

FORAGE SEED GUIDE 2024-25

- Grass Seed Mixtures
 Environmental Scheme Options
- Energy Crops Combinable Crops Root & Fodder Crops
- Cover Crop Mixtures Forage Maize Organic Mixtures

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Fertilisers



Seeds



Mineral Supplements



Dairy Chemicals





Crop Protection



Silage Additives



Milk Powder





Animal Health



Silage Wrap

Lubricating



Who are ACT?

ACT are a farmer owned co operative supplying essential farm inputs to a wide range of customers throughout England, Wales and Scotland.

Our considerable buying power, across a range of markets coupled with our low operating costs, means that substantial savings are passed to our customers, on both our own ACTion blended products and popular branded ranges.

The ethos of ACT is to provide value for money by selecting products to meet the needs of our customers, whilst providing a high-quality product and service.

ACT also provide an added value service of forage analysis, soil sampling, mineral analysis, and access to a wealth of knowledge among our fully qualified area and product managers.

Forage species selection

ACT offer a full range of forage and combinable crops.

Due to our independence, we can select the best species, varieties, and mixtures to be sown in a range of situations and environments.

All varieties selected have been tested in official trials, breeder's trials, and our farmers own strip trials and feature on NIAB lists.

Cereals – we can supply a wide range of AHDB recommended varieties of Wheat, Barley, Oats, Triticale and hybrid rye plus.

Custom mixes are also available on request.

Call us to discuss your requirements.

Did you know we also provide Fertilisers, Feeds, Mineral Supplements, Animal Health products, Fuel, Silage Additives, Silage Wrap/Polythene & Twine, Dairy Chemicals, Lubricating Oils and Crop Protection all supported by a wealth of advice.

WHICH MIXTURE TO CHOOSE?

ACT can supply you with a wide range of grass mixtures for all situations.

Whether it is a short term catch crop to be sown after maize, a medium-term dual purpose cutting and grazing mixture or a long-term grazing mixture, we have the mixture to suit your needs.

We select the best performing varieties for each mixture to ensure that ACT seeds have the right mix of yield, heading dates, density, persistence and rooting potential to ensure you can grow the highest yields of high-quality grass whether its for cutting, for grazing or a combination of each.

We can also supply you with bespoke mixtures of species of your choice to your specifications - using the best performing varieties available from our breeding partner DLF.

Fiber Energy varieties are highly digestible with improved livestock intake and better animal health, producing more meat and milk from grazing and reduced production costs for the farmer.

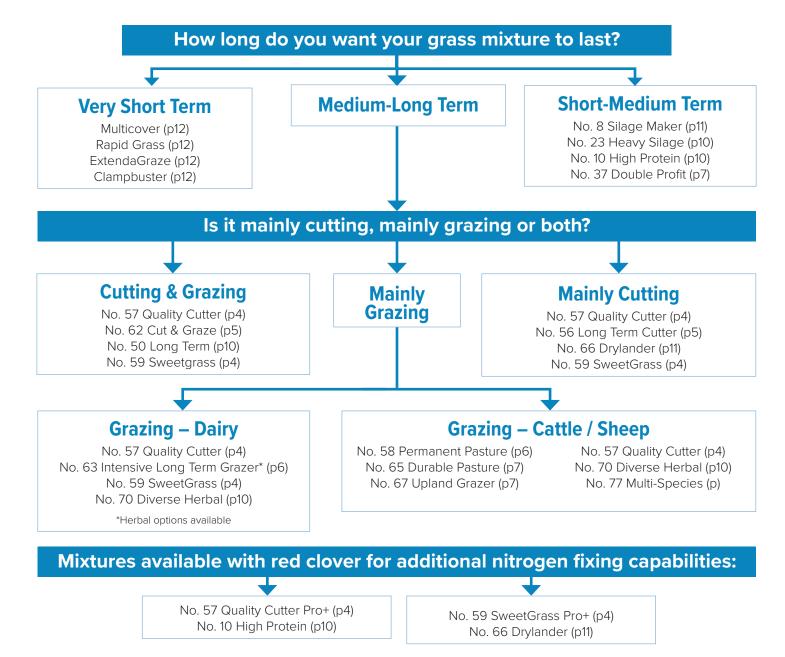


Which mixture should we choose?

This question is best answered by considering the following:

- a. What is the intended utilisation of the crop cutting, grazing or both? Grazing mixtures generally are also good for cutting – the reverse is not always true.
- b. How long do I want the mixture to last? Too often we underestimate how long a field will be kept down for – in which case go for a longer ley.

Many of our mixtures are available with or without clover depending on your requirements. Alternatively you could consider the clover overseeding mixture to improve an existing sward in which case using a seed mixture of high performing varieties plus a seed treatment that will allow the seeds to establish quicker could be the way to go.



LONG TERM (6 YEARS PLUS)

NO.57 QUALITY CUTTER

Versatile mixture that can be used as a long term silage mixture as well as a high quality grazing mixture, or as a dual purpose cut and graze.

- > Late heading PRG with a tight range of heading dates resulting in reduced seed heads at cutting
- > High performing grass varieties for increased spring and autumn growth
- > Contains 60% high sugar tetraploid PRG
- > Varieties selected for improved density and growth in the shoulders of the season
- > Quality Cutter Pro+ including 10% Red Clover
- > Available with or without White Clover



Seeds per m² 1343

Contains	
Thegn (T)	
Nashota (T)	
Zorgue	
Swan	
White Clover	

Current and		Tetrapoloid	60%
Suggested sowing rate Pack	Diploid	40%	
13-15 kg/acre	size 20kg	Late PRG	100%

NO.59 SWEETGRASS

High sugar mixture for dairy systems.

