



FORAGE SEED GUIDE 2021

- Grass Seed Mixtures • Forage Maize
- Organic Mixtures • Energy Crops
- Root & Fodder Crops • Cover Crop Mixtures

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Example No. 57 Quality Cutter versus minimum standards both sown at 14kg per acre

WHO ARE ACT?

Agricultural Central Trading Ltd

ACT are a farmer-owned company supplying essential farm inputs to farmers throughout England, Wales and Scotland. Our considerable buying power coupled with our low operating costs, means that we can pass substantial savings onto farmers on popular branded products as well as those we sell under our own Action label.

In selecting products to meet the needs of our customers, the over-riding aim of ACT is to provide value for money. That means paying close attention to quality as well as price. Every year ACT supplies farmers from Cornwall to the Orkneys with millions of pounds worth of essential inputs.

Call us for: Fertilisers, Feeds, Fuel, Seeds, Mineral Supplements, Animal Health Products, Silage Additives, Dairy Chemicals, Lubricating Oils, Silage Polythene/Wrap & Twine, Crop Protection.

Contact your Area Manager or call us at our Shrewsbury Office 01743 762700.

FORAGE SPECIES SELECTION

ACT offer a full range of forage crops suitable for sowing throughout England and Wales.

As an independent company with no ties to any seed house we can select the best species, varieties and mixtures to be sown in a range of situations. Its important to us that all varieties have been tested before we select them for our customers - where possible we like to have seen them in official trials, breeders trials and in farmers own strip trials where we can evaluate their performance.

For example our ACTION range of grass seeds use only top performing varieties on the NIAB lists. This ensures we have confidence in the range of products we supply.

SEED QUALITY

All ACTION seed ley mixtures are of a high standard of purity and germination.

There is a legal minimum standard for all grass and clover seed bought and sold in the United Kingdom.

The UK continues to adopt the European seed regulations, until such time as we have equivalence for seed certification between ourselves and the rest of Europe.

For many years the UK had its own certification scheme called the Higher Voluntary Standard (HVS).

ACT aims to provide seed of a quality at least as high as HVS and higher wherever possible. The % figures shown in the charts refer to ACT's Grass Seed for 2020.

What does this mean? Quite simply it means that in ACTION Seed Mixtures you have a higher number of viable seeds per bag, or in other words you get more seeds for your money!

		UK Minimum	ACT Actual
Italian Ryegrass	Purity	96%	99.3%
	Germ.	75%	93%
Perennial Ryegrass	Purity	96%	99.2%
	Germ.	80%	95%
Timothy	Purity	96%	99%
	Germ.	80%	95%

Germ. = Germination

	Mixture Seed Count (m)/pack	Viable Seeds (m) per pack	Price per kg	Sowing rate kg	Price per acre	Value Viable Seeds	Value of Unviable Seeds	Difference kg	Difference £
UK Min.	8.87	6.90				£52.09	£14.83		
ACT Actual 2020	8.87	8.10	£4.78	14	£66.92	£61.14	£5.78	1.9kg	-£9.04

HIGHEST QUALITY SEEDS

We strive to offer you the best available varieties within the ACT Action Mixture range, and we are delighted to introduce several new high performing perennial ryegrasses into our mixtures:

NIFTY

Dense variety with exceptional grazing yield

An exciting variety in its fourth year of commercial availability. Nifty is recommended throughout the UK. Superb grazing and exceptionally dense variety.

Nifty is very high yielding under grazing and has excellent mid and late season growth.



TRIWARWIC

High sugar variety

A true cutting and grazing variety that gives you good grazing performance but also gives excellent cutting yields of highly digestible high ME grass.

Classed as a High Energy and high sugar variety. Very good disease ratings especially at 8.2 for crown rust. High Fibre Energy variety.

NASHOTA

Very dense & high performing variety

Good early spring growth under grazing and good quality, especially at the first conservation cut. Nashota has exceptional ground cover for a tetraploid – greater than 50% of diploids in this group.

Has performed very well in Teagasc PPI trials.



EVOCATIVE

A true cut and graze variety

Evocative has exceptional D-value and yield throughout the growing season in either a grazing or cutting management situation. Evocative also has a very late ear emergence date as is an exceptional addition to the ACT portfolio.

Good overall conservation and grazing yields with good forage quality making it perfect for dual purpose mixtures.

SMILE

All rounder with exceptional summer grazing

A variety showing good, consistent yields under both cutting and grazing. Quality is good under cutting. Smile has excellent yields especially in the second cut with exceptional quality from early summer onwards.



THEGN

Good under grazing, and good quality silage

New for 2020, Thegn displays excellent grazing yields and D Value with exceptional back end growth.



The digestibility of the cell wall, which consist of cellulose and hemicellulose, depends, among other factors, on weather and management, but we have also seen a difference between grass varieties, when they are compared under same growing conditions. All new varieties are now tested for feeding quality, and those showing high digestibility are marked with the Fiber Energy logo.



ACT GRASS MIXTURE RANGE

Our grass mixtures range covers the situations you can have from very dry, to very wet, upland, lowland, long or short term. Grazing, cutting or both.

However maintaining a high level of productive species in your sward is crucial if you want to get the most out of your grass ley, either as a full re-seed or by over-seeding or stitching in new seeds into an existing pasture.

Re-seeding is the most effective method to get more from grassland, following some of the methods below can improve production significantly. Introducing new 'production' grasses into a tired or open sward is possible as long as you follow some basic husbandry principles:

1. Identify the % of productive species present
2. Identify the weeds species present
3. Assess soils structure and carry out remedial action
4. Carry out soil analysis and correct pH and nutrient status correct
5. Select the correct machine for the technique you are using
6. Destroy previous grass or weeds in good time.
7. Consider June sowing to reduce pests
8. If overseeding reduce competition by grazing or topping until new shoots establish
9. Sow the correct mixture for your situation

ACTIVE8™ SEED TREATMENT FOR BETTER ESTABLISHMENT

ACTIVE8™ is a natural, bacterial seed treatment which stimulates the embryo into speedier activity, encouraging more vigorous root growth and ultimately, faster and better plant development.

ACTIVE8™ will help to:

- » improve nutrient absorption
- » Speed up crop utilisation
- » Increase first cut yield

All our major grass mixtures come

ACTIVE8™ treated as standard.



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.

