ACT

A PRACTICAL GUIDE TO ENVIRONMENTAL, COVER CROP, GAME COVER AND FORAGE SEEDS

2025

Welcome YOUR COUNTRYSIDE 2025

A warm welcome to all who regularly receive our brochure and to those who are reading it for the first time.

UK Agriculture plays a vital role in providing our sustenance and preserving our biodiversity, maintaining healthy soils, and ensuring water quality. This is achieved by implementing innovative practices such as cover crops, wild bird seed mixtures, diverse forage leys, and nectar-providing crops. These initiatives, supported by agri-environment schemes, aim to create a harmonious and thriving countryside. Our goal is to make 'Your Countryside' a valuable guide that facilitates the successful implementation of these practices, contributing to the overall well-being of our environment. Whatever your requirement for Stewardship, Cover Crops, Game Cover or Forage, we trust that 'Your Countryside 2025' will guide you to easy solutions to your cropping needs.

RESEARCH AND DEVELOPMENT

We aim to deliver top-quality seed products for successful outcomes in game cover, environmental stewardship mixtures, root crops or cover crops. A desire to provide our customers with successful crops through seed quality, variety selection and sound practical advice, has led us to securing the confidence and support of farmers throughout the UK. All our products at DLF Seeds Ltd undergo thorough testing in Worcestershire to ensure they perform well in UK conditions. The extreme weather conditions of recent times, makes producing forage, a real challenge. We are a forward-thinking company, heavily investing in research and development, specialising in forage crops and other species. Our Products of the Year are carefully chosen based on customer feedback.

Our main goal is to ensure that our customers receive the best possible product portfolio we can supply for the stewardship schemes and the Your Countryside brochure continues to offer valuable technical information and advice on a diverse range of game cover, environmental stewardship mixtures, root crops and cover crop products.

Please contact your local technical expert for personalised assistance if you can't find what you need in this brochure. They are ready to help you find the best solution for your requirements.

WE WORK CLOSELY WITH:

Natural England, Campaign for the Farmed Environment, Bumblebee Conservation Trust, RSPB and Game and Wildlife Conservation Trust.

We gratefully acknowledge all photographic contributions.

Contents

ENVIRONMENTAL

FORAGE CROPS

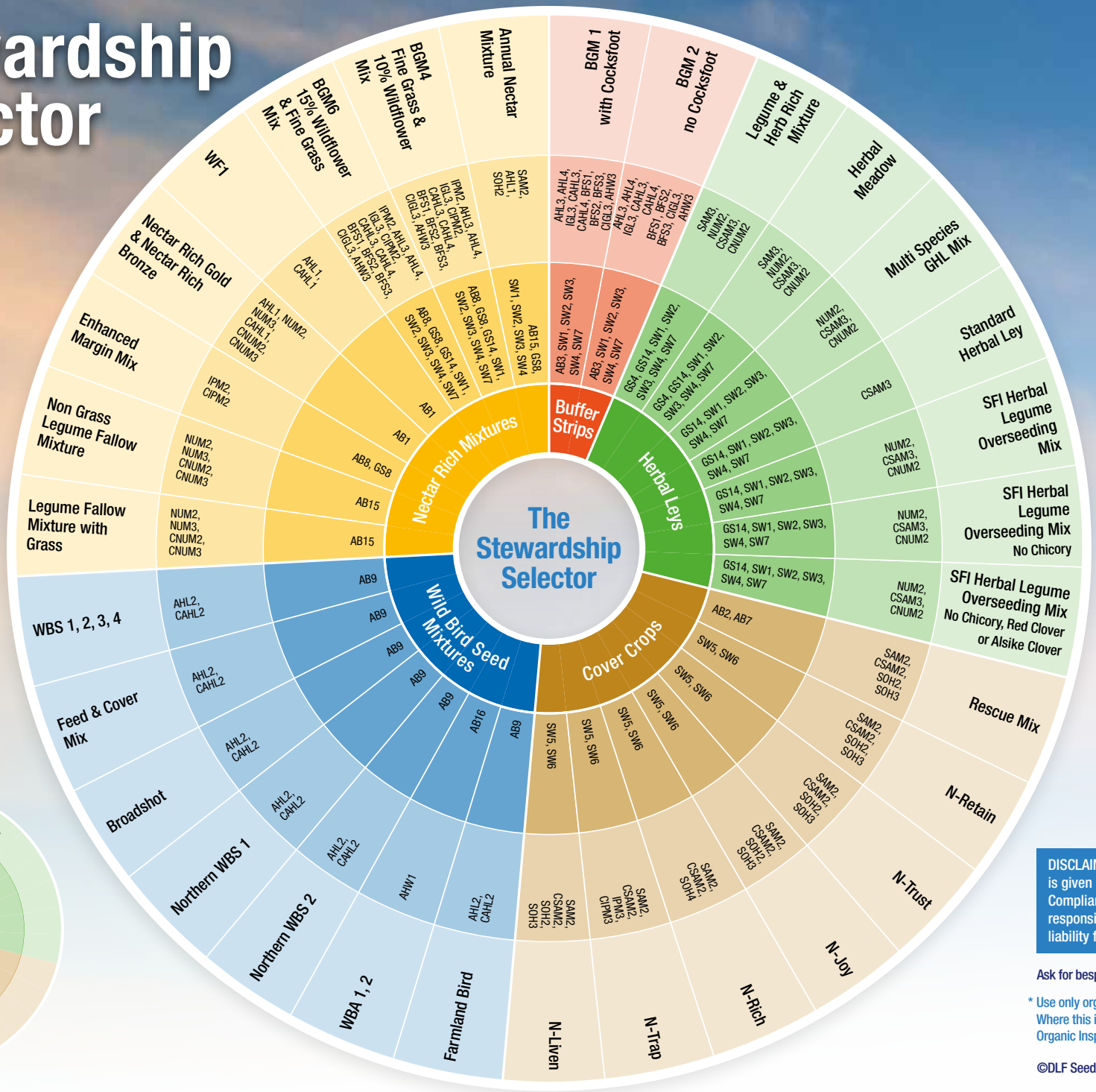
COVER CROPS

GAME COVER CROPS

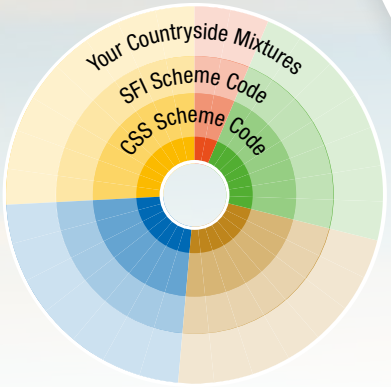
YOUR Countryside

ICON GUIDE

Stewardship Selector



Selector Key:



DISCLAIMER: The information provided is given in good faith and is a guide only. Compliance to any legislation is the responsibility of the buyer and we accept no liability for non-compliance.

Ask for bespoke mixtures tailored to your requirements

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

Countryside Stewardship Scheme Description

CSS Higher Tier	CSS Mid Tier	CSS Code	CSS Option Title
Arable			
✓	✓	AB1	Nectar flower mixture
✓	✓	AB2	Basic overwinter stubble
✓	✓	AB3	Beetle banks
✓	✓	AB7	Wholecrop cereals
✓	✓	AB8	Flower-rich margins & plots
✓	✓	AB9	Winter bird food
✓	✓	AB13	Brassica fodder crop
✓	✓	AB15	Two year sown legume fallow
✓	✓	AB16	Autumn sown bumblebird mix
Grassland			
✓	✓	GS3	Ryegrass seed-set as winter food for birds
✓	✓	GS4	Legume and herb-rich swards
✓		GS8	Creation of species-rich grassland
✓		GS14	Creation of grassland for target features
Soil			
✓	✓	SW1	4-6m buffer strip on cultivated land
✓	✓	SW2	4-6m buffer strip on intensive grassland
✓		SW3	In-field grass strips
✓	✓	SW4	12-24m watercourse buffer strip on cultivated land
✓	✓	SW5	Enhanced management of maize crops
✓	✓	SW6	Winter cover crops
✓	✓	SW7	Arable reversion to grassland with low fertiliser input

SFI Scheme Description

SFI Code	SFI Option Title
SFI Actions for Soils	
SAM2	Multi-Species Winter Cover Crops
CSAM2	Multi-Species Winter Cover Crops
SAM3	Herbal Leys - 5 grasses, 3 legumes, 5 herbs
CSAM3	Herbal Leys - 1 grass, 2 legumes, 2 herbs
SOH2	Multi-Species Spring-Sown Cover Crop
SOH3	Mutli-Species Summer-Sown Cover Crop
SOH4	Winter Cover Following Maize Crops
SFI Actions for Integrated Pest Management	
IPM2, CIPM2	Flower-Rich Grass Margins, Blocks or Strips
IPM3, CIPM3	Companion Crop on Arable and Horticultural Land
SFI Actions for Nutrient Management	
NUM2, CNUM2	Legumes on Improved Grassland
NUM3, CNUM3	Legume Fallow
SFI Actions for Farmland Wildlife on Arable and Horticultural Land	
AHL1, CAHL1	Pollen and Nectar Flower Mix
AHL2	Winter Bird Food on Arable and Horticultural Land
CAHL2	Winter Bird Food on Arable and Horticultural Land
AHL3, CAHL3	Grassy Field Corners and Blocks
AHL4, CAHL4	4m to 12m Grass Buffer Strips on Arable and Horticultural Land
AHW1	Bumblebird Mix
AHW2	Supplementary Winter Bird Food
SFI Actions for Farmland Wildlife on Improved Grassland	
IGL2, CIGL2	Winter Bird Food on Improved Grassland
IGL3, CIGL3	4m to 12m Grass Buffer Strips on Improved Grassland
SFI Actions for Buffer Strips	
BFS1	12m to 24m Watercourse Buffer Strip on Cultivated Land
BFS2	Buffer In-Field Ponds on Arable Land
BFS3	Buffer In-Field Ponds on Improved Grassland
AHW3	Beetle Banks

Flower Rich Grass Margins provide important habitat for invertebrates and birds

Nectar & Flower Rich Margins

NECTAR RICH MIXTURES

Nectar Rich Gold (AB1, AHL1, CAHL1)

33% Sainfoin
25% Vetch
10% Red Clover
8% Alsike Clover
8% Lucerne (inoculated)
6.5% Crimson Clover
4% Birdsfoot Trefoil
4% Black Medick
1% Black Knapweed **(N)**
0.5% Yarrow

100%

Sowing rate 15kg/ha
Pack size 15kg

Annual Nectar Mixture (AHL1, CAHL1)

25% Buckwheat
25% Linseed
20% Vetch
15% Crimson Clover
10% Berseem Clover
4.6% Phacelia
0.2% Black Knapweed
0.2% Yarrow

100%

Sowing rate 20kg/ha
Pack size 20kg

Nectar Rich Bronze (AB1, AHL1, CAHL1)

OUTSTANDING 2024 PRODUCT OF THE YEAR

40% Vetch
30% Sainfoin
12% Crimson Clover
7.6% Lucerne (inoculated)
6% Red Clover
4% Alsike Clover
0.2% Yarrow
0.2% Black Knapweed (N)

100%

Sowing rate 15kg/ha
Pack size 15kg

WF1 (AB1, AHL1)

40% Sainfoin
10% Vetch
5% Birdsfoot Trefoil
5% Alsike Clover
5% Yarrow
5% Red Clover
5% Lucerne (inoculated)
5% Black Medick
4% Crimson Clover
2.25% Corn Cockle **(N)**
2% Oxeye Daisy
2% Black Knapweed **(N)**
2% Selfheal **(N)**
1.5% Cornflower **(N)**
1.5% Sheeps Burnet
1% Red Campion **(N)**
1% Corn Marigold **(N)**
1% Field Poppy **(N)**
1% Wild Carrot **(N)**
0.5% White Campion **(N)**
0.25% Musk Mallow **(N)**

100%

Sowing rate 5 - 10kg/ha
Pack size 1kg & 5kg

FLOWER RICH MARGINS

BGM 4 Fine Grasses & 10% Wild flowers (AB8, IPM2, CIPM2)

45% Creeping Red Fescue
15% Chewings Fescue
15% Hard Fescue
15% SSMG
2.5% Sainfoin
2.5% Vetch
1.5% Red Clover
1.25% Alsike Clover
0.75% Plantain
0.5% Birdsfoot Trefoil
0.25% Black Knapweed **(N)**
0.25% Oxeye Daisy
0.25% Sheeps Burnet
0.25% Yarrow

100%

Sowing rate 16 - 20kg/ha
Pack size 20kg

BGM 6 Fine Grasses & 15% Wild flowers (AB8, IPM2, CIPM2)

45% Creeping Red Fescue
15% Chewings Fescue
9% SSMG
9% Cocksfoot
6% Hard Fescue
3.75% Sainfoin
3.75% Vetch
3% Lucerne (inoculated)
1% Alsike Clover
1% Browntop Bent
1% Plantain
1% Red Clover
0.5% Sheeps Burnet
0.5% Sheeps Parsley
0.25% Birdsfoot Trefoil
0.25% Yarrow

100%

Sowing rate 20kg/ha
Pack size 20kg

Enhanced Margin Mix Fine Grasses & 20% Wild Flowers (AB8, IPM2, CIPM2)

25% Slender Red Fescue
25% SSMG
12% Chewings Fescue
10% Crested Dogstail
5% Hard Fescue
3.25% Sainfoin
3% Vetch
3% Browntop Bent
2.5% Birdsfoot Trefoil
2% Black Medick
2% Red Clover
2% Black Knapweed **(N)**
1.3% Oxeye Daisy
1.25% Yarrow
1% Wild Carrot **(N)**
1% Plantain
0.5% Selfheal **(N)**
0.2% Musk Mallow **(N)**

100%

Sowing rate 16 - 20kg/ha
Pack size 20kg

SUPPORTING WILD POLLINATORS ON YOUR LAND

Bumblebee Conservation Trust

Bumblebees and solitary bees are very important pollinators of both commercial agricultural crops and wild flowers. Many UK species have declined in recent years due to habitat loss. Bumblebees rely on flower rich habitats from March to September to provide essential nectar resources for colony growth. They also require undisturbed tussocky grassland for nesting.

There are a number of ways these habitats can be provided on arable and livestock farms, including planting pollen and nectar margins or wildflower buffer strips and implementing a more sensitive management regime; no/very light application of farm-yard manure, no chemical fertilizers, taking a late hay cut (Mid-July to August) allowing wildflowers to set seed and adopting a sensitive grazing regime.

