



agrovista
seeds



Grass seed mixtures

2024
season

growing through
innovation

2022 and 2023 have been years of extremes, 2022 being one of the hottest driest years on record and 2023 one of the wettest.

There can be no doubt that we are all now living with the effects of climate change and the need to mitigate the challenges created by these weather extremes has never been more important. For livestock farmers the ability to grow enough good quality forage is a key determinant of enterprise efficiency and so having future proof leys that are able to thrive in changing climatic conditions can reduce production costs and offer some very welcome peace of mind.

As the person responsible for producing the TechniSward range of grass seed mixtures I am in the rare and very fortunate position of being able to source the very best varieties available from all the major seed breeders and put them into one bag. This means that every mixture we sell is as technically correct for its intended use as possible.

For the most part the TechniSward range of grass leys contain only the top varieties from the BSPB/AHDB recommended lists, the SRUC Scottish lists and the Teagasc PPI index. However, through working closely with the seed breeders we are sometimes able to identify varieties that have particular desirable trait but, for one reason or another, do not appear on the recommended list. Where we use non listed varieties in our mixtures it is always for their ability to bring desirable traits to the mixture,

and never to reduce the price at the cost of performance as is the case with some of our competitors.

Quality and innovation are at the forefront of our mixtures, and we are proud to support the SRUC via the levy payment and the British Grassland society through corporate membership. TechniSward grass mixtures combine varieties with high fibre digestibility and high sugar to ensure maximum animal performance, and make use of the latest grass breeding innovations to produce a sward that will stand up to the rigours of an increasingly unpredictable climate.

At Agrovista we believe that growing quality forage crops starts with the soil and no other company is better placed to be able to advise on all aspects of soil health, mixture selection, crop nutrition and agronomy. In addition, our highly experienced rural consultants can help you tailor your farming operations around other land use considerations, including Countryside Stewardship and the Sustainable Farming Incentive.



NIGEL STORER
Forage and Environmental Seeds
Technical Manager

Please contact your local Agrovista agronomist or email enquiries@agrovista.co.uk for further details.



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The technology behind TechniSward

TechniSward grass seed mixtures combine the top varieties from the UK's recommended grass and clover lists to produce swards with outstanding production and quality traits. The ability to pick the best varieties from all the leading seed breeders means that quality is never compromised.

Balance is the key to producing seed mixtures that work well in the field and the rumen. Using varieties that contain higher levels of water-soluble carbohydrates (sugars), allows the rumen bacteria to convert more of the plant protein into meat and milk, meaning less protein is wasted, resulting in improved performance and lower ammonia and methane emissions.

Cell wall components contain up to 60% of the energy found in a grass plant, and it is for this reason that Ruminants developed their multi chambered digestive tract, enabling them to make use of cell wall carbohydrates, something no other mammal can do. Using grass varieties that exhibit greater cell wall digestibility means that much more of the plant's energy is available for rumen fermentation.

The combination of high sugar and available cell wall carbohydrates make TechniSward grass leys some of the most productive, cost effective and environmentally friendly options available.

In an age when environmental responsibility is as important as food security, being able to produce sustainable, energy and protein rich food for a growing population from grasses and legumes that we ourselves cannot eat, and often from ground, upon which we cannot grow food crops for human consumption makes perfect sense.

Added to this grasses and forage legumes are also very good at recycling and storing carbon, removing greenhouse gasses from the environment, and helping to combat climate change.

Festuloliums

A festulolium is a type of intergeneric hybrid that possesses a wider range of agronomic traits than traditional interspecific hybrids.

The word festulolium comes from the Latin names for fescue; *Festuca* and ryegrass; *Lolium*. The parent plants of a festulolium can be any ryegrass crossed with any type of fescue. The most common crosses are between Italian or perennial ryegrass and meadow fescue or tall fescue.