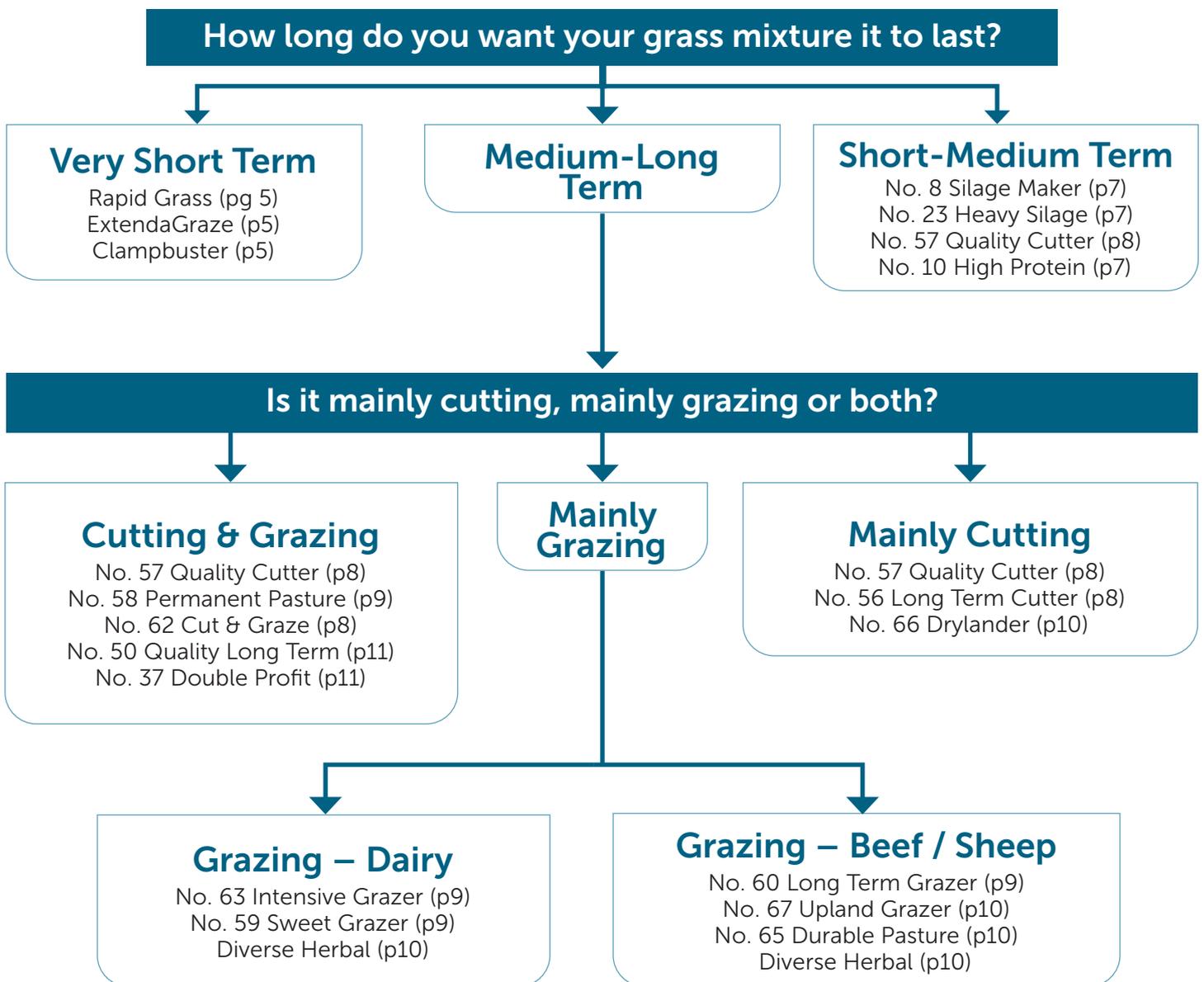
We can also supply you with bespoke mixtures of species of your choice to your specifications - using the best performing varieties available from our breeding partner DLF.

Which mixture should we choose?

This question is best answered by considering the following:

- 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.
- 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 sward varieties plus a seed treatment that will allow the seeds to establish quicker could be the way to go.



Mixed Herbal Grazing Options

Herbs can be added to any grass mixture

RESEEDING

SOIL SAMPLING & ANALYSIS

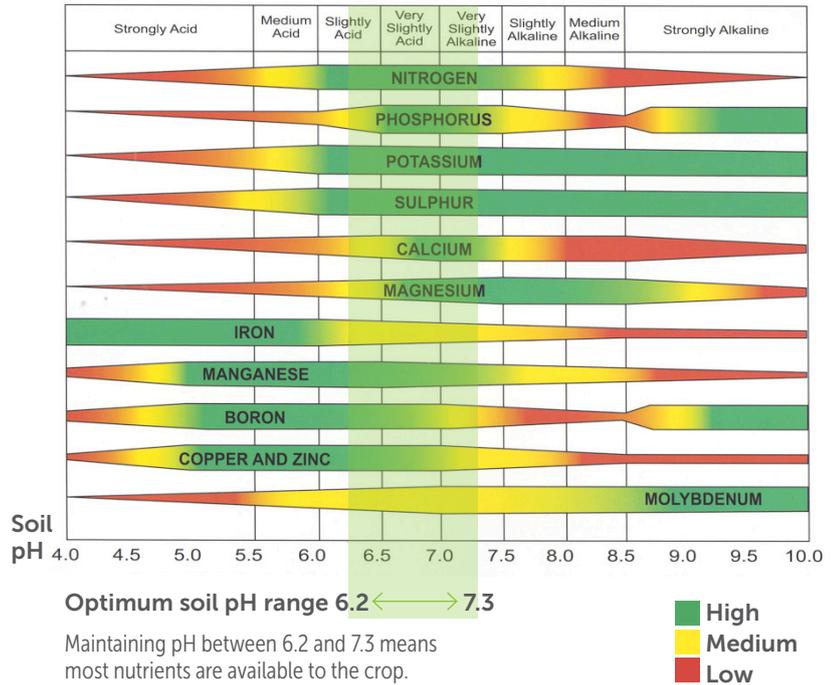
The purpose of soil analysis is to assess the adequacy, surplus or deficiency of available nutrients for crop growth and to monitor change brought about by farming practices.

The "standard soil analysis package" measures soil acidity (pH) and estimates the plant-available concentrations of the major nutrients, phosphorus (P), potassium (K) and magnesium (Mg), in the soil.

With the emphasis now on soil health we would recommend a 'Broad Spectrum' Analysis which would include, an assessment of the organic matter and cation exchange capacity plus the elements required in small amounts by crops – the 'trace' elements or 'micronutrients'.

Some can be measured effectively in soil, namely boron (B), chloride (Cl), copper (Cu), molybdenum (Mo), cobalt (Co) and zinc (Zn). This will enable a better understanding of any imbalances and antagonisms that may limit production.

How soil pH affects availability of plant nutrients



All farms should analyse a quarter of their land each year, ACT can advise the best programme and assist in the interpretation results.