Details on how you may improve your land for bumblebees and other pollinators can be found in our series of land management fact sheets:

www.bumblebeeconservation.org

We can also offer tailored advice in our target areas. Please contact **advice@bumblebeeconservation.org**

Buffer Strip & Fallow Mixtures

BUFFER STRIPS MIXTURES

BGM 1 with Cocksfoot
(AHL3, CAHL3, AHL4, CAHL4, IGL3, CIGL3)

45% Creeping Red Fescue
20% Cocksfoot
15% Meadow Fescue
10% Tall Fescue
5% SSMG
5% Timothy

NEW RECIPE 2025

100%

Sowing rate 20kg/ha
Pack size 20kg

BGM 2 no Cocksfoot
(AHL3, CAHL3, AHL4, CAHL4, IGL3, CIGL3)

40% Creeping Red Fescue
20% Chewings Fescue
20% Meadow Fescue
10% Tall Fescue
5% SSMG
5% Timothy

NEW RECIPE 2025

100%

Sowing rate 20kg/ha
Pack size 20kg

LEGUME FALLOW MIXTURES

Legume Fallow Mixture with Grass
(AB15, NUM2, CNUM2, NUM3, CNUM3)

36% Perennial Ryegrass
30% Creeping Red Fescue
10% Crimson Clover
10% Vetch
2% White clover
5% Red Clover
4% Lucerne (inoculated)
1% Alsike Clover
1% Birdsfoot Trefoil
1% Black Medick

100%

Sowing rate 30 - 40kg/ha
Pack size 20kg & 500kg

Non Grass Legume Fallow Mixture
(AB15, NUM2, CNUM2, NUM3, CNUM3)

52% Vetch
6% Sanfoin
14% Crimson Clover
12% Lucerne (inoculated)
4% White clover
10% Red Clover
1% Birdsfoot Trefoil
1% Black Medick

OUTSTANDING 2024 PRODUCT OF THE YEAR

100%

Sowing rate 15 - 20kg/ha
Pack size 20kg & 500kg

ANNUAL MIXTURES

Annual Fallow Mixture
(SAM2, NUM3, CNUM3)

38% Vetch
32% Linseed
10% Crimson Clover
5% Gold of Pleasure
5% Sainfoin
4% Phacelia
4% White Mustard
2% Lucerne (inoculated)

100%

Sowing rate 15 - 20kg/ha
Pack size 20kg

Annual Nectar Mixture
(AHL1, CAHL1, SOH2)

25% Buckwheat
25% Linseed
20% Vetch
15% Crimson Clover
10% Berseem Clover
4.6% Phacelia
0.2% Black Knapweed
0.2% Yarrow

100%

Sowing rate 20kg/ha
Pack size 20kg

Legume & Herb Rich Mixtures provide reliable forage & beneficial pollinators & improve soil structure

Legume & Herb Rich Mixtures

Legume and herb-rich mixtures provide an abundance of productive grazing for livestock whilst providing habitat and food source for invertebrates and pollinators, supporting biodiversity.

Herbal leys develop a beneficial soil structure through the increase of organic matter due to the variety of species used and the length of time they are in the soil. Grasses offer the reliable bulk forage in these mixtures. These leys replace organic matter lost through rotation and also supply a valuable forage crop for livestock grazing or cut for silage.

The Nitrogen fixing ability of legumes, reduces the need for artificial fertilisers, as well as increasing the protein content which directly enhances DLWG or milk production. Deep rooting herbs break through damaged soil structure providing livestock with access to vital nutrients and minerals. Herbs act as a natural anthelmintic, reducing reliance on wormers.

HERBAL MIXTURES

Legume & Herb Rich Mixture No Chicory (GS4, SAM3, CSAM3)

- 60% Perennial Ryegrass
- 7% Festulolium
- 6.9% Sainfoin
- 5% Red Clover
- 5% Lucerne (inoculated)
- 4% Meadow Fescue
- 3% Creeping Red Fescue
- 3% White Clover
- 3% Timothy
- 1% Alsike Clover
- 1% Plantain
- 0.5% Sheeps Burnet
- 0.5% Sheeps Parsley
- 0.1% Yarrow

NEW RECIPE 2025

100%

Sowing rate 30kg/ha
Pack size 20kg

Herbal Meadow Mixture With Chicory (GS4, SAM3, CSAM3)

- 60% Perennial Ryegrass
- 5% Cocksfoot
- 5% Sainfoin
- 5% Timothy
- 5% Lucerne (inoculated)
- 5% White Clover
- 4% Alsike Clover
- 3% Festulolium
- 2% Meadow Fescue
- 2% Chicory
- 1.5% Plantain
- 1% Birdsfoot Trefoil
- 1% Sheeps Parsley
- 0.5% Sheeps Burnet

NEW RECIPE 2025

100%

Sowing rate 30kg/ha
Pack size 20kg

Multi Species GHL Mixture No Chicory (SAM3, CSAM3)

- 25% Int. Perennial Ryegrass (T)
- 25% Int. Perennial Ryegrass
- 25% Late Perennial Ryegrass
- 5% Timothy
- 5% White Clover
- 3.5% Plantain
- 3% Red Clover
- 3% Alsike Clover
- 2% Creeping Red Fescue
- 2% Meadow Fescue
- 1% Tall Fescue
- 0.2% Sheeps Burnet
- 0.2% Sheeps Parsley
- 0.1% Yarrow

NEW RECIPE 2025

100%

Sowing rate 30 - 35kg/ha
Pack size 20kg

Standard Herbal Ley (CSAM3)

- 46% Int. Perennial Ryegrass (T)
- 22% Int. Perennial Ryegrass
- 22% Late Perennial Ryegrass
- 5% White Clover
- 2% Red Clover
- 2% Plantain
- 1% Sheeps Burnet

NEW FOR 2025

100%

Sowing rate 30 - 35kg/ha
Pack size 20kg

Organic multi species mixture

OP4 available on request

OVERSEEDING MIXTURES

SFI Herbal Legume Overseeding Mixture (CSAM3)

- 23% Red Clover
- 22% White Clover
- 20% Plantain
- 10% Chicory
- 5% Alsike Clover
- 5% Sheeps Burnet
- 5% Sheeps Parsley
- 5% Timothy
- 4% Birdsfoot Trefoil
- 1% Yarrow

NEW RECIPE 2025

100%

Sowing rate 7 - 10kg/ha
Pack size 20kg

SFI No Chicory Herbal Legume Overseeding Mixture (CSAM3)

- 25% Plantain
- 23% Red Clover
- 22% White Clover
- 5% Timothy
- 5% Alsike Clover
- 5% Sheeps Burnet
- 5% Sheeps Parsley
- 5% Fenugreek
- 4% Birdsfoot Trefoil
- 1% Yarrow

NEW RECIPE 2025

100%

Sowing rate 7 - 10kg/ha
Pack size 20kg

SFI No Chicory Red or Alsike Clover (CSAM3)

- 35% White Clover
- 20% Plantain
- 15% Timothy
- 6% Fenugreek
- 6% Sheeps Burnet
- 6% Sheeps Parsley
- 5% Birdsfoot Trefoil
- 5% Black Medick
- 2% Yarrow

NEW FOR 2025

100%

Sowing rate 7 - 10kg/ha
Pack size 20kg

Mixed Herbs

- 27% Fenugreek
- 20% Plantain
- 20% Sheeps Burnet
- 15% Chicory
- 15% Sheeps Parsley
- 3% Yarrow

NEW RECIPE 2025

100%

Sowing rate Variable
Pack size 20kg

Mixed Herbs No Chicory

- 30% Fenugreek
- 23% Plantain
- 23% Sheeps Burnet
- 18% Sheeps Parsley
- 6% Yarrow

NEW FOR 2025

100%

Sowing rate Variable
Pack size 20kg

Two by Two

- 30% Alsike clover
- 30% Plantain
- 30% White clover
- 10% Sheeps Parsley

NEW FOR 2025

100%

Sowing rate 7 - 10kg/ha
Pack size 20kg

Herbs and Legumes

PLANTAIN

A perennial herb providing a high mineral forage with a crude protein content of around 20%. Plantain provides all-year round grazing, even in drought conditions. Often mixed with other herbs, this species provides well tillered plants in high density mixtures that will complement the grazing system.

Pack size 5kg & 25kg

CHICORY

A mineral-rich herb with a long taproot which infiltrates the soil to a great depth and can break through soil compaction. Chicory is a high protein, anthelmintic species that lifts trace elements from within the soil profile that are then made available for intake by livestock. This highly productive species is especially good for fattening lambs. If not well managed, chicory can become tall and woody therefore good management is essential to maintain feed quality.

Pack size 5kg & 25kg

SHEEPS BURNET

A perennial herb which helps to provide a long grazing season attributable to its early spring growth. A well-established taproot improves drought tolerance within a sward whilst aiding the supply of vital trace elements to livestock.

Pack size 5kg & 25kg

SHEEPS PARSLEY

Often mixed with other forage herbs, this species has a deep taproot that is able to lift trace elements from great soil depths whilst also aiding drought tolerance. Recognised for its high iron content along with vitamins A and C, Sheeps Parsley can prove a valuable addition to grazing swards.

Pack size 5kg & 25kg

YARROW

A forage herb with a very deep rooting structure that has been noted to improve circulation and blood flow in livestock. Yarrow is commonly mixed with Sheeps Parsley, Burnet and Plantain although due to its minute seed size, should only be included at a low rate to ensure that it does not dominate the sward.

Pack size 5kg & 25kg

SAINFOIN

Sainfoin acts as a natural anthelmintic and the condensed tannins this legume contains aids protein absorption thus improving feed conversion efficiency by livestock. Unlike other species, Sainfoin will not cause bloat in livestock and as little as 10% in a sward will offset the risk of bloat created from other legumes. Best suited to light soils, the deep rooting system of Sainfoin provides a drought-resistant forage that requires no nitrogen fertiliser and little phosphate. This legume prefers alkaline soils and although slow to establish, it is a persistent species. Sainfoin also increases biodiversity by attracting an abundance of insects and invertebrates, especially pollinators.

Pack size 5kg & 25kg

LUCERNE

A persistent, perennial legume that performs particularly well on light, drought prone soils due to its deep, penetrating root system. The roots improve soil structure and aid fertility by fixing atmospheric nitrogen. Above the soil surface, Lucerne produces a high protein, palatable forage crop that is an excellent accompaniment to energy feeds in a ration.

Pack size 20kg

Organic seed available in 25kg packs (Limited)

BIRDSFOOT TREFOIL

A nitrogen-fixing, anthelmintic species which helps boost soil fertility. Like Sainfoin, this species contains tannins to support the absorption of protein by both sheep and cattle. Birdsfoot Trefoil is continually included in diverse mixtures owing to its contribution of beneficial properties both above and below the soil surface.

Pack size 5kg & 25kg

RED CLOVER

A high protein, nitrogen-fixing forage legume that can be grown on almost all soil types. When grown as part of a mixture, clover greatly increases the forage yield for both grazing and cutting.

Pack size 2kg & 25kg

Organic seed available in 25kg packs

Wild Bird Seed Mixtures

SPRING SOWN MIXTURES

WBS 1 - 1 Year Spring Sown
(AB9, AHL2, CAHL2)
Attracts Tree Sparrows

40%	Spring Triticale
28%	Spring Barley
15%	Spring Wheat
10%	Fodder Radish
5%	White Millet
2%	Red Millet
100%	

Sowing rate 40kg/ha
Pack size 20kg & 500kg

For Higher Tier & HLS these mixtures must be agreed with the local Natural England Advisor before ordering seed.

Bespoke mixtures can be packed to order.

Treatment Some species may be treated

WBS 2 - 1 to 2 Year Spring Sown
(AB9, AHL2, CAHL2)
Attracts Grey Partridge

45%	Spring Triticale
20%	Spring Barley
15%	Spring Wheat
7%	Kale
4%	Fodder Radish
4%	White Millet
3%	Quinoa
2%	Red Millet
100%	

Sowing rate 40kg/ha
Pack size 20kg & 500kg

WBS 3 - 1 Year Spring Sown
(AB9, AHL2, CAHL2)
Attracts Partridge

50%	Spring Triticale
20%	Spring Barley
10%	Spring Oats
7%	Linseed
5%	Forage Rape
4%	Gold of Pleasure
4%	White Mustard
100%	

Sowing rate 40kg/ha
Pack size 20kg

WBS 4 - 1 Year Spring Sown
(AB9, AHL2, CAHL2)
Attracts Finches & Buntings

45%	Spring Triticale
25%	Spring Barley
8.5%	Dwarf Sorghum
7%	White Millet
5%	Linseed
4%	Japanese Reed Millet
3%	Red Millet
2.5%	Gold of Pleasure
100%	

Sowing rate 40kg/ha
Pack size 20kg

WBS 4 - Herbicide tolerant, but please discuss with your agronomist for current specific products and recommendations.

Feed & Cover Mixture
(AB9, AHL2, CAHL2)

25%	Spring Triticale
24%	Spring Barley
24%	Spring Wheat
7%	Dwarf Sorghum
6%	White Millet
5%	Sunflower
3%	Japanese Reed Millet
2.5%	Red Millet
2.5%	Gold of Pleasure
1%	Quinoa
100%	

Sowing rate 40kg/ha
Pack size 20kg

ORGANIC WILD BIRD SEED MIXTURE 1

1 Year Spring Sown (OP2)

40%	Organic Spring Wheat
30%	Organic Spring Barley
13%	Spring Triticale
10%	Fodder Radish
5%	White Millet
2%	Red Millet
100%	

Sowing rate 40kg/ha **Pack size** 20kg

ORGANIC WILD BIRD SEED MIXTURE 2

1 - 2 Year Spring Sown (OP2)

35%	Organic Spring Wheat
35%	Organic Spring Barley
10%	Spring Triticale
7%	Kale
4%	Fodder Radish
4%	White Millet
3%	Quinoa
2%	Red Millet
100%	

Sowing rate 40kg/ha **Pack size** 20kg

Wild Bird Seed Mixtures

Wild Bird Seed mixtures provide important food resources for farmland birds & insects

NORTHERN SPRING SOWN MIXTURES

Northern WBS 1 - 1 Year Spring Sown
(AB9, AHL2, CAHL2)

60%	Spring Triticale
20%	Spring Barley
10%	Linseed
5%	Forage Rape
3%	Fodder Radish
2%	Phacelia
100%	

Sowing rate 40kg/ha
Pack size 20kg

Northern WBS 2 - 1 Year Spring Sown
(AB9, AHL2, CAHL2)

50%	Spring Triticale
12%	Spring Barley
12%	Spring Wheat
7%	Fodder Radish
7%	Kale
7%	Quinoa
3%	Green Fennel
2%	Crimson Clover
100%	

Sowing rate 40kg/ha
Pack size 20kg

NON CEREAL MIXTURES

Farmland (Wild) Bird Seed Mixture
Non Cereal
(AB9, AHL2, CAHL2)

NEW RECIPE 2025

40%	Linseed
33%	Buckwheat
7%	Gold of Pleasure
7%	White Mustard
5%	Fodder Radish
5%	Phacelia
3%	Quinoa
100%	

Sowing rate 20kg/ha
Pack size 20kg

Traditional Game Cover Mixture
(AB9, AHL2, CAHL2)

NEW RECIPE 2025

30%	Buckwheat
14%	Dwarf Sorghum
8%	Kale
8%	Sunflower
7%	Gold of Pleasure
7%	Red Millet
7%	White Millet
7%	White Mustard
5%	Phacelia
4%	Quinoa
3%	Forage Rape
100%	

Sowing rate 12.5kg/ha
Pack size 25kg
Treatment Various treatments

Broadshot Mixture
(AB9, AHL2, CAHL2)

34%	Buckwheat
17%	Kale
10%	Phacelia
10%	White Millet
8%	Forage Rape
8%	Red Millet
5%	Japanese Reed Millet
4%	Quinoa
4%	Gold of Pleasure
100%	

Sowing rate 15kg/ha
Pack size 10kg

AUTUMN SOWN MIXTURES

WBA 1 - 2 Year Autumn Sown
(AB16, AHW1)

30%	Winter Wheat
25%	Winter Barley
15%	Winter Triticale
6%	Vetch
5%	Fodder Radish
5%	Forage Rape
3%	Gold of Pleasure
3%	Lucerne (inoculated)
2%	Alsike Clover
2%	Birdsfoot Trefoil
2%	Crimson Clover
2%	Red Clover
100%	

Sowing rate 40 - 50kg/ha **Pack size** 20kg

WBA 2 Autumn Sown Bumblebird Mixture
2 Year Autumn Sown
(AB16, AHW1)

26%	Winter Wheat
25%	Winter Barley
15%	Winter Triticale
8%	Fodder Radish
6%	Vetch
5%	Crimson Clover
5%	Kale
3.4%	Gold of Pleasure
3%	Lucerne (inoculated)
1%	Birdsfoot Trefoil
1%	Phacelia
1%	Red Clover
0.2%	Black Knapweed **(N)**
0.2%	Oxeye Daisy
0.2%	Yarrow
100%	

Sowing rate 40 - 50kg/ha **Pack size** 20kg

The Future of Agricultural Support
Agricultural reform Programme
Preparing for Sustainable farming

Whole Farm Plan

All farmers must complete 2 of the following 5 options by 15th May 2025.