The resulting hybrids demonstrate:

- Greater stress tolerance
- Deeper roots
- Improved disease resistance
- Higher yields (up to 3 tonnes more DM per year compared to the parent ryegrass)
- Higher levels of hybrid vigour



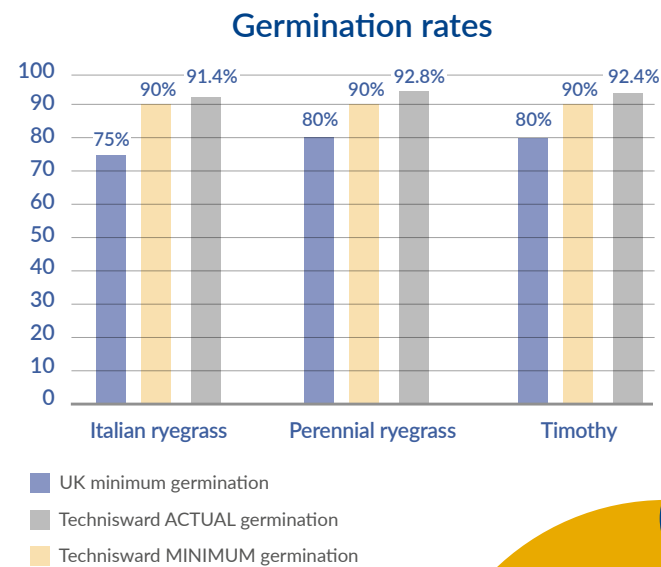
The combination of high sugar and available cell wall carbohydrates make TechniSward grass leys some of the most productive, cost effective and environmentally friendly options available.



Seed quality

All seed varieties used in TechniSward grass mixtures are produced to the very highest standards, far exceeding the HVS minimum standards for germination and weed seed contamination.

Each variety and mixture has been submitted to extensive trial work before being chosen, and almost all varieties in TechniSward mixtures are listed on the BSPB recommended list and SRUC list for Scotland.



TechniSward mixtures could contain up to 1 million more viable seeds per acre compared to the government minimum standard

Reseeding pays

Research has shown that increasing the proportion of the farm reseeded each year increases the annual grass yield across the total forage area with farm profitability running in line.

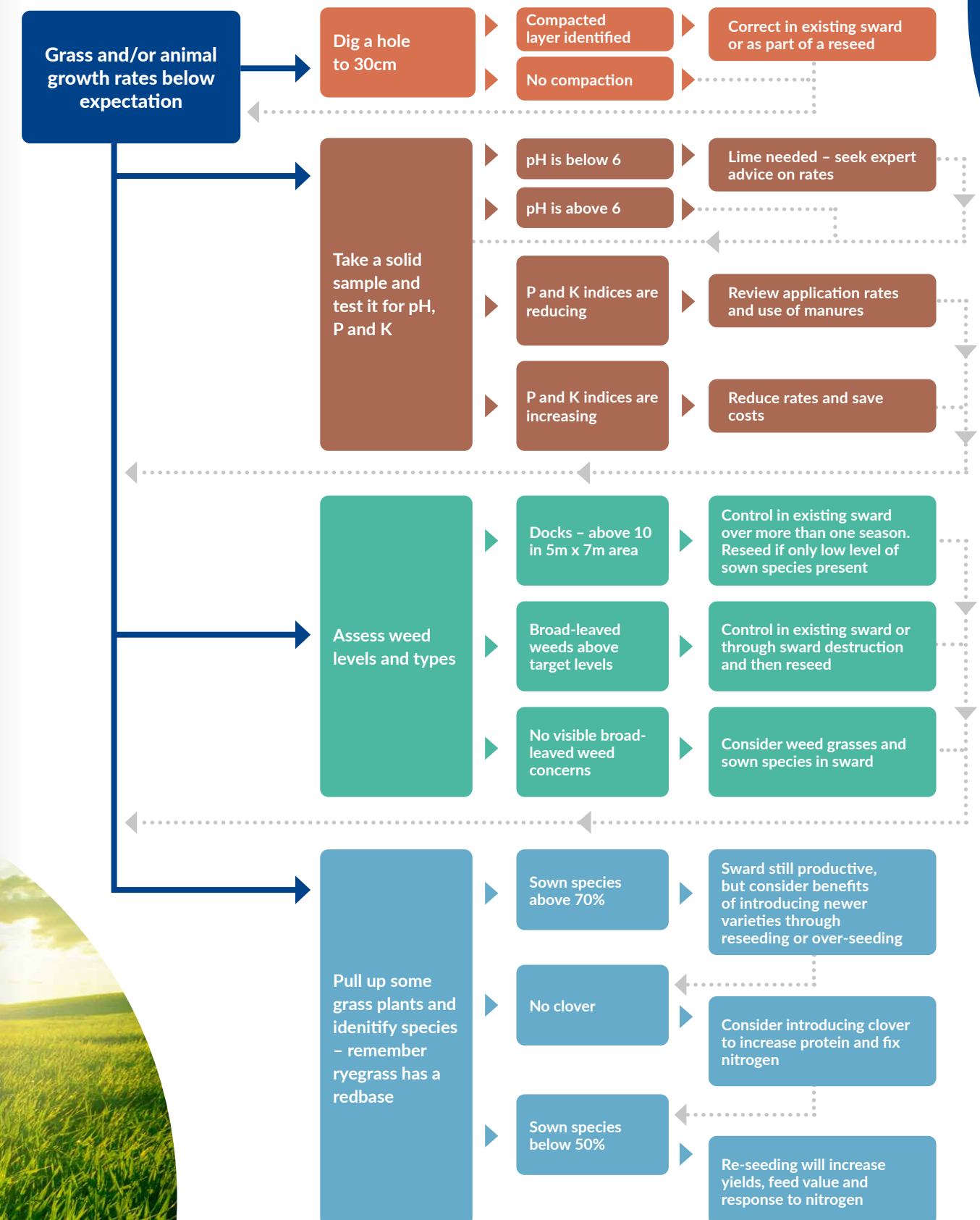
In addition to the yield enhancements associated with a reseed, new leys perform better. Utilisation is greater and nitrogen use efficiency is also improved.