PASTURE RESTORER

A carefully balanced blend of varieties to improve swards

To go from this:



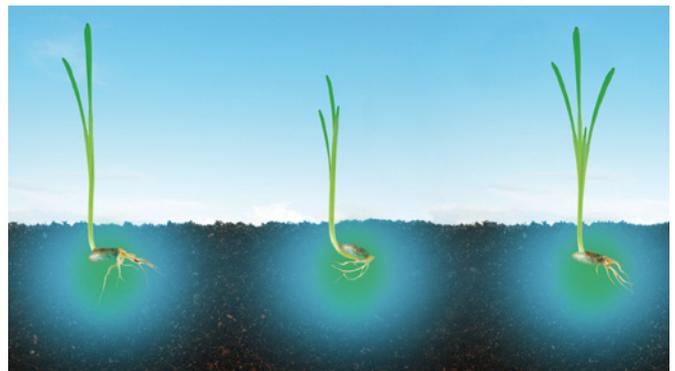
To this:



ProNitro® is a seed treatment with both fast and slow release nitrogen fertilisers. It supplies fertiliser 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

Nifty
Triwarwic (T)
Alfonso (T)
Thegn (T)
White Clover

Without Clover

Nifty
Triwarwic (T)
Alfonso (T)
Thegn (T)



TET 82% IPRG 18%
DIP 18% LPRG 82%

ProNitro®
READY TO GROW

SHORT TERM (UP TO 2 YEARS)

EXTENDAGRAZE

A 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 grass and rape
- » IRG can be left for overwintering, spring grazing or an early spring cut

Contains

Fox
Alamo
Emerald



During 2019 we tried 5 acres of ExtendaGraze which kept over 500 lambs at weaning for 5 weeks with 6 acres of run back paddocks through until the Autumn, and have been very impressed.

Then on 2nd March 2020 200 ewes and lambs were turned out until 27th March on the resulting grass ley, as they lambed.

After this grazing the remaining grass was fertilised and baled every 28 days - giving me 4 good cuts on top of the initial grazing.

So, not only did I get a good brassica grazing crop I had 4 good cuts to feed over the following winter, this enables me to carry a high stocking rate with the option to mow or graze close to home.

J Langridge, Staffordshire.

10 25
kg/acre kg/ha

20
kg

IRG 80%
FR 20%

RAPID GRASS

A short term forage mixture for high production

Active8
Treated

- » A blend of Italian Ryegrass and Westerwolds Ryegrass
- » Speedily produces big yields of high-quality forage in good growing conditions
- » Faster out of the ground than straight Italian Ryegrass
- » Use for a short-term solution to forage shortages
- » Ideal mixture to sow before maize in autumn or undersowing into maize.
- » Contains Active8 for faster establishment.

Contains

Westerwold
Italian Ryegrass



CLAMPBUSTER/AFTERMAIZE

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 sowing after a crop of maize harvested to produce a bumper crop in early spring for early grazing or for silaging prior to next maize crop
- » Alternatively can be left for further cropping through to autumn

Contains

Diploid IRG
Tetraploid IRG



1100
seeds/m²

12.5 30
kg/acre kg/ha

20
kg

TET 50%
DIP 50%

WW 50%
IRG 50%

1370
seeds/m²

12.5 30
kg/acre kg/ha

20
kg

TET 50%
DIP 50%

IRG 100%

MEDIUM TERM (3-5 YEARS)

NO.8 SILAGE MAKER

Short term high production ley

Active8
Treated

- » Very high yielding 2/3 year ley with fast spring growth and 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
Fox
Cazzano (T)
Perun
Tetragraze (T)



1400
seeds/m²

12 30
kg/acre kg/ha

20
kg

TET 45%
DIP 35%
OTHER 20%

NO.10 HIGH PROTEIN

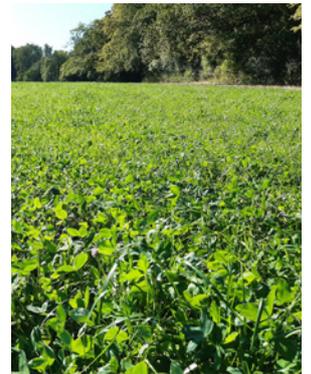
Medium term Red Clover mixture

Active8
Treated

- » Blend of Hybrid Ryegrasses, Festulolium and Red Clover
- » Capable of producing over 20 tonnes per acre with 17-18% protein
- » Excellent spring growth and quick recovery gives flexibility to take 2 - 3 cuts or grazing several times
- » Allow flowers to form at least once per season - especially before 1st cut year 1

Contains

Tetragraze (T)
Bahial (T)
Aston Crusader (T)
Lofa
ACTion Blend Red Clover



988
seeds/m²

12 30
kg/acre kg/ha

20
kg

TET 54%
OTHER 25%
RC 21%

NO.23 HEAVY SILAGE

3-4 Year silage mixture with grazing qualities

Active8
Treated

- » Medium term silage mixture with potential for aftermath grazing
- » Designed to give at least multiple silage cuts per year
- » The chosen grass varieties have close cutting dates for optimum quality Inclusion of hybrid ryegrass & festuloliums ensure early spring growth and fast recovery
- » Suitable for use grazing

Contains

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



1023
seeds/m²

13 32
kg/acre kg/ha

20
kg

OTHER 30%
TET 55%
DIP 15%

GRASS SILAGE ADDITIVES

Make the most of your
ACT forage with Silo Action:

Silo Action turns grass into silage in just two days preserving the true protein/energy and giving you extra milk from forage and increased live weight gain in beef cattle.

Ask your Area Manager how you can turn your forage from green to gold.



LONG TERM (6 YEARS PLUS)

NO.57 QUALITY CUTTER

Long term silage mixture capable of producing quality silage plus excellent aftermath grazing for 6 years+

Active8
Treated

- » Late heading PRG with the tightest range of heading dates available resulting in reduced seed heads at cutting or high quality leafy grazing.
- » 100% high performing NIAB & Teagasc recommended grass varieties with improved spring and autumn growth

- » Fresh yields could be as high as 13 tonnes/acre at 72D from first cut
- » Varieties selected for improved density and growth in the shoulders of the season.
- » Available with or without white clover.

Contains

Smile	Good quality and exceptional 2nd cut yields
Thegn (T)	High cutting & grazing yields, with exceptional autumn growth.
Nashota (T)	Superb spring growth, high 1st cut yields and incredible density for a diploid.
Aspect (T)	Excellent grazing & cutting yields.
Cavendish	High performing variety that performs well in both conservation and grazing management
White Clover	Dual Purpose Blend - Galway, Buddy, Dublin, Violin, Brianna.



1367
seeds/m²

14 35
kg/acre kg/ha

20
kg

TET 60%
DIP 40% LPRG 100%

NO.56 LONG TERM CUTTER

Long term silage mixture for multiple cutting

Active8
Treated

- » Persistent silage mixture with good spring growth to suit the early silage producer wanting multiple quality cuts a year.
- » Ideal mixture for a multi cut system where earlier cuts are required but without losing yield
- » Excellent silage fermentation from the high sugar tetraploids which also give palatable aftermath grazing
- » Contains NIFTY which has performed extremely well on all UK recommended lists including the TEAGASC Irish list.
- » Has excellent density to ensure persistent when aftermath grazing is required.