1.	2.	3.	4.	5.
Bio-diversity Audit	**Carbon Audit**	**Integrated Pest Management Plan**	**Soil Analysis**	**Animal Health and Welfare Plan**

Agricultural Reform Programme

Basic Payment Scheme remains as it is for 2025

Greening has no changes for 2025. It will have new options from 2026 (Enhanced Tier Support)

Agri Environmental Climate Scheme (AECS). **Continues for 2025 with no changes**

Cross Compliance
New conditions for Peatlands (GAEC6)

Agri-Environmental Climate Scheme Options

Creation of Beetle Banks, Water Margins and Grass Strips

BGM6 Fine Grasses & 15% Wild Flowers (AB8, IPM2, CIPM2)

45%	Strong Creeping Red Fescue
15%	Chewings Fescue
9%	SSMG
9%	Cocksfoot
6%	Hard Fescue
3.75%	Sainfoin
3.75%	Vetch
3%	Lucerne (inoculated)
1%	Alsike
1%	Bentgrass
1%	Plantain
1%	Red Clover
0.5%	Sheeps Burnet
0.5%	Sheeps Parsley
0.25%	Birdsfoot trefoil
0.25%	Yarrow
100%	

Sowing rate for Scotland 30kg/ha
Pack size 20kg

Wild Bird Seed for Farmland Birds Specifically for Scottish Conditions

Northern WBS 1 - 1 Year Spring Sown (AB9, AHL2, CAHL2)

60%	Spring Triticale
20%	Spring Barley
10%	Linseed
5%	Forage Rape
3%	Fodder Radish
2%	Phacelia
100%	

Sowing rate 40kg/ha
Pack size 20kg

Other Seed Options Under AECS

Stubbles followed by a Green Manure

MANY OPTIONS FOR THIS
Please consult your seed advisor.

Forage Brassicas for Farmland Birds

Best to consider

Swedes • Kale • Hardy Hybrid Brassicas

FALLOW LAND MIXTURE (EFAFAL)

45%	Late Perennial Ryegrass (Dip)
45%	Late Perennial Ryegrass (Tet)
5%	Timothy
5%	White Clover
100%	

Sowing rate 30 - 35kg/ha
Pack size 20kg

www.ruralpayments.org/topics/all-schemes/schemes-overview

BPS Scotland - Greening

A guide to Ecological Focus Area (EFA) Mixtures

EFA Fallow Land (EFAFAL) **Scottish Government Basic Payment Scheme – Greening** Fallow Period 15th January to 15th July. No agricultural production between these dates. Wild Bird Mixtures & Wild Flower mixtures are encouraged and may be sown during the fallow period. After the fallow period is over grass may be cut or grazed. Plan ahead for 2026 and sow a late heading mixture after 16th July 2025.	EFA Weighting 1.0	Fallow Mixture – PAGE 12	BGM 1 or 2 – PAGE 7	Northern WBS 1 – PAGES 11 & 12	Farmland Wild Bird Mixture – PAGE 11
EFA Margins (EFAM) **Scottish Government Basic Payment Scheme – Greening** Period is 1st January to 31st December. They should be around the margin of a field or split 2 crops within a field. Must be between 1m and 20 m wide. You are allowed to cut for hay or silage after 15th July. If not beside a watercourse it may be grazed. Wild flower, wild bird seed and normal grass mixtures may be established.	EFA Weighting 1.5	Any Grass Mixture	BGM 1 or 2 – PAGE 7	BGM 6 – PAGE 12	Northern WBS 1 – PAGES 11 & 12
EFA Catch Crops (EFACC) **Scottish Government Basic Payment Scheme – Greening** Establish the crop in spring. The only catch crop you can grow will be a cereal nurse crop with undersown grass. **It should be a recognised grass seed mixture.** The catch crop must be retained until at least the 31st December. You may graze the catch crop after harvest of the main crop.	EFA Weighting 0.3	Any Recognised Grass Mixture	Italian Catch Crop Mixture		
EFA Green Cover (EFAGC) **Scottish Government Basic Payment Scheme – Greening** Establish the green cover crop by 1st November. Maintain the green cover up to 31st December inclusive. Do not graze during the maintenance period 1st November and 31st December. It must be a mixture of 2 or more of only the following: Alfalfa, barley, red clover, white clover, mustard, oats, phacelia, radish, rye, triticale and vetch.	EFA Weighting 0.3	DLF Red & White Clover Blend – PAGES 9 & 17	N-Rich Cover Mix – PAGE 18		
EFA Nitrogen Fixing Crops (EFA-NFIX) **Scottish Government Basic Payment Scheme – Greening** You must ensure that all EFA nitrogen-fixing crops are surrounded by a claimed EFA margin. You cannot harvest before 1st August to protect ground nesting birds. You must grow 2 of the following; Alfalfa, beans, birdsfoot trefoil, chickpea, red and white clover, lentils, lupins, peas and vetch. Mixtures are allowed, but the nitrogen-fixing species must be dominant by weight.	EFA Weighting 1.0	DLF Red & White Clover Blend – PAGES 9 & 17	Alfalfa – PAGE 9	Peas & Beans	Vetch – PAGE 17
EFA Hedges (EFAH) **EFA Agro-Forestry (EFAAF)** These are EFA options for Scotland that do not require any seed.	Various				

Growing for the Environment

GROWING FOR THE ENVIRONMENT

Growing for the Environment is a grant scheme available to all eligible farmers in Wales. The scheme supports the growing and utilisation of crops, which can result in improvements in the environmental performance of a farm business.

The scheme objectives are to support farmers to:

- **Reduce carbon and greenhouse gas emissions**
- **Adapt to climate change and build greater resilience into farm businesses**
- **Improve water quality and reduce flood risks**
- **Contribute towards a reversal in the decline of Wales' native biodiversity**

Crops and activity supported through the Growing for the Environment scheme have been pre-identified as offering clear and quantifiable benefits to the environment and farm business.

Please read the Growing for the Environment rules and guidance document before submitting an Expression of Interest (EoL)

Any changes will be publicised via the Welsh Government website and GWLAD online.

Cover Crops - WINDOW 5

Establish an unsprayed cover crop following autumn harvesting of cereals, maize or horticultural crop where soil, after harvesting, is ordinarily left bare or stubble retained.

STRAIGHTS AND MIXTURE OPTIONS AVAILABLE from pages 15 – 23 & 27

The application window opened on 3 June 2024 and close on 12 July 2024 - **NOW CLOSED**

Be sure to look for the new application window before these dates in 2025.

RULE BOOK LINK **www.gov.wales/growing-environment-rules-booklet-window-5-html**

Forage Crops - WINDOW 6

Application window date this time opened on 4 November 2024 and close on 13 December 2024 - **NOW CLOSED**

RULE BOOK LINK **www.gov.wales/growing-environment-rules-booklet-window-5-html**

OPTIONS

1. Mixed leys (Also referred to as multi species or herbal leys)
2. Red Clover or Lucerne | Straights available on page 9, enquire for mixtures
3. Protein crops (No weed control)
5. Unsprayed spring sown cereals
6. Unsprayed spring cereals under sown with mixed ley
7. Unsprayed cereal and protein crop mix | Suitable mixtures - Barley Pro Plus & Oat Pro Plus available on page 27
8. Unsprayed cereal and protein crop under sown with mixed ley | Suitable mixtures - Barley Pro Plus & Oat Pro Plus available on page 27
9. Under sowing maize (Spring / summer sown) | Please enquire
10. Unsprayed root or forage crop | Suitable straight and mixtures available on page 9, 21 – 27
11. Unsprayed spring cereals under sown with Red Clover | Straights available on page 9, enquire for mixtures
16. Unsprayed spring-sown cereal and protein crop mix with stubbles retained | Suitable mixtures - Barley Pro Plus & Oat Pro Plus available on page 27
17. Wildlife cover crop. Retained until 15 February in the following year | Suitable mixture - WBS 3 & Northern WBS1 available on page 10 & 11
18. Wildlife cover crop . Retained for 2 years until 15 February 2027 | Please enquire

CYMRU RED HERBAL

10%	Intermediate Perennial Diploid
14%	Intermediate Perennial Tetraploid
10%	Perennial Plus Festulolium
8%	Meadow Fescue
10%	Soft Leaf Cocksfoot
8%	Timothy
10%	Red Clover
4%	Late Heading Red Clover
4%	Small Leaf White Clover
4%	Medium Leaf White Clover
8%	Alsike Clover
3%	Chicory
3%	Sheep's Burnet
4%	Plantain
100%	

Sowing rate 25kg/ha

CYMRU GREEN HERBAL

No Red Clover or Chicory

10%	Intermediate Perennial Diploid
14%	Intermediate Perennial Tetraploid
10%	Perennial Plus Festulolium
8%	Meadow Fescue
10%	Soft Leaf Cocksfoot
8%	Timothy
3%	Birdsfoot Trefoil
7%	Yellow Trefoil
5%	Small Leaf White Clover
5%	Medium Leaf White Clover
10%	Alsike Clover
2%	Sheep's Parsley
4%	Sheep's Burnet
4%	Plantain
100%	

Sowing rate 25kg/ha

THESE TWO MIXTURES COMPLY WITH OPTION 1, 6 & 8 OF THE SCHEME

DRAIG~DRAGON

18%	Intermediate Perennial Diploid
29%	Intermediate Perennial Tetraploid
16%	Late Perennial Diploid
17%	Perennial Plus Festulolium
20%	Red Clover Blend
100%	

Sowing rate 37kg/ha

THIS MIXTURE COMPLIES WITH OPTION 2 & 11 OF THE SCHEME

Draig~Dragon

Growing a cover crop is a very effective way of controlling nematode populations

FOR SPRING SOWING & SUMMER INCORPORATION

Spring sown, summer crops are usually annual crops that as a rule do not tolerate frost. They are quick growing and will suppress weeds by light deprivation as well as providing organic material to improve soil structure and organic status. As they are usually fleshy crops and do not contain high proportions of carbon when incorporated into the soil, they do not substantially reduce stocks of soil nitrogen in the breaking down of the plant structure.

AUTUMN SOWING & SPRING INCORPORATION

Autumn sown crops which go through the winter will scavenge nitrogen from soils thus preventing leaching which is taken much more seriously these days. They can be incorporated in the following spring or can provide a source of forage, prior to incorporation and also help to control erosion especially on late harvested maize stubbles. Certain species can be utilised to provide a nitrogen fixer which is then readily available to a spring sown crop.

LONGER TERM CROPS

Grass and clover leys for long term fertility building must by their nature form part of the rotation. The increased duration of the sward ensures that the grass element provides a very strong root system valuable for soil aeration. The legumes with their deeper root system will improve water filtration through the soil structure encouraging increased soil nitrogen.

Cover Crops & Soil Health

Cover Crops can bring many advantages to the farmer by adding organic matter to the soil, increasing biological activity, improving soil structure, reducing erosion, increasing the supply of nutrients available to plants (particularly by adding nitrogen to the system by fixation), reducing leaching and encouraging weed suppression.

There are some disadvantages and whilst these are few they should also be noted - lost opportunities for cash cropping, exacerbated pest and disease problems (green bridge effect), and the potential for cover crops to become weeds in their own right. These problems can be overcome with thought and measured usage, and the benefits to future crops can be significant.

Cover Crops not only improve soil status, composition and nutrient balance but provide a basis for a more environmentally friendly approach to modern farming. We need to focus our minds on the twin problems of high artificial fertiliser prices and the soil's need for basic nutrients with these being available in a more sustainable form.

A wide range of plant species can be used as soil conditioners. Different crops bring different benefits and the final choice is influenced by many considerations. If the most is to be made of soil conditioning crops, it is important that they are carefully integrated into the crop rotation and proper attention paid to their husbandry.

Cover Crops can be categorised as spring sown for summer usage and autumn sown for over-winter usage, intercropping and longer term fertility improvement.

Nitrogen (N) in legumes comes from uptake of soil N and the fixation of N from the atmosphere. The amount of N fixed by different legumes is determined by the inherent capacity of the crop/rhizobium symbiosis to fix N, modified by the crop's growing conditions (e.g. soil, climate, disease), crop management and length of time for which the crop is grown. Consequently, the influence of all these factors means that a wide range of values has been reported by different researchers. The presence of soil mineral N is generally thought to reduce fixation capacity. Factors that will increase the soil mineral N pool include manure application, cutting and mulching, and grazing. Fixation tends to decrease with legume age, mainly because the amount of soil N tends to increase.

Where growth of legumes is affected by nutrient deficiency (or acidity) the potential for soil N build up is reduced. Phosphorus, Sulphur and some trace elements (e.g. Molybdenum) are particularly important. Where there are large off-takes of soil nutrients as in silage crops both Phosphorus and Potash supplies need to be adequate for satisfactory legume growth. These should be replaced as they are essential to the legume to enable it to maximise the fixing of nitrogen.

NEMATODES IN UK FARMING

ROOT KNOT NEMATODES

- Produce galls and can severely damage plant health
- Crops most at risk are:- peas, onions, carrots, parsnips, and spring wheat

CYST NEMATODES

- Beard like objects which grow and live on root surfaces
- Widespread in Europe and many parts of the world
- Crops most at risk are:- potatoes, sugar beet, rape and beetroot

LESION NEMATODES

- Produce necrotic lesions throughout the cortex of infected roots
- Crops most at risk are carrots, parsnips, maize and legumes

STUBBY ROOT NEMATODES

- Plant roots have a stunted stubby appearance
- Infected roots become less capable of supplying nutrients
- Crops most at risk:- potatoes, sugar beet, onions, carrots and parsnips

STEM NEMATODES

- Can cause distortion in the stems in winter beans and necrotic area on the plant leaves
- Crops most at risk :- potatoes, onions and winter beans

THEIR EFFECT ON AGRICULTURAL CROPPING

Nematodes behave in different ways:

Ectoparasitic forms – feed externally on plant roots and Endoparasitic forms – invade the roots internally. Both forms cause damage, resulting in an overall reduction in yield or affect the marketability of the crop.

Nematodes, also known as eelworms and roundworms. There are over 28,000 distinguishable species, of which 16,000 are parasitic.

Approximately 50% are detrimental to plant health. Damage caused by nematodes can emerge differently from crop to crop. But there are a few symptoms which can appear, that are common to all.

- Stunted plants
- Plants wilt and appear to have no vigour
- Stem malformation
- Yellowing
- Root Galls
- Deformed roots and abnormal growth
- Plant death

Globally, parasitic species can reduce agricultural production by approximately 12%.

Cover Crops improve soil fertility

Cover Crop Species

PHACELIA

A prolific seeder, very fast to establish and a good weed surpressant due to it's root system. It produces a mass of sweet smelling purple flowers providing a good source of nectar, beneficial to a large variety of insects. It is not winter hardy and must be incorporated into the soil before setting seed to prevent self seeding. Mineral rich in items like P, Ca and Mg.

Sowing rate 7.5 - 10kg/ha
Pack size 5kg & 25kg
Treatment Untreated
Organic seed available in 25kg packs (Limited)

BUCKWHEAT

Very fast growing and quick to mature and is easily killed by frost. Can cope with low-fertility soils and is effective at scavenging phosphate and retaining nitrogen due to it's fine, fibrous root system. It competes well with weeds and is attractive to all wildlife and insects. Do not allow seed return to the soil and graze with care as it can cause photosensitivity in livestock.