Each year new grass varieties find their way onto the recommended grass and clover lists. These new varieties have, on average, taken 18-20 years to come through the breeding and trials process and represent significant genetic improvements compared to the varieties that they replace. Using genetics to increase production rather than throwing more fertiliser at tired and unresponsive swards can represent significant cost savings.



Deciding if a reseed is needed

Pasture improvement flow chart



Overseeding

Key benefits

- Cost effective solution where a short-term boost to production is needed
- Enables rejuvenation of worn-out pastures where ploughing is not an option
- Effective means of establishing clover into a sward after weed control has been carried out
- Overseeding clover into an existing sward could be eligible for the SFI NUM2 action

Overseeding, or “stitching in” of a new ley into an old sward can bring multiple benefits.

Over time swards naturally lose their vigour and become open in the bottom. This space is quickly taken up with weed grasses and broad-leaved weeds reducing the productivity of the sward.

Overseeding offers a cost-effective solution without the short term loss of production or cost associated with a complete reseed.

Key benefits

- Cost effective solution where a short-term boost to production is needed
- Enables rejuvenation of worn-out pastures where ploughing is not an option
- Effective means of establishing clover into a sward after weed control has been carried out

Introducing clover

Clover safe sprays are now virtually non-existent meaning that reseeding with a mixture containing clover can be problematic. Introducing clover into a new ley by overseeding after weed control has been carried out is a cost effective and practical solution to this problem and could make the ley eligible for the SFI NUM2 action worth £102/ha.

Typically, overseeding white clover at 1.5kg/acre will provide sufficient clover in the established sward to boost protein yield, increase dry matter intakes and provide up to 180kg/ha of nitrogen.

Red clover seeds are almost twice the size of white clover and so a more robust seed rate of around 3kg/acre is needed to produce a suitable plant population.

Establishment

The key to success with overseeding is achieving a good seed to soil contact and reducing competition from existing grasses. Therefore, the optimum time for overseeding is in mid-summer when grass growth slows, as long as moisture is present. Overseeding earlier than this will mean that existing grasses will be growing more vigorously and will compete with the emerging seedlings for light, space, and nutrients.

As with a complete reseed, pH and P & K requirements should be met. pH should be a minimum of 6 and

ideally 6 to 6.5. P & K should be at index 2 or above. Nitrogen should not be applied until the seedlings are well established at around 4 to 6 weeks. Applying nitrogen prior to this will lead to excessive growth in the existing grasses and weeds which will compete with the emerging seedlings.