NO.62 CUT & GRAZE

Long term dual purpose

Active8
Treated

- » Reliable long term dual purpose mixture
- » Suitable for multiple cuts followed by grazing by all classes.
- » Our most versatile mixture with high production in both grazing and cutting systems.
- » Excellent spring growth and mid season grazing is outstanding.
- » Contains Nashota the high yielding dense quality tetraploid.
- » Available with or without white clover.*

Contains

Nifty
Boyne
Seagoe (T)
Nolwen (T)



Contains

Nifty
Seagoe (T)
Pensel (T)
Todington
Nashota (T)
White Clover*



1155
seeds/m²

14 35
kg/acre kg/ha

20
kg

TET 55%
DIP 45% IPRG 100%

1610
seeds/m²

14 35
kg/acre kg/ha

20
kg

TET 61% IPRG 55%
DIP 39% LPRG 45%

LONG TERM (6 YEARS PLUS)

NO.58 PERMANENT PASTURE

Active8
Treated

Dual purpose graze & cut mixture with Timothy

- » Long term, dense dual purpose mixture ideal for multiple cuts followed by grazing.
- » Especially suited for Beef & Sheep scenarios. It produces good spring growth followed by excellent grazing throughout the summer and into the autumn.
- » The addition of high sugar grasses helps to maintain intakes during drier times.
- » Ground cover is excellent and so will carry livestock in less than ideal conditions for longer.
- » Available with or without white clover*.

Contains

Nifty
Boyne
Seagoe (T)
Nashota (T)
Toddington
Promesse
White Clover*



2130
seeds/m²

14 35
kg/acre kg/ha

20
kg

TET 43%
DIP 51%

IPRG 52%
LPRG 42%
TIM 6%

NO.63 INTENSIVE GRAZER

Active8
Treated

The ultimate grazing mixture

- » The emphasis of this mixture is for a 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
- » Ideal for the inclusion of herbal grazing mixtures.
- » Available with or without white clover*.

Contains

Agaska
Cancan
Bowie
Smile
Thegn (T)
Nashota (T)
White Clover*



1878
seeds/m²

14 35
kg/acre kg/ha

20
kg

TET 37%
DIP 63%

IPRG 20%
LPRG 80%

NO.59 SWEET GRAZER

Active8
Treated

High sugar mixture for dairy systems

- » This high sugar mixture is made up of highly digestible tetraploid varieties & is suited to both grazing and cutting regimes.
- » The varieties have been updated to increase grazing yield in the shoulders of the year and maintain summer growth.
- » Includes Nashota which has performed well in Teagasc PPI trials
- » Nashota and Nifty have exceptional ground cover despite being tetraploids.
- » Varieties shown to have good disease resistance.
- » The deeper rooted nature of tetraploid grasses are more tolerant of dry conditions
- » Available with or without white clover*.

Contains

Alfonso (T)
Thegn (T)
Aspect (T)
Nashota (T)
White Clover*



1311
seeds/m²

14 35
kg/acre kg/ha

20
kg

TET 100%
DIP 0%

LPRG 100%

NO.60 LONG TERM GRAZER

Active8
Treated

Long term grazing for all classes of livestock

- » Good summer and autumn growth.
- » Inclusion of tetraploid ryegrasses and Timothy gives superior palatability for a long term ley.
- » Establishes into a dense sward, suitable for sheep, giving good intakes and impressive live weight gains
- » Available with or without white clover*.

Contains

Nifty
Cancan
Toddington
Thegn (T)
Nashota (T)
Winnetou
White Clover*



1787
seeds/m²

14 35
kg/acre kg/ha

20
kg

TET 40%
DIP 53%

LPRG 73%
IPRG 20%
TIM 7%

SPECIALIST MIXTURES

NO.66 DRYLANDER

NEW mixture designed for deep rooting and drought tolerance.

Active8
Treated

- » The ideal silage or even grazing mixture for drought prone situations or where nutrient availability is compromised.
- » If you are in a constant struggle to grow enough grass in drier conditions Drylander could be the solution.
- » Containing a range of high yielding grasses & clovers specially selected for their exceptional rooting capabilities for use where soil moisture & nutrients are inherently lower.
- » Available without red clover

Contains

Festulolium
I PRG (T)
L PRG (T)
Tall Fescue
Cocksfoot
Red Clover



1225
seeds/m²

14 35
kg/acre kg/ha

20 kg
OTHER 70%
TET 22%
RC 8%

NO.67 UPLAND GRAZER

Specialist mixture for extreme conditions

- » 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 of white & 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
Toddrington
Bowie
Cancan
Maxima
Evora
Dolina
Dawn
White Clover



3141
seeds/m²

13 30
kg/acre kg/ha

20 kg
OTHER 37%
IPRG 21%
LPRG 42%

DIVERSE HERBAL LEY

The most productive legume & herb rich mixture

- » A new mixture from ACT which we believe is compliant with both Countryside Stewardship GS4 AND Severn Trent STEPS 029 Diverse Herbal Leys schemes with the 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

Grasses	Legumes	Herbal Flowering Plants
Late Perennial Ryegrass Festulolium Tall Fescue Cocksfoot Timothy Meadow Fescue	Red Clover Birdsfoot Trefoil Alsike Clover	Plantain Sheeps Burnett Sheeps Parsley Yarrow Oxeye Daisy

1927
seeds/m²

12 30
kg/acre kg/ha

20 kg
GRASSES 70%
LEGUMES 20%
HERBS 10%

NO.65 DURABLE PASTURE

The mixture for more extreme conditions

- » Long term mixture with species 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 to withstand extreme conditions
- » Needs to be well established before ground conditions are waterlogged

Contains

Nifty
Nolwen (T)
Toddrington
Cavendish
Fojtan
Promesse
Laura
Donata
Ermo
White Clover



2524
seeds/m²

14 34
kg/acre kg/ha

20 kg
TET 13%
DIP 36%
CLOVER 10%
OTHER 41%

OTHER MIXTURES

NO.37 DOUBLE PROFIT

3-4 Year dual purpose ley

- » Early growing, high yielding dual purpose mixture.
- » Available with or without white clover*.



Contains

Bahial
Genesis
Premium
Diwan (T)
Alfonso (T)
White Clover*

HAYLAGE PRO LT

Long term quality haylage with Timothy

Contains

Genesis
Boyne
Nifty
Toddington
Winnetou

- » A longer term mixture that produces finer forage than Haylage Pro ST.
- » Based on all diploid species and provides high quality haylage or hay.


2226
seeds/m²


14 35
kg/acre kg/ha


20
kg

DIP **86%**
TIM **14%**

IPRG **47%**
LPRG **14%**
OTHER **39%**

NO.50 LONG TERM

Long term for dual purpose

- » Long term dual purpose mixture with Timothy for cutting & grazing by all classes of livestock.
- » Available with or without White Clover*.

Contains

Genesis
Premium
Diwan (T)
Glenroyal
Alfonso (T)
Winnetou
White Clover*

HAYLAGE PLUS ST

A short-term mixture for hay/haylage production.

