes/ha
Crude Protein	17 - 18% (Mainly leaves)
Digestibility Value	69D
Dry Matter	8 - 9%
Metabolise Energy	11MJ/kg DM
Sugars DM	55%

STUBBLE TURNIPS

SAMSON & VOLLENDA (TETRAPLOID)

- 2 of the UK's most popular stubble turnips
- Both have huge purple tankard shape roots
- Reliable well proven stubble turnips
- Excellent disease resistance and early vigour
- High leaf to bulb ratio increases protein levels
- Palatable throughout the season
- Excellent speed of growth and bolting resistance

DELILAH (DIPLOID)

- Large white tankard shaped roots
- Huge dry matter yield
- Fully UK trialled with excellent results
- Diploid improves winter hardiness
- Palatable to both sheep & cattle

CAUTION: DO NOT SOW TOO THICK

As this will jeopardise root size

MAINCROP TURNIPS

GREEN GLOBE MAINCROP

- Most winter hardy bulb turnip available
- Later maturing (90-120 days)
- High fresh and energy yields
- Easily eaten, well anchored roots
- Can be utilised by all stock types
- Very high fresh yields from large bulbs
- Utilise between October & January
- Similar feed quality to stubble turnip
- **Can be included in Winter Graze mixture**

Green Globe Maincrop Turnips, Worcester in November

FODDER BEET

MAGNUM

BEST SELLER

- Well proven and very consistent
- High Dry Matter yields with palatability
- High proportion of root in the ground
- Good frost tolerance
- **A reliable dual purpose fodder/energy beet**
- **Suitable for biogas production**

DLF SEEDS & SCIENCE

Characteristics

Dry Matter %	19.3
Dry Matter Yield %	108
Fresh Yield %	91
Root in Ground %	75
Colour	White
Rhizomnia Resistant	No

50,000 seed packs

VIRIDIS

- Clean white shallow rooting beet, high fresh weight yield
- High Dry Matter yields and good frost tolerance
- Strong early vigour and excellent disease resistance
- Rhizomnia Tolerant
- **A reliable dual purpose fodder/energy beet**
- **Suitable for biogas production**

FLORIMOND DESPREZ

Characteristics

Dry Matter %	18.6
Dry Matter Yield %	104
Fresh Yield %	103
Root in Ground %	70
Colour	White
Rhizomnia Resistant	Yes

50,000 seed packs

JAMON

- A well proven consistent variety
- Clean highly palatable large orange roots
- Good resistance to leaf disease and bolting
- Large top size and early to lift
- Lift or graze insitu
- Europes most popular variety

FLORIMOND DESPREZ

Characteristics

Dry Matter %	16.2
Dry Matter Yield %	99
Fresh Yield %	105
Root in Ground %	67
Colour	Orange
Rhizomnia Resistant	No

50,000 seed packs

BANGOR

- Very high yielding , 10% higher yield than Kyros
- Produces large quantities of Dry Matter Yield
- Smooth, uniform root, which gives this beet very low dirt tare
- High position out of the ground for easy lifting
- Can be grazed in situ or lifted
- Good disease resistance

DLF SEEDS & SCIENCE

Characteristics

Dry Matter %	17.7
Dry Matter Yield %	105
Fresh Yield %	104
Root in Ground %	55
Colour	Yellow
Rhizomnia Resistant	No

50,000 seed packs

LEMPA

NEW

- A new high yielding all round beet
- High dry matter and fresh root yields
- A large, clean red beet
- Suitable for grazing and also lifting – good all round performer
- Presents high energy feed, suitable on any farming system
- Conical shape, with good root growth out of the ground
- **A higher yielding splendide replacement**

Characteristics

Dry Matter %	16.5
Dry Matter Yield %	122
Fresh Yield %	123
Root in Ground %	75
Colour	Rose
Rhizomnia Resistant	Yes

50,000 seed packs

BRIGADIER (GRAZING)

- Traditional Mangel type of beet
- Exceptional high flesh yields
- Large leaves stay fresh until grazed
- 65% of root above ground
- Low dry matter content, with high sugar content
- Exceptional utilisation by any class of stack
- Ideal for grazing but can also be lifted

Characteristics

Dry Matter %	12
Dry Matter Yield %	113
Fresh Yield %	135
Root in Ground %	35
Colour	Orange
Rhizomnia Resistant	No

50,000 seed packs

HARLEQUIN

NEW

- High yielding sugar/energy beet for Forage & Biogas
- Excellent dry matter yields T/Ha
- Good disease tolerance to rust and powdery mildew
- Very low bolting and dirt tare
- Lifting only as not suited to grazing

Characteristics

Dry Matter %	21.3
Dry Matter Yield %	114
Fresh Yield %	100
Root in Ground %	75
Colour	White
Rhizomnia Resistant	Yes

50,000 seed packs

ALL BEETS TREATED WITH

Force 10 Insecticide & TACHIGAREN Fungicide

Pest Control

- We are treating all our Beet seed with Syngenta Force 10
- Force 10 is the only approved insecticide for 2023 (Tefluthrin)

Benefits

- Soil acting pyrethroid insecticide
- Good protective spectrum against soil pests including wireworm
- Long lasting protection enabling strong plant establishment

Challenges

- No systemic effect (ie no above ground activity)
- Timely flea beetle and Aphid monitoring application

Be aware of Beet Seed only treated with Fungicides.

FORAGE RAPE

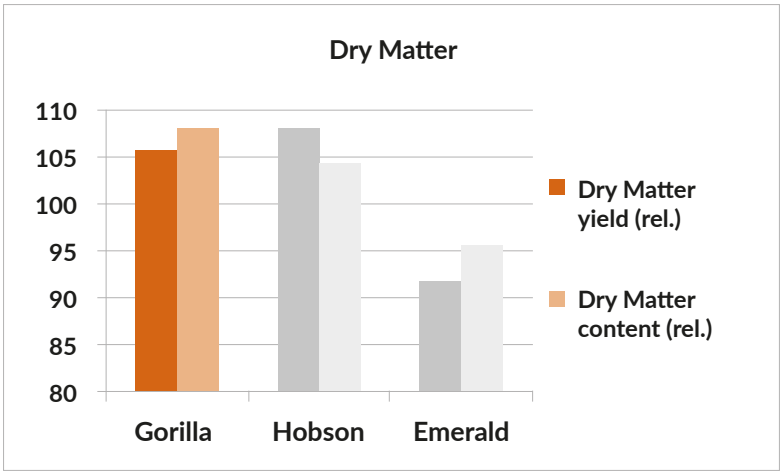
Forage Rape has the advantage of being a very fast growing crop suitable for grazing by sheep or cattle. It is an ideal catch crop for boosting midsummer forage production for livestock farmers when planted in the spring, it is also suitable for fattening lambs in the Autumn/Winter. Forage Rape extends the grazing season in the Autumn and is superb for flushing ewes.

Forage Rape Yield and Feed Quality	
Average Dry Matter Yield	3.5 - 4 tonnes /ha
Average Fresh Yields	24 - 35 tonnes/ha
Crude Protein	19 - 20% (Mainly leaves)
Digestibility Value	65D
Dry Matter	12 - 14 %
Metabolise Energy	10 - 11 MJ/kg DM

GORILLA

RELIABLE

- Leafy with excellent leaf retention
- The most palatable and digestible Rape in trials
- Forage Rape with good re-growth ability
- Late flowering with excellent standing ability
- Higher dry matter which leads to high total DM yields and improved intakes
- Good resistance to powdery mildew and clubroot
- Consistent high dry matter content
- Ideal grassland break crop



National list trials, DSV UK

RINGO
FORAGE RAPE

NEW

- New forage rape bred by RAGT semences
- Ringo has a very vigorous growth habit exceptionally good early vigour
- Late flowering zero-zero (00) forage rape variety
- Rapid establishment and fast ground cover
- Can be used by dairy, beef and sheep farmers to produce high quality feed
- Very high dry matter yields
- Highest dry matter content of any forage rape variety

RAGT SEEDS Grow to expect the best

RGT RINGO

FORAGE RAPE

INTERVAL
KALE RAPE HYBRID

- Can boost profits when filling the gap in a winter feed programme
- Very palatable and is ideal for finishing lambs or dairy cows
- Hybrid vigour improves rapid establishment
- Crops can be ready to use within 10-12 weeks of sowing
- Summer, Autumn and Winter grazing

Benefits

- Regrowth ability, bolting resistant
- Exceptionally high Dry Matter and fresh yields
- Good all-round disease resistance
- Uk proven being bred in Scotland

ROOT MIXTURES

The following two root mixtures combine the benefits of Stubble Turnips and Forage Rape, excellent for fattening lambs during Autumn and Winter and providing winter keep for all stock. These mixtures have been in great demand over recent years and the results from stock utilisation have been excellent.

RAPID ROOT (AB13)

- Quick establishment and high protein levels
- Turnips increase energy and stock holding capacity
- High yields of palatable forage
- Ideal for fattening stock
- Graze July through to December
- Sow Mid-April to September

Contents:
60% Gorilla Forage Rape
40% Samson Stubble Turnip

Sowing Rate:
5 kg/ha

WINTER GRAZE (AB13)

- The most popular and proven root mixture
- Reliable quality varieties suitable for sowing after winter cereals
- Exhibits very good winter hardiness
- Very good stock holding characteristics
- Graze September to February
- Sow July to Mid-September
- **20% Green Globe can replace 20% turnips to improve winter hardiness**

Contents:
40% Gorilla Forage Rape
60% Delilah Stubble Turnip

Sowing Rate:
5 kg/ha

Both mixtures can be used for CSS AB13 brassica fodder crop option

KALE

Kale is a brassica traditionally grown for grazing by cattle in the Autumn and Winter. Kale is very useful as it can extend the grazing season. This crop is best strip grazed to avoid excessive wastage and ensure both leaf and stem are eaten. It is very adaptable and can grow on most sites throughout the UK. Kale can also be used as a winter hardy game cover.

Kale Yield and Feed Quality	
Average Dry Matter Yield	8 - 10 tonnes/ha
Average Fresh Yields	60 - 65 tonnes/ha
Crude Protein	16 - 17% fresh
Digestibility Value	68D
Dry Matter	14 - 16%
Metabolise Energy	10 - 11 MJ/kg DM
Sugars in DM	17%

PROTEOR

THE PROVEN PERFORMER

- Very high dry matter yields in UK and NZ trials
- A leafy Kale at intermediate stem height
- Very high leaf to stem ratio (50% more leaf)
- Excellent winter hardiness and standing power
- Excellent tolerance of aphids, club root and other diseases
- Light grazing in Summer/Autumn will result in some re-growth
- High quality and well proven feed for cattle and sheep

MANGANESE TRIO

Seed coating

fielder first for growth

- Premium fertilizer seed dressing
- Concentrated fertiliser containing Magnesium, Copper & Zinc
- Major nutrients immediately available to the seedling
- Accelerates seed germination and increases root & shoot growth
- Immediate support for young plants reducing vulnerability at cotyledon stage
- Most beneficial in poorer and wetter soil conditions

SWEDE

Swedes are a full season root crop which are mainly fed in situ, an excellent high energy winter feed. They grow best in areas of high rainfall, so are generally grown in more northerly and western areas of the UK. Swedes can be grown in a wide range of soil types with good drainage as they are sensitive to compaction and poor drainage; they thrive in soils with a pH of approximately 6.5.

Swede Yield and Feed Quality	
Average Dry Matter Yield	7 - 10 tonnes/ha
Average Fresh Yield	70 - 80 tonnes/ha
Crude Protein	10 - 11%
Digestibility Value	82D
Dry Matter	9 - 13%
Metabolise Energy	12.8 - 13.1 MJ/kg DM
Sugars in DM	59%

TRIUMPH NEW

- The ultimate grazing swede
- Highest yielding yellow fleshed swede
- Uniformed bronze/purple skin
- Exceptionally good dry rot and mildew tolerance
- Very good winter leaf holding characteristics
- Medium dry matter bulb
- Very tolerant club root

KENMORE

- Well proven High Dry Matter grazing swede
- Widely used throughout the UK, Scottish bred
- Exceptionally winter hardy with high Dry Matter yields
- Globe shaped and consistently uniform
- Rapid establishment and early to mature

AIRLIE

- Low dry matter and high fresh yields
- Ideal for culinary or feeding stock
- Good confirmation characteristics and excellent disease resistance
- Very consistent root shape in the field
- Bright purple skinned with a yellow flesh ideal for culinary use
- Airlie is an early to intermediate use variety

Variety	Triumph	Kenmore	Airlie
Fodder	√	√	√
Culinary	X	X	√
Root Shape (9=Globe 1 = Tankard)	6	5	6
Skin Colour	Bronze	Bronze	Light Purple
Flesh Colour	Yellow	White	Creamy White

SILOSTOP

MAXIMUM **SILAGE QUALITY** | MAXIMUM **EFFICIENCY** | MAXIMUM **PROFIT** | MAXIMUM **PROTECTIVE STRENGTH**

SILOSTOPMAX

NOW AVAILABLE

Green Farm Seeds

For orders and advice call **01531 822833**

GREEN IS GOOD

CATCH & COVER CROP

Regenerative & Sustainable Agriculture

2023

Green Farm Seeds

REGENERATIVE & SUSTAINABLE AGRICULTURE

Benefits of Catch & Cover Crops

- Mid & Higher Tier Option, Sustainable Farming Initiative
- SW5 Enhanced Management of maize crops
- SW6 Winter Cover Crops
- Regenerative and sustainable agriculture is actively changing the way farms increase biodiversity, enrich soils, improve watersheds, and enhance the health of livestock and wildlife whilst also improving the long term profitability of agricultural enterprises.

Regenerative agriculture explained...