Overseeding immediately after a defoliation, either by cutting or grazing but not topping is advised and scarification to remove thatch and shallow rooted weed grasses is also highly beneficial.

Use of a tined grass harrow for scarification will also produce a fine surface tilth where soil is exposed. If overseeding into an old permanent pasture, effective scarification is essential, and excessive amounts of removed thatch should be gathered up and removed from the field where possible.

Specialist overseeding drills are now widely available and are by far the best means of establishment, though a grass harrow with an air seeder attached can do a good job in optimum conditions, especially with clover seed. Heavier cereal disc drills can be used successfully but care must be taken not to place the seed too deep. 1cm to 3cm is deep enough and anything deeper than this can reduce seedling viability especially if moisture is in short supply.

If using a cereal drill, sowing at half rate, and using two passes at 45° to each other is recommended to ensure a dense sward is achieved. Rolling, ideally with a ring roller is a must with all establishment methods to ensure good seed to soil contact.

Livestock can continue to graze after sowing thus reducing competing grasses as well as helping to tread the seed in. Upon seedling emergence stock must however be removed or they will take out the emerging seedlings. Sheep or cattle can be used but care needs to be taken with sheep as they will graze too low if left in for too long and will nibble off the emerging seedlings at or near soil level.

Grazing lightly after 4-5 weeks can encourage the seedlings to tiller but care should be taken not to graze too hard. Grazing at this point with cattle can rip up the new seedlings if roots are not well established.

TechniSward Multi-purpose overseeding mixture



- TechniSward multi-purpose overseeding mixture has been designed to provide a three to four year boost to production and is suitable for grazing, long term cutting and multi-use leys.
- For short term cutting leys TechniSward Turbo charge is a more cost effective solution.
- Optimum sowing rate 10 kg/acre (25kg/ha)

30% Lofa *Festulolium*

35% Seagoe *Tetraploid intermediate perennial ryegrass*

35% Nashota *Tetraploid late perennial ryegrass*



TechniSward Clover blends



- TechniSward clover blends can be added to any grass mixture or be used for overseeding into new leys following weed control or for boosting clover content in existing swards

White clover blends	Grazing	Dual purpose	Cutting
Small	54%	27%	-
Medium	46%	23%	-
Large	-	30%	60%
Very large	-	20%	40%

Red clover blend	
Diploid	70%
Tetraploid	30%

Mixture selector

Mixture	Page	Cutting	Grazing	Duration (years)	Clover options	Organic version available
Catch crop	13	✓✓✓✓	✓	1-2		✓
Turbo charge	13	✓✓✓✓		2-3	Red 15%	✓
Multi-cut plus	14	✓✓✓✓		4-5	Red 22%	✓
Super cut	14	✓✓✓✓	✓	4-5	Red 20%	✓
Endurance	15	✓✓✓✓	✓✓✓✓	5	White 7%	✓
High hill	15	✓✓✓	✓✓✓✓	5+	White 6%	✓
Haymaker	16	✓✓✓	✓✓✓✓	6		✓
Haylage	16	✓✓✓✓	✓	6		✓
Dual purpose	17	✓✓✓	✓✓✓✓	5+	White 6%	✓
Cut and graze	17	✓✓✓✓	✓✓✓	6+	White 6%	✓
HS Dual purpose	18	✓✓✓	✓✓✓✓	5+	White 6%	✓
HS Intensive graze	19	✓✓	✓✓✓✓	5+	White 7%	✓
Long term	20	✓✓✓	✓✓✓✓	6+	White 6%	✓
Early bite	20	✓✓✓	✓✓✓✓	6+	White 7%	✓
Flood prone	21	✓✓✓	✓✓✓✓	5+		✓
Drought prone	21	✓✓✓	✓✓✓✓	5+	White as standard	✓
Herbal mixtures	24	✓✓	✓✓✓✓	3+		
MeadowMax	25	✓✓	✓✓✓✓	6+		
Maize undersowing	27	✓	✓✓✓	0.5-3		
Horse paddock	29	✓✓	✓✓✓✓	6+		
Herbal horse paddock	29	✓	✓✓✓✓			
Forage crops	31-32		✓✓✓✓			
Amenity mixtures	33					