Sowing rate 20 - 70kg/ha
Pack size 10kg & 20kg
Treatment Untreated
Organic seed available in 25kg packs (Limited)

BROWN MUSTARD

A fast growing crop with bio fumigation properties i.e. it has the potential to suppress soil borne pests and diseases. It can be sown from March to September and is winter hardy. It can improve soil health by increasing organic matter and acts as an excellent weed suppressant. It also offers soil stabilisation by reducing erosion, leaching and water run off. Susceptible to club root.

Sowing rate 5 - 7.5kg/ha
Pack size 5kg & 25kg
Treatment Untreated

WHITE MUSTARD

A relatively inexpensive and highly versatile cover crop either sown alone or as a companion to other species. It is ideal for early cover and although killed off by frost, the fallen woody stems will create shelter for the birds below. This is especially useful when sown with seed producing species which alone would provide no cover. Popular as a green manure crop (see green manure section page 16 - 19).

Sowing rate 12 - 17kg/ha
Pack size 10kg & 25kg
Treatment Untreated
Organic seed available in 25kg packs

FODDER RADISH

(Oil Radish)

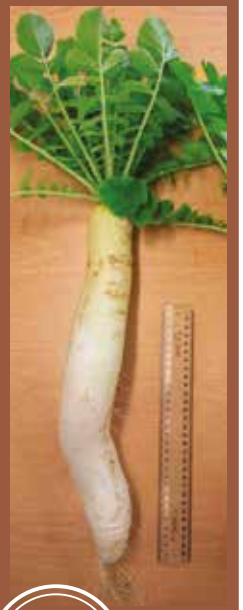
A fast growing cover crop, it's speed of establishment aids weed supression. Fodder Radish has a long tap root which will improve the soil structure and also has plenty of leaf that produces a large quantity of organic matter. An excellent nitrogen scavenger. Some varieties are nematode resistant.

Sowing rate 10 - 20kg/ha
Pack size 10kg & 25kg
Treatment Untreated
Organic seed available in 25kg packs (Limited)

Fodder Radish

DAIKON (TILLAGE) RADISH

A rapid growing crop that produces a large amount of biomass. Daikon has the ability to reduce nematodes and is also an excellent weed suppressor. Daikon produces a long aggressive taproot that penetrates through many different soil types, improving drainage and air movement through the soil. A major benefit is that Daikon captures and stores nutrients from deep in the soil over the winter period, which are released in the spring for the next crop. Daikon can provide much needed cover throughout the winter months for game birds or can be used as an excellent fast growing, nutrient storing green manure crop.



Club Root Tolerant

Daikon Radish

Sowing rate 8 - 10kg/ha
Pack size 5kg & 25kg
Treatment Untreated

The table on page 20 is given in good faith and intended for general guidance only. Weather, local conditions and crop rotations must always be taken into account.

Cover Crops have many soil structure benefits

Cover Crop Species

LINSEED

Easy to establish with thin stems, attractive blue flowers and has a thin tap root with fine branches off it. Although not frost hardy, the stem is maintained through the winter and care should be taken when grazing due to cyanogens present in the plant. An excellent soil conditioner and aerator.

Sowing rate 60kg/ha
Pack size 25kg
Treatment Untreated

FORAGE RYE

A cereal crop that produces large amounts of organic matter and suppresses weeds. An excellent nitrogen scavenger that helps the prevention of nitrate leaching during the winter months. Winter hardy. Do not allow Forage Rye to run to seed as this will lock up available nitrogen.

Sowing rate 90 - 150kg/ha
Pack size 25kg & 500kg
Treatment Untreated

LEAFY TURNIP

Leafy Turnip is late flowering, very quickly covers the soil and is winter hardy. Leafy Turnip can be sown in Spring or Autumn for forage production, and can be grazed after just 6-8 weeks.

Sowing rate 3 - 7.5kg/ha
Pack size 10kg & 25kg
Treatment Untreated

CRIMSON CLOVER

This is an annual clover that establishes quickly to aid weed suppression and has a wonderful network of tap and branch roots. It has a crimson flower that attracts many insects and the ability to trap and add Nitrogen to the soil for following crops. The species does have over wintering capabilities and the biomass produced degrades rapidly back into the soil profile.

Sowing rate 10 - 20kg/ha
Pack size 10kg & 25kg
Treatment Untreated
Organic seed available in 25kg pack

COMMON VETCH

A vigorous, scrambling legume that will establish when sown later than most other legumes due to it's larger seed size. Growth habit and root activity proves the species a good competitor to weeds. Extremely useful as a Nitrogen fixer, soil conditioner and an enriched food source when needed as a companion crop to distract pests from cash crops.

Sowing rate 60 - 120kg/ha
Pack size 25kg
Treatment Untreated
Organic seed available in 25kg pack

GOLD OF PLEASURE

A brassica that is very fast to establish and mature and can cope with poorer soils. Good resistance to pest and disease attack and an excellent nectar source for bees. A medium level of biomass is produced but the species does have allelopathic properties that may impact on companion species in a mix. Some level of winter tolerance.

Sowing rate 12kg/ha
Pack size 5kg & 25kg
Treatment Untreated
Organic seed available in 25kg packs

BLACK OATS

A rapid growing leafy cereal crop which has early vigour with good weed suppression. It will produce large amounts of organic matter. Destroy before flowering to prevent self-seeding. Not winter hardy.

Sowing rate 50 - 75kg/ha
Pack size 25kg & 500kg

WHITE CLOVER (IPM3)

Really useful fertility aid or 'living mulch', it is an excellent companion crop for many species, especially cereals. Best to surface sow into a firm seed bed where the clover's creeping stolons can infill gaps and the small leaved cultivars have the ability to maintain ground cover, offer weed suppression and aid growth by nitrogen fixation and release. Sowing rates can be halved when used as a companion crop.

Sowing rate 5 - 7.5kg/ha
Pack size 5kg & 25kg
Treatment Untreated
Organic seed available in 25kg packs

BERSEEM CLOVER

Also referred to as Egyptian clover, this is an annual species capable of explosive growth to produce a large biomass very quickly. The larger mass offers greater nitrogen production and return to the soil. The species has no frost tolerance and the large, fleshy plants produced degrade rapidly for ease of incorporation.

Sowing rate 10 - 22kg/ha
Pack size 25kg
Treatment Untreated
Organic seed available in 25kg packs

HAIRY VETCH

This differs from common vetch in that it has better cold tolerance maintaining ground cover through the winter and is more tolerant of wetter soils. It can fix around 220 kilos per ha of atmospheric nitrogen and has the capability to smother weed species due to it's sprawling, creeping growth habit. Although vetch is readily grazed, hairy vetch may induce irritation of the mouth.

Sowing rate 60 - 90kg/ha
Pack size 25kg
Treatment Untreated

Cover Crop Mixtures

Our range of cover crop mixtures have been specially formulated to help you achieve the best from your soil by protecting and improving soil fertility and health between cash crops.

Fast growing species have been chosen to help suppress weed growth and provide excellent cover producing huge quantities of organic matter and a variation of different rooting depths to ensure good soil penetration and utilisation of surplus nutrients. Bespoke mixtures to suit individual, specific requirements can also be arranged.

Caution needs to be taken when grazing some cover crop species.

Seed untreated unless specified otherwise

N-JOY COVER MIX

(SAM2, CSAM2, SOH2, SOH3)

A combination that provides quality grazing that is high in protein and effective soil conditioning. It is quick to establish and mature, offering a prolonged utilisation period and is winter hardy. The species used provide deep root penetration for soil aeration, nitrogen fixation and weed suppression. Sow by mid September.

60%	Vetch
16%	Crimson Clover
7%	Smart Radish
7%	Forage Rape
7%	Plantain
3%	Chicory
100%	

NEW RECIPE 2025

Sowing rate 15kg/ha
Pack size 25kg

N-LIVEN COVER MIX

(SAM2, CSAM2, SOH2, SOH3)

The primary role of this seed mix is nitrogen fixation to boost soil fertility between main crops especially two cereal crops. The mix maintains cover well into late winter and provides a range of rooting depth for enhanced soil aeration and drainage. The mix could also be grazed as a means of removal rather than chemical or cultivation methods.

50%	Vetch
30%	Crimson Clover
10%	Linseed
10%	Phacelia
100%	

NEW RECIPE 2025

Sowing rate 15kg/ha
Pack size 25kg

N-RETAIN COVER MIX

(SAM2, CSAM2, SOH2, SOH3)

A balanced mixture that contains fast growing species which produce large amounts of biomass. The species used in the mixture offer a wide range of rooting depths some having a fibrous root system and others producing long tap roots. Both types of roots help to soak up and retain any residual nutrients which may have been left behind by the previous crop.

30%	Vetch
15%	Buckwheat
15%	Crimson Clover
12%	Fodder Radish
10%	Daikon Radish
10%	Egyptian Clover
5%	White Mustard
3%	Phacelia
100%	

Sowing rate 15kg/ha
Pack size 25kg & 500kg

N-TRAP COVER MIX

(SAM2, CSAM2, IPM3, CIPM3)

A combination of fast growing species that act as an alternative food source and distraction to pests that prey on brassica crops. The canopy cover has the potential to slow the progress of flea beetle whilst fixing and releasing nitrogen to companion oilseed rape crops. The cover crop will die back over winter for ease of management.

40%	Fenugreek
30%	Buckwheat
30%	Berseem Clover
100%	

NEW RECIPE 2025

Sowing rate 10kg/ha
Pack size 25kg

N-RICH COVER MIX

(SAM2, CSAM2, SOH4)

The vetch and rye complement each other to provide an excellent cover crop mixture for the winter. Vetches are fast growing and they have a very prolonged growing season, combined with excellent winter hardiness and have the advantage of being able to fix nitrogen at lower temperatures than other legumes. Forage rye is deep rooting which provides a good underground network for the plant to utilize most of the nitrogen left by the previous crop.

80%	Forage Rye
20%	Vetch
100%	

Sowing rate 50 - 75kg/ha
Pack size 25kg & 500kg

N-TRUST COVER MIX

NEW FOR 2025

(SAM2, CSAM2, SOH2, SOH3)

A very fast growing mix designed to comply with SOH2 and SOH3 (Spring and summer sown cover crops). White Mustard and Radish have the ability to secure nutrients and condition and protect the soil. The Berseem and Crimson clovers are also quick to establish offering varied root depth and structure and are capable of nitrogen fixation to enhance soil fertility and aid the growth of subsequent crops.

70%	White Mustard
10%	Fodder Radish
10%	Berseem Clover
10%	Crimson Clover
100%	

Sowing rate 12.5kg/ha
Pack size 25kg

Cover crops reduce nutrient loss and leaching

Cover Crop Mixtures

Incorporation is most effective when plants are young and succulent and the crop is cut and chopped to produce a mulch before turning it into the soil. This allows it to decompose quickly and release nutrients to be used by the following crop.

Some crops, however, require nitrogen to be available at a later stage, in which case they will benefit from the cover crop being left to become more mature. Decomposition and the release of nutrients will take longer and will be more likely to be available at the right time in the crop's development.

It is very important not to sow too early because of the allelopathic effect of the decomposing plants on germinating seeds.

BUSTER COVER MIX

(SAM2, CSAM2, SOH2, SOH3)

A mixture containing species with aggressive deep roots that will help with difficult compacted soils and producing huge amounts of biomass. During the winter months this mixture can benefit the soil by providing vast quantities of organic matter, prevent nutrients being lost and penetrate through compacted soils.

35%	Buckwheat
15%	Linseed
15%	Daikon Radish
12%	Crimson Clover
12%	Fodder Radish
6%	Gold of Pleasure
5%	Phacelia
100%	

Sowing rate 15kg/ha
Pack size 25kg & 500kg

ANNUAL NECTAR MIX

(AHL1, CAHL1, SOH2)

25%	Buckwheat
25%	Linseed
20%	Vetch
15%	Crimson Clover
10%	Berseem Clover
4.6%	Phacelia
0.2%	Black Knapweed
0.2%	Yarrow
100%	

Sowing rate 20kg/ha
Pack size 20kg

RESCUE MIX

(SAM2, CSAM2, SOH2, SOH3)

40%	Buckwheat
20%	White Mustard
15%	Fodder Radish
10%	Forage Rape
10%	Gold of pleasure
5%	Phacelia
100%	

Sowing rate 12kg/ha
Pack size 10kg

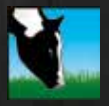
Crop	Drilling Rate kg/ha	Broadcast Rate kg/ha	Sowing Dates	Incorporation Period	Root Type/Depth	Soil Type	Useful Information and Growing Tips
Short Term Crops	**Spring/Summer Sowing & Summer/Autumn Incorporation**						
White Mustard	12	17	Spring - Early Autumn	8 weeks after sowing	Fibrous root system	All types, best on light, sandy soils	Fast growing and good weed suppressor. Has biofumigation properties but not to same extent as brown mustard. Produces large quantities of biomass. Excellent scavenger of nitrogen. Requires fine seedbed. Susceptible to club root. Plough in before flowering to prevent self-seeding.
Brown Mustard	5	7.5	Spring - Autumn	Autumn - Spring	Taproot	All types, prefers moist ground	As white mustard, but contains high levels of glucosinolate which create biofumigation properties to reduce wireworm infestation. To maximise this benefit, crop must be finely chopped at flowering and thoroughly incorporated into moist soil. Brown mustard is winter hardy so is excellent for reducing soil erosion, water run-off and fertiliser leaching when grown after maize, potatoes & sugar beet.
Phacelia	7.5	10	Spring - Summer	10 - 12 weeks after sowing	Shallow, fibrous	Most soil types, will tolerate dry conditions	Quick to establish and a good weed suppressor. Flowers loved by bees and butterflies. The crop must be incorporated into the soil before setting seed or it may reappear in subsequent crops as a weed. Said to release many minerals into soil as it decomposes, especially P, Ca and Mg.
Buckwheat	50	70	Spring - Summer	Summer - Autumn	Shallow, but with good penetration	Tolerates poor, but not wet soils	Fast growing and quick to mature, not winter hardy. Dislikes wet, heavy or compacted soil. Do not allow to set seed before incorporating into soil. Attractive to beneficial insects especially hoverflies. Good scavenger of phosphate.
Crimson Clover	12.5	15	Spring	Summer - Autumn	Taproot with fibrous branch roots	Prefers loam, will tolerate poor soils as long as alkaline and free draining	Very attractive to insects. Excellent weed suppressor. Biomass degrades quickly into soil. Will over-winter in Southern England for autumn sowing/spring incorporation. Shade tolerant.
Linseed	50	60	Spring - Summer	Autumn - Winter	Taproot with fibrous branch roots	Most types	Easy to establish with thin stems, attractive blue flowers and a thin tap root with fine branches off it. Not frost hardy, but does stand through the Winter.
Camelina / Gold of Pleasure	9	12	Spring - Autumn	Autumn - Spring	Tap and branch roots	Most types	Fast to establish and mature, can cope with poorer soils. Good resistance to pest & disease incidence and an excellent nectar source for bees. Medium biomass that allows other species room to grow.
Fodder Radish	10	20	Summer - Autumn	Autumn - Spring	Deep rooting taproot	Most types	Good early vigour that gives quick soil coverage, with a large biomas and a large taproot. Excellent Nitrogen scavenger.
Daikon Radish	8	10	Summer - Autumn	Autumn - Spring	Deep penetrating taproot	Most types	Fast establishing, big biomas, long large white tubers. Excellent for breaking up compacted soil with its aggressive taproot. An excellent nitrogen scavenger.
Egyptian / Berseem Clover	10	22	Spring - Early Summer	Later Summer - Autumn	Taproot with fibrous root network	Needs deep fertile soils (uncompetitive)	Annual clover. Grows aggressively throughout the summer and autumn. Likes deep fertile soils with plenty of moisture. Produces large amounts of biomass along with fixing large quantities of nitrogen. A good cover crop to put between two cereal crops.
Black Oats	50	75	Later Summer - Autumn	Winter - Early Spring	Fibrous root system	Grow in most soil types and conditions	Grows well under most conditions. Early vigour, quickly producing lots of biomass due to the plant rapidly tillering. Can flower early. The fast establishment helps to suppress weeds. Good at disrupting disease cycles. Not frost hardy.
Over Winter Crops	**Autumn Sowing & Spring Incorporation**						
Forage Winter Rye	90	150	Autumn	Spring	Extensive, fibrous root system	Grows well on light, sandy, free-draining soils	Produces large amounts of green material. Excellent nitrogen scavenger and for the prevention of nitrate leaching during winter months. Do not allow to run to seed as this will 'lock-up' available nitrogen. Very hardy.
Forage Rape	6.5	10	Spring - Autumn	Autumn - Spring	Deeply penetrating taproot	Most types, able to tolerate poor soil & exposed sites	Fast growing. Good alternative to mustard if using high glucosinolate varieties, as decomposition can release chemicals which produce a biofumigation effect if incorporated within 24 hours of cutting. Where club root is a problem, make sure a resistant variety is used.
Vetch	60	90	Spring - Autumn	Autumn - Spring	Taproot	Prefers loams and clay. Will not thrive in wet or waterlogged conditions	Good weed suppressor. Ensure a winter hardy variety is used. Due to its large seed size, will establish later than most other legumes. Requires fine, firm seedbed.
Longer Term Crops							
Lucerne Pre-inoculated	20	25	Spring - Early Autumn	Autumn - Spring	Very deep taproot	Light/chalky/free-draining	Seed must be inoculated with rhizobium bacteria. Prefers dry growing conditions. Uncompetitive particularly in early stage of development so grow as pure stand or with non-aggressive companion grasses.
White Clover	5	7.5	Spring - Early Autumn	Autumn - Spring	Creeping stolons, Shallow rooting	Wide range. Tolerates dry conditions	Continued defoliation stimulates root growth and nitrogen fixation. Smaller leaved varieties are more persistent than larger leaved. Good weed suppressor. Shallow sow into fine, firm seedbed.
Red Clover	12.5	15	Spring - Early Autumn	Autumn - Spring	Large, strong taproot	Wide range, avoid poorly drained, acid soils	Aggressive plant, does not release N until crop is ploughed in. Shorter term than white clover. Good for improving and aerating soil structure & useful weed suppressor. Ensure fine, firm seedbed.
Yellow Blossom Clover	5	7.5	Spring	Summer - Autumn	Long taproot	Prefers poor soil and dry conditions. Dislikes wet, heavy ground	Biennial. Quick to establish and grows vigorously. Improves soil structure. Plough in before flowering and before stems become woody. Attractive to bees and other insects if allowed to flower.