- > This high sugar mixture is made up of highly digestible tetraploid varieties suited to both grazing and cutting regimes
- > Varieties selected increase grazing yield in the shoulders of the year and maintain summer growth
- > The deeper rooted tetraploid grasses are more tolerant of dry conditions
- > Sweetgrass Pro+ includes 12% Red Clover
- > Available with or without White Clover
- > Sweetgrass Herbal contains 6% herbal species chicory, plantain, yarrow
- > With its 100% Tetraploid ryegrass you can be sure of high quality forage

Contains	
Thegn (T)	
Nashota (T)	
White Clover	
Hopi (T)	
Twymax (T)	





Pack

size

20kg

100%	Tetrapoloid
0%	Diploid
100%	Late PRG

LONG TERM (6 YEARS PLUS)

NO.56 LONG TERM CUTTER

Long term silage mixture for multiple cutting.

- > Long lasting silage mixture with good spring growth to suit the early silage producer
- > Being 100% intermediate PRG this is the ideal mixture for a multi-cut system where earlier cuts are required
- Excellent silage fermentation from the high sugar tetraploids which also give palatable aftermath grazing
- > Excellent sward density when aftermath grazing is required



NO.62 CUT & GRAZE

Long term dual purpose.

- > Reliable long-term dual-purpose mixture
- > Suitable for cutting followed by grazing by all livestock
- Our most versatile mixture for forage production in both grazing and cutting systems
- > Excellent spring growth and mid-season grazing
- > Available with or without White Clover

Contains Weatherby				ACTive8 [®] Treated				
Boyne Seagoe (T)					132		700	
Nolwen (T) Toddington		Suggested				Intermediate PRG	48%	
Nashota (T)	Seeds per m ²	Suggested sowing rate	Pack size	Tetrapoloid	51%	Late PRG	46 %	
White Clover	1483	13-15 kg/acre	20kg	Diploid	41%	White Clover	6 %*	

LONG TERM (6 YEARS PLUS)

NO.63 INTENSIVE LONG TERM GRAZER

The ultimate grazing mixture for all intensive grazing systems.

- High production but dense mixture that will withstand being grazed intensively
- > New varieties increase grazing in the shoulders of the year whilst maintaining summer growth
- > Inclusion of late heading perennial ryegrasses means better midsummer grazing in carefully managed swards
- > Available with or without White Clover

Thegn (T)

*Available with Timothy as an option

Contains

Agaska



Nifty	Nashota (T)						
Cancan	Comer*		Suggested			Intermediate PRG	29%
Bowie	White Clover	Seeds	Suggested sowing rate	Pack	Tetraploid 30%	Late PRG	65 %*
Swan		per m ² 1902	13-16 kg/acre	size 20kg	Diploid 70%	Timothy	6 %*

NO.58 PERMANENT PASTURE

Dual-purpose mixture ideal for long term beef and sheep production.

- > Long term, dense dual-purpose mixture ideal for long term beef & sheep scenarios
- It produces good spring growth followed by excellent grazing throughout the summer and into the autumn
- > Ground cover is excellent and so will carry livestock for longer
- > Available with or without White Clover



Co	ontains					的认识的	1. Sec. 6. 8 1. 4	
Nifty	Toddington						國際各國軍權國際各自國國	的。而且并在
Boyne	Nashota (T)		Suggested				Intermediate PRG	46%
Seagoe (T)	Comer	Seeds	sowing rate	Pack	Tetrapoloid	48%	Late PRG	41%
Swan	White Clover	per m ²	13-15	size	Tetrupotolu		Timothy	7%
		1925	kg/acre	20 kg	Diploid	52%	White Clover	6%

SPECIALIST MIXTURES

NO.65 DURABLE PASTURE

Long term mixture selected to withstand high rainfall and water tables.

- Produces a dense and persistent sward that has the potential to withstand harsh conditions longer than most mixtures
- Includes high performing grass species and clovers for extreme conditions
- Needs to be well established before ground conditions are waterlogged

Contains							
BoyneHipastNolwen (T)ComerSwanLauraCavendishDonata				Ermo White	Clover		
				IPRG	30%		
Seeds per m ²	Sugges sowing	rate	Pack	LPRG Clover	<u>26%</u> 10%		
2156	13-1 kg/ac		20kg	Other	44%		

NO.37 DOUBLE PROFIT

Contains a range of early, intermediate PRG for an early growing, high yielding dual purpose mixture.

Seeds

per m²

964

Suggested sowing rate

12-14

kg/acre

> Clover free mixture

Contains Tetragraze (T) Genesis Boyne Nolwen (T) Twymax (T)



NO.67 UPLAND GRAZER

Permanent grass mixture for extreme situations.

- Mixture specially selected for use in intensively grazed situations such upland areas and more challenging areas difficult to access.
- Produces a very dense sward that has excellent persistence characteristics.
- High proportion or white and alsike clovers for nutrient enhancement without the need for inputs.
- Includes Timothy and Creeping Red Fescue to increase the biodiversity and maintain growth in difficult conditions.

Contains					
Boyne Toddington Bowie	Cancan Maxima Evora	Comer White Clover			

	Sugges		Other	37%
3141 kg/acro 20kg LPRG 42%	000000	1 dioite	IPRG	21%
	3141 kg/ad		LPRG	42%

NO.50 LONG TERM

Long term dual-purpose mixture with Timothy for cutting and grazing by all classes of livestock.

> Contains White Clover

Contains	
Genesis Boyne	
Nolwen (T) Cavendish	
īwymax (T)	
Rivendel	





Pack

size

20kg

SPECIALIST MIXTURES

PASTURE RESTORER

A carefully balanced blend of varieties to improve swards.

ProNitro[®] is a seed treatment with both fast and slow release nitrogen fertilisers.

It supplies nutrients only to the new seeds and not the established grasses or weeds resulting in stronger, more and competitive new grasses.