Standard grass seed mixtures

- Key benefits**
- TechniSward standard grass seed mixtures are premixed meaning that delivery lead times are shorter than with bespoke mixtures
 - Mixtures designed to fit most situations, eliminating the need for more costly bespoke mixtures
 - Tried and tested over time meaning complete reliability

TechniSward Catch crop

1-2 years



Heifers grazing catch crop aftermaths

- 50% Sikem Italian ryegrass
- 50% Turgo (T) Italian ryegrass

Italian ryegrass blend specifically designed to fill short term gaps in a crop rotation

✓	Intensive cutting		Beef grazing
✓	Cutting		Sheep grazing
	Dairy grazing	✓	Aftermath grazing

- Minimum suggested sowing rate of 12kg/acre (30kg/ha)
- Provides good early production for cutting or grazing
- Can be autumn or spring sown
- Vigorous establishment and winter hardiness lends to sowing after maize
- High sugar content provides a rapid lactic fermentation

TechniSward Turbo charge

2-3 years



A highly productive intensive cutting ley suitable for aftermath grazing

✓	Intensive cutting		Beef grazing
✓	Cutting		Sheep grazing
	Dairy grazing	✓	Aftermath grazing

- Minimum suggested seed rate 14kg/acre (35kg/ha)
- 5 day spread of heading dates for optimum silage quality
- Intensive cutting with good aftermath grazing
- Quick recovery after cutting
- Ideal for haylage production
- Contains Perseus ryegrass plus™ for yield, persistency and disease resistance
- 15% red clover option available

Variety	Heading date
Hunter (T) Italian ryegrass	20th May
Alamo Italian ryegrass	23rd May
Perseus Festulolium	25th May
Astoncrusader (T) Hybrid ryegrass	21st May



TechniSward Multi-cut plus

3-4
years



Variety	Heading date
Lofa <i>Festulolium</i>	22nd May
Perseus <i>Festulolium</i>	25th May
Perun <i>Festulolium</i>	21st May

High production specialist multicutting mixture containing 100% ryegrass plus festuloliums for improved yield persistency and stress tolerance

✓	Intensive cutting		Beef grazing
✓	Cutting		Sheep grazing
	Dairy grazing	✓	Aftermath grazing

- 5 day spread of heading date for optimum quality
- Minimum suggested seed rate 14kg/acre (35kg/ha)
- 4-6 cuts per year plus aftermath grazing
- High sugar content provides a rapid lactic fermentation and drives intakes
- 22% red clover option available
- Up to 3.5 tonnes/ha more dry matter from ryegrass plus varieties compared to standard Italian ryegrass
- Organic version available



TechniSward Super cut

4-5
years



Variety	Heading date
Lofa <i>Festulolium</i>	22nd May
Astoncrusader (T) <i>Hybrid ryegrass</i>	21st May
Boyne <i>Intermediate perennial ryegrass</i>	21st May
Seagoe (T) <i>intermediate perennial ryegrass</i>	22nd May

Tried and tested medium term cutting mixture producing huge yields of excellent quality silage

✓	Intensive cutting		Beef grazing
✓	Cutting		Sheep grazing
	Dairy grazing	✓	Aftermath grazing

- Minimum recommended sowing rate 14kg/acre (35kg/ha)
- Huge yield potential
- Suitable for Multicut systems and zero grazing
- High sugar content provides a rapid lactic fermentation and drives intakes
- Tight range of heading dates for optimum silage quality
- Now available with 20% red clover



TechniSward Endurance

5+
years



Variety	Heading date
Agaska <i>Intermediate perennial ryegrass</i>	29th May
AberSpey (T) <i>Intermediate perennial ryegrass</i>	29th May
Diwan (T) <i>Intermediate perennial ryegrass</i>	30th May
Nashota (T) <i>Late perennial ryegrass</i>	4th June
Gracehill (T) <i>Late perennial ryegrass</i>	2nd June

Long term, late heading cutting mixture that also provides high quality grazing

	Intensive cutting	✓	Beef grazing
✓	Cutting		Sheep grazing
✓	Dairy grazing	✓	Aftermath grazing