Forage Crops 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.

ICON KEY


LIFTING


CATTLE GRAZING


SHEEP GRAZING


CULINARY USE

Stock should be introduced gradually over a two week period and an area of grassland should be available for animals to return to. Water and hay or straw should also be made available. Please contact your supplier for further guidance.

Crop	Page No.	Pack Size	Average Sowing Rate kg / Hectare		Sowing Date Guide	Utilisation Period	Average Drill Depth cm	Average Row Width cm	Suggested Guide to Seedbed Fertiliser (kg) ha			Days Sowing to Grazing	No of possible Grazings	Dry Matter (%)	Digestibility (D-Value)	CP (% DM)	ME (MJ/Jkg DM)
			Broadcast	Direct Drill					N	P	K						
Stubble Turnip	22	10kg & 25kg	7.5	5	Apr-mid Sept	Jun-Jan	1-2	n/a	75	40	40	60-100	1	12-15	70	17-18	10-11
Main Crop Turnip	22	5kg	5	2.5 - 3.5	May-Jul	Oct-Jan	1-2	n/a	75	80	100	60-100	1	12-15	80	17-18	10-11
Forage Rape	23	10kg & 25kg	10	6	May-end Sept	Jun-Jan	1-2	n/a	75	40	40	90-100	2	10-12	70	19-20	10-11
Fodder Beet	24	50,000 seeds	-	Precision drill 100,000/ha	Mar-May	Oct-Mar	2.5-3	50-60	110	50	140	-	-	12-19	78	12-13	12-12.5
Swede	25	500g & 1kg	2.5 - 5	Precision drill 370-865 kg/ ha grade H Direct Drill 1	Apr-June	Aug-Mar	1-2	45-70 graded 40 natural	110	80	100	170-250	1	17-20	82	10-11	12-13
Kale	26	1kg & 5kg	7.5	2.5 - 5	Apr-Jul	Sept-Mar	1-2	50	100	50	120	150-220	1	15-17	68	14-17	10-11
Spitfire	23	10kg & 25kg	10	6	May-end Sept	Jul-Dec	1-2.5	15-20	100	40	40	90-110	2	12-15	70	18-19	10-11
Mainstar	23	10kg & 25kg	10	6	April-Sept	Sept-Jan	1-2	various	100	55	55	90-110	2	12-15	70	18-19	10-11
Rapid Root Mixture	27	10kg	8.5	6	mid Apr-mid Sept	Jul-Dec	1-2	n/a	75	50	50	-	-	-	-	-	-
Winter Graze Mixture	27	10kg	8.5	6	mid Jul-mid Sept	Post Christmas	1-2	n/a	75	50	50	-	-	-	-	-	-

Source: NIAB

Turnips

Stubble Turnips are a fast growing catch crop, popular with livestock farmers. They may be sown after first cut silage for summer grazing or after winter cereals for autumn usage. When planting a large acreage it is advisable to stagger sowing dates, increasing the seed rate in dry conditions. If being used for dairy cow grazing it is important to take into consideration the distance between the field and the milking parlour. Strip grazing is advisable if possible to limit wastage.
There are two types of stubble turnip: bulbing (see Marco and Vollenda) and non bulbing.

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	68 - 70%
Dry Matter	8 - 9%
Metabolisable Energy	11MJ/kg DM
Sugars in DM	55%

Bulbing Types

MARCO

Marco is a fast establishing, high yielding, large bulb and high bulb to leaf ratio. An early maturing turnip, only 55-65 days from sowing to grazing, with excellent bolting resistance and high club root resistance. Marco is a tetraploid turnip with high metabolisable energy and digestibility.

Sowing rate 5 - 7.5kg/ha
Pack sizes 10kg & 25kg
Treatment Untreated (Limited)

VOLLENDA (Tetraploid)

A large leafed, highly digestible variety with good early vigour and good disease resistance. It retains its palatability throughout the season, and is noted for its yield, speed of growth and bolting resistance.

Sowing rate 5 - 7.5kg/ha
Pack sizes 10kg & 25kg
Treatment Untreated (Limited)

Non Bulbing Types

LEAFY TURNIP

Leafy Turnip is late flowering, very quickly covers the soil and is winter hardy. Leafy Turnip can be sown in Spring or Autumn for forage production, and can be grazed after just 6-8 weeks.

Sowing rate 3 - 7.5kg/ha
Pack size 10kg & 25kg
Treatment Untreated

Variety	Barkant	Vollenda(T)
Relative Yield of Dry Matter	104	102
Dry Matter Content (%)	9.5	9.7
Root Size (9=large 1=small)	4	5
Root Anchorage (9=good 1=poor)	5	4
Bolting Resistance (early sown) (9=good 1=poor)	6	9
Winter Hardiness (9=good 1=poor)	7	7
Club Root (9=good 1=poor)	7	8
Powdery Mildew Resistance (9=good 1=poor)	5	5

Source: NIAB

Main Crop Turnip

Later maturing than stubble turnips and with higher dry matter, higher yields and better winter hardiness. They have a growing period of 12 – 15 weeks and provide excellent autumn and early winter feed for sheep and cattle.

GREEN GLOBE

Green Globe turnips produce soft, easily eaten roots that are well anchored into the ground, suitable for grazing by all types of stock. They will provide a very high fresh yield from large bulbs and are utilised between October and January, preferably strip grazed to reduce waste.

Sowing rate Drill 2.5 - 3.5kg/ha Broadcast 5kg/ha
Pack size 5kg
Treatment Untreated
Sow Late May to July

Variety	GREEN GLOBE 100% = Tonnes/ha
Total Dry Matter Yield (%)	(5.7t/ha) 100
Total Fresh Yield (%)	(70.6 t/ha) 100
Dry Matter (%)	8.2
Powdery Mildew Resistance (9 = Best)	4
Root Shape (9 = Best)	6

Source: Advanta & SCRI trials

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. It is better to strip graze to avoid excessive wastage.

Forage Rape can be mixed with stubble turnips and kale to combine the many benefits of these crops (see page 27 for root mixtures).

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%
Metabolisable energy	10 - 11 MJ/kg DM

EMERALD

Emerald is a proven, well known variety producing rapidly establishing, medium to tall leafy plants maturing in 10-12 weeks after sowing. It is fast growing with average dry matter yields and good general disease resistance. Importantly, it has very good feeding quality, being high in protein and easily digestible, remaining palatable well into the winter. An added benefit is its widely branched root system for improvement of soil structure.

Sowing rate 6 - 10kg/ha
Pack size 10kg & 25kg
Treatment Untreated

Stock should be introduced gradually over a two week period and an area of grassland should be available for animals to return to; water and hay or straw should also be made available. Please contact your supplier for further guidance.

MAINSTAR

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

Sowing rate 6 - 10kg/ha
Pack size 10kg & 25kg
Treatment Untreated

SPITFIRE FORAGE BRASSICA

Spitfire is a modern multi-purpose rape which is a good companion to use with other fast establishing brassicas. It is a medium-tall variety with high dry matter, excellent aphid tolerance, good stock palatability and rapid establishment to maturity. It has high growth potential but careful management is required to avoid damaging stems for regrowth. Spitfire is a multiuse rape suitable for planting in spring for excellent summer and autumn feed or in early autumn for quality winter feed. The main strengths of Spitfire are excellent yield, insect tolerance, and a low dry mattery (DM%) stem. The very low DM% content of the stem produces a high-quality forage, with good utilisation at grazing without limiting yield ability or regrowth potential.

Sowing rate 6 - 10kg/ha
Pack size 10kg & 25kg
Treatment Untreated

Fodder Beet

Fodder Beet is grown as a main root crop. It can produce substantial yields of high quality fodder and is an excellent supplement to grass silage. The roots are very palatable to stock and have superb feed quality. Specialist harvesting equipment is required to lift the roots and storage is required unless they are strip grazed in situ.

Medium dry matter varieties tend to have a higher percentage of root above ground and can be lifted with a top lifter and therefore have a relatively low dirt tare. These highly palatable roots can be fed whole to stock. High dry matter varieties tend to sit further in the ground and require a sugar beet harvester to lift them. Due to the higher dirt tare and hardness of the root, these varieties may need to be chopped and washed before feeding.

Pack size - 50,000 seeds per acre

SEED TREATMENT - Force 10/Tachigaren Pelleted Untreated Seed (Limited)

Variety		Fresh Yield		DM	DM Yield		Root in Ground	Bolters
		tonne/ hectare	% Enermax	%	tonne/ hectare	% Enermax	%	#/10m²
BANGOR	Yellow	111.45	110.1%	18.6%	20.52	96.1%	51%	0.29
DELICANTE	White	116.40	114.9%	19.1%	22.23	104.1%	56%	0.00
ENERMAX	White	101.26	100.0%	21.4%	21.35	100.0%	72%	0.00
MAGNUM	White	100.96	99.7%	22.2%	22.12	103.6%	62%	0.07
MONRO	Red	101.07	99.8%	15.9%	15.98	74.8%	49%	0.39

DELICANTE

Delicante is a white skinned variety with good fresh and dry matter yields. Clean roots with healthy foliage which has good resistance to rust and mildew. Delicante is excellent for fresh feeding and grazing, with a good tolerance to bolting.


Delicante

BANGOR

Bangor is an improvement on the illustrious/ long-time-acknowledged varieties Kyros and Troya – resulting in a yield increase and uniform roots. Bangor is easily lifted on all soil types, due to the regular shape of the root and its high position above the ground. With a medium DM in the root it results in a very high yield of 105%.


Bangor

MAGNUM

Magnum has a consistent root size and reliable high dry matter yields. It is a very palatable variety therefore increasing appetite and dry matter intake in all stock. Higher dry matter fodder beet has been shown to increase milk yield and daily live weight gain. Due to its high dry matter content it is more frost resistant than other varieties with a high proportion of clean, white root in the ground.


New Magnum Image?

ENERMAX

An exciting dual purpose variety for both fodder and bio-energy production. High yielding with a low dirt tare.

Enermax has a clean, white, smooth-skinned root and is shallow rooting, resulting in a cleaner end product particularly important for the bio-fuel market.

It has a higher root yield when compared with the well-known and popular variety Magnum. Official variety testing (Denmark 2010 - 2011), has shown that Enermax can produce 21 tonnes/DM/ha from the root only, with the beet tops adding approximately 5 tonnes DM/ha.

Enermax has the additional benefit of being Rhizomania tolerant and so is suitable for growing in the east of the country where sugarbeet is a widely grown crop, as well as in the west and other areas.

Enermax

Swedes

Swedes are a full season root crop which are mainly fed in situ, but can also be lifted and stored in a clamp. They are an excellent high energy winter feed. It is advisable to use an electric fence to reduce wastage. They do best in areas of high rainfall, so are generally grown in the 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 do best in soils with a pH of approximately 6.5. The majority of swede crops are now sown with precision drills which require a level seed bed. Varieties are generally classed as fodder or culinary types; however there are some dual purpose types.

All natural seed is packed in 1 kg packs Untreated

All graded seed is packed in 0.5 kg packs Untreated

Swede Yield and Feed Quality	
Average dry matter yield	7 - 10 tonnes/ha
Average fresh yields	70 - 80 tonnes/ha
Crude protein	10 - 11%
Digestibility value	82D
Dry matter	9 - 13%
Metabolisable energy	12.8 - 13.1 MJ/kg DM
Sugars in DM	59%

AIRLIE

Airlie is a low to medium dry matter variety with a very high fresh yield and good disease resistance. It is a dual purpose variety suitable for fodder and culinary use with purple skin and creamy white flesh. Airlie is an early to intermediate use variety.

GOWRIE (Limited)

Gowrie is a uniform, medium dry matter variety with some club root tolerance and good mildew. It is a dual purpose variety suitable for fodder and culinary use, with purple skin and yellow flesh.

KENMORE (Limited)

Kenmore is an early maturing variety with medium dry matter, best suited as stock feed not culinary use. It has good winter hardiness which means it has a very wide utilisation window. Kenmore has bronze skin with white flesh.

MARIAN (Limited)

Marian is a medium dry matter variety with moderate resistance to club root. It is a dual purpose variety suitable for fodder and culinary use with yellow coloured flesh and purple skin.

Variety	Airlie	Gowrie	Kenmore	Marian
Fodder	✓	✓	✓	✓
Culinary	✓	✓		✓
Root shape (9=globe 1=tankard)	6	4	5	4
Skin colour	Light purple	Purple	Bronze	Purple
Flesh colour	Creamy white	Yellow	White	Yellow

Seed Rate Calculator Guide - No. of Seeds X 1000

Spacings	Row Width					
	18”	20”	22”	24”	26”	28”
Spacings 2”	174	157	143	131	121	112
Spacings 3”	116	105	95	87	80	75
Spacings 4”	87	78	71	65	60	56
Spacings 5”	70	63	57	52	48	45
Spacings 6”	58	52	48	44	40	37

(For seed size grade H (1.75 - 2.00mm) 1000 seed weight grade H approx 3.2g)

Kale

Kale is a brassica traditionally grown for grazing 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 advisable to stagger sowing dates to ensure it does not over-mature. It is very adaptable and can grow on most sites throughout the UK. Kale can also be used as game cover (See page 36).