- Our Pasture Restorer seeds are coated with ProNitro[®] for faster and stronger establishment
- > This replaces the need for additional fertiliser as each seedling receives the extra nutrient and not the established grasses





Contains			
With Clover	Without C	Clover	COATINGO
Diwan (T) Hopi (T) Thegn (T) White Clover	Diwan (T) Hopi (T) Thegn (T)		Parties States
Seeds sowing rat 8-10 kg/acre	d e Pack size 20kg	ProN	
		Diwan (T)	30%
		Hopi (T)	30%
		Thegn (T)	30%
	0%	White Clover	10%

NO.71 GALLOWAY LT

Contains

Specially formulated for South West Scotland.

- No. 71 Galloway Long Term is a true dual-purpose mixture which combines high yields with long-term persistence giving high quality performance for all soil types and climates
- It has excellent feeding quality for all classes of livestock and the excellent disease resistance results in greater palatability
- > The high yield performance of medium term mixtures but with the persistence of a long term ley



	Jintainis					When the state of	Constant A. 1998
Boyne	Nashota		Suggested			Intermediate PRG	54%
Strangford	Comer		Suggested sowing		T.I	Late PRG	34%
Seagoe	White Clover	Seeds per m ²	rate 14	Pack size	Tetraploid 34%	Ilmotny	6%
Evocative		2121	kg/acre	20 kg	Diploid 76%	White Clover	6%

SPECIALIST MIXTURES

HAYLAGE PRO LT

Long term quality haylage with Timothy.

- A longer term mixture that produces finer forage than Haylage Pro ST
- > Based on all diploid species and provides high quality haylage or hay for 6+ years

Contains Toddington Winnetou

HAYLAGE PLUS ST

A short-term mixture for hay/haylage production.

- Quality hay or haylage from diploid IRG and Festuloliums
- > Does not contain Timothy
- Suitable for hay or haylage cuts followed by grazing for up to 4 years

Sendero Fox Contains Alamo

Other equine mixes also available

ORGANIC LEYS

NO. 1 ORGANIC FERTILITY BUILDER

Organic.

Genesis

Boyne Nifty

- High yielding 2-3 year ley with a large proportion of Red Clover to enhance DM and protein yields
- Possibility of taking 1-3 cuts of silage starting end of May/early June before aftermath grazing

NO. 3 CUTTING MIXTURE

Medium/long term organic grazing.

- > Designed to produce high quality silage
- > The varieties chosen have a close range of cutting dates which can produce higher ME levels than general purpose leys
- > Primarily designed for cutting

NO. 2 ORGANIC GRAZING MIXTURE

Medium/long term organic grazing.

- Contains a high percentage of tetraploid giving increased palatability and drought tolerance
- Resultant ley gives medium to long term organic grazing
- > White Clover blend helps to maintain soil fertility

NO. 4 GENERAL PURPOSE MIXTURE

Quality medium term dual purpose.

- > The range of varieties helps provide a successive pattern of growth from early spring into autumn
- > Timothy improves mid-summer production
- High level of White Clover adds to sward growth and digestibility designed for high quality organic grazing and conservation

All ACTion organic mixtures contain at least 70% organically produced seed.

MEDIUM TERM (3-5 YEARS PLUS)

NO.10 HIGH PROTEIN 3-5 year Red Clover mixture. > Blend of Hybrid Ryegrasses, Festulolium and Red Clover > Capable of producing high yields of 18% protein forage > Requires little or no nitrogen fertiliser > Excellent spring growth and quick recovery gives flexibility to take 3 + cuts or several grazings > Allows flowers to form at least once per season - especially before first cut year 1 ACTive8 **Treated Contains** Tetragraze (T) Astoncrusader 20% Red Clover Perseus Suggested sowing rate 40% 40% Tetrapoloid Pack Hybrid Ryegrass Lofa Seeds per m² size 12-14 **Red Clover** 60% Diploid Festulolium 40% 948 20kg kg/acre

NO.23 HEAVY SILAGE

3-4 year silage mixture with grazing qualities.

- > Medium term silage mixture with potential for aftermath grazing into the autumn
- Designed to give multiple silage cuts per year so perfect for a multi-cut system
- > Inclusion of Hybrid Ryegrass and Festuloliums ensure early spring growth and fast recovery
- > Inclusion of Intermediate PRG gives improved quality, density and persistence



Contains Tetragraze (T) Aston Crusader (T) Perseus Lofa Boyne Seagoe (T)





65%	Tetrapoloid
35%	Diploid

25 %	Hybrid RG
30%	Intermediate PRG
30%	Festulolium

MEDIUM TERM (3-5 YEARS PLUS)

NO. 8 SILAGE MAKER

Medium term high production ley.

- > Very high yielding 2--4 year ley with fast spring growth and impressive regrowth
- Can produce 4/5 cuts per year with fresh yields around 30 tonnes per acre
- > Suitable for use as a grazing ley by all classes of livestock
- > Use to extend the grazing season in very early spring and late autumn

Contains Alamo			(ACTive8 [®] Treated			
Fox Perun						Italian Ryegrass	40%
Astoncrusader (T)	Seeds	Suggested sowing rate	Pack	Tetrapoloid	65%	Hybrid Ryegrass	40%
Tetragraze (T)	per m ² 917	12-14	size	Diploid	35%	Festulolium	20%

NO.66 DRYLANDER

Do you struggle to grow enough grass in drier conditions?

- > The ideal mixture for drought prone situations or where nutrient availability is compromised
- Containing a range of high yielding grasses and clovers selected for their exceptional rooting capabilities
- > Use where soil moisture and nutrients are inherently lower
- > Available with or without Red Clover

	Contains
Perseus	Норі (Т)
Perun	Tower
Lofa	Donata
Hipast	Red Clover
Nolwen	





Pack

size

20_{ka}

70%	Tetrapoloid
22%	Diploid
8%	Red Clover

11

Seeds

per m²

SHORT TERM (UP TO 2 YEARS)

RAPID GRASS SPRINTER

A short term forage mixture for high production.