- Minimum recommended sowing rate 15kg/acre (37kg/ha)
- Incredibly dense hard-wearing sward
- Huge yield potential over multiple cuts
- High sugar content provides a rapid lactic fermentation and drives intakes
- 7 day spread of heading dates for optimum quality
- 76% fiber energy varieties maintain digestibility even where cutting is delayed
- 7% White clover option available



TechniSward High hill

5+
years



Variety	Heading date
Agaska <i>Intermediate perennial ryegrass</i>	29th May
AberZeus <i>Intermediate perennial ryegrass</i>	26th May
Seagoe (T) <i>Intermediate perennial ryegrass</i>	22nd May
Wetherby <i>Late perennial ryegrass</i>	30th May
Bowie <i>Late perennial ryegrass</i>	16th June
Nashota (T) <i>Late perennial ryegrass</i>	4th June
Thegn (T) <i>Late perennial ryegrass</i>	6th June
Dolina <i>Timothy</i>	8th June

High hill is a long term, multi-purpose mixture specifically designed for higher altitudes and challenging conditions

	Intensive cutting	✓	Beef grazing
✓	Cutting	✓	Sheep grazing
✓	Dairy grazing	✓	Aftermath grazing

- Minimum recommended sowing rate 15kg/acre (37kg/ha)
- Varieties have been chosen for optimum ground cover and winter hardiness
- The balance of high sugars and improved cell wall digestibility improves animal performance
- Season long performance whether cutting or grazing
- 6% White clover option available



TechniSward Haymaker

5+
years



Specialist hay mixture with 100% diploid varieties, ensuring rapid, even drying

- The high inclusion of Timothy will produce a hay crop that is fine textured and palatable with an appealing aroma
- Hipast festulolium, though early heading, possesses excellent cell wall digestibility meaning forage quality is maintained longer
- Provides a very dense sward suitable for winter sheep grazing



Variety	Heading date
Hipast <i>Festulolium</i>	22nd May
Agaska <i>Intermediate perennial ryegrass</i>	29th May
Boyne <i>Intermediate perennial ryegrass</i>	21st May
Swan <i>Late perennial ryegrass</i>	6th June
Laura <i>Meadow fescue</i>	5th June
Dolina <i>Timothy</i>	8th June

TechniSward Haylage

2-3
years



This specialist haylage mixture will produce 3-4 cuts of quality haylage suitable for all livestock

- Produces excellent coarse hay/haylage suitable for all classes of stock
- 100% tetraploid inclusion ensures a rapid fermentation when wrapped
- Provides good quality aftermath grazing
- Over grazing should be avoided as with all tetraploid grasses



Variety	Heading date
Hunter <i>Italian ryegrass</i>	20th May
Tetragraze (T) <i>Hybrid ryegrass</i>	22nd May
Astoncrusader (T) <i>Hybrid ryegrass</i>	21st May

TechniSward Dual purpose

5+
years



Heifers grazing Dual purpose in early November

A truly dual-purpose mixture. Denser than Cut and graze and therefore more suited to long periods of grazing

	Intensive cutting	✓	Beef grazing
✓	Cutting	✓	Sheep grazing
✓	Dairy grazing	✓	Aftermath grazing

- Minimum suggested sowing rate of 15kg/acre (37kg/ha)
- Suitable for all classes of grazing livestock
- Capable of producing 2-3 cuts of quality silage or haylage
- 62% diploid varieties ensures tremendous sward density
- Season long performance
- White clover option available
- Organic version available



Variety	Heading date
AberZeus <i>Intermediate perennial ryegrass</i>	26th May
AberSpey (T) <i>Intermediate perennial ryegrass</i>	29th May
Cancan <i>Late perennial ryegrass</i>	10th June
Wetherby <i>Late perennial ryegrass</i>	30th May
Nashota (T) <i>Late perennial ryegrass</i>	4th June
Thegn (T) <i>Late perennial ryegrass</i>	6th June

TechniSward Cut and graze

5+
years



High yielding multi-purpose mixture with a slight leaning towards more cutting than grazing