Contains

Perseus Fox
Perun Alamo

- » Quality hay or haylage from diploid IRG and Festuloliums.
- » Will provide very heavy crops of high quality haylage.
- » Does not contain Timothy


1112
seeds/m²


14 35
kg/acre kg/ha


20
kg

OTHER **43%**
DIP **57%**

IPRG **57%**
FEST **43%**

ORGANIC LEYS

NO. 1 FERTILITY BUILDER

Organic

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


2110
seeds/m²


14 35
kg/acre kg/ha


20
kg

NO. 2 GRAZING MIXTURE

Medium/long term organic grazing

- » The use of late heading grasses with a high percentage of tetraploid cultivars gives increased palatability and drought tolerance
- » Resultant ley gives medium to long term organic grazing
- » White Clover blend helps to maintain soil fertility


1960
seeds/m²


15 37
kg/acre kg/ha


20
kg

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
- » White Clover contributes to nitrogen fixation in the soil


2020
seeds/m²


15 37
kg/acre kg/ha


20
kg

NO. 4 GENERAL PURPOSE MIXTURE

Quality organic grazing and conservation

- » 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


2730
seeds/m²


15 37
kg/acre kg/ha


20
kg



NO. 5 HERBAL GRAZING MIXTURE

A mixture in the ACT range based on our No. 2 Grazing Mixture but enhanced with chicory and plantain.


2400
seeds/m²


15 37
kg/acre kg/ha


20
kg

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

MAIZE VARIETIES FOR 2021



GLORY KORIT® PRO

For starch production

- » FAO 170 (Mat Class 10)
- » Remains a firm favourite due to reliable yields from an early harvest
- » Very high starch content & digestibility produces superb forage
- » Suitable for all sites and has shown to produce high yields of quality forage whatever the season

Maturity Class	10
FAO	170
DM Yield	17.5 t/ha
Starch Yield	6.1 t/ha
ME Content	11.8 MJ/ME

All maize varieties contain Korit seed treatment as either Initio Bird Protect or Korit Pro

KWS EXELON **NEW**

The new high yielding variety to which others will compare!

- » KWS EXELON brings added stability in field performance to the early forage segment, thanks to its lower ear insertion height. It has superb grain density leading to high starch yields.
- » Destined to be 1st choice variety on BSPB/ NIAB 2021 Forage Maize list.
- » High grain:stover ratio for energy dense silage
- » Excellent Early Vigour on all soil types.

INITIO BIRD PROTECT



Maturity Class	10
FAO	170
DM Yield	18.4 t/ha
Starch Yield	6.93 t/ha
ME Content	11.7 MJ/ME



ARTIKUS **NEW**

Very Early for rocket fuel silage!

- » Top DM yield in Ultra Early class - across all NIAB trials.
- » Excellent Early vigour
- » Full cob sheath coverage
- » Superb kernel content and ripening stability
- » For best results do not sow late.



Maturity Class	10
FAO	160
DM Yield	17.9 t/ha
Starch Yield	6.26 t/ha
ME Content	11.88 MJ/ME

INITIO BIRD PROTECT

DIGNITY **NEW**

Top quality, high yielding maize from an early harvest!

- » Very early maturing delivering an excellent result in a short growing season
- » Medium height with good early vigour
- » High starch content and good ME yields, great for grass silage based diets
- » Excellent yield comparable to some later maturing varieties
- » Expected to be listed as First Choice when it appears on the BSPB/NIAB List



KORIT® PRO

Maturity Class	10
FAO	160
DM Yield	19.1 t/ha
Starch Yield	6.05 t/ha
ME Content	11.7 MJ/ME



OTHER VARIETIES

AMBITION

- » FAO 190 (Mat Class9)
- » Combines high DM yield with improved cell wall digestibility, to deliver high ME yields
- » High starch yield ensuring quality silage in all situations.

KORIT® PRO

EMMERSON

- » FAO 150 (Mat Class 12)
- » THE maize to choose for early harvest from standard sowing or standard harvest from a late sowing.
- » A good choice if following with a cereal crop.

KORIT® PRO

UNDERSOWING

UNDERSOWING OF MAIZE WITH GRASSES

Undersowing of grass early after maize establishment gives an opportunity for a short-term forage crop to help extend the forage platform & to help build resilience into your soil and help reduce the risk of soil erosion.

RECOMMENDED SOWING INFORMATION

Sowing rates are much less than a reseed as you are not sowing the whole area and do not need the same high ground coverage.



Maize Stage	Sowing Rate	Mixture	Species
4 leaves	4-6 kg/ha	ACT AfterMaize	Italian Ryegrass
6 leaves	4-6 kg/ha	ACT RapidGrass	Westerwold / Italian Ryegrass
8 leaves	6-8 kg/ha	ACT TerraMaize	Festuloliums & IRG



BENEFITS OF UNDERSOWING

1 - GOOD ENVIRONMENTAL PRACTICE

Undersowing maize crops with grass helps prevent soil erosion and the loss of valuable nutrients over the winter months.

Established undercover biomass will help improve ground conditions in a wet harvest.

2 - OPTIMISING LAND FOR EXTRA PRODUCTION

An under sown crop of grass can be grazed by livestock over the winter.

There is the chance it could be cut for silage the following spring depending upon the soil conditions.

USE OF STARTER FERTILISERS IN MAIZE

Starter fertilisers offer many advantages. Phosphate is essential for seed germination and establishment. It is not mobile in the soil solution and therefore needs placing next to the seed. This helps to develop root mass so that the plant can then find the other soil nutrients that result in optimum yield ie potassium & nitrogen

More efficient use the nutrients in starter fertilisers benefits the environment through reduced risk of leaching.

BENEFITS OF USING A STARTER FERTILISER

1. Maize is a 'lazy rooter' a starter fertiliser helps establishment .
2. Available Phosphate assists root development
3. Micronutrients Zinc, Boron and Manganese create early plant development ensuring:
 - » early vigour
 - » early tasselling
 - » earlier grain maturity
 - » enhanced DM yields

ACT offer two products:

Micro-Granular Umostart

Granular Maxi-Maize



Image above shows maize crop sown with and without a starter fertiliser.



Maize grown without starter fertiliser.



Maize grown with starter fertiliser.

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				
		Low Dry Matter %	Medium Dry Matter %	High Dry Matter %	Very High Dry Matter %
Dry Matter of Root		11 – 13	14 -16	17 – 20	20-23
% Root in Ground		40 - 50	55 - 65	65 - 75	75+
Variety		Feldherr, Jamon	Bangor, Blaze, Robbos, Kyros	Enermax, Magnum	Brick, Tadorne
Harvest/Utilisation method		Graze or Hand Lift	Graze or Lift	Lift	Lift
Feeding		Whole or Chopped	Whole or Chopped	Chopped	Chopped
Dry Matter Yield					
Fresh Yield					
Storage Capability					
Dirt Tare					

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 & fed.

Feldherr	Jamon
» One of the highest yielding fresh weights from a fodder beet. Ideal for sheep or cattle.	» 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)	Kyros (Force Treated)
» New yellow skinned beet with high yields. High proportion of beet above ground and has very uniform smooth beet making it a very flexible grazing and lifting type.	» Robbos is ideally suited for first time fodder beet growers. » Clean yellow roots are easily harvested. » Available with primed seed.	» Blaze has the potential to produce excellent dry matter yields with very clean, bright red roots. » Low dirt contamination ensures high intakes.	» Good palatability make Kyros an ideal grazing beet for dairy, cattle or sheep.