- A blend of Italian and Westerwolds ryegrass
- Rapidly produces big yields of high-quality forage
- > Use for a short-term solution to forage shortages
- Ideal mixture to sow before maize in autumn or undersowing into maize

Contains

Westerwold Italian Ryegrass



Pack

size

20kg

Suggested sowing rate

12-14

kg/acre

ACTive8[®] Treated

CLAMPBUSTER CATCHCROP

Versatile and high production mixture for up to 2 years.

- > A blend of diploid and tetraploid Italian Ryegrasses
- > Suitable for a range of short term uses
- > Ideal for post-maize to produce a bumper crop in early spring

Contains Diploid IRG Tetraploid IRG





Compliant with

SAM2

ACT MULTICOVER

Multi species cover containing IRG and Crimson Clover.

- Excellent short term mixture for all situations with additional nitrogen and suppplied protein supplied by crimson clover.
- > Suitable for use with the following SFI Schemes:
 - SAM2 Multi Species
 Winter Cover; Multi Species



EXTENDAGRAZE

Flexible grazing IRG and brassica catch crop.

- > A blend of IRG and forage rape
- > Ideal for summer or extended grazing through the autumn
- > Potential for 2+ grazings of forage
- IRG can be left for overwintering, spring grazing or an early spring cut
- > Also available as Extendagraze Pro+ with 10 Crimson Clover for additional protein & nitrogen fixing
- > Suitable for use with the following SFI Schemes:
 - SAM2 Multi Species Winter Cover; Multi Species

Contains Fox

Alamo Emerald

12





Contains

Sikem Turgo (T) Crimson Clover





SHORT TERM (UP TO 2 YEARS)



NO. 70 DIVERSE HERBAL

The most productive legume & herb rich mixture

Contains the following requisite species required for both SAM3 and GS4 schemes:

5 Grasses • 3 Legumes • 5 Herbal Plants

- > Designed to be compliant with Diverse Herbal Leys schemes which aim to establish a mixed sward of grasses, legumes, herbs and wildflowers
- > The emphasis on this mixture is to be both compliant and more productive than other purely stewardship type mixtures

Contains					
5 grasses	70%	3 legumes	20%	5 herbal plan	ts 10%
PRG	40%	Red Clover	10%	Plantain	4%
Festulolium	15%	Yellow Trefoil	Yellow Trefoil 5% Sheep's Burne		3%
Cocksfoot	5%	Alsike Clover	Alsike Clover 3% She		2.73%
Timothy	5%			Yarrow	0.25%
Meadow Fescue	5%			Oxeye Daisy	0.02%

Treated	J

ACTive8

Seeds sowing rate Pack	1927	kg/acre	20kg
		Suggested sowing rate 11-14	

Grasses	70%
Legumes	20%
Herbs	10%

NO. 77 MULTI-SPECIES LEY

No. 77 Multi-Species Ley is designed to be compatible with several options of the Wales Growing for the Environment schemes which aim to establish a mixed ley, comprising minimum 5 grass species, 3 legume species and 3 herb species.

Contains the requisite species and crucially proportions of grasses - 6kg/ha of PRG and 9kg of 'other grasses' with the total grasses being 15kg/ha.

3 legumes are included for their nitrogen fixing properties, helping to reduce the use of inorganic fertilisers, and the excellent rooting capabilities of red clover. In addition many of the included species have excellent deep rooting helping to improve water uptake for the sward.

The high proportion of 5 herbal plants not only increase dry matter intakes but can also provide abundant foodstuffs for nectar feeding insects and birds.

This ley can be used as a grazing ley in its own right or undersown into spring cereal and protein crops such as a Pea Barley arable silage or spring barley.

Sowing rate of this mixture must be maintained at a minimum of 25kg per hectare to be compliant with the schemes' specifications.





	Kg per ha		
12%	Bowie (T)	I PRG	3
12%	Thegn	L PRG	3
11%	Comtal	Timothy	2.75
11%	Donata	Cocksfoot	2.75
8%	Laura	Meadow Fescue	2
6%	Hipast	TF Festulolium	1.5
10%	Red Clover Blend	Red Clover	2.5
5%	DP Clover Blend	White Clover	1.25
3%	Leo	Birdsfoot Trefoil	0.75
12%	Sainfoin		3
4%	Tonic	Plantain	1
1%	Sheeps Parsley		0.25
1%	Sheeps Burnet		0.25
4%	Choice	Chicory	1
100%	20kgs per bag		25

5

3

MIXTURES FOR COUNTRYSIDE STEWARDSHIP &



The NEW Sustainable Farming Initiative and the existing Countryside Stewardship Schemes are taking on a more important role in farm business planning with the SFI Outcomes encouraging a wider interest in establishing these crop areas.

There is much confusion and mis-information surrounding what is and is not compliant with the new schemes, however we do know that mixtures that follow the guidance from DEFRA will give you high forage yields and an assurance of meeting regulatory inspection. Saving a few \pounds 's on seed could end up costing you hundreds of \pounds 's per Hectare.

ACT can supply a full range of seed mixture for SFI and CSS options, some of which are listed below which we know are appropriate, productive, and crucially compliant.