Organic Matter

Up to 5% of the soil's organic matter is used by crops each year, which has led to some soils on arable farms becoming severely deficient. Incorporating fresh organic matter improves soil structure, mineral composition and beneficial microbial activity. It also aids soil aeration and locks in nitrogen making it available to following crops.

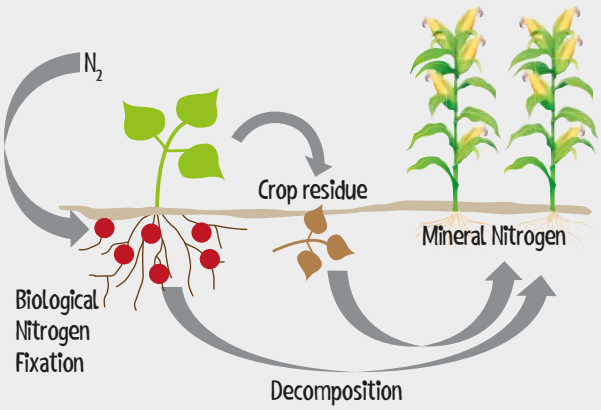
Weed Control

Cover crop species control weeds through light and nutrient deprivation. Faster growing brassica species and phacelia are most effective.

Nitrogen

Additional nitrogen can be made available for cash crops by fixing nitrogen from the atmosphere or preventing nitrogen leaching from the soil.

Legumes fix nitrogen from the atmosphere making it available to the following crops. Quick growing species such as crimson clover and berseem clover are best for short breaks between cash crops, whereas vetches are more effective for a longer growing period. It is important to note that legumes become most effective at fixing nitrogen when the soil temperature is over 8°C.



LEACHING PREVENTION

Nitrogen and other nutrients are lost through leaching when soil is left bare for any period of time, particularly over the winter when rainfall is high. Scavenging this nitrogen from the soil and holding it for the following crop is often easier and more effective than attempting to fix additional nitrogen from the atmosphere. It can be done effectively with cereals and mustard.

BLACK OAT AVENA STRIGOSA

VARIETY: LUXURIAL

LUXURIAL is the leading variety of black oats from European breeder Panam Semences. Developed specifically for the cover crop market, LUXURIAL combines late maturity, rapid establishment and high biomass production.

- More frost sensitive than other cereals
- Allelopathic variety
- Controls root lesion nemantode (Pratylenchus penetrans)
- Resistant to root-knot nematode (Meloidogyne hapla)
- Develops fibrous roots to relieve soil compaction
- Resistant to rust, barley yellow dwarf virus and aphids

Sowing Period: Aug-Oct
Sowing Depth: 1-2cm
Sowing Rate: 30-50kg/ha
Winter Hardy: NO

RED VETCH VICIA ATROPURPUREA

VARIETY: BINGO

Available exclusively through the EnviroSeeds range, the use of BINGO red vetch is an exciting development in short term cover crops. BINGO establishes more quickly, produces more biomass and is more susceptible to frost than common vetch.

- Fast growing, nitrogen-fixing legume
- Suits early Autumn sowing where winter kill is important
- Breaks down quickly once incorporated
- Ideal for use in mixtures with berseem clover
- Bred by leading breeder Jouffray-Drillaud

Sowing Period: Mar-Oct
Sowing Depth: 1-2cm
Sowing Rate: 25-50kg/ha
Winter Hardy: NO

FORAGE RYE SECALE CEREALE

VARIETY: TURBOGREEN

TURBOGREEN is the perfect rye variety for cover crops - suitable for very late sowings, quick to establish and late maturing. Forage Rye scavenges nitrogen from the soil making it accessible to the following crop.

- Late maturity and good lodging resistance
- High dry matter yield
- Rapid tillering and root development
- Strong weed suppression even at low sowing rates
- Reduces nutrient leaching and soil erosion
- Resistant to rust and aphids

Sowing Period: Aug-Oct
Sowing Depth: 1-2cm
Sowing Rate: 30-50kg/ha
Winter Hardy: YES

WHITE MUSTARD SINAPSIS ALBA

VARIETY: CAPRI

Litember tolerates late sowing and offers high organic matter production. Fast-growing, late-flowering and resistant to drought conditions when young. This variety improves soil structure with its distinctively developed root system.

- Economical cover crop solution
- High vigour and late maturing
- Produces high dry matter
- Rapid establishment
- Excellent weed suppressor and soil conditioner
- Suitable as stand alone crop or in a mixture

Sowing Period: Apr-Sept
Sowing Depth: 0.5-1cm
Sowing Rate: 10-15kg/ha
Winter Hardy: NO

COMMON VETCH VICIA SATIVA

VARIETIES: AMELIE/JOSE

Vetch (also known as tares) are very popular, providing a rapid fix of nitrogen. It is particularly good at competing against weeds. N Fixer, short Term.

- Large seed size ensures strong early vigour
- Fixes nitrogen available for the following crop
- Breaks down quickly once incorporated
- Produced in the UK and trusted on farm
- Excellent companion to both black Oats and Rye
- Frost susceptible varieties also available

Sowing Period: Mar-Oct
Sowing Depth: 1-2cm
Sowing Rate: 25-50kg/ha
Winter Hardy: VARIETY DEPENDENT

BROWN MUSTARD BRASSIC JUNCEA

VARIETIES: SCALA, VITTASSO

Brown Mustard provides a winter hardy cover crop to suppress weeds, pump water and improve soil structure. Both SCALA and VITTASSO are developed by leading breeders to be used as cover crops in their own right or for biofumigation.

- Improves soil health and catches nitrogen
- Increases organic matter and suppresses volunteers
- Rapid Autumn growth and winter hardy
- Exceptional root development in a short period of time
- Active against Pythium, Rhizoctonia and Verticillium
- See page 4 for more information on biofumigation

Sowing Period: Apr-Sept
Sowing Depth: 0.5-1cm
Sowing Rate: 5kg/ha
Winter Hardy: YES*

*Brown mustard usually withstands temperature down to -5°C.

OIL RADISH RAPHANUS SATIVUS

VARIETIES: ROMESA, TORRO

Oil Radish produces large amounts of biomass and extended tap roots, making it ideal for soil conditioning. Nematode resistant varieties also have the ability to reduce beet cyst nematode (Heterodera schachtii) populations by over 90% (class 1) and 85% (class 2).

- Fodder Radish is a very quick growing green manure
- Very rapid to germinate, establish and suppressing weeds
- Will penetrate compacted soils with its strong deep rooting tap root
- Ability to draw up nutrients from the subsoil and scavenge nitrogen
- Fodder Radish also produces large amounts of organic matter

Sowing Period: Apr-Sept
Sowing Depth: 1-2cm
Sowing Rate: 10-25kg/ha
Winter Hardy: NO

BERSEEM CLOVER TRIFOLIUM ALEXANDRINUM

VARIETY: TABOR

Berseem Clover grows rapidly and fixes nitrogen quickly. TABOR is very susceptible to frost and unique in being a 'single-cut' variety. This means once killed by frost or cut, it does not regrow and therefore makes it ideal for short term cover crops and companion cropping.

- Fast growing, nitrogen-fixing annual
- Very quick growing, tender to frosts
- Suppresses weeds and easy to incorporate
- Ideal for use in mixtures with vetch
- Available Pre Inoculated to aid root nodulation (special order)
- **Tabor the only true single cut variety**

Sowing Period: Mar-Aug
Sowing Depth: 1cm
Sowing Rate: 5-15kg/ha
Winter Hardy: NO

TILLAGE RADISH RAPHANUS SATIVUS

VARIETIES: STRUCTURATOR, DAIKON

Tillage Radish is a term coined to the Radish varieties that produce significantly larger root mass than standard varieties. We offer DAIKON, which produces a thick, bulbous root, and STRUCTURATOR which has a deeper root penetration into the soil.

STRUCTURATOR TILLAGE RADISH

- Very effective soil compaction reduction
- Extremely strong tap root
- High biomass production
- Suppresses weeds
- Scavenges nitrogen

Sowing Period: Apr-Aug
Sowing Depth: 1-2cm
Sowing Rate: 10-15kg/ha
Winter Hardy: NO

PHACELIA PHACELIA TANACETIFOLIA

- Very quick to establish
- Good weed suppressant
- Matures in 10-12 weeks
- Produces large, shallow root mass
- Excellent pollinator

Sowing Period: Apr-Oct **Sowing Rate:** 5-10kg/ha
Sowing Depth: 1-2cm **Winter Hardy:** NO

ETHIOPIAN MUSTARD BRASSICA CARINATA

- Frost hardy brassica
- Easy to establish
- Excellent weed suppressant
- Produces very leafy canopy
- Tolerates poorer soils

Sowing Period: May-Aug **Sowing Rate:** 5-15kg/ha
Sowing Depth: 1-2cm **Winter Hardy:** YES

BUCKWHEAT FAGOPYRUM ESCULENTUM

- Very quick growing annual
- Extremely tender to frost
- Excellent weed suppressant
- Nectar rich pollinator
- Scavenges phosphates

Sowing Period: May-July **Sowing Rate:** 50kg/ha
Sowing Depth: 2-3cm **Winter Hardy:** NO

SUNFLOWER HELIANTHUS ANNUS

- Extensive and prolific root system
- Very effective at soaking up nutrients
- Beneficial to pollinators and all insects
- Rapid and early season establishment
- Significant biomass production for a short season

Sowing Period: Apr – Aug **Sowing Rate:** 12kg/ha
Sowing Depth: 2-3cm **Winter Hardy:** NO

LINSEED LINUM USITATISSIMUM

- Easy and quick to establish
- Suits thinner soils
- Good companion to legumes
- Fibrous root structure
- Scavenges nitrogen

Sowing Period: Apr-Aug **Sowing Rate:** 50kg/ha
Sowing Depth: 2-3cm **Winter Hardy:** NO

LUCERNE MEDICAGO SATIVA

- Long term perennial
- Excellent nitrogen fixer
- Long tap root
- Suits light, chalky soils
- High dry matter, high protein

Sowing Period: Apr-Oct **Sowing Rate:** 20kg/ha
Sowing Depth: 1-2cm **Winter Hardy:** YES

CRIMSON CLOVER TRIFOLIUM INCARNATUM

- Nitrogen fixing annual
- Can be summer and autumn sown
- Strong autumn, winter and spring growth habits
- Suppresses weeds with vigorous seedling growth
- Tolerant of poor soils

Sowing Period: Aug-Sep **Sowing Rate:** 5-15kg/ha
Sowing Depth: 1cm **Winter Hardy:** YES

BROADLEAVED RED CLOVER TRIFOLIUM PRATENSE

- Aggressive and effective weed suppressor
- Good for improving and aerating soil structure
- Effective Nitrogen fixer with 4 year duration
- Potential to fill forage requirement
- Tap root penetrates several feet once established

Sowing Period: April-Sep **Sowing Rate:** 5-15kg/ha
Sowing Depth: 1cm **Winter Hardy:** YES

Regenerative Mix Sandhurst Gloucester

Most Popular

GFS GRABBER

Our most popular cover crop mixture comprising Rye and Winter Vetch. Vetch has a prolonged growing season and fixes nitrogen at lower temperatures than other legumes. Rye develops a strong root structure to scavenge nitrogen and suppresses weeds.

- Fixes and catches nitrogen
- Overwinters
- Low cost
- Good weed suppression
- Mid & High Tier SW5 & SW6

Contents:	Sowing Rate:
80% Rye 20% Vetch	35-50kg/ha

NEW

GFS SUMMER 'N' BOOST

A combination of fast growing legumes and phacelia, with a longer growing period which will fix valuable nitrogen, raising the fertility and organic matter for the next crop. This prolonged period of growing will also improve soil structure and condition, the inclusion of phacelia improves the pollen production of this mixture.

- Best sown in warm soils in late spring/early summer
- A full season green cover crop with many advantages
- Excellent nitrogen fixation potential
- Rapid establishment with good weed suppression.

Contents:	Sowing Rate:
60% Spring Vetch 22% Berseem Clover 10% Crimson Clover 5% Red Clover 3% Phacelia	15-20kg/ha

Nitrogen N Fixer

GFS AUTUMN DM

Suitable for early Autumn sowing with high dry matter production. Phacelia puts on a large amount of growth in a short period of time. The three different rooting structures improve soil structure and scavenge nitrogen. The inclusion of Rye ensures cover through the winter.

- Suitable for early sowing
- High dry matter
- Fixes and catches nitrogen
- Good for soil structure
- Mid & High Tier SW5 & SW6

Contents:	Sowing Rate:
80% Rye 15% Vetch 5% Phacelia	35kg/ha

Phacelia

GFS ECOCOVER

Can be sown down to 25kg/ha for the most economical cover or catch crop solution. White Mustard is quick to establish and fast growing. As it is tender to frost, it is also easy to incorporate in to the soil. Together with the prostrate growth of Rye, this mixture is effective at suppressing weeds.

- Low cost
- Covers ground through winter
- Fast establishment
- Good weed suppression
- Mid & High Tier SW5 & SW6

Contents:	Sowing Rate:
80% Rye 20% White Mustard	25-50kg/ha

We reserve the right to substitute similar varieties dependent on availability.

Buck wheat

GFS PAN BUSTER

A blend of three leading oil radish varieties; great for improving soil structure and suppressing weeds. Sowing at 10kg/ha encourages greater root growth to break up soil compaction. Higher sowing rates encourage greater top growth.

- Deep rooting
- Breaks up soil compaction
- Rapid water uptake from waterlogged soils
- Very quick growing

Contents:	Sowing Rate:
40% Daikon Tillage Radish 30% Oil Radish 30% Oil Radish	10kg/ha

GFS HYDROMAX

Cost effective solution for fast establishment and good ground cover to suppress weeds. Can be used effectively to improve soil structure and take moisture out of the soil over a short period of time. When incorporated in to the soil, Brown Mustard has a biofumigation effect.