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 » Shallow rooting resulting in cleaner roots, particularly important for dairy. » Rhizomania tolerant.	» Remains a popular choice as it's a consistent performer. » Uniform sized, white-roots of high DM content. » Good resistance to rust.	» A white rooted variety » Bred especially for AD, with very excellent DM yields. » High DM content reduces clamp losses & enables the beet to be stored for longer. » Rhizomania resistant.	» High yielding variety for growers looking to produce a high-quality feed with a higher DM content %. » Brick is a true fodder beet that delivers very high dry matter yields. » 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.

Organic version available.

60% Barley + 40% Pea	60% 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	Barley/Oats + Peas + Vetch
A bulky mixture based on a barley/oat/pea mixture giving good palatability as well as reasonable protein.	A full spectrum of options with this mixture but the harvest date needs to be carefully managed



BENEFITS OF WHOLECROP SILAGE

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

- » Yields of 12-13 DM tonnes/ha (5 DM tonnes/acre) can be expected if you get the crop established well @ 45% DM
- » 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
- » 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.

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

MANAGING YOUR WHOLECROP

If you have poor grass growth and maize looks good:	If you have good grass stocks and maize looks poor:
<ul style="list-style-type: none"> » Cut the wholecrop earlier in the season for higher digestible fibre » If grass is wetter then cut later for a drier feed. 	<ul style="list-style-type: none"> » Harvest later to increase starch in feed.

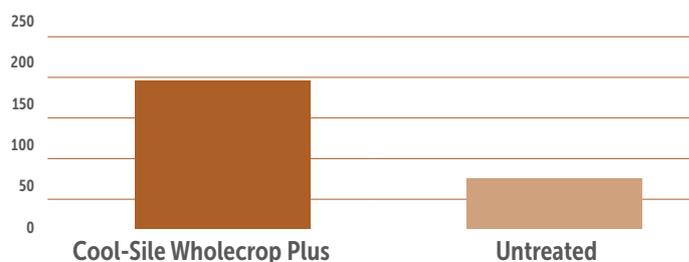
In each case base your harvest decisions on the dominant crop at harvest, or contact the ACT forage team to discuss.

WHOLECROP ADDITIVES

Wholecrop silages are a unique challenge for preservatives. The combination of aerobic spoilage control with potentially difficult fermentation from a high legume content.

Cool-Sile Wholecrop Plus uses appropriate bacteria to ensure a rapid and efficient fermentation and preservative salts to control aerobic spoilage. The result is cool stable silage which maximises animal performance.

Time taken for silage temperature rise 3 degrees above ambient



In trials Cool-Sile Wholecrop Plus showed an extra 5.7 days stability compared to untreated wholecrop silage.

Cool-Sile Wholecrop Plus is available in 200L barrels and 1000L IBCs and is applied at 1 Litre per tonne.



LEGUME FORAGE CROPS

In recent years there has been a resurgence in growing the legumes Red Clover and Lucerne as forages for the additional benefits in yield, protein content, low N use, drought tolerance and improved soil structure. They are particularly suited to the drier areas of the UK.

RED CLOVER

Red Clover is capable of up to 5.5 tonnes/acre in its first year, with yields of 2.0 tonnes at first cut.

BENEFITS

- » Suited to most soils but especially beneficial on drier soils.
- » Very high yield potential and good drought tolerance due to deep roots.
- » Good to grow in mixtures with many grasses adding ± 3 t/ha/year DM to grass leys
- » High protein content 18-22% which does not degrade when ensiled.
- » Good aerobic stability of the silage when grown with grasses.
- » Excellent crop for late summer and autumn lamb grazing - care should be taken when grazing breeding ewes on Red Clover at tugging time.
- » Potential for up to 150 kg N/ha/year and with excellent soil improving properties.
- » Important to protect the crown so don't cut too low and allow to flower each year – especially in 1st harvest year.

ACTION RED CLOVER BLEND

A equal blend of the varieties **Amos**, **Magellan** and **Sangria**.

AMOS

A tetraploid red clover with high protein % and very good 1st cut DM yields in the 1st harvest year with good ground cover.

MAGELLAN

Tetraploid red clover that has high total annual yields combined with excellent protein content. It is noted for its outstanding total DM yields and ground

SANGRIA

Excellent total yields throughout the year especially first cut. Good resistance overall and especially Sclerotinia giving it great persistence .



LUCERNE

Lucerne performs well on a range of soil types so long as they are free draining and non-acidic at depth. Lucerne is most suited to the in drier areas and lighter soils. Leaf disease can limit yield and quality in high rainfall areas especially at 1st cut.

ESTABLISHMENT - SOWING

Lucerne needs to be well established before the onset of winter so sowing in late spring or early summer is ideal. The latest safe sowing date would normally be mid- August.

SOWING OPTIONS

Whether under sowing or direct seeding, lack of weed control options result in a weeds competing with the establishing Lucerne plants. It is recommended you undertake 'Stale Seedbed' techniques to limit weeds.

Though reliant on adequate soil moisture, Lucerne can be successfully sown after 1st or 2nd cut silage. Sowing following wholecrop cereals is ideal. Avoid sowing post winter barley as a grain crop as there can be problems with volunteer barley smothering the Lucerne before the crop is established.

Normally seed comes pre-inoculated.



VARIETIES

There are different types of Lucerne the Mediterranean type are not suited to Northern Europe as their dormancy is not low enough and so winter hardiness is inappropriate for our colder climate.

The ideal dormancy is at 4.0

GALAXIE

- » Exceptional yields
- » Good disease resistance
- » Cold tolerance for northern European climates
- » Dormancy 4.1

MILKY MAX

- » Excellent dormancy at 4.6
- » Highest DM yields in trials.
- » Very good nematode resistance
- » Very vigorous at end of winter

DAISY

- » High stable yields
- » High protein content
- » Good leaf/stem ratio
- » Dormancy group 4
- » Excellent winter hardy
- » Good persistence

MARSHALL

- » Very high dry matter yields.
- » Adapted to UK conditions
- » Thinner stems so very palatable.



COUNTRYSIDE STEWARDSHIP GRANTS

ACT can supply a full range of seed mixture for all Countryside Stewardship options, some of which are listed below.

Stewardship and environmental schemes are taking on a more important role in farm business planning with the ELMS schemes encouraging a wider interest in establishing these crop areas.

Whether you want to use an off the shelf mixture or wish to create a bespoke mixture to your own specifications we have a full range of mixtures and species available for you.

We can also supply mixtures for water company schemes such as Severn Trent STEPS schemes. Alternatively we can supply mixtures for producing game covers that will produce excellent cover for up to two years.

AB8 Flower-Rich Margins and Plots



Flower Rich Margin



AB15 Two-Year Sown Legume Fallow



Legume 2



AB1 Nectar Flower Mix Scheme



Bee Mixture



AB9 Winter Bird Food



2 Year Winter Bird Food
Bird Feeder



AB16 Autumn Sown Bumblebird Mixture



Bumblebird Mixture



GS4 Legume and Herb-Rich Swards



ACT Diverse Herbal Mixture



Please check the Defra website for up to date terms and conditions.