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, 19 - 25% ensiled
Digestibility value	68D
Dry matter	14 - 16%
Metabolisable energy	10 - 11 MJ/kg DM
Sugars in DM	17%

GRÜNER ANGELITER

A very high yielding variety with good winter hardiness and excellent feeding quality with fresh yields 15% higher than Caledonian kale and 10% higher than Bittern in German trials. Grüner Angeliter has been the mainstay forage variety of kale in New Zealand for many years and since its introduction to the UK has become equally popular over here. Its high yields make it ideal for utilisation by dairy and beef cattle and as winter feed for sheep.

Sowing rate 2.5 - 7.5kg/ha
Pack size 1kg & 5kg
Treatment Untreated

SOVGOLD

A new variety specifically bred for palatability and maximum utilisation of the plant. Sovgold offers an extra tonne of dry matter to the hectare more than Sovereign and crucially, the stem of Sovgold has enhanced palatability hence more of the crop is utilised by grazing animals. It is the lower portion of the stem (so often left in the field on other varieties) that makes Sovgold the best grazing kale on the market.

Sowing rate 2.5 - 7.5kg/ha
Pack size 1kg & 5kg
Treatment Untreated

ANGLIAN GOLD

Anglian Gold is a low growing kale variety tailored to the game cover sector. Its dense, leaf-rich canopy, combined with good winter hardiness, makes it an option for providing plenty of cover throughout the season.

Sowing rate 3 - 7.5kg/ha
Pack size 1kg & 5kg
Treatment Untreated

Root Mixtures & Arable Silage

Root Mixtures

The following two catch crop mixtures combine the benefits of stubble turnips and forage rape, excellent for fattening lambs during autumn and winter 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

The forage rape element of this mixture ensures quick establishment and high protein yields, whilst the stubble turnips provide energy and stockholding capacity. The mixture is ideal for fattening stock.

Sow mid April - mid September.

65% Forage Rape
30% Stubble Turnip
5% Kale

100%

Sowing rate 6 - 8.5kg/ha
Pack size 10kg
Treatment Untreated

WINTER GRAZE

A mixture of palateable, proven varieties exhibiting very good winter hardiness, which is improved by the addition of the kale.

Sow mid July - mid September.

60% Stubble Turnip
35% Forage Rape
5% Kale

100%

Sowing rate 6 - 8.5kg/ha
Pack size 10kg
Treatment Untreated

Stock should be introduced gradually over a two week period and an area of grassland should be available for animals to return to. Water, hay or straw should also be made available. Please contact your supplier for further guidance.

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 a cost-effective, high quality forage of consistent quality and palatability, with high yields of dry matter even in dry seasons and cold weather. They can be self-fed from the silage-face or as bales and their early harvest allows for earlier drilling of other autumn combinable crops or reseeding of grass.

CONVENTIONAL MIXTURES

Pea & Barley No.1
66% Spring Peas
34% Spring Barley

Barley Pro Plus No.2
50% Spring Barley
20% Maple Peas
20% Spring Peas
10% Spring Vetch

Oat Pro Plus No.3
50% Spring Peas
25% Spring Barley
25% Spring Oats

ORGANIC MIXTURES

Organic Pea & Barley No.1
35% Organic Spring Barley
35% Organic Spring Peas
30% Spring Peas

Organic Barley Pro Plus No.2
50% Organic Spring Barley
20% Organic Spring Peas
20% Spring Peas or Bluetooth Peas
10% Spring Vetch

Organic Oat Pro Plus No.3
50% Spring Peas
30% Spring Oats
20% Spring Barley

STRAIGHTS

Rather than grow a mixture, some growers prefer to grow a single crop on it's own. We can offer Vetch and Lucerne for these situations.

Vetch
Packed in 25kg bags

Organic Vetch
Packed in 25kg bags

Lucerne (inoculated)
Packed in 25kg bags

Organic Lucerne (inoculated)
Packed in 25kg bags

Contact us for more information

All mixtures are available packed in 500kg bags. Treatment: Various and Organic Untreated
The suggested sowing rate for all mixtures is 150kg - 225kg per hectare. Book early to avoid disappointment.

Pests & Diseases in Cover Crops

Cover crops offer real benefits to soil, livestock and the environment, but only when grown successfully and allowed to fulfil their potential. However, careful consideration should be given to the selection of the species chosen as cover in relation to the crop rotation you are planning. This is to avoid the potential carryover of pests and diseases that may have a negative impact on the following crop. To this end we have highlighted some of the points you may wish to consider:

Pests

FLEA BEETLE

The Brassica element of cover crops are susceptible to flea beetle so sowing mixtures with deterrent effects can help reduce the impact of flea beetle attack. If chemical control is required, then use of an approved insecticide may be recommended.

Shot holes in the leaves are a sign of flea beetle attack and the tiny, black beetle can also be seen, characterised by jumping "like a flea".

PEA AND BEAN WEEVIL

These can affect many legumes within cover crops and will then reduce their ability to fix N for the following crop. Severe infestations may warrant control with an approved insecticide, providing an environment which encourages natural predators can help to reduce numbers in a sustainable way.

SLUGS

These can be a serious issue as cover crops (and in particular brassicas) can be a host for slugs. Destroying cover crops in plenty of time before establishing the next crop can help reduce slug populations.

Slug traps should be used to identify the number of slugs present and treatment is an option if thresholds are met.

TURNIP SAWFLY

APHIDS

Diseases

CLUB ROOT

(Plasmodiophora brassicae)

Brassicas in tight rotation can be at risk of clubroot, so having a wide rotation (minimum 5 years) can help to reduce the risk, along with increasing pH and available calcium.

It is very difficult to control and once present in the soil, is virtually impossible to eradicate. Roots affected by club root are swollen and distorted thus reducing the flow of water and nutrients to the plant; leaves become yellow and wilt, causing severe stunting. Sowing crops in the autumn when, the soil is cooler, reduces the risk of attack.

GREEN BRIDGE

Referred to as this, as it is a "bridge" between crops when the cover crop remains green and has the ability to host pests and diseases which may affect the following crop.

Taking steps to reduce and control the "green bridge" will help to minimise the issue.

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. It is hoped the following notes will help and guide you to the successful establishment of game cover crops. Any regional or particular soil conditions have not been taken into consideration as it is preferable to take advantage of local knowledge. If you would like more detailed information please contact your local seed specialist, who will be able to give advice for your own particular farm/situation.

DLF Research Trials

CROP ROTATION

Rotations are essential to help reduce soil-borne diseases such as club root in brassicas. A rotational system will also help to improve soil fertility and structure as each crop can benefit the soil in different ways, each requiring different trace elements. Crop rotation is essential where weeds and/or disease have become a persistent problem.

CULTIVATIONS

A well prepared seed bed is essential for crop health and development, as a rapidly growing game cover crop has more chance of resisting pest attack. Generally, ploughing and rapid consolidation to conserve moisture is the ideal start for these crops. Ensure the seed bed is fine and firm to help reduce the risk of slug activity.

SOWING

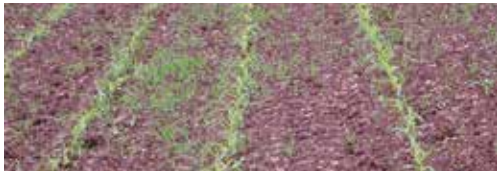
Where possible we recommend drilling game cover crops. This ensures accurate seed depth and row width and will provide maximum seed to soil contact that will encourage a speedy establishment. Sowing at the correct row width will also improve bird holding and driving capability. Each growing season is completely different, but try not to sow too early to ensure the soil temperature is warm enough to encourage a quick successful germination.

SOIL TESTS & FERTILISER

Soil testing is essential to determine the soil pH and fertility of the soil, which can then be managed accordingly to maximize its potential. Farmyard manure is an excellent way of improving soil structure and adding fertility. Fertiliser will also be required at the early stages of establishment to maximize the output of your game cover crop. Lime may be required for some acid soils to balance the soil pH.

WEED CONTROL

The stale seed bed technique is a well proven weed control system and allows early control of weeds. The technique involves spraying, ploughing and cultivating to encourage weed seeds to germinate in a first flush, then re-spraying; this can be repeated as often as necessary to help achieve a clean seed bed. This technique is very useful where mixtures are grown and no herbicide can be recommended. (For chemical weed control see tables on pages 24 and 25).



Game Cover Selector

Crop	Organic Option	Page No.	Pack Size	Cover / Feed Crop		Nectar	Average Sowing Rate per Hectare		Sowing Date Guide	Utilisation Period	Duration of the Crop	Average Drill Depth cm	Average Row Width cm	Suggested Guide to Seedbed Fertiliser (kg) ha		
							Broadcast	Drill						N	P	K
Game Cover Crops																
Maize		35	40,000/ 50,000 seeds	✓	✓			Precision drill 111,150 - 123,500 seeds/ha	April - June	September - February	1 Season	6	75	80	85	205
Brassicas																
Kale		36	1kg & 5kg	✓			5 - 7.5kg	3 - 5kg	April - June	September - March	1 - 2yr	1 - 2	50	100	50	120
Leafy Turnip		22	10kg & 25kg	✓			5 - 7.5kg	3 - 6kg	Spring / Early Autumn	Autumn / Early Winter	1 Season	1 - 2	Various	110	55	55
Forage Rape		37	10kg & 25kg	✓			10kg	6kg	May - end of September	July - December	1 Season	1 - 2.5	15 - 20	20	40	40
Spitfire Brassica		37	10kg & 25kg	✓			10kg	6kg	May - end of September	July - December	1 Season	1 - 2.5	15 - 20	20	40	40
Millets / Grasses																
Sorghum - Intermediate, Dwarf & Giant		38	10kg	✓				20kg	May - June	September - February	1 Season	2.5 - 4	45 - 50	100	50	120
Millets		39	10kg	✓	✓		12kg	12kg	April - June	September - December	1 Season	1 - 1.5	35-45	60	30	30
Canary Grass (Phalaris aquatica)		42	2.5kg	✓				6kg	April - June	All Year	5 Years+	1.5	70 - 90	55	28	28
Reed Canary Grass (Phalaris arundinacea)		42	2.5kg	✓				6kg	April - June	All Year	5 Years+	1.5	70 - 90	55	28	28

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.

Crop	Organic Option	Page No.	Pack Size	Cover / Feed Crop		Nectar	Average Sowing Rate per Hectare		Sowing Date Guide	Utilisation Period	Duration of the Crop	Average Drill Depth cm	Average Row Width cm	Suggested Guide to Seedbed Fertiliser (kg) ha		
							Broadcast	Drill						N	P	K
Game Cover Crops																
Sunflowers		40	10kg & 25kg	✓	✓	✓		12kg	April - June	July - November	1 Season	4	75	Ensure adequate P but very little N		
Quinoa		40	5kg & 25kg	✓	✓		5kg+	5kg	April - June	September - December	1 Season	1.5	45	100	50	120
Triticale	✓	40	25kg	✓	✓			125kg	Spring / Autumn	August - February	1 Season	2.5	12 - 16	125	0	0
Gold of Pleasure (Camelina)	✓	41	5kg & 25kg	✓	✓		12kg+	12kg	April - May	September - December	1 Season	1	8 - 18	40	75	65
Phacelia	✓	41	5kg & 25kg	✓		✓	7.5 - 10kg		April - August	July - October	1 Season	1 - 2	Various			
Buckwheat	✓	41	10kg & 20kg	✓	✓	✓	50kg+	50kg	April - May	August - December	1 Season	1 - 2.5	20 - 35	35	105	210
White Mustard	✓	41	10kg & 25kg	✓			12 - 17kg	6 - 12kg	Spring - Autumn	August - December	1 Season	1 - 2.5	20 - 35			
Brown Mustard		41	5kg & 25kg	✓			5 - 7.5kg	2.5 - 7.5kg	Spring - Autumn	Autumn / Spring	1 Season	1 - 2.5	20 - 35			
Fodder Radish	✓	41	10kg & 25kg	✓	✓	✓	8kg	6kg	Spring - Autumn	July - December	1 Season	1 - 2.5	25 - 30	40	15	20
Linseed		41	25kg	✓	✓	✓		60kg	April - May	September - February	1 Season	1 - 2	8 - 18	40	75	65
Perennial Chicory		42	5kg & 25kg	✓		✓	5kg+	5kg	Spring or Early Autumn	All Year	5yr+	1	15 - 20	100	50	120
Yellow Blossom Clover		42	2kg & 25kg	✓		✓	7.5kg	5kg	April - June	All Year	1 - 2yr	0.5	75	30	0	0
Game Cover Mixtures																
Feed and Cover Mixture		10 & 43	20kg	✓	✓	✓		40kg	Spring	September - February	1 Season	1 - 2.5	12 - 16	30	75	75
Broadshot		11 & 43	10kg	✓	✓	✓	15kg	15kg	Spring	September - February	1 Season	1 - 2	15 - 25	80	40	96
Traditional Game Cover Mixture		11 & 43	25kg	✓	✓	✓	12.5kg	12.5kg	April - June	September - February	1 Season	B/C	B/C	80	40	96
Rescue Mixture		19	10kg	✓	✓		12kg+	12kg	June - September	September - December	1 Season	1 - 2	45 - 50	100	50	50

Game Cover Chemicals

KEY

Considered 'crop safe' when correctly applied to healthy crop in good condition

Considered to pose a risk to crop health, use with caution

No information available

Rates are based on L/Ha unless otherwise stated.
This is not a complete list of products which can be used on these crops. Always consult a BASIS qualified advisor.