Compliant with AHL1 SAM2

Annual Nectar Mixture

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



- Suitable for use with the following SFI Schemes:
 - AHL1 Pollen And Nectar Flower Mixture
 - SAM2 Multi Species Winter Cover

Suggested sowing rate 20kg/Hectare Pack size 20kg



Winter bird food ACT Wild Bird Seed 1

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

Mixture may change depending on cereal seed availability



- Suitable for use with the following CSS and SFI Schemes:
 - AB9 Winter Bird Food
 - AHL2 Winter Bird Food
- > 1 Year Spring Sown

Suggested sowing rate 40kg/Hectare Pack size 20kg



Flower-rich grass margins

ACT Wildflower & Grass Rich BGM4

45%	Creeping Red Fescue
15%	SSMG
15%	Chewings Fescue
15%	Hard Fescue
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



- Suitable for use with the following
 CSS and SFI Schemes:
- AB8 Flower Rich Margins
- IPM2 Flower Rich Margins

Suggested sowing rate 16-20kg/Hectare Pack size 20kg

DISCLAIMER: Any information provided on these mixtures is given in good faith and to the best of our knowledge at the time of publication. Compliance to any legislation is the responsibility of the buyer and ACT accept no liability for non-compliance. If you would like further advice, please contact your local Natural England Advisor.

SUSTAINABLE FARMING INCENTIVE SCHEMES

Compliant with

AB15 NUM3 NUM2

Two-year sown legume fallow

ACT Legume Fallow

Agreements starting on or after 1st Jan 2021

52 %	Vetch
12%	Alsike Clover
12%	Crimson Clover
12%	Lucerne (Innoculated)
10%	Red Clover
1%	Birdsfoot Trefoil
1 %	Black Medick



- Suitable for use with the following
 css and SFI Schemes:
 - AB15 Legume Fallow
 - IPM2 Legume Fallow

Suggested sowing rate 15-20kg/Hectare Pack size 20kg



Legume and herb-rich swards

No.70 Diverse Herbal

40%	LPRG
15%	Festulolium
5%	Cocksfoot
5%	Timothy
5%	Meadow Fescue
12 %	Red Clover
5%	Birds Foot Trefoil
3%	Alsike Clover
4%	Plantain
3%	Sheep's Burnett
2.73%	Sheep's Parsley
0.25%	Yarrow
0.02%	Oxeye Daisy



- Suitable for use with the following
 css and SFI Schemes:
 GS4 Legume & Herb Rich Swards 15
 - SAM3 SAM3 Herbal Leys

Suggested sowing rate 27-35kg/Hectare Pack size 20kg



Legumes on Improved Grassland

ACT Legume and Herb Overseeding Mixture with Grass

10%	Laura	Meadow Fescue
10%	Tower	Tall Fescue
5%	Comer	Timothy
10%	Maxima	Creeping Red Fescue
14%	Sangria	Red Clover
14%	Rivendel	White Clover
5%	Ermo	Alsike Clover
17 %	Ribwort F	Plantain
5%	Sheeps B	lurnet
5%	Sheeps P	arsley
4%	Green Fe	nnel
1%	Yarrow	



- > For overseeding ryegrass fields to increase the legumes and herb content
- Suitable for use with the following
 SFI Schemes:
- NUM2 Legumes On Improved Grassland

Suggested sowing rate 5-10kg/Hectare Pack size 20kg

For the latest guidance download the 2024 SFI handbook via this QR code. Further information is available from your local Natural England Advisor.



FODDER & ENERGY BEET

FODDER & ENERGY BEET SOWING INFORMATION

Optimum Sowing Period	Late March — End April				
Precision Drill	100,000 seeds/ha 45,000 seeds/acre				
Pack Size	50,000 seed unit			TARSON	
		Low Dry Matter %	Medium Dry Matter %	High Dry Matter %	Very High Dry Matter %
Dry Matter o	of Root	11 – 13	14 -16	17 – 20	20-23
% Root in G	round	40 - 50	55 - 65	65 - 75	75+
Variety		Feldherr, Jamon	Bangor, Blaze, Robbos	Enermax, Magnum	Brick, Tadorne
Harvest/Util	isation method	Graze or Hand Lift	Graze or Lift	Lift	Lift
Feeding		Whole or Chopped	Whole or Chopped Chopped		Chopped
Dry Matter	Yield				Higher
Fresh Yield		Higher			
Storage Cap	pability				Longer
Dirt Tare					Higher

Low – Medium Dry Matter Beet (11-13% DM) These beet are very low dry matter but very high fresh yields

and can be grazed or lifted and fed.

Feldherr

> One of the highest yielding fresh weights from a fodder beet. Ideal for sheep or cattle

Jamon

> Orange rooted, consistent performer with good disease and bolting resistance. Large amount of leaf allowing for easy top lifting



Medium Dry Matter Varieties (14-17% DM)

Often considered to be lift or graze varieties - ideal for a dairy or cattle grazing. They have uniform sized beet and so are suitable for machine lifting or grazing in situ depending on the system.

Bangor (Force Treated)	Robbos (Force Treated)	Blaze (Force Treated)
> New yellow skinned beet with high yields	> Robbos is ideally suited for first time fodder	> Blaze has the potential to produce excellent
> High proportion of beet above ground and	beet growers	dry matter yields with very clean, bright red

- has very uniform smooth beet making it a very flexible grazing and lifting type
- > Clean yellow roots are easily harvested > Available with primed seed
- roots
- > Low dirt contamination ensures high intakes

High Dry Matter Varieties (18-23%DM) Also known as Energy Beet so ideal for AD use but also lifting and transporting/selling. They have uniform sized beet which are 70% in the soil so only suitable for machine lifting				
Enermax	Magnum	Tadorne LG (Force Treated)	Brick (Force Treated)	
 High yielding with a low dirt tare Enermax has a clean, white, smooth-skinned root 	 Remains a popular choice as it's a consistent performer Uniform sized, white-roots of 	 A white rooted variety Bred especially for AD, with very excellent DM yields 	 > High yielding variety for growers looking to produce a high-quality feed with a higher DM content % 	
 Shallow rooting resulting in cleaner roots, particularly important for dairy 	high DM content Good resistance to rust 	 > High DM content reduces clamp losses & enables the beet to be stored for longer 	 Brick is a true fodder beet that delivers very high dry matter yields 	
> Rhizomania tolerant		> Rhizomania resistant	> Rhizomania tolerant	

WHOLECROP SILAGE MIXTURES

Wholecropped arable silage or 'Wholecrop' can be grown to increase production from forage in several ways that will spread the risk of forage shortages.