- Deep, fibrous roots
- Good weed suppression
- Catches nitrogen
- Low cost

Contents:	Sowing Rate:
70% White Mustard 30% Brown Mustard	12.5kg/ha

GFS PROLIFIC

(Landsberger Mix) 1-2 year forage and soil improver

Sowing Rate (Kg/Acre) 21

Regenerative Agriculture

4.00kg Italian Ryegrass Diploid
4.00kg Italian Ryegrass Diploid
2.00kg GFS Red Clover Blend
1.00kg Crimson Clover
10.00kg Vetch
Pack size: 21kg

The ultimate winter green manuring and forage mix, that delivers high green and dry matter yields with a vast root mass

Benefits

- Developed in 1928 as the Landsberger mixture a well proven, high yielding, protein rich nitrogen fixing crop
- Deep rooting Nitrogen fixing, prolific growth with excellent ground cover and weed suppression
- Quick and easy to establish, non-brassica, Vetches and clovers are the most prolific nitrogen fixing species
- Suited to almost all soil types and aspects, Spring or Autumn sown
- Very effective at seeking out, mopping up and utilising soil nutrients
- Above average capacity for humus production and increasing biological activity of the soil
- Versatile growth can be grazed, ensiled or mulched as a cover crop.
- Little or no nitrogen fertilizer required

Nitrogen N Fixer


Crimson clover


Vetch

Green Farm Seeds offers a comprehensive range of cover crop mixtures but extends to bespoke mixtures also. Composing a mixture that is both viable and economical can be challenging - the three steps below offer some methodology to enable you to do so.

1 Identify the Priorities

- Organic Matter
- Soil Structure
- Biofumigation
- Pest Control
- Weed Control
- Allelopathy
- Nitrogen Fixing
- Leaching Prevention
- Erosion Control
- Water Uptake

2 Duration

- Sowing Date
- Winter Hardiness
- RPA Compliance
- Risk of Seed Shed

3 Practicalities

- Rotational Conflict
- Seed Rate
- Seed Size
- Sowing Depth
- Management
- Cost

AVOID...

Inappropriate seed rates - mixture percentages are based on weight rather than seed number.
For example, there are over ten times the number of seeds per gram of phacelia than rye.
More than five species in a mixture - low quantities of lots of species will have little positive effect on the soil.

Inter row sowing of companion crops

Primary Characteristics

Secondary Characteristics

Species	Type	Sowing Rate per ha kg	Sowing Depth cm	Sowing Period	Over Winter Use	Nitrogen Fix
MUSTARD						
Brown	Brassica	5	1-2	Apr-Oct	YES	
White	Brassica	10-15	0.5	Apr-Sept	NO	
Ethiopian Mustard	Brassica	5-15	1-2	May-Aug	YES	
VETCH						
Common	Legume	25-50	1-2	Mar-Oct	YES	
Red	Legume	25-50	1-2	Mar-Oct	NO	
OIL RADISH						
Standard	Brassica	10-25	1-2	Apr-Sept	NO	
Tillage	Brassica	10-15	1-2	Apr-Aug	NO	
OTHER SPECIES						
Berseem Clover	Legume	5-15	1	Mar-Aug	NO	
Black Oats	Cereal	30-50	1-2	Aug-Oct	NO	
Buckwheat	Polygonaceae	50	2-3	May-July	NO	
Crimson Clover	Legume	5-15	1	Aug-Sept	YES	
Broad Red Clover	Legume	5-15	1	Apr-Sept	YES	
Linseed	Linum	50	2-3	Apr-Aug	NO	
Lucerne	Legume	20	1-2	Apr-Aug	YES	
Phacelia	Boraginaceae	5-10	0.5	Mar-Aug	NO	
Rye	Cereal	30-50	1-2	Aug-Oct	YES	
Sunflower	Asteraceae	12	2-3	Apr-Aug	NO	
GREEN FARM SEEDS MIXTURES						
Grabber	Mixture	35-50	1-2	Aug-Oct	YES	
Autumn DM	Mixture	35	1-2	Mar-Sept	YES	
EcoCover	Mixture	25-50	1-2	Aug-Sept	YES	
Summer 'N' Boost	Mixture	10-15	1-2	May-Aug	NO	
Pan Buster	Mixture	10-15	1-2	Apr-Sept	NO	
HydroMax	Mixture	12.5	1-2	Apr-Sept	YES	
Prolific	Mixture	52	1	Mar-Sept	YES	

Information provided in this catalogue is given in good faith, and should act as a guide only. Local conditions, weather and crop rotations to will affect performance.

GREEN IS GOOD

GAME COVER & STEWARDSHIP

2023

Green Farm Seeds

Product	Use	CSS	Pack Size kg	Sowing Rate kg per ha	Sowing Date	Crop Duration Years
MAIZE						
Maize	Cover & Feed		50,000 seeds	43,000 seeds / acre	April - June	1
BRASSICA						
Kale	Cover	AB13	1.0	4.00	April - June	1 to 2
Surefire Kale Blend	Cover		2.0	4.00	April - June	1 to 2
Carbon Hybrid	Cover		5.0	5.00 - 7.50	July - Sept	1
Gorilla Forage Rape	Cover	AB13	5.0	5.00	May - Sept	1
Spitfire	Cover		5.0	5.00	May - Sept	1
Zoom Mixture	Cover	AB13	5.0	5.00	May - Sept	1
MILLETS / GRASSES						
Sorghum Inter & Dwarf	Cover & Feed		10.0	20.00	May - June	1
Over n under Sorghum Mix	Cover & Feed		10.0	20.00	May - June	1
Millets	Cover & Feed		10.0	10.00	April - June	1
Reed Canary Grass	Cover		2.5	6.00	April - June	5 +
GAME COVER CROPS						
Dwarf Sunflowers	Feed & Cover		10.0	10.00	April - June	1
Quinoa	Feed		2.0	5.00	April - June	1
Tritcale	Feed		25.0	125.00	Spring / Auumn	1
Gold of Pleasure	Feed		5.0	10.00	April - May	1
Buckwheat	Feed		25.0	50.00	April - May	1
White Mustard	Cover	AB2	5.0 & 25	10.00	Spring / Auumn	1
Brown Mustard	Cover		5.0 & 25	10.00	Spring / Auumn	1
Fodder Radish	Cover	AB2	5.0 & 25.0	10.00	Spring / Auumn	
Linseed	Feed		25.0	75.00	April - May	1
Perennial Chicory	Cover		2.0	5.00	Spring / Early Autumn	5 +
Yellow Blossom Clover	Cover		2.0	5.00	April - June	1 to 2
GAME COVER MIXTURES						
GP Rearing Pen Mix			15.0	37.00	Spring / Autumn	5 +
Traditional Game Mix	Cover & Feed	AB9	10.0	25.00	April - June	1
Decoy Mix	Cover & Feed	AB9	10.0	20.00	Spring	1
May Hill Mix	Cover & Feed	AB9	6.5	16.00	Spring	2
Overdrive	Cover & Feed		2.5	6.00	April - June	1 to 2
Boost Mix	Cover		5.0	10.00	June - Sept	1
Kwik Fix	Cover	AB2	5.0	15.00	July - End Sept	1

Fertiliser Requirements			
SPECIES	N.P.K UNITS / ACRE	N.P.K KG / HA	COMMENTS
Maize / Sorghum	80:50:100	100:65:125	Responds well to fertiliser. Lime if below pH 6.0
Mustard	50:25:25	65:30:30	No fertilisers normally used
Other Brassicas	80:40:40	100:50:50	Necessary for all tall crop
Kale	100:40:70	125:50:90	Lime if below pH 6.0
Clovers	00:50:75	00:65:100	Fixes atmosphere Nitrogen
Millet	60:30:30	75:40:40	Responds well to fertiliser
Quinoa	50:20:35	65:25:45	Clean seed bed essential
Phacelia	45:45:45	55:55:55	
Chicory	120:30:30	150:35:35	
Tritcale	60:30:30	75:35:35	

Most mixtures and Autumn sown catch crops will respond to a dressing of fertiliser, particularly nitrogen. Please call regarding specific recommendations. In some circumstances crops grown on set-aside land or under CSS should not receive fertiliser.

This table is provided in good faith and intended for general guidance only. Weather, local conditions and crop rotations must always be taken into account.

Establishing Game Cover Crops

Game cover crops will only reach their full potential if they are well managed right from the start. A successfully managed shoot is both profitable and rewarding to landowners and the local community, as it contributes positively to the countryside and the overall environment. Please call for specific husbandry guidelines.

Dwarf Sorghum

GAME MAIZE

BEST SELLER

StandIT

Benefits

- Medium height with strong stems and cob retention
- Excellent vigour and establishment
- Strong bold plant type
- Good cob and grain production
- Exceptionally good disease resistance
- Suitable for all types of sites
- Well proven over many acres and sites
- Viable cob production for optimum feed

Pack Size – 50,000 seeds
Sow at 40,000 seeds per acre
Korit & Redigo M treated

HoldFAST

Benefits

- Holdfast blend is a mixture of varieties with early, mid and late maturity
- Differing rates of maturity with cobs ripening at different times
- Provides cover and feed throughout the whole shooting season
- Height of varieties will vary
- All have excellent standing power

Pack Size – 45,000 seeds
Sow at 40,000 seeds per acre
Korit & Redigo M treated

All game maize treated with

REDIGO M & Korit® 420 FS

See page 29 for full details

LATE SHOT

Benefits

- Late Shot is selected for very late maturity
- Exceptional standing ability although tall
- Produces an immature cob that only develops to the white stage under normal UK conditions

Pack Size – 50,000 seeds
Sow at 40,000 seeds per acre
Korit & Redigo M treated, 50,000 seed packs

Gloucestershire January

KALE & BRASSICAS

Kale is still one of the most popular cover crops used today. The main advantage of kale is that it will provide cover for the whole shooting season. Pheasants particularly like the combination of a good canopy and bare ground which allows easy movement in a relatively dry environment.

Kale is frequently grown in conjunction with other crops such as quinoa and yellow blossom clover.

Beware of pest attacks in Kale especially at immature stages, regular inspection will be required.
Ensure correct PH and adequate fertility.

PROTEOR KALE

- **Benefits from combi coat treatment (see page 42)**
- Exceptionally good winter standing power
- A leafy Kale at intermediate stem height
- Very high leaf to stem ratio (50% more leaf)
- Excellent winter hardiness and standing power
- Excellent tolerance of aphids, club root and other diseases
- Light grazing in summer/autumn will result in some re-growth
- High quality and well proven for game cover

Sowing Rate (kg/ha) 4

Pack Size 2.5kg

GOLDENEYE KALE

- Club Root Tolerant
- Goldeneye is a giant variety specifically bred for the game cover market
- Excellent combination of height and leaf production
- It has a leafy top, strong stem
- Good winter hardiness and tolerance of disease

Sowing Rate (kg/ha) 4

Pack Size 1kg

GFS KALE BLEND

- A combination of three excellent game cover Kale varieties
- Provides a tall varied canopy
- This blend gives superb cover over an extended period
- Good second year growth with various
- The flowering Kale attracts insects and sheds seed, which helps to draw game and song birds

45% Proteor
30% Astera
25% Golden Eye

Sowing Rate (kg/ha) 4

Pack Size 2.5kg

INTERVAL HYBRID

- A fast growing, hybrid brassica developed from Ethiopian Mustard
- Easy to establish and frost hardy
- Produces a broken canopy which is great for flushing birds
- Rapid growth is ideal for suppressing weeds
- Often used as a patching crop when spring crops have failed
- **Planting before May can cause premature bolting**

Sowing Rate (kg/ha) 5 - 7.5

Pack size 5kg

ZOOM - BRASSICA MIXTURE

- Zoom is a blend of Interval Hybrid Brassica and Forage Rape
- Very vigorous and quick growing
- Ideal for replacing failed crops or patching Spring sown crops
- Good seedling vigour which gives reliable establishment

Sowing Rate (kg/ha) 5

Pack size 5kg

FORAGE RAPE

- Forage Rape can be used as a rescue or catch crop
- Provides good cover for holding and driving
- It is largely unaffected by frost and wet weather
- Will shed seed in the second year if Autumn sown
- Very cost effective

RAGT Grow to expect the best
RGT RINGO
FORAGE RAPE

Sowing Rate (kg/ha) 5

Pack size 10kg & 25kg

SORGHUMS

Sorghum is a semi-tropical, non-cob producing, Maize-like plant which will provide cover throughout the shooting season. It thrives best in warm, sunny growing conditions such as the southerly regions of the UK. Sorghum is a slow establishing plant that does not begin to flourish until late July.