The chart below was kindly supplied by Agrovista UK Ltd

	STALE SEEDBED	PRE EMERGENCE HERBICIDES ONLY												POST EMERGENCE HERBICIDES																	
	ROUNDUP VISTA PLUS	ANTHEM (MAPP 15761)	CENTIUM 360CS (MAPP 18719)	CIRRUS CS (MAPPP 18721)	SPINNAKER (MAPP 18855)	GANIT 36 CS (MAPP 18718)	CALLISTO (MAPP 19756)	CRYSTAL (MAPP 13914)	HURRICANE (MAPP 16027)	KERB FLO 2.1 L/HA (MAPP 13716)	BUTISAN S (MAPP 16959)	SPRINGBOK (MAPP 16786)	STOMP AQUA (MAPP 14664)	ALIAS SX (MAPP 18602)	ANTHEM (MAPP 15761)	BASAGRAN SG (MAPP 08360)	BUTISAN S	CALLISTO (MAPP 19756)	CRYSTAL (MAPP 13914)	SPINNAKER (MAPP 18855)	SHIELD PRO (MAPP 20156)	EAGLE (MAPP 20708 or MAPP 18902)	FALCON (MAPP 16459)	HILOAD MIRCAM (11930)	HURRICANE (MAPP 16027)	KERB FLO 2.1L/HA (MAPP 13716)	PEAK (MAPP 15521)	STARANE HI-LOAD HL (MAPP 16557)	STOMP AQUA (MAPP 14664)	THISTLEX (MAPP 19876)	VIVENDI 200 (MAPP 16966)
Borage	YES	NO	YES	YES		YES		NO			YES		NO		NO	NO	YES		NO		YES	YES		NO			NO	NO	NO	YES	YES
Buckwheat	YES	NO						2.0 L/HA		1.7 L/HA		YES		6G	NO	NO	YES		2.0 L/HA		YES	YES	YES	NO		YES	NO	NO	NO	YES	YES
Canary Grass	YES	YES						YES			NO			20G FROM 3 LF		YES	NO		2.0 L/HA		YES	YES	YES	YES			NO	YES	2.9 L/HA	YES	YES
Chicory	YES		YES	YES		YES								NO		NO	NO		YES		NO	YES	YES	NO			NO	NO	2.2 L/HA		NO
Fodder Radish	YES	NO	YES	YES		YES		NO		1.7 L/HA			NO	NO	NO	NO	YES		NO		YES	NO		NO		YES	NO	NO	NO	NO	YES
Gold of Pleasure	YES							2.0 L/HA		1.7 L/HA	YES	YES		NO		NO	YES		YES		YES	NO		NO		YES		NO	YES	NO	YES
Kale	YES	NO	YES	YES		YES				1.7 L/HA	YES	YES	NO	NO	NO	NO	YES		NO		YES	NO	YES	NO		YES	NO	NO	NO	YES	YES
Linseed	YES	YES	NO	NO		NO						YES		YES		YES	YES	NO	NO		YES	YES	YES	NO			YES	NO	2.2 L/HA		YES
Maize	YES	YES	YES	YES		YES	YES				NO	NO	YES	6G	YES	YES	NO	YES			YES	YES	NO	YES		NO	YES	YES	YES	YES	YES
Red Millet	YES	YES					NO				YES		MAX 2.2		2.9 L/HA	YES	YES	NO	YES		YES	YES		YES			YES	NO	2.9 L/HA	YES	YES
Reed Millet	YES						NO			YES			NO			YES		NO			YES	YES		YES				NO		YES	YES
White Millet	YES		YES	YES		YES	NO			YES	YES		YES	20G/HA 3LF+	3.3 L/HA	YES	YES	NO	YES		YES	YES	NO	YES			YES	YES	3.3 L/HA	YES	YES
Mustard	YES	YES	NO	NO		NO		YES		1.7 L/HA	YES			NO	NO	NO	YES		NO		YES	NO		NO		YES	NO	NO	NO	YES	YES
Phacelia	YES	YES	YES	YES		YES		NO			NO		NO		NO	NO	YES		NO		YES	YES	YES	NO			NO	NO	NO	YES	YES
Quinoa	YES	YES	NO	NO		NO		NO		1.7 L/HA	YES	NO	NO	6G FROM 3LF	NO	NO	YES		NO		YES	NO	YES	NO		YES	NO	NO	NO	NO	YES
Sorghum	YES	YES	YES	YES		YES		YES		YES	NO	NO		6G		NO	YES	NO	YES		YES	YES		YES			YES	YES	3.3 L/HA	YES	YES
Stubble Turnip	YES	NO	NO	NO	NO	NO	NO			1.7 L/HA	YES		NO	NO	NO	NO	YES			NO	YES	NO	YES	NO		YES	NO	NO	NO	YES	YES
Sunflower	YES	YES	YES	YES		YES	NO			1.7 L/HA				NO		NO	NO		NO		NO	NO	YES	NO		YES	NO	NO		NO	NO
Sweet Clover	YES	YES	YES	YES		YES		2.0 L/HA		1.7 L/HA	YES			NO		NO	YES		2.0 L/HA			YES		NO		YES	NO	NO	2.2 L/HA		
Brassica Carinata	YES	YES					NO	YES					NO	NO	NO	NO	YES		2.0 L/HA		YES	NO		NO		YES	NO	NO	NO	NO	YES
Triticale	YES	YES	YES	YES	YES	YES	NO	YES	YES	NO	NO	YES	YES	YES	YES				YES	YES	YES	YES	NO	YES	YES	NO	YES	YES	YES	YES	YES

DISCLAIMER: In some cases information is based on limited data so should be used with caution. EAMUs (formerly SOLAs) and LTAEU off-label uses are at Growers Own Risk.

Shield Pro, Thistlex & Vivendi contain Clopyralid which can remain in plant residues and affect following crops - ensure full incorporation of crop residues before planting treated areas with susceptible crops. When used on game cover crops the seed or any part of the treated plants must not be used for human or animal food or feed (except game birds).

Agrovista & DLF cannot accept any responsibility for any loss, damage or accident arising from the use of information in this report. Always read the label and the associated EAMU document prior to any application. Products are used entirely at the growers own risk.

Maize Herbicides

Key

Litre quantity indicates effective application rate
The chart below was kindly supplied by Agrovista UK Ltd
( ) = Based on trials

- Susceptible
- Moderately susceptible
- Moderately resistant
- Resistant

* @1.5l/ha
** at full rate
*** control can be variable

Herbicide	Crop Timing	a.i.g/l or kg	Dose rate litre/ha	Grain Maize Under Plastic	Grain Maize	Forage Maize Under Plastic	Forage Maize
Pendimethalin	Pre-emergence up to 4 leaves	Most Micro 365g/l Anthem 400g/l Stomp Aqua 455g/l	4.0 3.75 3.3	STOMP & ANTHEM	STOMP & ANTHEM	YES ALL	YES ALL
Wing-P	Pre-emergence up to 4 leaves	Dimethenamid-p 212.5g/l + Pendimethalin 250g/l	4.0	YES (EAMU) 1 Apri	YES	YES (EAMU) 1 Apri	YES
Dual Gold	Pre-emergence	S-metolachlor 960g/l	1.4	NO	YES	NO	YES
Buctril							
Entail	2 - 8 leaves	Nicosulfuron 240g/l	0.17		YES		YES
Callisto	2 - 8 leaves	Mesotrione 100g/l	0.75		YES		YES
Elumis	2 - 8 leaves	Mesotrione 75g/l + Nicosulfuron 30g/l	1.5		YES		YES
Gyo	Pyridate 600g/l	Fluroxypyr 200 g/l	0.75		YES		YES
Leystar	10 Apr - 31 May 3 - 6 leaves	Fluroxypyr 100g/l Clopyralid + 80g/l Florasulam 2.5g/l	1.0		NO		YES
Maister + Mero #	2 - 6 leaves	foramsulfuron 300g + iodosulfuron 100g/kg	150g 2l/ha		YES		YES
Maya							
Peak*	Post emergence 2 - 10 leaves	Prosulfuron 750g/l	20g		YES		YES
Titus*	Before 4 collar	Rimsulfuron 25%	50g		NO		YES check variety
Gal Gone	2 - 6 leaves before 20cm & buttress	Fluroxypyr 200g/l	1.0		NO		YES
Dow Shield 400	Up to and including 9 leaves	Clopyralid 400g/l	0.25		NO		YES

Herbicide	Wild Radish	Volunteer Potato	Volunteer OSR	Thistle Creeping	Stinking Mayweed	Sow Thistles	Shepherd's Purse	Scentless Mayweed	Scented Mayweed	Scarlet Pimpernel	Small Nettle	Redshank	Red Dead Nettle	Pineappleweed	Pennycress
Pendimethalin															
Wing-P															
Dual Gold															
Buctril	S (2TL)					(2TL)	2TL	2TL	2-LF			* 2TL		2TL	
Entail	*				*			*				*		*	
Callisto	*		6-LF	*	*					*				*	*
Elumis															
Gyo															
Leystar	***		1true LF				***	***	***	**	**	**	*	***	
Maister + Mero #			6-LF	4-LF seeding	up to 6-LF		up to 6-LF	up to 6-LF	up to 6-LF		4-LF	4-LF	4-LF		
Maya															
Peak*															
Titus*															
Gal Gone															
Dow Shield 400				4-LF		2-LF		4-LF				1-LF		4-LF	

Herbicide	Parsley Piert	Pale Persicaria	Orache	Knotgrass	Ivy-leaved Speedwell	Henbit Dead Nettle	Groundsel	Fumitory	Forget-me-not	Fool's Parsley	Field Pansy	Field Bindweed	Fat Hen	Dock	Creeping Buttercup
Pendimethalin															
Wing-P															
Dual Gold															
Buctril		2TL	2TL	2TL			2TL		2TL				2TL		
Entail		*	*	*			*				*	*	*		
Callisto				*							6-LF			*	*
Elumis															
Gyo															
Leystar		**	**	***	*	*	***	**	***	***		***	***		***
Maister + Mero #		4-LF	2-LF	up to 6-LF			4-LF	2-LF			4-LF	up to 8-LF	up to 8-LF	2-LF seeding	
Maya															
Peak*														seedling	
Titus*															
Gal Gone															
Dow Shield 400		1-LF					6-LF						2-LF		

Herbicide	Corn Marigold	Crane's Bill	Common Poppy	C Hemp Nettle	C. Field Speedwell	C.Chickweed	Cleavers	Charlock	Bugloss	Black Nightshade	Black Bindweed	Annual Mercury	Amaranthus	Wild Oats	Volunteer Cereals
Pendimethalin															
Wing-P		KEY BENEFIT													
Dual Gold															
Buctril			2TL						2TL	2TL	2TL		2TL		
Entail				*	*							*			
Callisto							4-8 whorls *		4-6 LV		*	*	6-8 LF		
Elumis															
Gyo															
Leystar	***		**		*	***	***	***		***	***				
Maister + Mero #		4-LF	2 whorls		2-LF	up to 5cm	2 whorls	4-LF		*** up to 8-LF	2-LF			4-LF	4-LF
Maya															
Peak*															
Titus*															
Gal Gone															
Dow Shield 400											1-LF				

Herbicide	Sorghum	Ryegrass	RSMG	Millet	Loose Silky Bent	Creeping Bent	Crab/Hairy Finger gr/Digitaria	Couch	Brome	Blackgrass	Barnyard Grass/ Cockspur	Annual Meadow Grass
Pendimethalin												
Wing-P												
Dual Gold												
Buctril												
Entail	2-LF GS21			2-LF GS21		4-6 LF		4-6 LF				2-LF
Callisto				*								*
Elumis	2-LF					4-6 LF		(1.5L/ HA)				
Gyo												
Leystar												
Maister + Mero #	4-LF seeding	4-LF seeding				4-LF		up to 15cm		4-LF	3-LF	up to GS30
Maya												
Peak*												
Titus*												
Gal Gone												
Dow Shield 400												

* Do not apply Peak in sequence with any other SU containing herbicide (Elumis, Entail or Titus) Only one application of an SU herbicide with grassweed activity can be applied to the crop.

Forage Maize

DLF have been strong players in the forage maize market for many years. Our expertise in the grass seed market complements the maize portfolio when discussing total forage needs with our customers.

We are not breeders of maize so we work with breeders, which can have a distinct advantage when securing a well-rounded portfolio to suit all maize requirements.

The biogas sector for maize is growing and our varieties for this sector have performed extremely well this season and we already have some repeat orders for next season.

Comprehensive technical sheets are available for all forage maize varieties available from DLF.

Very Early

PEREZ

- Gain higher yields faster
- Proven consistent performance
- Suitable for anaerobic digestion

Early Maincrop

MARCAMO

- Fills the clamp!
- Very high yields of dry matter and energy
- Suitable for anaerobic digestion

Very Early

DEBALTO

- Push your starch yield... keep your harvest on track!
- Excellent vigour combined with strong dry matter yield and high grain quality

Individual technical sheets available for each variety.

These can be found at www.dlf.co.uk/maize/dlf-uk/maize/forage-maize

Game Maize

Game Maize is still one of the most popular crops used for cover and feed. Nearly all maize varieties used for game cover have at some stage been commercial forage or grain varieties. As these varieties are superseded by newer hybrids, stocks of those being replaced diminish and we carefully select the most suitable of these for our game cover purposes.

N.B. Height of maize may vary depending on seasonal and management variations. The later the sowing date the later the maturity of the maize.

RAPID FIRE

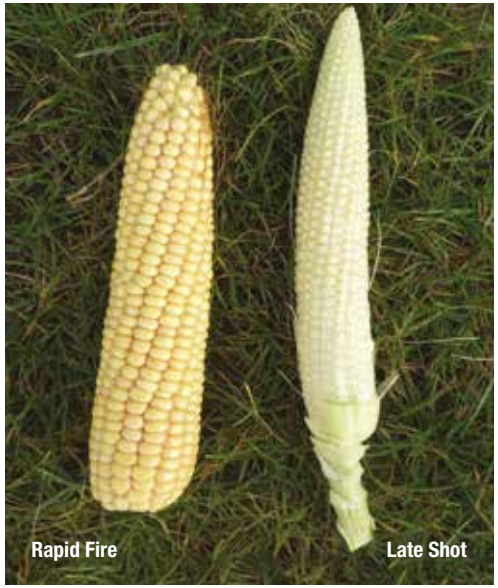
Rapid Fire is still our biggest selling brand of maize. Varieties are selected for their good standing ability, early vigour and a low cob carriage.

Pack size 50,000 seeds
Treatment Fungicide & Bird Repellent treated*

LATE SHOT

Late Shot is selected for very late maturity and good standing ability. It produces an immature cob that only develops to the 'bright white' stage under normal UK autumn and winter conditions. Due to the late cob formation it tends to be of less interest to rats and badgers that can decimate more mature cobbed varieties through the shooting season.

Pack size 50,000 seeds
Treatment Fungicide & Bird Repellent treated*



* Seed treatment may change subject to availability at time of order.

Kale

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 requires soil with a pH of around 6.5, so it is very important to conduct soil analysis prior to sowing. Kale is a very hungry crop and benefits from the application of farmyard manure/slurry prior to sowing. Care should be taken with continuous kale as the ground can become "brassica sick"; club root (finger and toe) will inhibit or prevent the growth of brassica crops but this can be prevented by growing kale and another crop such as maize in adjacent strips and alternating the strips.

Kale is frequently grown in conjunction with other crops such as quinoa and yellow blossom clover. Selection of any such mixture should take into account the required length of time for which the crop is grown and the potential weed control that may be required.

Flea beetle damage may occur in the early stages of establishment, regular monitoring of the crop is required as action may be needed in the event of heavy attack.

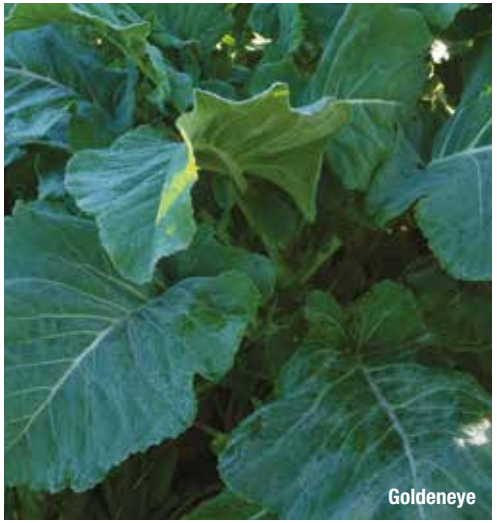
GOLDENEYE

Club Root Tolerant

Club Root Tolerant

Goldeneye is a giant type kale especially bred for the game cover market, selected for the optimum combination of height and leaf production. It has a leafy top, strong stem, good winter hardiness and good field tolerance of disease, making it the ideal choice for game cover usage. Goldeneye achieved a higher vigour score than Caledonian kale and better club root tolerance in a trial conducted at the Scottish Agricultural College in Aberdeen.