GRAZING BRASSICA CATCH CROPS

MAIN SEASON FORAGE CROPS - SOWING & UTILISATION TIMINGS

	Sowing rate kg/acre		Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	
	B	DD												
Forage Rape	B	1.5 - 2.5					Approx 115 days to grazing							
	DD	1.0 - 2.0												
Kale x Rape Hybrid	B	1.5 - 2.5					Approx 125 days to grazing							
	DD	1.0 - 2.0												
Stubble Turnip	B	1.5 - 2.5					Approx 90 days to grazing							
	DD	1.0 - 2.0												
Autumn Keep/ Rapid Root	B	1.5 - 2.5					Approx 90 days to grazing							
	DD	1.0 - 2.0												
Meatmaker/ WinterGraze/Zoom	B	1.5 - 2.5					Approx 125 days to grazing							
	DD	1.0 - 2.0												
Extenda-Graze	B	8.0 - 10.0					Approx 60 days to grazing + 30 days repeat grazing							
	DD													
Fodder Beet	42,000 - 50,000		Approx 170 days to maturity											
Kale	B	1.5 - 2.5					Approx 160 days to grazing							
	DD	0.8 - 2.5												
Swede	B	0.75 - 1.25					Approx 160 days to grazing							
	DD	0.5 - 1.0												
Maincrop Turnip	B	0.75 - 1.25					Approx 120 days to grazing							
	DD	0.5 - 1.0												
Mustard	B	5.0 - 6.0					Approx 60 days to grazing							
	DD	4.0 - 5.0												
Forage Rye	50 - 60						Approx 55 days to grazing							

B - Broadcast DD - Direct Drilled

Sowing

Grazing

SWEDES

Swedes prefer a cool moist climate, e.g. west and northern areas of the UK. The winter hardiness of swedes makes them suitable for the coldest sites.

INVITATION

A very uniform club root resistant variety, ideal for utilisation after Christmas. Invitation also has excellent resistance to powdery mildew.

GOWRIE

A very uniform club root resistant variety, ideal for utilisation after Christmas. Gowrie also has excellent resistance to powdery mildew.

LOMOND

A very uniform club root resistant variety, ideal for utilisation after Christmas. Lomond also has excellent resistance to powdery mildew.

TRIUMPH

A very uniform club root resistant variety, ideal for utilisation after Christmas. Triumph also has excellent resistance to powdery mildew.



SOWING & UTILISATION

Dry Matter	10 - 13%
Cost per ha	£403/ha (£163/acre)
Cost per tonne utilised dry matter	£62
Cost per tonne fresh weight	£5

Direct Drill	1.0 kg/acre (3kg/ha)
Precision Drill	350g - 850g/ha
Broadcast	2kg / acre (5.0kg/ha)
Optimum Sowing Period	Mid April - Late May
Utilisation	80-130 days (Late Sep-Jan)
Average Dry Matter Yield	7-10 DM tonnes/ha
Average Fresh Yields	70 - 90 tonnes/ha

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 & 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 a large pink tankard shaped roots
- » Bolting resistance is good so can be sown spring for summer grazing
- » Untreated seed
- » Pack size 10kg and 25kg



BARKANT

A proven and reliable stubble turnip

- » A very winter hardy turnip
- » High yields of purple tankard shaped roots that is palatable by both sheep and cattle
- » Untreated seed
- » Pack size 10kg and 25kg



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
- » Untreated seed
- » Pack size 5kg



DELILAH

Ideal for finishing lambs

- » Huge white tankard shaped bulbs with very high dry matter yields and good root to leaf ratio
- » Disease resistance is very good
- » Untreated seed
- » Pack size 5kg



SAMSON

Sweet tetraploid tankard shaped roots

- » Produces large tankard shaped roots which are palatable for cows and sheep
- » Shown to be a preferential grazer leading to higher intake and growth rates
- » Untreated seed
- » Pack size 5kg and 25kg



TYFON

Fast growing leafy brassica

- » A variety undergoing a resurgence as it can be ready for grazing after 8-10 weeks
- » A cross between Chinese cabbage and stubble turnip, it has very good frost resistance
- » Untreated seed
- » Pack size 5kg and 25kg



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
- » Untreated seed
- » Pack size 5kg



AVALON LEAFY TURNIP

Fast growing leafy brassica

- » Avalon is a very leafy brassica that can be sown in spring or autumn and is ready for grazing in just 6-8 weeks
- » Untreated seed
- » Pack size 10kg and 25kg

FORAGE RAPE - KALE/RAPE HYBRIDS

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.

SOWING & 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



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.
- » Untreated seed
- » Pack size 10kg and 25kg



INTERVAL

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.
- » Untreated seed
- » Pack size 5kg and 25kg



RAMPART

High feed quality and grazing flexibility

- » Bred with feed quality enhancements and high yield potential.
- » Excellent winter hardiness giving flexibility when grazing crops.
- » Untreated seed
- » Pack size 5kg and 25kg



UNICORN

High quality kale/rape hybrid

- » A new 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.
- » Untreated seed
- » Pack size 5kg and 25kg



HOBSON

Ideal for finishing lambs

- » Fully proven on livestock farms throughout the UK.
- » Ideal for finishing lambs with good winter-hardiness and disease resistance
- » Untreated seed
- » Pack size 5kg and 25kg



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 that can also provide good cover for holding, driving and feeding game birds
- » Untreated seed
- » Pack size 10kg and 25kg



REDSTART

Rapidly establishing catch crop

- » Rapidly establishes and can be ready for grazing in 8 weeks to mature
- » High quality with good yields and the potential for multi grazings.
- » Untreated seed
- » Pack size 5kg and 25kg



SWIFT

Widely grown Kale/Rape hybrid

- » Has extra vigour & winter hardiness, which is ideal for late sowing and is suitable for multi grazing
- » Can be used for game cover
- » Do not sow too early to reduce bolting risk
- » Untreated seed
- » Pack size 5kg and 25kg

CATCH CROP 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.

SOWING & 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
- » Untreated seed
- » Pack size 5kg



ZOOM

Vigorous and quick growing mixture

- » Blend of Winfred hybrid brassica and forage rape
- » Ideal for replacing failed crops or patching spring sown crops
- » High leaf to stem ratio crop using carefully selected varieties with good disease and bolting resistance
- » Sow at 2kg per acre
- » Untreated seed
- » Pack size 5kg



AUTUMN KEEP

A quality crop with good disease resistance

- » Very fast establishment for autumn use
- » Autumn Keep will produce quality grazing in 10-12 weeks
- » Sow at 2kg per acre
- » Contains:
 - 40% Forage Rape
 - 20% Stubble Turnip Samson
 - 30% Stubble Turnip Rondo
 - 10% Kale
- » Untreated seed
- » Pack size 25kg



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
- » The forage rape helps to protect the stubble turnips during a frost
- » Sow at 2kg per acre
- » Contains:
 - 60% Stubble Turnip
 - 35% Forage Rape
 - 5% Kale
- » Untreated seed
- » Pack size 5kg



EXTENDA-GRAZE

A versatile catch crop for sheep or cattle

- » A mix of Italian Ryegrass and Forage Rape
- » Used for grazing in the summer/autumn, followed by either spring grazing and/or a silage cut
- » IRG will not head in 1st year will give quality grazing of leafy lush grass
- » Sow at 8-10kg per acre
- » Contains:
 - 25% Fox Italian Ryegrass
 - 50% Alamo IRG
 - 25% Forage Rape
- » Untreated seed
- » Pack size 20kg