It's important to choose the right combination of appropriately maturing crops for your situation – contact us to discuss your options. We can supply a range of mixtures with varying amounts of spring barley or oats and legumes.

60% Barley + 40% Pea			40% Pea	6	0% Pea + 40% Barley	

A mixture with more emphasis on the bulk and starch of barley supported with the protein and starch production of the peas

A more Pea rich mixture designed to produce a bulky crop with a high crude protein content.

Oats + Barley + Peas 50% Pea + 50% Barley

A bulky mixture based on a barley/oat/pea mixture giving good palatability as well as reasonable protein. This new option is designed to also be compatible with Wales Growing for the Environment option 7 & 8.



Organic version available.

BENEFITS OF WHOLECROP SILAGE

Wholecrop is an excellent break crop between grass re-seeds giving perfect conditions with little additional cultivations required.

In addition it is a forage crop that can be grown with zero bagged nitrogen being applied, plus leaves residual nitrogen for a following crop.

- Yields of 12-13 DM tonnes/ha at 45% DM can be expected if you get the crop established well (5 DM tonnes/acre)
- > Fresh weight yields 55 tonnes ha (20 tonnes per acre)
- > Arable silage can be ready to harvest in 12-14 weeks
- > An excellent break crop if you are planning on a full re-seed

Sowing Date	Mid March to Mid April
Sowing Depth	3-4 cm
Seed Rate	75kg per acre (180kg per ha). If undersowing use 50kg per acre

- > The addition of peas to the mixture increased protein by 50%
- Peas supply a potential 70+kg of residual nitrogen per hectare for the following crop
- Can be undersown with a competitive grass mixture
 however the wholecrop must be at a reduced sowing rate



SOIL IMPROVING SPECIES



Forage Rye

Excellent weed suppression and high biomass. N and K lift and hold. Increase organic matter in soil. Quick to establish so can be sown later. Often sown with Vetch as a cost effective cover crop.

Sow at 60kg/ha

Italian Rye Grass

Excellent biomass production above and below ground. IRG is quick to establish with weed suppressing qualities. Long term soil improvement characteristics which can be grazed or silage.

Sow at 25kg/ha

Black Oats

Very quick establishment for good weed suppress as also alleopathic. N and K lift and hold/variable frost susceptibility/Increases organic matter.

Sow at 40kg/ha

Brown Mustard

Very strong early vigour for weed suppression. Produces isothiocyanate for biocidal effects. Active against PCNs. Some frost tolerance. Increases organic matter and traps N and K. Suitable for grazing. Can be sown later than most crops.

Sow at 5kg/ha

Oil Radish Standard

Deep root soil conditioner, good weed suppressant plus high biomass so increases soil organic content. Traps N and K. Produces high levels of isothiocyante for biofumigation and some nematode control. Most oilseed radish exhibit club root resistance.

Sow at 12kg/ha

Tillage Radish

Longer tap root for deeper soil conditioning. Also traps N and K. Produces isothiocyanates for biofumigation. Significant control of beet cyst nematode as well as other nematodes.

Sow at 12kg/ha

Buckwheat

Raises nutrients N and P lift and hold as buckwheat is an excellent phosphate trapper. Very quick growing with large biomass. Insect attractant. Can be very susceptible to frost kill so a short catch crop.

Sow at 50kg/ha

Vetch

Excellent nitrogen fixer especially if drilled early, very compatible with rye/oats. Spring and Winter vetch options are available.

Sow at 40kg/ha

Berseem/Alexandria/Egyptian Clover

Annual legume for nitrogen fixing. Quick establishment but variable frost susceptibility. Single cut type with no regrowth habit also available.

Sow at 12kg/ha

Crimson Clover

Grows at lower temperatures than other annual legumes. Quick establishment with upright growth habit/weed suppressant/degrades into soil very quickly.

Sow at 12kg/ha

Oats

Excellent weed suppression due to Allelopathy. N, P, K and Mg lift and hold and increase organic matter in soil. Can be sown with vetch. Use winter types to last overwinter, spring if you want it to die off in frost.

Sow at 50kg/ha

Westerwold Ryegrass

Excellent biomass production above and below ground. IRG is quick to establish with weed suppressing qualities. Medium term (6 -9 months) soil improvement characteristics which can be grazed or silage.

Sow at 25kg/ha

White Mustard

Excellent biomass and so increases organic matter. Superior weed suppression. Traps N and K in growing crop. Produces isothiocyanate giving biocidal effects against weeds and pests. Some nematode activity.

Sow at 12kg/ha

Kale/Mustard Hybrid

Very quick to establish for excellent weed suppression. Traps N, P and K. Is frost tolerant. Can provide excellent game bird cover over winter. e.g. Carbon.

Sow at 5kg/ha

Oil Radish Class 1

Offers the best of beet cyst nematode control Oil Radish Class 2

Significantly reduces beet cyst nematodes.

Phacelia

Excellent disease break crop/insect attractant, hover flies eat aphids. Breaks down quickly for C, P, K and Mg.

Sow at 6kg/ha

Linseed

Easy to establish and is good at helping lift Nitrogen in soil. Branching tap root for soil conditioning. Not as attractive to slugs as some other species.

Sow at 30kg/ha

Red Vetch

Quick growing high biomass option. A more frost susceptible vetch option.

Sow at 40kg/ha

Lucerne

Can be slow to establish but capable of fixing nitrogen. Not ideal for late drilling.

Sow at 20/kg/ha

Red Clover

Historically used as a nutrient restorer and should not be forgotten. Great nitrogen fixer but needs to be drilled early. Winter hardy perennial.