Sowing rate 3 - 7.5kg/ha
Pack size 1kg & 5kg
Treatment Untreated



Goldeneye

Grüner Angeliter

GRÜNER ANGELITER

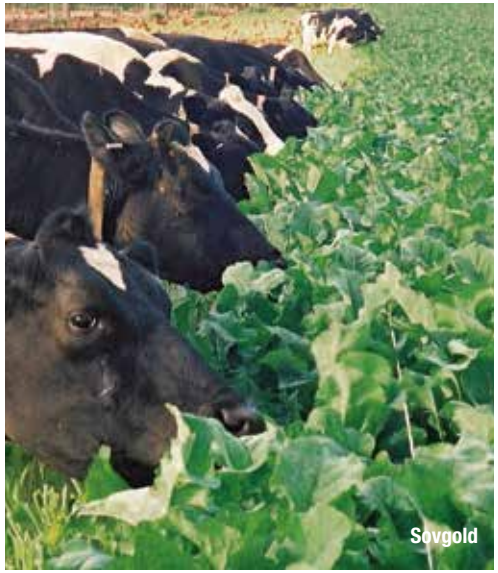
A very tall variety with good winter hardiness. Grüner Angeliter is proving to be a significant improvement in the game cover sector and has performed extremely well even in difficult growing conditions. It has a high leaf canopy and a thick strong stem with a branching, umbrella-shaped canopy giving plenty of space for the birds to move about underneath.

Sowing rate 3 - 7.5kg/ha
Pack size 1kg & 5kg
Treatment Untreated

SOVGOLD

A new variety specifically bred for palatability and maximum utilisation of the plant. Sovgold offers an extra tonne of dry matter to the hectare more than Sovereign and crucially, the stem of Sovgold has enhanced palatability hence more of the crop is utilised by grazing animals. It is the lower portion of the stem (so often left in the field on other varieties) that makes Sovgold the best grazing kale on the market.

Sowing rate 2.5 - 7.5kg/ha
Pack size 1kg & 5kg
Treatment Untreated



Sovgold

Brassicas

FORAGE RAPE

Forage Rape is particularly useful in that it can be used as a rescue or catch crop, continuing until the New Year when it flowers and goes to seed. A well grown crop with adequate spacing between rows will provide good cover for holding, driving and feeding. It is largely unaffected by frost and wet weather.

Sowing rate 6 - 10kg/ha
Pack size 10kg & 25kg
Treatment Untreated


Forage Rape

MAINSTAR

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

Sowing rate 6 - 10kg/ha
Pack size 10kg & 25kg
Treatment Untreated

SPITFIRE FORAGE BRASSICA

Spitfire is a modern, multi-purpose rape which is a good companion to use with other fast establishing brassicas. It is a medium-tall variety with high dry matter, excellent aphid tolerance, good stock palatability and rapid establishment to maturity. It has high growth potential but careful management is required to avoid damaging stems for regrowth. Spitfire is a multiuse rape suitable for planting in spring for excellent summer and autumn feed or in early autumn for quality winter feed. The main strengths of Spitfire are excellent yield, insect tolerance, and a low dry mattery (DM%) stem. The very low DM% content of the stem produces a high-quality forage, with good utilisation at grazing without limiting yield ability or regrowth potential.

Sowing rate 6 - 10kg/ha
Pack size 10kg & 25kg
Treatment Untreated

LEAFY TURNIP

Leafy Turnip is late flowering, very quickly covers the soil and is winter hardy. Leafy Turnip can be sown in Spring or Autumn for forage production, and can be grazed after just 6-8 weeks.

Sowing rate 3 - 7.5kg/ha
Pack size 10kg & 25kg
Treatment Untreated

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 and therefore is suited to the more southerly regions of the UK. Sorghum is a very 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, providing birds with warm cover throughout the shooting season. Often sown as a companion to maize with the bulkier, shorter sorghum plants giving protection to the birds below the taller growing maize plants.

Average height 1 - 1.25m under favourable conditions.

Sowing rate 20kg/ha
Pack size 10kg
Treatment Untreated

INTERMEDIATE SORGHUM

Intermediate Sorghum is useful as a windbreak around other game cover crops, providing pheasant and partridge with protection from overhead predators. Earlier sown crops have the potential to produce large attractive seed-head with excellent standing ability.

Average height up 1.25m under favourable conditions.

Sowing rate 20kg/ha
Pack size 10kg
Treatment Untreated

GIANT SORGHUM

Giant Sorghum is a sorghum x sudan grass hybrid, extremely useful as a windbreak to protect more vulnerable crops. Its deep rooting system enables It to withstand drought conditions. Useful as a flushing crop even though it is prone to lodging later in the season.

Average height 2m under favourable conditions.

Sowing rate 30kg/ha
Pack size 10kg
Treatment Untreated

N.B. Height of Sorghum may vary depending on seasonal and management variations.


Dwarf Sorghum


Intermediate Sorghum


Giant Sorghum

Millets

Millets are a staple component in terms of providing food, and some degree of cover, for game and farmland birds across many regions. It grows easily whether broadcast or shallow drilled providing that the ground is moist, and conditions are right making them a flexible choice. Millets are an excellent partner to kale, maize, and sorghum, adding feed value and warmth as well as being grown successfully as a straight crop. Furthermore, as a C4 plant, millets are well adapted for efficient fixation and storage of carbon dioxide contributing positively to sustainable agricultural practices.

WHITE MILLET

White Millet is best suited to more southerly regions of the UK as it is a sunshine loving plant and is not frost hardy. It provides warmth, shelter and feed for game birds and will attract wild seed-eating birds such as finches. White millet is particularly attractive to grey and red-legged partridges and if sown alone can be used for early holding cover. When required to last longer into the season it performs well if sown with maize, but will combine well with a variety of other game cover crops.

Sowing rate 12kg/ha
Pack size 10kg
Treatment Untreated

RED MILLET

Red Millet is earlier maturing than white and does not stand well when sown alone. However it is a good partner to use with white millet as it extends the feeding period. As with other millets, it is susceptible to frost.

Sowing rate 12kg/ha
Pack size 10kg
Treatment Untreated

JAPANESE REED MILLET

Japanese Reed Millet is a stronger plant than other members of the millet family and is more winter hardy. When mixed with white and red millet it provides an excellent cover and feed crop.

Sowing rate 12kg/ha
Pack size 10kg
Treatment Untreated

White & Red Millet

Japanesse Reed Millet

Game Cover Crops

Sunflowers are a colourful sight and are of huge benefit to wildlife. Sunflowers provide highly nutritious seed of a high oil content which is loved by all game and song birds and the nectar is of great importance to bees and other insects.

In most situations sunflowers are grown in conjunction with many other game crops such as game maize or kale, either in mixtures or in adjacent blocks. The young seedlings are very vulnerable to spring slug attack and to wireworm in ground that has previously been in grass, so a close eye must be kept on the newly planted crop. Cambridge rolling following drilling into a good seed bed will help to protect against rook damage.

SUNFLOWER

A variety with good standing ability. Large attractive flowers, with high yield potential. Best 'swiped down' to enable game birds to reach the nutritious seeds. Can be drilled with Maize to brighten up your crop.

Sowing rate 12kg/ha
Pack size 10kg & 20kg
Treatment Untreated


Sunflower


Triticale

TRITICALE

A wheat/rye hybrid cereal providing good cover and feed in marginal low fertility areas where it will thrive with little input. Useful in situations where maize and millet are not options and where brassica sickness is a problem. Further important advantages are its ability to withstand rabbit attack, winter hardiness and good disease resistance. When sowing in the spring, a true spring type must be used which does not require a period of vernalisation, otherwise the plant will not produce grain.

Sowing rate 125kg/ha
Pack size 25kg & 500kg
Treatment Untreated

QUINOA

Quinoa is capable of producing a plentiful amount of seed and therefore is a popular choice of crop for holding partridge and pheasant. Many species of seed-eating song-birds are also attracted to the crop. Commonly grown with kale, quinoa provides cover and feed until it begins to collapse in the first frosts with the kale providing more permanent cover.

Sowing rate 5kg/ha
Pack size 5kg & 25kg
Treatment Untreated


Quinoa

Game Cover Crops

PHACELIA

A prolific seeder, very fast to establish and a good weed suppressant. It produces a mass of sweet smelling purple flowers providing a good source of nectar, beneficial to a large variety of insects. It is not winter hardy and therefore for game cover it is best sown as part of a mixture. Phacelia is likely to set seed and reseed itself for many years to come.

Sowing rate 7.5 - 10kg/ha
Pack size 5kg & 25kg
Treatment Untreated
Organic seed available in 25kg packs (Limited)

BUCKWHEAT

A rapidly growing short term crop highly attractive to pheasants, partridge and deer both as cover and feed. The large amount of nectar produced attracts bees and other beneficial insects which in turn provide added interest for game birds. It is a useful component to add to mixtures due to its bulkiness and its ability to continue to provide holding cover and feed after the first frosts when the crop has fallen. Buckwheat thrives in sunny rather than shaded areas.

Sowing rate 50kg/ha
Pack size 10kg & 20kg
Treatment Untreated
Organic seed available in 25kg packs (Limited)

BROWN MUSTARD

A fast growing cover crop easy to establish 50 - 70 day crop that can be sown between April and September. Unlike white mustard, it is winter hardy. It will improve the health of the soil by increasing organic matter and acts as an excellent weed suppressant. It is also especially useful as over-wintering green cover after maize, potatoes and sugar beet crops, reducing soil erosion, fertiliser leaching and water run-off.

Sowing rate 2.5 - 7.5kg/ha
Pack size 5kg & 25kg
Treatment Untreated

WHITE MUSTARD

A relatively inexpensive and highly versatile cover crop either sown alone or as a companion to other species. It is ideal for early cover and although killed off by frost, the fallen woody stems will create shelter for the birds below. This is especially useful when sown with seed producing species which alone would provide no cover. Popular as a green manure crop (see green manure section page 15 - 20).

Sowing rate 6 - 17kg/ha
Pack size 10kg & 25kg
Treatment Untreated
Organic seed available in 25kg packs

FODDER RADISH

(Oil Radish)

A fast growing cover crop, its prime usefulness being where brassica sickness is a problem due to its immunity to the disease. Other qualities are its speed of establishment which aids weed suppression and its use as a green manure crop. It is useful as a catch crop in northern regions if sown in July as it will be ready to provide cover within six to eight weeks, just as birds are losing cover from the cereals being combined. Due to its fast growth it is valuable as a replacement for failed crops, and will continue to provide cover right through the season. In addition, it holds its seed in pods which shed in late winter/early spring, thus providing feed during that all important 'hungry gap'.

Sowing rate 10 - 20kg/ha
Pack size 10kg & 25kg
Treatment Untreated
Organic seed available in 25kg packs (Limited)

Fodder Radish

LINSEED

Traditionally grown for its oil, linseed has become popular in recent years as game cover and is particularly attractive to partridge. It is an easy to grow crop and is tolerant of many soil types, performing well on thinner soils e.g. Cotswold Brash. Although not frost hardy it will continue to provide cover and interest well into the winter especially if sown as part of a mixture. It is also another option where brassica sickness has been a problem.

Sowing rate 60kg/ha
Pack size 25kg
Treatment Untreated

GOLD OF PLEASURE - CAMELINA

Another crop well suited to poorer and nutrient deficient soils. It is a fast maturing, free-branching plant producing a seed very attractive to birds, especially partridge. A useful mixture for exposed areas is produced by combining gold of pleasure with triticale, barley and linseed.

Sowing rate 12kg/ha
Pack size 5kg & 25kg
Treatment Untreated
Organic seed available in 25kg packs (Limited)

Game Cover Crops

Reed Canary Grass & Chicory

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.

Perennial Chicory

CANARY GRASS

(Phalaris aquatica)

Canary Grass provides excellent medium to long term nesting cover for pheasant and partridge and can be used to both hold and drive birds. It is useful in areas where annual planting is not an option, either because it is uneconomic or too difficult and is a good choice to use between tree rows in newly established woods. Care must be taken to drill in wide enough rows to prevent the canary grass becoming too dense and therefore impassable for the birds. Annual management should be undertaken to keep the rows clear and topping is beneficial if the grass becomes too tall, with the debris being removed.

Sowing rate 6kg/ha
Pack size 2.5kg
Treatment Untreated (Limited)

PERENNIAL CHICORY

Creates tall, dense cover, bolting in its second year to create a 6 - 7ft flowering hedge, useful where a perimeter barrier is required. It has good tolerance to drought, acid soils and major pests (but does not like very wet ground) and has a high mineral content including zinc, potassium and copper.

Sowing rate 5kg/ha
Pack size 5kg & 25kg
Treatment Untreated

REED CANARY GRASS

(Phalaris arundinacea)

Reed Canary Grass is similar to Phalaris aquatica but is more suitable for use in exposed northern regions as it is a much hardier plant and will tolerate a wide range of soil types. It not only offers nesting and cover to pheasants but also provides wild birds with nesting sites. The crop is purely for cover and does not provide feed so bare patches may be left unplanted or later cut out to provide areas for artificial feeding. As with Phalaris aquatica 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. Topping is beneficial if it becomes too tall, with the debris removed.

Sowing rate 6kg/ha
Pack size 2.5kg
Treatment Untreated

YELLOW BLOSSOM CLOVER

A biennial plant which can persist for several years due to its self-regenerating properties. Owing to its sweet smell and copious production of nectar it is highly attractive to insects, which in turn attract game birds and wildlife. Sowing with kale will help to provide cover in the first year, with the tall, woody-stemmed clover taking over in the second year. Yellow Blossom Clover can thrive in the poorest of soils and being leguminous and deep rooting it is invaluable for improving soil structure and fertility.

Sowing rate 5 - 7kg/ha
Pack size 2kg & 25kg
Treatment Untreated

GREEN FENNEL

A perennial plant which provides excellent cover for both pheasant and partridge, its distinctive smell makes it highly attractive to both. When sown alongside other species it can create an excellent cover crop.

Sowing rate 6 - 8kg/ha
Pack size 5kg & 25kg
Treatment Untreated

Yellow Blossom Clover

Game Cover Mixtures

Our range of game cover mixtures are specially formulated to ensure you will be able to 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.

However, there are sometimes instances when none of the above will fit the bill for one reason or another. In these cases, specialised mixtures to suit individual specific requirements can be arranged.

For Wild Bird Mixtures see pages 10 & 11
Northern Sown Mixtures see page 11

FEED & COVER MIXTURE (AB9, AHL2)

25%	Spring Triticale
24%	Spring Barley
24%	Spring Wheat
7%	Dwarf Sorghum
6%	White Millet
5%	Sunflower
3%	Japanese Reed Millet
2.5%	Red Millet
2.5%	Gold of Pleasure
1%	Quinoa
100%	

Sowing rate 40kg/ha
Pack size 20kg
Treatment Untreated

BROADSHOT MIXTURE (AB9, AHL2)

A combination of species selected to provide feed and cover. This mixture can be left to regenerate for a second year. Species selected to facilitate economical weed control with chemicals such as Clopyralid.

34%	Buckwheat
17%	Kale
10%	Phacelia
10%	White Millet
8%	Forage Rape
8%	Red Millet
5%	Japanese Reed Millet
4%	Quinoa
4%	Gold of Pleasure
100%	

Sowing rate 15kg/ha
Pack size 10kg
Treatment Untreated

TRADITIONAL GAME COVER MIXTURE (AB9, AHL2)

A traditional mixture of species especially selected for their feed and cover qualities. This mixture is designed for a full season of cover that will provide holding, feed and cover for all game birds. The sunflowers add an attractive splash of colour. Due to the variance in seed size broadcast to achieve optimum establishment. Ensure that treated seed is covered by harrowing and rolling.

NEW RECIPE 2025

30%	Buckwheat
14%	Dwarf Sorghum
8%	Kale
8%	Sunflower
7%	Gold Pleasure
7%	Red Millet
7%	White Millet
7%	White Mustard
5%	Phacelia
4%	Quinoa
3%	Forage Rape
100%	

Sowing rate 12.5kg/ha
Pack size 25kg
Treatment Various treatments

ACT Ltd.
Unit 28, Atcham Business Park
Shrewsbury
SY4 4UG

08000 275276
sales@actionfarm.co.uk

ACT Scotland
Rosehall
Turriff
AB53 4HD

01888 569569
actscotland@actionfarm.co.uk

www.actionfarm.co.uk