DWARF SORGHUM

- Dwarf Sorghum has a short, sturdy, broad-leaved stem and a substantial seed-head
- Provides warmth and cover throughout the shooting season
- Often sown as a companion to maize with the bulkier, shorter sorghum plants giving protection to the birds
- Crop height approx. 90-100 cm

Pack size 10kg
Treatment Fungicide treated

Sowing Rate (kg/ha) 20

OVER N' UNDER SORGHUM MIXTURE

- A combination of two different heights of Sorghum
- The shorter Dwarf Sorghum will give the birds cover and protection from predators
- Taller Giant Sorghum acts as a windbreak

50% Giant/Intermediate Sorghum
50% Dwarf Sorghum

Pack size 10kg
Treatment Fungicide treated

Sowing Rate (kg/ha) 20

MILLETS

WHITE MILLET

- It is a sunshine loving plant which is not frost hardy
- Produces huge quantities of edible seed
- Provides warmth, shelter and feed for game birds
- White Millet will attract wild seed-eating birds such as finches
- Particularly attractive to grey and red-legged partridges

Pack size 10kg

Sowing Rate (kg/ha) 10

JAPANESE REED MILLET

- Japanese Reed Millet has the strongest plant of the Millet family
- Winter hardy with a strong stem
- Taller than Red or White Millet
- Mixed with White and Red Millet it provides an excellent cover and feed (see Ambush Millet Mix)

Pack size 10kg

Sowing Rate (kg/ha) 10

MILLGAME MILLET MIX

- Blend of Red and White Millet, useful as the Red matures earlier than the White
- This mixture can produce huge amounts of high protein feed per acre
- Combined with Maize creates an excellent cover and feed
- Very well proven and popular

50% Red Millet
50% White Millet

Pack size 10kg

Sowing Rate (kg/ha) 10

AMBUSH MILLET MIX

- A combination of White, Red and Japanese Reed Millet
- The Reed Millet is the stronger plant and significantly more winter hardy
- White and Red Millet produces plentiful seed to hold the birds in the cover
- An ideal mixture for use as a wind-proof belt around Maize or as a flushing point at the end of Maize

40% White Millet
40% Red Millet
20% Japanese Reed Millet

Pack size 10kg

Sowing Rate (kg/ha) 10

OTHER CROPS

DWARF SUNFLOWER

- A short hybrid variety with very good standing ability
- The seed- heads tend to be larger than those of the standard type
- These are also best "swiped down" to enable birds to reach the large seed-heads
- Plenty of nutritious seeds
- More robust and vigorous to establish than standard type

Pack size 5kg

Treatment Fungicide treated

Sowing Rate (kg/ha) 10

SPRING LINSEED

- Very fast to establish
- Attractive to partridges especially in mixtures
- Tolerates a range of soil types
- Not frost hardy

Pack size 25kg

Sowing Rate (kg/ha) 75

QUINOA

- Produces plentiful amounts of seed
- Good for holding partridge and pheasant
- Attracts seed-eating song-birds
- Commonly grown with kale

Pack size 2kg

Sowing Rate (kg/ha) 5

SPRING TRITICALE

- A Wheat / Rye hybrid cereal providing good cover and feed in marginal low fertility areas
- Will thrive with low inputs
- Useful where brassica sickness is a problem
- Able to withstand rabbit and deer attacks
- Good winter hardiness and disease resistance
- Often used as a companion crop in mixtures

Pack size 25kg & 500kg

Sowing Rate (kg/ha) 125

FODDER/OIL RADISH

- A fast growing tall cover crop
- Useful where brassica sickness is a problem
- Quick to establish which aids weed suppression
- If sown in July it will be ready to provide cover within six to eight weeks
- Valuable as a replacement for failed crops, will continue to provide cover through the season

Pack size 10kg & 25kg

Sowing Rate (kg/ha) 10

BUCKWHEAT

- A rapidly growing short term crop highly attractive to pheasants and partridge
- Large amounts of nectar produced which attracts bees and other beneficial insects
- Good in mixtures due to its bulkiness and rapid establishment
- Buckwheat thrives best in sunny rather than shaded areas

Pack size 10kg & 25kg

Sowing Rate (kg/ha) 50

WHITE MUSTARD

- Fast to establish and drought tolerant
- Inexpensive and highly versatile cover crop
- Can be sown alone or as a companion to other species
- It is ideal for early cover, not winter hardy

Pack size 10kg & 25kg

Sowing Rate (kg/ha) 10

GOLD OF PLEASURE - CAMELINA

- Well suited to poorer and nutrient deficient soils
- Fast maturing, free-branching plant producing a seed very attractive to birds, especially partridge
- A useful mixture for exposed areas

Pack size 5kg

Sowing Rate (kg/ha) 10

GAME COVER MIXTURES

The GFS range of game cover mixtures are specially formulated to ensure you achieve the best from your cover crops. Combining different species into a mixture can extend the utilisation period, help to attract and hold specific types of game and provide feed and cover where both are required.

GFS TRADITIONAL GAME

- A traditional mixture using a wide range of reliable species
- Provides full season of cover and feed for all game birds
- Sunflowers add an attractive splash of colour
- Attractive to insects and wildbirds
- Variance in seed size needs to be considered when drilling

30%	Game Maize
17.5%	White Millet
15%	Red Millet
14%	Buckwheat
9.5%	Kale
7.5%	Sunflower
2.5%	White Mustard
2.5%	Forage Rape
1%	Gold of Pleasure
0.5%	Phacelia

Sowing Rate (kg/ha) 25

Pack size 10kg

Treatment various treatments

DECOY GAME MIXTURE (AB9)

- Combines eight small seed producing species
- Provides excellent cover and feed, will last throughout the season
- Easy to sow and establish as all the seeds are of similar size
- Herbicide options for weeds available

25%	Linseed
21%	Buckwheat
18.5%	Red Millet
18.5%	White Millet
6.5%	Fodder Radish
6.5%	White Mustard
2.5%	Japanese Reed Millet
1.5%	Gold of Pleasure

Sowing Rate (kg/ha) 20

Pack size 10kg

MAY HILL (AB9)

2 year Mix

NEW

Benefits

- Full Season Winter Hardy Cover
- Good standing power especially in exposed sites
- Good source of winter feed for game and farmland birds
- Will last 2 years if required
- Brown mustard improves establishment

1.00 kg	Proteor Kale
0.25 kg	Gorilla Forage Rape
0.50 kg	Interval Hybrid
1.50 kg	Fodder Radish
1.25 kg	Spring Linseed
0.50 kg	Gold of Pleasure
0.50 kg	White Mustard
0.50 kg	Phacelia
0.25 kg	Brown Mustard

Sowing Rate (kg/ha) 16

Pack size 6.25kg

MAY HILL

Husbandry

- Sowing Date, April – June
- Fine Firm weed free seed bed
- Drill or Broadcast depth 1-2 cm
- Roll in to ensure good soil contact and retail moisture
- Fertiliser requirements, Nitrogen 100 kg / ha, Phosphate 50 (kg/ha) and Potash 120 (kg/ha)

Herbicide Regime

Sultan (Metazachlor) Pre em Label approval on Kale & Mustard only max ind dose 1.5lt/ha

Fusilade Max post em
1 application @ 1.5l/ha max individual dose label cleared for Gamecover
This will control grassweeds

Shield 400 post em
Max individual dose 0.5l/ha off label approval
This will control Thistles, small mayweed and groundsel

Off label approvals are at the farmers own risk.

BOOST MIXTURE

- A fast growing, quick to establish, frost hardy crop
- Ideal to sow in late Summer or early Autumn
- Provides cover that will last throughout the winter
- Excellent as a 'rescue' mixture for patching failed crops or when a later sown crop is required.

65%	Hybrid Brassica
10%	Forage Rape
10%	Fodder Radish
10%	Brown Mustard
5%	White Mustard

Sowing Rate (kg/ha) 10

Pack size 5kg

KWIK FIX

- Flexible and economic cover crop
- Can be used to patch failed spring game covers
- Mustard provides rapid cover and Fodder Radish prolongs the cover period
- Will not provide full season cover, but it is more winter hardy than straight mustard.

80%	Fodder Radish
20%	White Mustard

Sowing Rate (kg/ha) 15

Pack size 5kg

OVERDRIVE

- Traditional Kale Quinoa mixture
- Kale provides excellent cover
- Quinoa produces high quality feed
- Very well proven and reliable over many years
- Ensure adequate fertility

50%	Carmen Quinoa
50%	GFS Kale Blend

Sowing Rate (kg/ha) 6

Pack size 2.5kg

Kale & Giant Sorghum

LONGER TERM CROPS

Perennial game cover crops provide valuable year round habitat for game and farmland wildlife. They help reduce workload during busy periods and reduce establishment costs.

YELLOW BLOSSOM CLOVER (2 YEAR)

- Produces nectar that is highly attractive to insects, which attracts game birds and wildlife
- Sowing with Kale which will help to provide cover in the first year
- Ability to fix Nitrogen
- Deep rooting it is invaluable for improving soil structure and fertility
- Tall dense cover in its second year

Sowing Rate (kg/ha) 5

Pack size 2kg

REED CANARY GRASS (PERENNIAL)

(Phalaris arundinacea)

- Suitable for use in exposed regions
- A hardy plant that will tolerate a wide range of soil types
- Offers nesting and cover to pheasants
- Drilling in wide rows is necessary rather than broadcasting or the crop will become too dense
- Annual management should be undertaken to keep the rows clear
- A companion crop will be needed in the 1st year of sowing

Sowing Rate (kg/ha) 6

Pack size 2.5kg

CHICORY (PERENNIAL)

- Creates a tall, dense cover, bolting in its second and following years to create a 6 - 7ft flowering hedge
- Useful where a perimeter barrier is required
- Good tolerance to drought, acid soils and major pests
- Often used in mixtures to extend the cover period
- A companion crop will be needed in the 1st year of sowing
- Puna II

Germinal Sowing future seeds.

Sowing Rate (kg/ha) 5

Pack size 2kg

MID AND HIGHER TIER COUNTRYSIDE STEWARDSHIP SCHEME

COUNTRYSIDE STEWARDSHIP SCHEME DESCRIPTION				
CSS Higher Tier	**CSS Mid Tier**	**CSS Code**	**CSS Option**	**GFS Suitable Mixture**
ARABLE				
√	√	AB1	Nectar Flower Mixture	Nectar Rich Gold
√	√	AB2	Basic Overwinter Stubble	Mustard/Fodder Raddish
√	√	AB3	Beetle Banks	All BGM Mixtures
√	√	AB7	Wholecrop Cereals	Mustard/Fodder Raddish
√	√	AB8	Flower-rich Margins & Plots	BGM4
√	√	AB9	Winter bird Food	All WBS Mixtures
√	√	AB13	Brassica Fodder Crop	Rapid root / Winter graze
√	√	AB15	Two Year sown Legume Fallow	Legume Fallow With Grass
√	√	AB15	Two Year sown Legume Fallow	Legume Fallow Flower Rich
√	√	AB16	Autumn sown bumblebird mix	WBA2
GRASSLAND				
√	√	GS1	Take field corners out of field management	Various
√	√	GS3	Ryegrass seed – set as winter food for birds	GFS Hi-D
√	√	GS4	Legume and herb-rich swards	Legume & Herb rich
√		GS8	Creation of species-rich grassland	BGM4
√		GS14	Creation of grassland for target features	BGM4
SOIL AND WATER				
√	√	SW1	4-6 m buffer strip on cultivated land	All BGM's
√	√	SW2	4-6 m buffer strip on intensive grassland	All BGM's
√	√	SW3	In-field grass strips	All BGM's
√	√	SW4	12-24 m watercourse buffer strip on cultivated land	All BGM's
√	√	SW5	Enhanced management of Maize crops	See Catch & Cover Crops
√	√	SW6	Winter Cover crops	See Catch & Cover Crops
√	√	SW7	Arable reversion to grassland with low fertiliser input	All BGM's
√	√	SW8	Management of intensive grassland adjacent to a watercourse	All BGM's
WETLANDS				
√	√	WT1	Buffering in-field ponds and ditches in improved grassland	All BGM's
√	√	WT2	Buffering in-field ponds and ditches in arable land	All BGM's
SUPPLEMENTARY FEED				
√	√	AB12	Supplementary winter feeding for farmland birds	Various mixtures

Organic versions of all mixtures available

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 the R.P.A or consult your manual www.gov.uk/countryside-stewardship-grants

WILD BIRD SEED MIXTURES

SPRING SOWN

WBS 1 AB9

1 Year Spring Sown
Attracts Tree Sparrows

15%	Spring Wheat
30%	Spring Barley
45%	Spring Triticale
5%	White Millet
2%	Red Millet
3%	Fodder Radish

Sowing Rate (kg/ha) 40-50

Pack size 20kg

WBS 2 AB9

BEST SELLER

1 - 2 Year Spring Sown
Attracts Grey Partridge

45%	Spring Triticale
20%	Spring Barley
15%	Spring Wheat
6.75%	Kale (2 yr) Combi Coat treated
3.5%	Fodder Radish
4%	White Millet
3%	Dwarf Sunflower
2%	Red Millet
0.75%	Perennial Chicory (2 yr)

Sowing Rate (kg/ha) 40-50

Pack size 20kg
Kale is Combi Coat Treated (See Page 40)

WBS 4 AB9

BEST SELLER

1 Year Spring Sown
Attracts Finches & Buntings

45%	Spring Triticale
25%	Spring Barley
8.50%	Dwarf Sorghum
7%	White Millet
5%	Linseed
4%	Japanese Reed Millet
3%	Red Millet
2.50%	Gold of Pleasure

Sowing Rate (kg/ha) 40-50

Pack size 20kg
Herbicide tolerant please call to discuss options

AUTUMN SOWN

WBA 2 AUTUMN SOWN BUMBLEBIRD MIXTURE AB16

2 year Autumn Sown

25%	Winter Triticale
25%	Winter Wheat
20%	Winter Barley
6%	Vetch
5%	Fodder Radish
5%	Kale Treated
3%	Gold of Pleasure
3%	Lucerne (inoculated)
2%	Alsike Clover
2%	Birdsfoot Trefoil
2%	Crimson Clover
2%	Red Clover

Pack size 20kg

Sowing Rate (kg/ha) 50


WBS 2 Gloucestershire


WBS2 South West

BUFFER STRIPS MIXTURES

BGM 1 WITH COCKSFOOT

AB3, SW1, SW2, SW3, SW4, SW7, SW8, WT1, WT2

30%	Creeping Red Fescue
20%	SSMG
20%	Tall Fescue
15%	Cocksfoot
15%	Timothy

Sowing Rate (kg/ha) 20

Pack size 20kg

Species-Rich Wild Flowers

SPECIES-RICH GRASS (SRG)*

AB3, SW1, SW2, SW3, SW4, SW7, SW8, WT1, WT2

20%	SSMG
20%	Creeping Red Fescue
20%	Browntop Bent
10%	Meadow Fescue
10%	Sheeps Fescue
10%	Hard Fescue
10%	Crested Dogstail