Sow at 12kg/ha

ARABLE CROPS



MORE THAN JUST FORAGE SEEDS

Did you know ACT can also supply your combinable crop seeds including:

> Cereals – we can supply a wide range of AHDB Recommended varieties of wheat, barley, oats, triticale and hybrid rye plus peas and beans.



SOIL IMPROVING MIXTURES



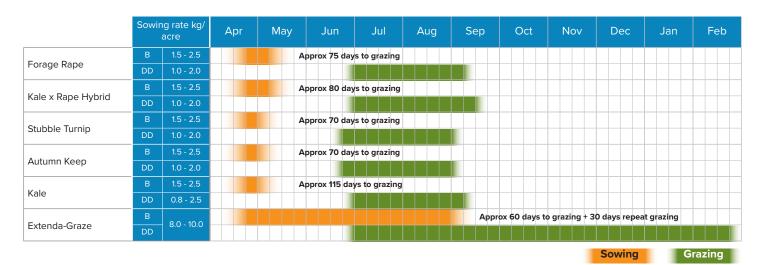


The range of green manure mixtures on this page have been specially formulated to help protect soils as well as improving soil health and fertility.

Mixture Species	Uses and scenarios
Rye + Vetch	Quick to establish and prolific tillering gives excellent winter cover and weed control. The Vetch fixes nitrogen through the life of the crop and Rye holds the nutrients making it available for following crops. Deep rooting habit helps penetrate into tight soils. High biomass production to increase soil organic matter. Can also be grazed in winter or left for a silage cut in early spring.
Rye + Vetch + Mustard	Addition of mustard increases the biomass and autumn ground cover. Excellent winter grazing potential.
Rye + Vetch + Westerwold	This mixture has been introduced to improve the density and ground cover of the cover crops with the addition of Westerwolds. This not only increases the number of species and increases yield, but also improves the quality potential of this high biomass, quick establishing shorter term cover crop.
Oats + Vetch	Similar characteristics to Rye + Vetch however can be used where Take-all is an issue. Rapid establishment and very good cover and weed suppressant.
Rye + Vetch + Phacelia + Oil Radish	Large biomass for maximum organic matter incorporation potential. This rapidly establishing mixture gives very good weed suppression. Differing rooting depths and growth habits make this a superb cover crop. Grazing potential is also good.
Oats + Mustard + Oil Radish + Phacelia	True multi-species mixture with differing rooting depths and growth habits which helps penetrate tight soils. High biomass potential for increasing organic matter production and weed suppressing.

GRAZING BRASSICA CATCH CROPS

SPRING SOWN FORAGE CROPS - SOWING & GRAZING



MAIN SEASON FORAGE CROPS - SOWING & UTILISATION TIMINGS

		ving rate g/acre	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb
Forage Rape	В	1.5 - 2.5		Approx 115 days to grazing									
	DD	1.0 - 2.0											
Kale x Rape Hybrid	В	1.5 - 2.5					Арр	rox 125 days	to grazing				
	DD	1.0 - 2.0											
Stubble Turnin	В	1.5 - 2.5					Арр	rox 90 days to	grazing				
	DD	1.0 - 2.0											
	1.5 - 2.5					Аррі	rox 90 days to	grazing					
	DD	1.0 - 2.0											
Meatmaker/	В	1.5 - 2.5					Appro	x 125 days to	grazing				
WinterGraze/Zoom	DD	1.0 - 2.0											
B Extenda-Graze	В	8.0 - 10.0						Appro	ox 60 days to	grazing + 30	days repeat gi	razing	
Extenda-Oraze	DD 8.0 - 10.0												
Fodder Beet	42,00	0 - 50,000		A	Approx 170 day	s to maturity							
	В	B 1.5 - 2.5			Ap	prox 160 day	s to grazing						
Kale DD 0.8 - 2.5													
Swede	0.75 - 1.25			Ap	prox 160 day	s to grazing							
	DD	0.5 - 1.0											
Maincrop Turnip	В	0.75 - 1.25				Approx 120	days to grazir	ng					
	DD	0.5 - 1.0											
Mustard	В	5.0 - 6.0					Appr	ox 60 days to	grazing				
	DD	4.0 - 5.0											
Forage Rye	5	0 - 60						Аррі	rox 55 days to	grazing			

B - Broadcast DD – Direct Drilled

Sowing Grazing

STUBBLE TURNIPS

The most widely grown of all grazing brassica forage crops with a yield potential over 4 tonnes DM/ha – equivalent to 3500 lamb grazing days per ha. Soil management and nutrition is crucial if you want to achieve the expected results. Sow by mid August to get the maximum growth available.

Hay or straw should be on offer prior to each grazing, particularly in the case of dairy cows and it is advisable to introduce animals to the crop gradually.

All seed is untreated.

Sowing and utilisation					
Dry Matter	8-9%				
Cost per ha	£305/ha (£124/acre)				
Cost per tonne utilised dry matter	£66				
Cost per tonne fresh weight	£5				
Drill	1.0-2.0kg/acre (2.5 - 5kg/ha)				
Broadcast	1.5kg / acre (3.7-6.0kg/ha)				
Optimum Sowing Period	Mid June-Mid August				
Utilisation	80-100 days (Late September-December)				
Average Dry Matter Yield	3.5-4.0 tonnes				
Average Fresh Yields	38-45 tonnes/ha				



Vollenda

Best all rounder variety.

- > A highly palatable all rounder suitable for summer, autumn or winter grazing
- > High yields of large pink tankard shaped roots
- > Bolting resistance is good so can be sown spring for summer grazing
- > Pack size 10kg and 25kg



Samson

Sweet tetraploid tankard shaped roots.