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
- » Untreated seed
- » Pack size 2kg

GREEN MANURING 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. assive 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.
Oats + Vetch	Similar characteristics to Rye + Vetch however can be used where Take-all 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.
Oil Radish + Kale Mustard Hybrid + Mustard	Mixture specifically designed for biofumigation prior to potatoes and contains species with high levels of isothiocyanates. Very fast to establish and easily chopped and incorporated. Different rooting depths help penetrate tight soils.
Brown Mustard + Tillage Radish	Another biofumigation mixture ideal for using in front of a potato crop.
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.
IRG + Red Clover	Grass + Red Clover has been a staple in fertility building for centuries, this mixture is a modern variant on that. High biomass production from the IRG with nitrogen fixing from the clover. Will help stabilise soil surfaces once established. Mixture can be undersown into a cereal crop. Can be incorporated, grazed or taken as a silage cut.

Our standard range of Cover and Catch Crops and their suggested uses is below, however we can create bespoke mixtures using any of the species listed on the page opposite and several more not listed. Please ask your ACT Area manager for details.

<p>Top Green 80% Rye 20% Vetch Sow at 50kg/ha</p>	<p>Sow Green 80% Oats 20% Vetch Sow at 50kg/ha</p>		<p>MaizeOn 70% Forage Rye 15% Vetch 10% Tillage Radish 5% Phacelia Sow at 40-50kg/ha</p>
<p>Cover Green 60% Rye 30% Vetch 10% Mustard Sow at 40-50kg/ha</p>	<p>Soil Plus 70% Rye 20% Vetch 10% Oilseed Radish Sow at 40-50kg/ha</p>		<p>Pretato 80% Brown Mustard 20% Tillage Radish Sow at 7-10kg/ha</p>

GREEN MANURE/COVER CROP SPECIES



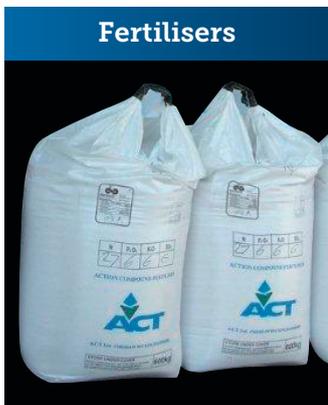
<p>Forage Rye Excellent weed suppression and high biomass. N and K lift and hold. Increase organic matter in soil. Quick to establish so can be sown later. Often sown with Vetch as a cost effective cover crop. Sow at 60kg/ha</p>	<p>Oats Excellent weed suppression due to Allelopathy. NandK lift and hold and increases 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</p>
<p>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</p>	<p>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</p>
<p>Black Oats Very quick establishment for good weed suppress as also allelopathic. N and K lift and hold/ Variable frost susceptibility/ Increases organic matter. Sow at 40kg/ha</p>	<p>White Mustard Excellent biomass and so increases organic matter Superior weed suppression. Also traps N and K in growing crop. Produces isothiocyanate giving biocidal effects against weeds and pests. Some nematode activity. Sow at 12kg/ha</p>
<p>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</p>	<p>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</p>
<p>Oil Radish Standard Deep root soil conditioner, plus high biomass so increases soil organic content and good weed suppressant. Traps N and K. Produces high levels of isothiocyanate for biofumigation + some nematode control. Most oilseed radish exhibit club root resistance. Sow at 12kg/ha</p>	<p>Oil Radish Class 1 Offers the best of beet cyst nematode control Oil Radish Class 2 Significantly reduces beet cyst nematodes.</p>
<p>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</p>	<p>Phacelia Excellent disease break crop/ insect attractant, hover flies eat aphids. Breaks down quickly for C, P, K and Mg. Sow at 6kg/ha</p>
<p>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</p>	<p>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</p>
<p>Vetch Excellent nitrogen fixer especially if drilled early, very compatible with rye/oats. Spring and Winter vetch options are available. Sow at 40kg/ha</p>	<p>Red Vetch Quick growing high biomass option. A more frost susceptible vetch option. Sow at 40kg/ha</p>
<p>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</p>	<p>Lucerne Can be slow to establish but capable of fixing nitrogen. Not ideal for late drilling. Sow at 20/kg/ha</p>
<p>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</p>	<p>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</p>

ACTION

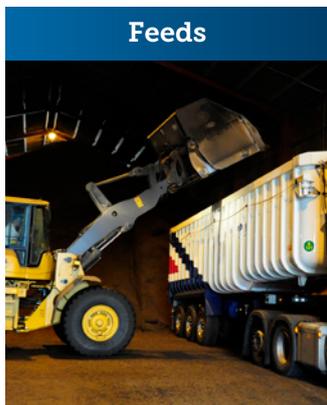
FORAGE SEED GUIDE 2021

ACT operates throughout England, Scotland and Wales from Shetland to the Scilly Isles

Fertilisers



Feeds



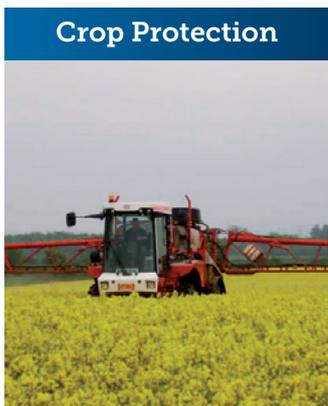
Fuel



Seeds



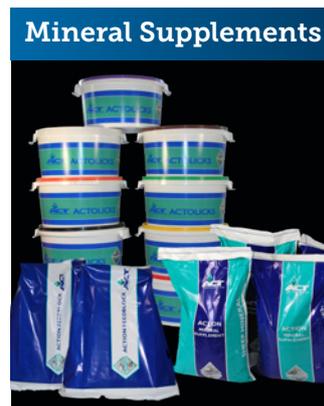
Crop Protection



Animal Health



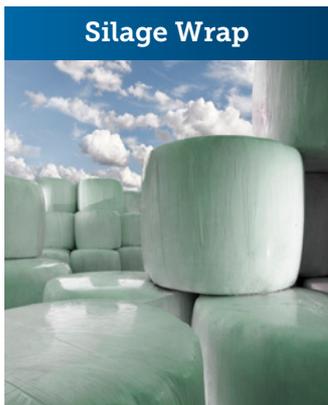
Mineral Supplements



Silage Additives



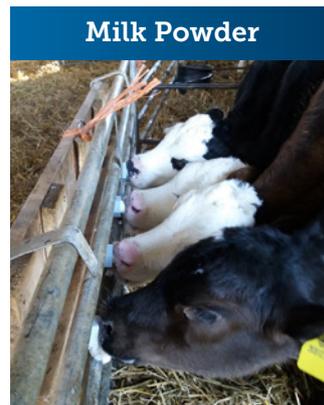
Silage Wrap



Dairy Chemicals



Milk Powder



Lubricating Oils



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