Sowing Rate (kg/ha) 20

Pack size 20kg

***Species-Rich Grass & Species-Rich Wild Flowers are available separately or as a mixture of grasses (SRG) & flowers (SRWF) together in the following ratios:**

95% SRG with 5% SRWF
90% SRG with 10% SRWF
85% SRG with 15% SRWF

AB3, AB8, GS4, GS14, SW1, SW2, SW3, SW4, SW7, SW8, WT1, WT2

Pack size 20kg

Sowing Rate (kg/ha) 20

BGM 2 NO COCKSFOOT

AB3, SW1, SW2, SW3, SW4, SW7, SW8

25%	Creeping Red Fescue
20%	SSMG
20%	Chewings Fescue
20%	Tall Fescue
15%	Timothy

Sowing Rate (kg/ha) 20

Pack size 20kg

SPECIES-RICH WILD FLOWERS (SRWF)* NATIVE

15%	Black Knapweed (N)
12%	Selfheal (N)
10%	Ribwort Plantain (N)
9%	Meadow Buttercup (N)
8%	Ox-eye Daisy (N)
8%	Common Sorrel (N)
8%	Yellow Rattle (N)
8%	Lady's Bedstraw (N)
6%	Black Medick (N)
5%	Field Scabious (N)
4%	Meadow Vetchling (N)
3%	Yarrow (N)
2%	Ragged Robin (N)
2%	Red Clover (N)

Sowing Rate (kg/ha) 4

Pack size 1kg

GS4 SMALL SEED MIX

GS4

25%	Altaswede Red Clover	LEGUME
25%	Garant Red Clover	LEGUME
25%	Alsike clover	LEGUME
2%	Lucerne	LEGUME / WILDFLOWER
7%	Birdsfoot Trefoil	LEGUME / WILDFLOWER
5%	Sheeps Burnet	HERB
3%	Ribwort Plaintain	HERB
5%	Yarrow	HERB
2%	Sheep Parsley	HERB
1%	Wild Carrot	WILDFLOWER
100%		

Pack size 20kg

Sowing Rate (kg/ha) 7

LEGUME & HERB RICH SWARD GS4

22%	Late Perennial Ryegrass	GRASS
20%	Late Perennial Ryegrass	GRASS
5%	Meadow Fescue	GRASS
11%	Timothy	GRASS
10%	Festulolium	GRASS
11%	Creeping Red Fescue	GRASS
5%	Altaswede Red Clover	LEGUME
5%	Rozetta Red Clover	LEGUME
5%	Alsike Clover	LEGUME
1%	Lucerne (inoculated)	LEGUME / WILDFLOWER
1.5%	Birdsfoot Trefoil	LEGUME / WILDFLOWER
1.0%	Sheeps Burnet	HERB
0.75%	Ribwort Plantain	HERB
1.0%	Yarrow	HERB
0.5%	Sheep Parsley	HERB
0.25%	Wild Carrot	WILDFLOWER
100%		

Specification

10%	Red Clovers
10%	Other Legumes , Herbs & Flowers
5	Species of Grass
3	Species of Legume
5	Species of Herb & Wild Flower

Sowing Rate (kg/ha) 30 - 35

Pack size 20kg

BGM 4 WILDFLOWERS & FINE GRASSES

AB3, AB8, GS14, SW1, SW2, SW3, SW4, SW7, SW8, WT1, WT2

30%	Creeping Red Fescue
22%	SSMG
20%	Chewings Fescue
10%	Hard Fescue
4%	Sainfoin
4%	Crested Dogstail
3%	Winter Vetch
2%	Browntop Bent
1.4%	Red Clover
1%	Alsike Clover
0.5%	Birdsfoot Trefoil
0.4%	Black Medick
0.4%	Yarrow
0.4%	Ox-eye Daisy
0.3%	Wild Carrot
0.25%	Sheeps Burnet
0.25%	Ribwort Plantain
0.1%	Self-Heal

Sowing Rate (kg/ha) 30 - 35

Pack size 20kg

NECTAR RICH GOLD AB1

33%	Sainfoin
20%	Winter Vetch
15%	Alsike Clover
10%	Red Clover
10%	Lucerne (inoculated)
5%	Birdsfoot Trefoil
5%	Crimson Clover
1%	Yarrow
0.5%	Oxeye Daisy
0.5%	Wild Carrot

Sowing Rate (kg/ha) 12

Pack size 12kg


Cornflower

RHS PLANTS FOR POLLINATORS®

Bumblebee Conservation Trust

WF1 (NECTAR RICH FLOWERS 100 %)

42%	Sainfoin
10%	Birdsfoot Trefoil
8%	Winter Vetch
7%	Aliske Clover
7%	Red Clover
6%	Yarrow
5%	Lucerne (inoculated)
2.25%	Crimson Clover
2%	Black Medick
2%	Oxeye Daisy
1.5%	Corn Cockle
1.25%	Musk Mallow
1.25%	Wild Carrot
1%	Red Campion
1%	Self Heal
0.75%	Cornflower
0.5 %	Corn Marigold
0.5%	Field Poppy (N)
0.5%	Salad Burnet (N)
0.5%	Crimson Clovern (N)

Sowing Rate (kg/ha) **5 - 10**

Pack size 1kg

LEGUME FALLOW MIXTURE WITH GRASS TWO YEAR AB15

Agreements starting on or before 1st January 2020

66%	Late Perennial Ryegrass
15%	Red Clover
10%	Winter Vetch
7%	Birdsfoot Trefoil
1%	Yarrow
1%	Alsike Clover
100%	

Sowing Rate (kg/ha) **35**

Packed in 20kg


AB15

LEGUME FALLOW MIXTURE FLOWER RICH TWO YEAR AB15

Agreements starting on or after 1st January 2021

50%	Winter Vetch
15%	Lucerne
15%	Red Clover
10%	Alsike Clover
5%	Birdsfoot Trefoil
5%	Crimson Clover
100%	

Sowing Rate (kg/ha) **15-20**

Packed in 20kg

Please check your Countryside Stewardship Agreement carefully to ensure the correct AB15 mixture is used.


Kidney Vetch

UK NATIVE WILDFLOWERS 2023

Green Farm Seeds

GFS WILDFLOWER MANAGEMENT GUIDELINES

Mixture Selection

- It is important that the correct mixture is selected according to the soil type, aspect and management
- Our most popular and proven mixtures are listed in this brochure (please call to discuss specification)

Site Preparation

- The aim is to produce a firm, weed-free tilth to promote healthy germination
- Subsoils often provide weed-free areas with a low nutrient status and are therefore suitable for wildflowers
- It is occasionally necessary to remove the topsoil in areas of high fertility as these soils promote the growth of more vigorous grasses and weeds
- To remove docks, thistles, nettles and weed grasses; the site should be treated with a systemic herbicide prior to seed bed cultivation, the stale seed bed technique is often used

Summary

a. Cultivate site and allow to remain fallow if practical
b. Remove / treat all weeds with herbicide
c. Remove topsoil / to reduce fertility
d. Cultivate to 10cm
e. Create a surface tilth

Sowing

- Sowing can take place throughout most of the year, providing a good fine tilth can be prepared
- March/April and August/September are generally the most suitable
- Mix seed to ensure even species distribution
- Drill/broadcast - calibrate sowing device
- Rate - 5 g/m2 mixtures with grasses or 3 g/m2 100 % wild flower mixtures
- Use sand to bulk up small seeding rates, 4 parts silica sand to one part seed by weigh
- Raking/harrowing - mix seed into soil (depth approx 0.5 cm)
- Firm seed bed with roller – **Very Important**

Wild Flower Maintenance First Year

- Control weeds and reduce competition from vigorous grasses
- If necessary cut the sward to a height of 5cm every two months or when the sward reaches 15cm
- Remove all cut material to avoid smothering the sward
- Where persistent weeds are a problem, spot treat with herbicide or dig-out.

FUTURE MAINTENANCE

- The sward should be well established after the first 12 months and contain a diverse range of species
- Cut to 7.5cm during March/April and remove cuttings
- Second cut should be at 10 cm and take place at the end of the flowering season approx August/September
- Leave cuttings for a week to dry and shed seeds and then remove all cuttings or use as hay
- The site may require further cuts in the Autumn period to remove untidy growth in an extended growing season
- Another option is to leave the dead material until February / March, then cut and remove
- The dead material provides a diverse habitat for wildlife particularly butterflies

GFX

DUAL PURPOSE TRADITIONAL 70/30 WILDFLOWER MEADOW

Sowing Rate
5 (g/sqm)
20 (kg/acre)

GFX contains twenty eight native British wildflowers and grasses to create a permanent wildflower meadow, as well as first year impact from annual species.

Consisting of 70% grass and 30% wildflowers (20% perennial 10% annual), GFX flowers from May to October, and is suitable for a wide range of soil types and environments. Ideal for situations where a long term meadow is required as well as immediate impact.

GFX supports bees, butterflies and other pollinators as 81% of the wildflowers included in this mixture are recommended by the Royal Horticultural Society (RHS) as 'Perfect for Pollinators'.

RHS PLANTS FOR POLLINATORS®

Mixture Contents:

Also available as 100% flowers

	Common Name	Latin Name	Quantity	Flowers	Height	Type
1	Bedstraw, Lady's	Galium verum	1.26%	Jun - Sep	50 - 80cm	Perennial
2	Black Medick	Medicago lupulina	1.47%	May - Oct	15 - 80cm	Annual
3	Burnet, Salad	Sanguisorba minor	1.68%	Jun - Sep	15 - 50cm	Perennial
4	Buttercup, Meadow	Ranunculus acris	1.26%	May - Jun	30 - 100cm	Perennial
5	Campion, Red	Silene dioica	1.26%	Apr - Sep	60 - 90cm	Perennial
6	Campion, White	Silene alba	1.05%	May - Oct	50 - 100cm	Perennial
7	Carrot, Wild	Daucus carota	0.84%	Jun - Oct	30 - 100cm	Perennial
8	Catchfly, Night-Flowering	Silene noctiflora	1.05%	Jun - Aug	20 - 100cm	Annual
9	Chamomile, Corn	Anthemis arvensis	1.35%	Jun - Jul	30 - 50cm	Annual
10	Clary, Wild	Salvia verbenaca	1.05%	May - Aug	30 - 40cm	Perennial
11	Corn Cockle	Agrostemma githago	4.05%	May - Aug	50 - 70cm	Annual
12	Cornflower	Centaurea cyanus	1.8%	Jun - Oct	20 - 80cm	Annual
13	Cowslip	Primula veris	0.21%	Apr - May	15 - 30cm	Perennial
14	Daisy, Ox-eye	Leucanthemum vulgare	0.63%	May - Sep	20 - 100cm	Perennial
15	Forget-me-not, Field	Myosotis arvensis	0.84%	May - Jul	20 - 40cm	Annual
16	Foxglove, Wild	Digitalis purpurea	0.84%	Jun - Aug	50 - 100cm	Biennial
17	Goatsbeard	Aruncus dioicus	0.84%	Jun - Aug	30 - 90cm	Perennial
18	Knapweed, Common	Centaurea nigra	1.26%	Jun - Sep	30 - 80cm	Perennial
19	Knapweed, Greater	Centaurea scabiosa	0.84%	Jun - Sep	50 - 90cm	Perennial
20	Marigold, Corn	Chrysanthemum segetum	1.35%	Jun - Oct	30 - 50cm	Annual
21	Musk Mallow	Malva moschata	0.63%	May - Sep	20 - 150cm	Perennial
22	Plantain, Hoary	Plantago media	0.42%	May - Sep	15 - 45cm	Perennial
23	Plantain, Ribwort	Plantago lanceolata	0.63%	Apr - Sep	15 - 50cm	Perennial
24	Poppy, Common	Papaver rhoeas	0.45%	May - Jul	50 - 70cm	Annual
25	Self-heal	Prunella vulgaris	1.05%	Jun - Sep	15 - 30cm	Perennial
26	Sorrel, Common	Rumex acetosa	1.05%	May - Jul	30 - 100cm	Perennial
27	St John's-wort, Common	Hypericum perforatum	0.42%	Jun - Sep	30 - 90cm	Perennial
28	Yarrow	Achillea millefolium	0.42%	Jun - Oct	20 - 100cm	Perennial
1	Bent, Common	Agrostis castellana	3.5%		50 - 100cm	Grass
2	Crested Dogstail	Cynosurus cristatus	17.5%		30 - 60cm	Grass
3	Fescue, Sheeps	Festuca ovina	14%		15 - 50cm	Grass
4	Fescue, Slender Creeping Red	Festuca rubra, litoralis	21%		10 - 20cm	Grass
5	Meadow Grass, Smooth Stalked	Poa pratensis	5.6%		30 - 90cm	Grass
6	Timothy, Small Leaved	Phleum pratense ssp Bertolinii	8.4%		50 - 100cm	Grass

GFB BUTTERFLY & BEE 80/20 WILDFLOWER MEADOW

Sowing Rate
5 (g/sqm)
20 (kg/acre)

GFB contains twenty six native British wildflowers and grasses formulated to create a diverse meadow to support butterflies, bees and other pollinating insects.

Consisting of 80% grass and 20% perennial wildflowers, GFB creates a permanent meadow with flowers from May to October. GFB provides habitats and food sources for bees, butterflies and other pollinating insects.

GFB supports bees, butterflies and other pollinators as 81% of the wildflowers included in this mixture are recommended by the Royal Horticultural Society (RHS) as 'Perfect for Pollinators'.