- Produces large tankard shaped roots which are palatable for cows and sheep
- Shown to be a prefential grazer leading to higher intake and growth rates
- > Pack size 5kg and 20kg



Skyfall

A new leafy brassica.

- > Bred for fast leafy grazing and is ideal for strip grazing by dairy or beef cattle in the summer months – ideal as a gap filler
- > Regrowth potential, as long as not overgrazed
- > Pack size 5kg



Rondo

The choice for winter grazing.

- > A green skinned variety for sheep or cattle
- Leafy habit with excellent disease resistance and so very good for winter grazing up to February
- > Pack size 5kg and 20kg

FORAGE RAPE - KALE/RAPE HYBRIDS

Dry Matter

Cost per ha

Cost per tonne

Cost per tonne

fresh weight

Broadcast

Utilisation

Drill

utilised dry matter

Optimum Sowing Period

Average Dry Matter Yield

Average Fresh Yields

Rape and hybrids have the advantage of being very fast growing crop suitable for grazing by sheep or cows. Both are an ideal catch crop for boosting mid summer forage production when planted in the spring and are also suitable for fattening lambs in the autumn/winter. Forage rape extends the grazing season in the autumn and is superb for flushing ewes. Ideally strip graze to avoid excessive wastage.

Stock should be transitioned gradually over a two week period and an area of grassland should be available for animals to return to with water and hay or straw should also be made available.

All seed is untreated.



Emerald

- A fast maturing forage rape.
- Ready to graze after 10-12 weeks with good dry matter yields and disease resistance
- It has very good feeding quality, being high in protein and easily digestible, remaining palatable well into the winter
- > Pack size 10kg and 25kg



Interval

3.5-4.0 tonnes

24-35 tonnes/ha

Sowing and utilisation

£408/ha (£166/acre)

1.0-2.0kg/acre (2.5-5kg/ha)

Mid June-Mid August

1.5kg-2.5kg / acre (3.7-6.0kg/ha

80-100 days (Late September-January)

11-12 %

£107

£5

Ideal for finishing lambs.

- Has been proven to grow the highest dry matter yield of rape/ kale hybrids which helps to reduce feed costs
- > Very fast establishing and ready to graze in 12 weeks
- > Pack size 5kg and 20kg



Rampart

High feed quality and grazing flexibility.

- > Bred with feed quality enhancements and high yield potential
- Excellent winter hardiness giving flexibility when grazing crops
- Pack size 5kg and 20kg



Unicorn

High quality kale/rape hybrid.

- Rape/kale hybrid which can provide palatable forage for autumn and winter grazing
- Regrowth potential, as long as it is not grazed too tight, providing additional grazing opportunities
- > Pack size 5kg and 20kg



Hobson

Ideal for finishing lambs.

- Fully proven on livestock farms throughout the UK
- Ideal for finishing lambs with good winter-hardiness and disease resistance
- > Pack size 5kg and 20kg



Spitfire

Versatile kale/rape hybrid.

- > A good companion to use with other fast establishing brassicas
- Rapid growing brassica that can be used as a rescue or catch crop. Can also provide good cover for holding, driving & feeding game birds
- > Pack size 10kg and 25kg

GRAZING BRASSICA MIXTURES

The most widely grown of all grazing brassica forage crops with a yield potential over 4 tonnes DM/ha – equivalent to 3500 lamb grazing days per ha. Soil management and nutrition is crucial if you want to achieve the expected results. Sow by mid August to get the maximum growth available.

Hay or straw should be on offer prior to each grazing, particularly in the case of dairy cows and it is advisable to introduce animals to the crop gradually.

All seed is untreated.



Autumn Keep

weeks

A quality crop with good disease resistance.

> Very fast establishment for autumn use

> Autumn Keep will produce

quality grazing in 10-12

- > Contains:
 - 40% Forage Rape 20% Stubble Turnip Samson 30% Stubble Turnip Rondo 10% Kale
- > Sow at 2kg per acre
- > Pack size 3kg



Winter Graze

A blend of stubble turnips and Forage Rape designed for grazing into the winter.

- > Needs to be established by mid August to get the full benefit
 - > Contains:
- > The forage rape helps protect stubble turnips during a frost
- 60% Stubble Turnip 35% Forage Rape 5% Kale

> Sow at 2kg per acre

> Pack size 10kg

Sowing and utilisation				
Dry Matter	11-12 %			
Cost per ha	£408/ha (£166/acre)			
Cost per tonne utilised dry matter	£107			
Cost per tonne fresh weight	£5			
Drill	1.0-2.0kg/acre (2.5-5kg/ha)			
Broadcast	1.5kg-2.5kg / acre (3.7-6.0kg/ha			
Optimum Sowing Period	Mid June-Mid August			
Utilisation	80-100 days (Late September-January)			
Average Dry Matter Yield	3.5-4.0 tonnes			
Average Fresh Yields	24-35 tonnes/ha			



Rapid Root

A fast establishing forage rape based catch crop mixture.

- > Produces a crop ready for grazing in 12 weeks
- > Stubble turnips maintain the feed once the leafy rape and tops have been grazed

> Sow at 2kg per acre

- > Contains: 60% Forage Rape 35% Stubble Turnip 5% Kale
- > Pack size 10kg



Meatmaker

An excellent blend designed to produce autumn or winter keep with minimal effort.

- > The higher inclusion of forage rape helps protect the turnips if crops are to be used later
- > Sow at 2kg per acre
- > Contains: 65% Forage Rape Rampart 25% Stubble Turnip Rondo 10% Kale
- > Pack size 3kg



Fertilisers



Crop Protection



Silage Wrap







Animal Health



Dairy Chemicals

Fuel



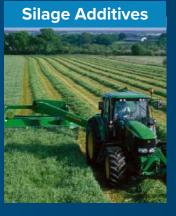
Mineral Supplements



Milk Powder



Seeds



Lubricating Oils



your farming supplies people

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