Mixture Contents:

	Common Name	Latin Name	Quantity	Flowers	Height	Type
1	Agrimony, Common	Agrimonia eupatoria	0.2%	Jun - Sep	50 - 150cm	Perennial
2	Borage	Borago officinalis	1.4%	Aug-Sep	60 - 80cm	Annual
3	Clary, Wild	Salvia verbenaca	0.8%	May - Aug	30 - 40cm	Perennial
4	Clover, Red	Trifolium pratense	0.6%	May - Sep	20 - 60cm	Perennial
5	Clover, White	Trifolium repens	0.2%	Jun - Sep	15 - 20cm	Perennial
6	Corn Cockle	Agrostemma githago	1.6%	May - Aug	50 - 70cm	Annual
7	Cornflower	Centaurea cyanus	1.2%	Jun - Oct	20 - 80cm	Annual
8	Daisy, Ox-eye	Leucanthemum vulgare	1%	May - Sep	20 - 100cm	Perennial
9	Foxglove, Wild	Digitalis purpurea	0.6%	Jun - Aug	50 - 100cm	Biennial
10	Goat's-beard	Tragopogon pratensis	1.4%	Jun - Sep	20 - 60cm	Biennial
11	Knapweed, Common	Centaurea nigra	1.2%	Jun - Sep	30 - 80cm	Perennial
12	Knapweed, Greater	Centaurea scabiosa	1%	Jun - Sep	50 - 90cm	Perennial
13	Loosestrife, Purple	Lythrum salicaria	0.2%	Jun - Sep	100 - 200cm	Perennial
14	Marjoram, Wild	Origanum vulgare	0.2%	Jul - Oct	20 - 50cm	Perennial
15	Meadow Cranesbil	Geranium pratense	0.2%	May-Aug	40 - 60cm	Perennial
16	Musk Mallow	Malva moschata	1%	May - Sep	20 - 150cm	Perennial
17	Poppy, Common	Papaver rhoeas	1%	May - Jul	50 - 70cm	Annual
18	Ragged Robin	Lychnis flos-cuculi	0.4%	May - Aug	30 - 90cm	Perennial
19	Sainfoin	Onobrychis viciifolia	1.4%	Jul - Sep	30 - 40cm	Perennial
20	Scabious, Field	Knautia arvensis	1.4%	Jul - Sep	30 - 200cm	Perennial
21	Scabious, Small	Scabiosa columbaria	0.6%	Jul - Aug	20 - 60cm	Perennial
22	Teasel	Dipsacus fullonum	0.2%	Jul - Aug	100 - 200cm	Biennial
23	Trefoil, Bird's-foot	Lotus corniculatus	0.4%	Jun - Aug	10 - 40cm	Perennial
24	Vetch, Kidney	Anthyllis vulneraria	0.4%	May - Oct	15 - 50cm	Perennial
25	Viper's Bugloss	Echium vulgare	0.4%	May - Oct	50 - 100cm	Biennial
26	Yarrow	Achillea millefolium	1%	Jun - Oct	20 - 100cm	Perennial
1	Bent, Common	Agrostis castellana	4%		50 - 100cm	Grass
2	Crested Dogstail	Cynosurus cristatus	20%		30 - 60cm	Grass
3	Fescue, Sheeps	Festuca ovina	16%		15 - 50cm	Grass
4	Fescue, Slender Creeping Red	Festuca rubra, litoralis	24%		10 - 20cm	Grass
5	Meadow Grass, Smooth Stalked	Poa pratensis	6.4%		30 - 90cm	Grass
6	Timothy, Small Leaved	Phleum pratense ssp Bertolinii	9.6%		50 - 100cm	Grass

GFRE

RESTORE & ENRICH
100% WILDFLOWER SEED MIX

Sowing Rate
3 (g/sqm)
12 (kg/acre)

GFRE contains twenty three native British wildflower species, consisting of mainly perennial species and a handful of annual and biennial species to restore and enrich existing grassland.

The species included in this mixture create an attractive display from May to October and are selected for being competitive and easy to establish. Therefore it is ideal for overseeding into existing meadows.

GFRE supports bees, butterflies and other pollinators as it contains 92% of species recommended by the Royal Horticultural Society (RHS) as 'Perfect for Pollinators'.

Mixture Contents:

	Common Name	Latin Name	Quantity	Flowers	Height	Life cycle
1	Bedstraw, Lady's	Galium verum	5%	Jun - Sep	50 - 80cm	Perennial
2	Black Medick	Medicago lupulina	3%	May - Oct	15 - 80cm	Annual
3	Burnet, Salad	Sanguisorba minor	5%	Jun - Sep	15 - 50cm	Perennial
4	Buttercup, Meadow	Ranunculus acris	6%	May - Jun	30 - 100cm	Perennial
5	Campion, Red	Silene dioica	6%	Apr - Sep	60 - 90cm	Perennial
6	Campion, White	Silene alba	5%	May - Oct	50 - 100cm	Perennial
7	Carrot, Wild	Daucus carota	6%	Jun - Oct	30 - 100cm	Perennial
8	Chamomile, Corn	Anthemis arvensis	3%	Jun - Jul	30 - 50cm	Annual
9	Corn Cockle	Agrostemma githago	9%	May - Aug	50 - 70cm	Annual
10	Cornflower	Centaurea cyanus	4%	Jun - Oct	20 - 80cm	Annual
11	Daisy, Ox-eye	Leucanthemum vulgare	5%	May - Sep	20 - 100cm	Perennial
12	Goatsbeard	Aruncus dioicus	4%	Jun - Aug	30 - 90cm	Perennial
13	Knapweed, Common	Centaurea nigra	7%	Jun - Sep	30 - 80cm	Perennial
14	Marigold, Corn	Chrysanthemum segetum	3%	Jun - Oct	30 - 50cm	Annual
15	Meadowsweet	Filipendula ulmaria	3%	Jun - Aug	80 - 200cm	Perennial
16	Poppy, Common	Papaver rhoeas	1%	May - Jul	50 - 70cm	Annual
17	Scabious, Field	Knautia arvensis	2%	Jul - Sep	30 - 200cm	Perennial
18	Self-heal	Prunella vulgaris	5%	Jun - Sep	15 - 30cm	Perennial
19	Sorrel, Common	Rumex acetosa	5%	May - Jul	30 - 100cm	Perennial
20	Trefoil, Bird's-foot	Lotus corniculatus	4%	Jun - Aug	10 - 40cm	Perennial
21	Vetch, Tufted	Vicia cracca	3%	Jun - Sep	100 - 150cm	Perennial
22	Yarrow	Achillea millefolium	2%	Jun - Oct	20 - 100cm	Perennial
23	Yellow-rattle	Rhinanthus minor	4%	Jun - Sep	25 - 50cm	Annual

GFCA

CORNFIELD ANNUALS
100%

Sowing Rate
3 (g/sqm)
12 (kg/acre)

GFCA contains five native British annual wildflower species to create 'instant' colour and can be used to enrich existing grassland or provide additional first year colour to other wildflower meadows.

The species included in this mixture create an attractive display from May to October and are selected for being fast growing, attractive and easy to establish.

GFCA supports bees, butterflies and other pollinators as 100% of the wildflowers included in this mixture are recommended by the Royal Horticultural Society (RHS) as 'Perfect for Pollinators'.

Mixture Contents: Also available as an 80% grass 20% flower mix

	Common Name	Latin Name	Quantity	Flowers	Height	Type
1	Chamomile, Corn	Anthemis arvensis	15%	Jun - Jul	30 - 50cm	Annual
2	Corn Cockle	Agrostemma githago	45%	May - Aug	50 - 70cm	Annual
3	Cornflower	Centaurea cyanus	20%	Jun - Oct	20 - 80cm	Annual
4	Marigold, Corn	Chrysanthemum segetum	15%	Jun - Oct	30 - 50cm	Annual
5	Poppy, Common	Papaver rhoeas	5%	May - Jul	50 - 70cm	Annual

CORNFIELD ANNUALS
Make the first cut in early March and a second cut once the flowering period is over - September/October
Harrow autumn or spring to regenerate annuals

Second Year
Depending on your sowing preference, cultivate the ground and reseed in September or March.

Over several years of reseeding, a rich seed bank will develop and simply disturbing the soil again in early spring will be sufficient to regenerate the flowers each year.

Time of Year
The resulting flowers are highly influenced by the time of sowing. A Spring sowing is likely to favour Corn Marigold and Corn Chamomile, whereas an autumn sowing favours Poppy, Cornflower and Corn Cockle.

Wildflower seed in GFS Wildflowers mixtures is of UK native origin.

The definition of UK native seed provided by Natural England is: British native-origin seed refers to seed originally collected from wild populations in Great Britain (from sites with no known history of sowing of amenity or agricultural varieties) and either sown directly, or grown on as a field crop to provide further seed. It includes seed collected in 'green hay'. It excludes certified amenity or agricultural varieties of native species.

GFS Wildflowers UK native wildflower seed is sourced in two ways:

1) Seed collections from the wild which are field sown or sown in modules before being field planted as spaced plants. These are then harvested and cleaned to increase seed germination, vigour and purity.

2) Meadow collections are taken with owner permission or under license if the meadow is within a registered area. These seeds are then processed to remove excessive admixture and graded so they can be used in measurable amounts in prescribed mixtures.

Contents of wildflower mixtures will vary according to seed and species availability

GFS BUMBLEBIRD COLOUR BONANZA (NON-NATIVE) 100% ANNUAL FLOWER SEED MIX

Sowing Rate
3 (g/sqm)
12 (kg/acre)

BumbleBird Bonanza Annual Flower Seed Mix contains 20 annual flower species and is ideal for creating a quick splash of colour and a food source for Bees, butterflies and other pollinators.

The species included in this mixture create an attractive display from May to October and is suitable For creating colour habitats across a diverse range of soil types.

It is ideal for use in areas containing a range of micro climates or where there are no particular conditions to overcome.

Bonanza supports bees, butterflies and other pollinators as it contains 92 % of species recommended by the Royal Horticultural Society (RHS) as 'perfect for Pollinators'.

Mixture Contents:

	Common Name	Latin Name	Quantity	Flowers	Height	Life cycle
1	Agastache	Hyssop	1.3%	Jul - Oct	40 - 60cm	Annual
2	Bee Balm	Monarda	0.5%	Jun - Sep	70 - 90cm	Annual
3	Black Eyed Susan	Rudbeckia	1.5%	Jun - Sep	60 - 120cm	Perennial
4	Blanket Flower	Gaillardia	2.6%	Jun - Sep	40 - 60cm	Perennial
5	Borage	Borago officinalis	3%	Aug-Sep	60 - 80cm	Annual
6	Coneflower	Echinacea	3%	Jun - Sep	80 - 100cm	Annual
7	Cornflower	Centaurea cyanus	12%	Jun - Oct	20 - 80cm	Annual
8	Cosmos	Cosmos	4%	Jul - Oct	50 - 75cm	Annual
9	Dill	Anethum	2.6%	Jun - Sep	40 - 60cm	Annual
10	Larkspur	Delphinium	6.3%	Jun - Oct	80 - 130cm	Annual
11	Layia	Layia	2.6%	Jun - Sep	40 - 60cm	Annual
12	Love in a Mist	Nigella	6%	May - Sep	30 - 40cm	Annual
13	Lupin	Lupinus	9%	Jun - Jul	50 - 70cm	Annual
14	Malva	Malva	2.6%	Jul - Sep	40 - 50cm	Perennial
15	Marigold, Common	Calendula officinalis	6.3%	Jul - Oct	30 - 50cm	Annual
16	Mirabilis	Mirabilis	8.4%	Jul - Oct	40 - 60cm	Annual
17	Phacelia	Phacelia tanacetifolia	6%	Sep - Nov	60 - 90cm	Annual
18	Poached Egg Plant	Limnanthes	1.3%	Jun - Sep	15 - 20cm	Annual
19	Poppy, Common	Papaver rhoeas	1.5%	May - Jul	50 - 70cm	Annual
20	Safflower	Carthamus	3%	Jun - Sep	30 - 150cm	Annual
21	Sunflower, Dwarf	Helianthus annus	3%	Jun - Aug	100 - 150cm	Annual
22	Tree Mallow	Lavatera	3.9%	Jun - Oct	50 - 65cm	Annual
23	Verbena	Vervian	3%	Jun - Oct	50 - 120cm	Perennial
24	Yarrow	Achillea millefolium	1.3%	Jun - Oct	20 - 100cm	Perennial
25	Zinnia	Zinnia	5.3%	Jul - Oct	50 - 70cm	Annual

GFSA

UNIVERSAL BLOOM (NON-NATIVE)
100% ANNUAL FLOWER SEED MIX

Sowing Rate
3 (g/sqm)
12 (kg/acre)

Universal Bloom Annual Flower Seed Mix contains 15 annual flower species and is ideal for creating a splash of colour and a food source for Bees, butterflies and other pollinators.

The species included in this mixture create an attractive display from May to October and is suitable for creating habitats across a diverse range of soil types. It is ideal for use in areas containing a range of micro climates or where there are no particular conditions to overcome.

Please note this mixture can be sown in the Autumn.

Universal Bloom supports bees, butterflies and other pollinators as it contains 20 species recommended by the Royal Horticultural Society (RHS) as 'Perfect for Pollinators'

	Common Name	Latin Name	Quantity	Flowers	Height	Life cycle
1	Agastache	Hyssop	0.5%	Jul – Oct	40 - 60cm	Annual
2	Allium	Allium	6.1%	May - Jun	24 - 35cm	Perennial
3	Anchusa	Anchusa	2.9%	Jun - Sep	25 - 30cm	Annual
4	Blue Bedder	Echium	0.5%	Jun - Oct	30 - 40cm	Annual
5	Borage	Borago officinalis	2.8%	Aug - Sep	60 - 80cm	Annual
6	Campanula	Campanula	0.3%	Jun - Aug	20 - 25cm	Annual
7	Chrysanthemum	Chrysanthemum	3.5%	May - Sep	20 - 100cm	Annual
8	Coneflower	Echinacea	6.5%	Jun - Sep	80 - 100cm	Perennial
9	Cynoglossum	Cynoglossum	5.5%	Jun - Sep	35 - 45cm	Annual
10	Dianthus	Dianthus	10.6%	Jun - Oct	15 - 35cm	Perennial
11	Evening-primrose	Oenothera biennis	0.5%	Jun - Oct	60 - 100cm	Biennial
12	Flax	Linum	5.6%	Jun - Sep	30 - 50cm	Annual
13	Fennel	Foeniculum	3.2%	Jun - Oct	60 - 150cm	Perennial
14	Gilia	Gilia	1.8%	Jun - Sep	50 - 70cm	Annual
15	Jacobs Ladder	Polemonium	2.3%	Jun - Jul	50 - 70cm	Perennial
16	Love in a Mist	Nigella	10.8%	May - Sep	30 - 40cm	Annual
17	Mirabilis	Mirabilis	16%	Jul - Oct	40 - 60cm	Annual
18	Poppy, Common	Papaver rhoeas	1%	May - Jul	50 - 70cm	Annual
19	Sage	Salvia	5.3%	Jun - Sep	50 - 70cm	Annual
20	Sorrel, Common	Rumex acetosa	2.7%	May - Jul	30 - 100cm	Perennial
21	Tickseed	Coreopsis	5.5%	Jul - Oct	30 - 60cm	Annual
22	Veronica	Veronica	0.3%	Jun - Sep	50 - 70cm	Perennial
24	Wallflower	Cheiranthus	5.3%	May - Nov	30 - 45cm	Biennial
25	Yarrow	Achillea millefolium	0.5%	Jun - Oct	20 - 100cm	Perennial


GFSA

WILDFLOWER OPTIONS

Sowing Rate (g/m²) **35-50**

Overseeding Rate (g/m2) **15-25**

Other standard mixtures available.

Offered as 100% Native Wildflowers or usually 20% Wildflowers 80% Native Grass.

- Chalk & Limestone
- Dry & sandy loam
- Loam & Alluvial
- Heavy Clay soils
- Wetland & pond edge
- Hedgerow & Light shade
- Woodland & Heavy shade
- Coastal areas
- Acidic Soils
- Wild Bird Mix CS (some cultivated species)

Bespoke Mixtures also available using

- 110 species of Wild Flower available
- 35 Species of grass available

Please contact sales office for current availability list and species characteristics

WILDFLOWER COMPANION GRASSES

5%	Common Bent	AGROSTIS CASTELLANA
20%	Crested Dogstail	CYNOSURUS CRISTATUS
20%	Sheeps Fescue	FESTUCA OVINA
30%	Slender Red Fescue	FESTUCA RUBRA, LITORALIS
15%	Small Leaved Timothy	PHLEUM BERTOLINII
10%	Smooth Stalked Meadow Grass	POA PRATENSIS

100%

Packed in 20kg


GFX


GFX


GFX

WILDFLOWER SEED

WILDFLOWER SPECIES

Common Name	Latin Name
Autumn Hawkbit	Leontodon Autumnalis
Betony	Stachys Officianlis
Bilbury	Vacciniunm Myrtillus
Birds Foot Trefoil	Lotus Corniculatus
Black Knapweed	Centaurea Nigra
Black Medick	Medicago Luplina
Bladder Campion	Silene Vulgaris
Blue Bell	Hyacinthoides Non-Scripta
Broad Dock	Rumex Obtusifolius
Broom	Cytissus Scoparius
Buckshorn Plantain	Plantago Coronopus
Bulbous Buttercup	Ranunculus Bulbosus
Burnet Saxifrage	Pimpinella Saxifraga
Common Marigold	Calendula Officinalis
California Poppy	Eschscholzia California
Calamint (Common)	Calamintha Sylvatica
Carline Thistle	Carlina Vulgaris
Cats Ear	Hypochaeris Radicata
Clustered Bellflower	Campanula Glomerata
Common Agrimony	Agrimony Eupatoria
Common Daisy	Bellis Perennis
Common Evening	Primrose Oenothera Beinnis
Common Fleabane	Pulicaria Dysenterica
Common Mallow	Malva Sylvestris
Common Mouse Ear	Cerastium Fontanum
Common Restharrow	Ononis Repens
Common Storksbill	Erodium Cicutarium
Common Rockrose	Helianthemum Nummularium
Common Sedge	Carex Nigra
Common St. John's Wort	Hypericum Perforatum
Common Toadflax	Linaria Vulgaris
Common Vetch	Vicia Sativa (Ssp Nigra)
Corn Buttercup	Ranunculus Arvensis
Corn Chamomile	Anthemis Arvensis
Corn Cockle	Agrostemma Githago
Corn Flower	Centaurea Cyanus
Corn Marigold	Chrysanthemum Segetum
Corn Poppy	Papaver Rhoeas
Cow Parsley	Anthriscus Sylvestris
Cowslip	Primula Veris
Creeping Buttercup	Ranunculus Repens
Dandelion	Taraxacum Officinale
Dark Mullein	Verbascum Nigrum
Devilsbit Scabious	Succisa Pratensis
Drop Wort	Filipendula Vulgaris
Dyers Greenweed	Genista Tinctoria
Fennell	Foeniculum Vulgare
Field Scabious	Knautia Arvensis
Figwort	Scrophularia Nodosa
Forget Me Not	Myosotis Arvensis
Foxglove	Digitalis Purpurea
Fragrant Agrimony	Agrimonia Procera
Germander Speedwell	Veronica Chamaedrys
Gipsy Wort	Copus Europaeus
Globe Flower	Trollius Europaeus
Goats Beard	Tragopogon Pratensis
Goats Rue	Galega Officinalis
Gorse	Ulex Europaeus
Grass Vetchling	Lathyrus Nissolia
Great Knapweed	Centaurea Scabiosa

Common Name	Latin Name
Great Mullein (Common)	Verbascum Thapsus
Greater Birdsfoot Trefoil	Lotus Uliginosus
Great Burnet	Sanguisorba Officianlis
Greater Stitchwort	Stellaria Holostea
Gtr. Burnet Saxifrage	Pimpinella Major
Hairy St. John's Wort	Hypericum Hirsutum
Harebell	Campanula Rotundifolia
Haresfoot Clover	Trifolium Arvense
Heath Bedstraw	Galium Saxatile
Heath Speedwell	Veronica Officinalis
Heather	Calluna Vulgaris
Hedge Bedstraw	Galium Mollugo
Hedge Cranesbill	Geranium Pyrenaicum
Hedge Garlic	Alliaria Petiolata
Hedge Woundwort	Stachys Sylvatica
Hemp Agrimony	Eupatorium Cannabinum
Hemp Nettle (Large)	Galeopsis Speciosa
Henbane	Hyoscyamus Niger
Herb Bennet (Wood Avens)	Geum Urbanum
Herb Robert	Geranium Roberrianum
Hoary Mullein	Verbascum Pulverulen
Hoary Plantain	Plantago Media
Horse Shoe Vetch	Hippocrepis Comosa
Kidney Vetch	Anthyllis Vulneraria
Lady's Bedstraw	Galium Verum
Lesser Snapdragon	Misopates Orontium
Lesser Stitchwort	Stellaria Graminea
Love In A Mist	Nigella Damascena
Lupin	Lupinus
Marsh Mallow	Althaea Officinalis
Marsh Marigold	Caltha Palustris
Marsh Woundwort	Stachys Palustris
Meadow Buttercup	Ranunculus Acris
Meadow Cranesbill	Geranium Pratense
Meadow Rue	Thalictrum Flavum
Meadow Saxifrage	Saxifraga Granulata
Meadow Vetchling	Lathyrus Pratensis
Meadowsweet	Filipendula Ulmaria
Monkshood Aconitum	Napellus
Mouse Eared Hawkweed	Hieracium Pilosella
Musk Mallow	Malva Moschata
Nettle-Lvd Bellflower	Campanula Trachelium
Night Fl. Catchfly	Silene Noctiflora
Oxeye Daisy	Leucanthernum Vulgare
Pale Toadflax	Lanaria Repens
Pendulas Sedge	Carex Pendula
Pepper Saxifrage	Silaum Silaus
Perennial Flax	Linum Perenne
Pheasants Eye	Adonis Annua
Pignut	Conopodium Majus
Primrose	Primular Vulgaris
Purple Loosestrife	Lythrum Salicaria
Ragged Robin	Lychnis Flos-Cuculi
Red Campion	Silene Dioica
Red Clover (Native)	Trifolium Pratense
Ribwort Plantain	Plantago Lanceolata
Rough Hawkbit	Leontodon Hispidus
Rough Poppy	Papaver Hybridum
Sainfoin	Onobrychis Vicifolia
Salad Burnet	Sanguisorba Minor

Common Name	Latin Name
Sand Catchfly	Silene Conica
Saw Wort	Sarratula Tinctoria
Scented Mayweed	Matricaria Recutita
Sea Aster	Aster Trifolium
Sea Campion	Silene Maritima
Sea Holly	Eryngium Marttimum
Sea Kale	Ciambe Maritima
Sea Stock	Matiola Incana
Selfheal	Prunella Vulgaris
Sheep Sorrel	Rumux Acetosella
Shepherds Needles	Scandix Pecten Veneris
Sheepsbit Scabious	Kasione Montana
Skulcap	Scutellaria Galericulata
Slender Birdsfoot Trefoil	Lotus Angustissimus
Small Scabious	Scabiosa Columbaria
Sneezewort	Achillea Ptarmica
Soap Wort	Sponaria Officinalis
Soft Rush	Juncus Effusus
Sorrel (Common)	Rumux Acetosa
Spiny Restharrow	Ononis Spinosa
Spotted Hawkweed	Hypochoeris Maculata
Spotted Medick	Medicago Arabica
Sq. Stem St. Johns Wort	Hypericum Tetrapterum
Strawberry Clover	Trifolium Fragiferum
Suckling Clover Native	Trifolium Dubium
Sweet Cicely	Morphis Odorata
Tansy	Tanacetum Vulgare
Teasel	Dipsacus Fullonum
Thrift	Armeria Maritima
Tormentil	Potentilla Erecta
Tufted Vetch	Vicia Cracca
Upright Hedge Parsley	Torilis Japonica
Venus Looking Glass	Legousia Hybrida
Viper Bugloss	Echium Vulgare
Water Avens	Geum Rivale
Water Mint	Mentha Aquatica
Weld Reseda	Luteola
White Campion	Silene Alba
Wild Angelica	Angelica Sylvestris
Wild Basil	Clinopodium Vulgare
Wild Candytuft	Iberis Amara
Wild Carnation	Dianthus Carthusianorum
Wild Carrot	Daucus Carota
Wild Marjoram	Origanum Vulgare
Wild Mignonette	Reseda Lutea
Wild Pansy	Viola Tricolor
Wild Strawberry	Fragaria Vesca
Wild Thyme	Thymus Praecox
Wood Cranesbill	Geranium Sylvaticum
Wood Forget Me Not	Myosotis Sylvatica
Wood Sage	Teucrium Scorodonia
Wood Vetch	Vicia Sylvatica
Yarrow	Achillea Millefolium
Yellow Archangel	Lamiastrum Galeobdolon
Yellow Flagiris Iris	Pseudacorus
Yellow Horned Poppy	Glaucium Flavum
Yellow Rattle	Rhinanthus Minor
Zig Zag Clover	Trifolium Medium

COMPANION GRASSES

GRASS SPECIES

Common Name	Latin Name
Annual Meadow-grass	Poa annua
Barren Brome	Anisantha sterilis
Bearded Couch	Elymus caninus
Black Bent	Agrostis gigantea
Blue Moor-grass	Sesleria caerulea
Bristle Oat	Avena strigosa
Brown Bent	Agrostis canina sens.str.
Brown Bent	Agrostis vinealis
Canary-grass	Phalaris canariensis
Cock's-foot	Dactylis glomerata
Common Bent	Agrostis capillaris
Common Cord-Grass	Spartina anglica
Common Couch	Elytrigia repens
Common Reed	Phragmites australis
Common Saltmarsh Grass	Puccinellia maritima
Creeping Bent	Agrostis stolonifera
Creeping Soft-grass	Holcus mollis
Crested Dog's-tail	Cynosurus cristatus
Crested Hair-grass	Koeleria macrantha sens. lat.
Darnel Fescue	Catapodium marinum
Downy Oat-grass	Helictotrichon pubescens
Early Hair-grass	Aira praecox
Early Meadow-grass	Poa infirma
False Oat-grass	Arrhenatherum elatius
False-brome	Brachypodium sylvaticum
Fern-grass	Catapodium rigidum
Flote-grass	Glyceria fluitans
Giant Fescue	Festuca gigantea
Grass	Festuca pratensis
Hairy Brome	Bromopsis ramosa

Common Name	Latin Name
Hard Grass	Parapholis strigosa
Heath-grass	Danthonia decumbens
Holy-grass	Hierochloe odorata
Italian Rye-grass	Lolium multiflorum
Lyme-grass	Leymus arenarius
Marram	Ammophila arenaria
Marsh Foxtail	Alopecurus geniculatus
Mat-grass	Nardus stricta
Meadow Brome	Bromus commutatus
Meadow Fescue	Festuca pratensis
Meadow Foxtail	Alopecurus pratensis
Narrow Small-reed	Calamagrostis stricta
Perennial Rye-grass	Lolium perenne
Plicate Sweet-grass	Glyceria notata
Purple Moor-grass	Molinia caerulea
Quaking-grass	Briza media
Rat's-tail Fescue	Vulpia myuros
Red Fescue	Festuca rubra agg.
Reed Canary-grass	Phalaris arundinacea
Reed Sweet-grass	Glyceria maxima
Reflexed Saltmarshgrass	Puccinellia distans
Rough Bent	Agrostis scabra
Rough Meadow-grass	Poa trivialis
Rye Brome	Bromus secalinus
Sand Cat's-tail	Phleum arenarium
Sand Couch	Elytrigia juncea
Sea Couch	Elytrigia atherica
Sheep's Fescue [agg.]	Festuca ovina agg.
Silver Hair-grass	Aira caryophyllea
Small Sweet-grass	Glyceria declinata

Common Name	Latin Name
Smooth Brome	Bromus racemosus
Smooth Meadow-grass	Poa pratensis sens.lat.
Soft-brome	Bromus hordeaceus
Spreading Meadowgrass	Poa humilis
Squirrel-tail Fescue	Vulpia bromoides
Swamp Meadow-grass	Poa palustris
Sweet Vernal Grass	Anthoxanthum odoratum
Tall Fescue	Festuca arundinacea
Timothy	Phleum pratense sens. lat.
Tor-grass	Brachypodium pinnatum
Townsend's Cord-grass	Spartina alterniflora maritima
Tufted Hair-grass	Deschampsia caespitosa
Upright Brome	Bromopsis erecta
Viviparous Sheep Fescue	Festuca vivipara
Wall Barley	Hordeum murinum
Wavy Hair-grass	Deschampsia flexuosa
Whorl-grass	Catabrosa aquatica
Wild Oat	Avena fatua
Wood Barley	Hordelymus europaeus
Wood Fescue	Festuca altissima
Wood Meadow-grass	Poa nemoralis
Wood Melick	Melica uniflora
Wood Millet	Milium effusum
Wood Small-reed	Calamagrostis epigejos
Yellow Oat-grass	Trisetum flavescens
Yorkshire-fog	Holcus lanatus

OTHER SPECIES MAY BE AVAILABLE ON REQUEST

SPECIALIST FERTILISER

2023

Green Farm Seeds

Visit **www.greenfarmseeds.com**

PRIMARY P

(10N 40P 2Mg 11SO_3 2Zn)

Premium micro granular starter fertilizer

DE SANGOSSE

Benefits

- Economic – cheaper per acre than traditional starter fertiliser
- Agronomic – faster seedling and root development
- Logistical – only 6-8 kg per acre required
- Less soil moisture required to dissolve and make available
- Phosphorous and zinc are especially important in the initial period of growth
- Zinc increases the seedling resistance to environmental stress i.e. spring temperature, disease, pests and improves Phosphorous utilisation
- Improves establishment in dry, cloudy or cold soil conditions
- Targets nutrition where it is needed and used
- Primary P contains a coating that enhances Phosphorous availability protecting it from cation lock up
- Primary P in trials 11% more yield than 125 kg / ha MAP 50 and 23% more than control

Application rate: 25kgs / Ha (10 kg / acre)
Packed in: 10 kg packs

PADDOCK ROYALE / COMPLEX

(12N 11P 18K 20SO_3 2.7MgO)

- A specially designed Equine paddock fertiliser
- Unlike conventional fertiliser, Paddock Royale contains only 12% Nitrogen to give steady growth and avoid lush grass that can cause metabolic issues in susceptible animals
- Contains magnesium to supplement the natural supply from the soil. In association with calcium and phosphate metabolism, magnesium is important for strong healthy bone growth in animals
- Each particle of fertiliser balanced with the correct nutrients to ensure an even spread
- Allow 10 days post fertiliser application, or until you can no longer see the fertiliser before grazing
- Ideally take soil samples from each paddock every 3-4 years prior to applying fertiliser

For grazing apply from mid-March and ideally again the following September.

For hay making apply early-mid March

Application rate for Grazing (25kg bags per acre) **4**

Application for Hay making (25kg bags per acre) **8**

Benefits

- Balanced nutrients for plant and animal growth
- Easy to handle 25kg bags
- Simple and accurate to apply

YARA

Application rate: 100 - 200kg / acre
Packed in: 25kg bags

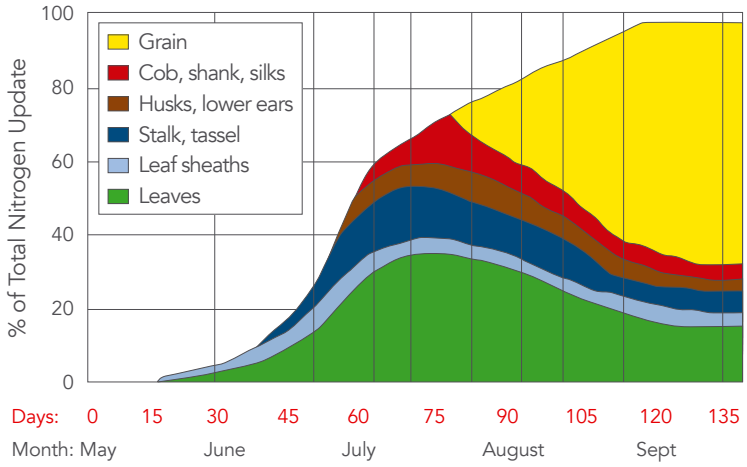
Suitable for Amenity use

USE AS PART OF YOUR MAIZE NITROGEN PLANNING

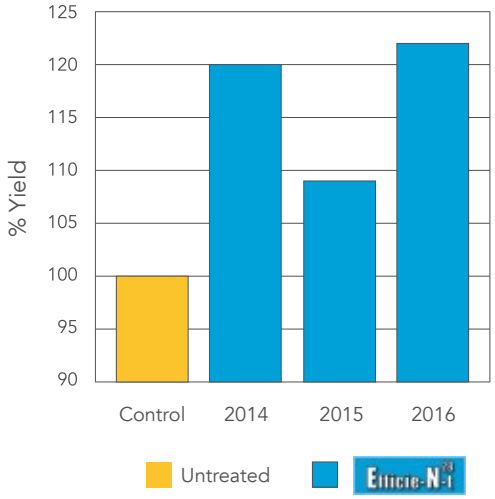
Efficie-N^{28}-t

- **Slow Release Nitrogen Fertilizer**
- **Non Scorch Product**
- **One application equates to 40 kg N / ha**
- **35% of Maize crops Nitrogen is required after tassling**

Maize-N-Uptake



Fresh yield increase %



FOLIAR NITROGEN FERTILIZER (NEEDS LEAF CONTACT)

Agro-vital

Meeting maize's need for nitrogen in-season with Efficient-N-t 28 slow release foliar nitrogen fertiliser.

MAXIMUM COB YIELD

Maize needs some 50% of its total nitrogen requirement from the 8th leaf stage through to tasseling, but a further 35% is needed to fill the cob, during August and September. However losses, due to leaching and volatilisation, of seed bed applied nitrogen may leave the crop short of essential nitrogen during these later stages of growth.

Until now there has not been a safe product for in-season supplementary nitrogen application however, trails at multiple sites across the UK have shown Efficie-N-t 28 can be effectively and safely used on maize and the results have shown an average fresh weight yield response of 13%.

Applied in July, or when the crop has full leaf coverage.

Efficie-N-t 28 helps to meet the crop's continuing need for nitrogen as the cobs begin to fill.

What is Efficie-N-t 28 (28.0.0)

It is a liquid foliar nitrogen fertiliser, based on urea polymers of variable lengths. The longer the chains, the slower they breakdown, resulting in a phased release of nitrogen over a total of 6-8 weeks **(SCORCH FREE).**

Proven over 5 years in the field

An application of 20 litres per hectare delivers 7kg of nitrogen which has been shown across a variety of crops to give the same response as 40kg of nitrogen supplied in 150kg of calcium ammonium nitrate. This is a particular benefit to those farming in a NVZ.

Efficie-N-t 28 benefits in Maize

- Average 13% increased yield over controls
- 5 x the efficiency of soil applied nitrogen
- Reduced nutrient losses following application and increased
- uptake by the crop
- Phased release over 6-8 weeks, is not prone to leaching or
- volatilisation
- Sticky technology ensures nearly 100% uptake
- Scorch free and safe to apply unlike traditional foliar urea products
- Can be tank mixed with most fungicides
- Helps stay within N max
- Proven over six years in a variety of forage and arable crops
- Can be applied with a standard crop sprayer

Packed in: 20 L (25kg) drums and 1000 L(1250kg) IBCs
Application rate: 20 L/ ha in 100-300 L of water
Specific weight: 1.25 N/m^3 (25% heavier than water)

SEED & FERTILISER QUANTITY REQUIREMENT CALCULATOR

Area Requirement (Kg)

Sowing Rate	m^2											acre	hectare
	50	100	15	200	300	400	500	750	1000	1500	2000	1	1
5 gsm/m2	0.25	0.50	0.75	1.00	1.50	2.00	2.50	3.75	5.00	7.50	10.00	20	50
10 gsm/m2	0.50	1.00	1.50	2.00	3.00	4.00	5.00	7.50	10.00	15.00	20.00	40	100
15 gsm/m2	0.75	1.50	2.25	3.00	4.50	6.00	7.50	11.25	15.00	22.50	30.00	60	150
25 gsm/m2	1.25	2.50	3.75	5.00	7.50	10.00	12.50	18.75	25.00	37.50	50.00	100	250
35 gsm/m2	1.75	3.50	5.25	7.00	10.50	14.00	17.50	26.25	35.00	52.50	70.00	140	350
50 gsm/m2	2.50	5.00	7.50	10.00	15.00	25.00	25.00	37.50	50.00	75.00	100.00	200	500

Quantity Coverage (m^2)

Sowing Rate	1 kg	5 kg	10 kg	15 kg	20 kg	30 kg	40 kg	50 kg	75 kg	100 kg	200 kg
5 gsm/m2	200	1000	2000	3000	4000	6000	8000	10000	15000	20000	40000
10 gsm/m2	100	500	1000	1500	2000	3000	4000	5000	7500	10000	20000
15 gsm/m2	67	335	665	1000	1335	2000	2665	3335	5000	6665	13335
25 gsm/m2	40	200	400	600	800	1200	1600	2000	3000	4000	8000
35 gsm/m2	30	140	285	430	570	855	1140	1430	2140	2855	5715
50 gsm/m2	20	100	200	300	400	600	800	1000	1500	2000	4000

1 acre = 4040 m^2
1 hectare = 10,000 m^2

Green Farm Seeds Ltd. reserves the right to substitute varieties should shortages occur using equivalent or better varieties. Full mixture details are provided on the label of every bag.

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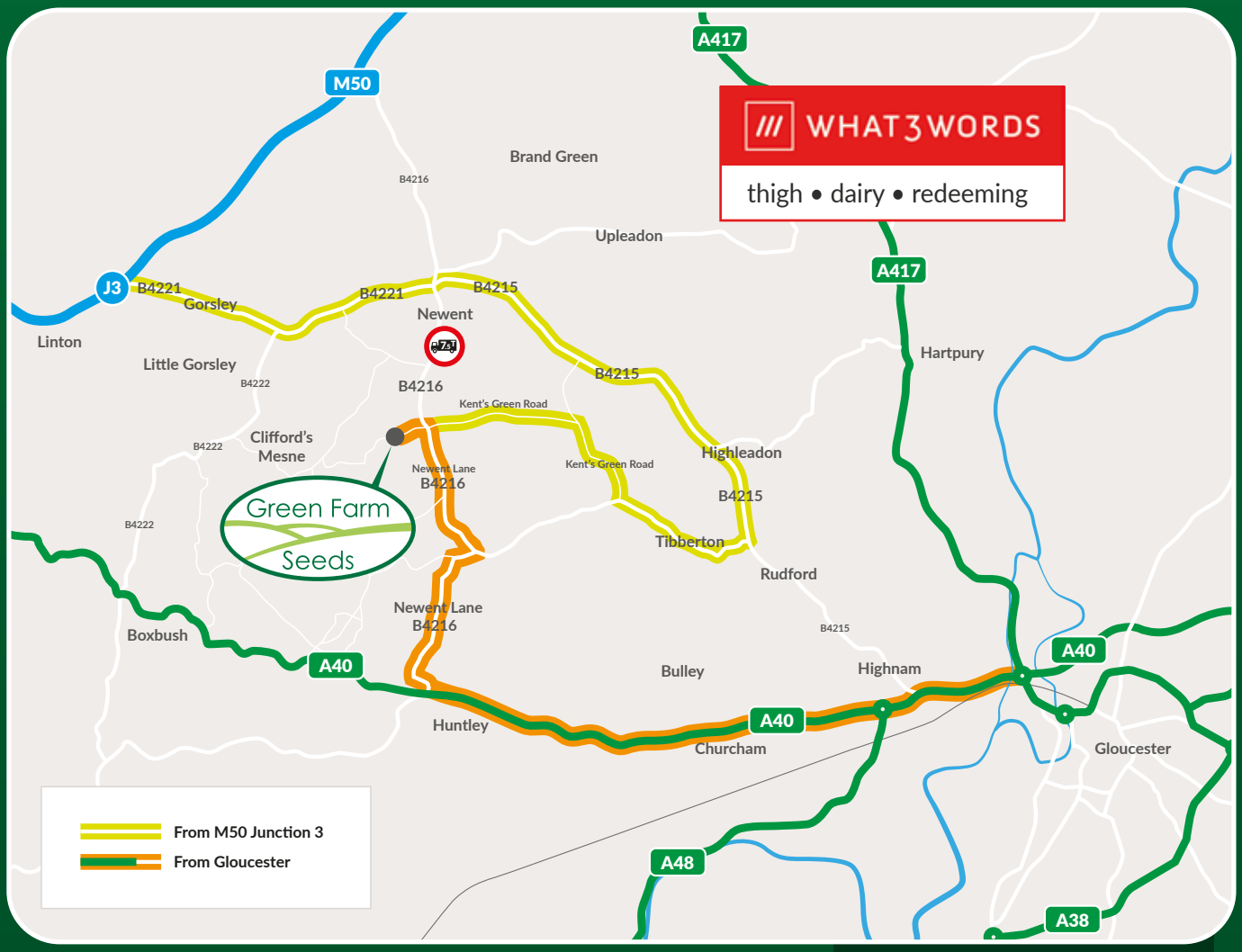

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NIAB BASC BSPB promoting innovation