	Intensive cutting	✓	Beef grazing
✓	Cutting		Sheep grazing
✓	Dairy grazing	✓	Aftermath grazing

- Minimum recommended sowing rate 14kg/acre (35kg/ha)
- 62% Tetraploid inclusion provides sugars for a rapid fermentation
- 2-4 cuts plus quality grazing
- High inclusion of DLF Fiber Energy™ varieties gives flexibility around cutting dates without compromising digestibility
- White clover option available
- Organic version available



Variety	Heading date
Galgorm <i>Intermediate perennial ryegrass</i>	22nd May
Convey (T) <i>Intermediate perennial ryegrass</i>	30th May
Seagoe (T) <i>Intermediate perennial ryegrass</i>	22nd May
Agaska <i>Intermediate perennial ryegrass</i>	29th May
Nashota (T) <i>Late perennial ryegrass</i>	4th June

TechniSward HS dual purpose

5+ years



A dual-purpose, medium-term, high sugar mixture that will thrive in any situation

	Intensive cutting	✓	Beef grazing
✓	Cutting	✓	Sheep grazing
✓	Dairy grazing	✓	Aftermath grazing

- The high levels of water-soluble carbohydrates ensure a rapid, stable fermentation when ensiled and high voluntary intakes when grazed.
- High sugar levels also ensure that more energy is left for the animal after fermentation demands.
- Available with AberDairy white clover blend.
- Optimum sowing rate 15kg/acre (37kg/ha).



Variety	Heading date
AberEdge (T) Hybrid ryegrass	23rd May
AberZeus Intermediate perennial ryegrass	26th May
AberGreen Intermediate perennial ryegrass	29th May
AberSpey (T) Intermediate perennial ryegrass	29th May
AberChoice Late perennial ryegrass	9th June
AberAvon Late perennial ryegrass	2nd June
AberGain (T) Late perennial ryegrass	4th June

TechniSward HS intensive graze

5+ years



A medium to long term specialist grazing mixture for rotational grazing systems

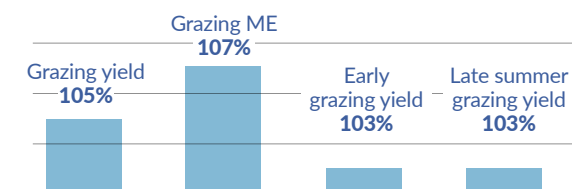
	Intensive cutting	✓	Beef grazing
✓	Cutting		Sheep grazing
✓	Dairy grazing		Aftermath grazing

- Minimum recommended sowing rate 15kg/acre (37kg/ha)
- 100% Aber high sugar grasses
- Produces a dense, palatable, and highly digestible sward that produces right through the season
- Paddocks can be shut up to produce excellent quality silage
- White Clover option available



Variety	Heading date
AberZeus Intermediate perennial ryegrass	27th May
AberSpey (T) Intermediate perennial ryegrass	30th May
AberBann Late perennial ryegrass	5th June
AberLee Late perennial ryegrass	6th June
AberGain (T) Late perennial ryegrass	4th June

Intensive graze performance



(Figures expressed as a percentage of the recommended list benchmark figure for perennial ryegrass)

Intensive graze has been designed to meet the demands of extended grazing systems using only Germinal high sugar grasses.

Varieties have been selected to give exceptional production right through the grazing season.



TechniSward Early bite

6+
years



A long-term, hard-wearing mixture that will produce quality forage over a long grazing season, early and spring grazing yields are exceptional

✓ Hay/haylage	✓ Beef grazing
✓ Cutting	✓ Sheep grazing
✓ Dairy grazing	✓ Aftermath grazing

- Optimum suggested sowing rate of 15kg/acre (37kg/ha)
- Huge early production that persists throughout the season and well into the Autumn
- Produces 112% of the BSPB recommended lists benchmark figure for combined early and spring grazing yield
- Produces a very dense, highly palatable sward
- Hipast festulolium helps to make this mixture very drought tolerant
- Timothy provides early grazing up to a month ahead of ryegrasses
- Available with white clover or white clover and plantain
- Organic version available



Variety	Heading date
Galgorm <i>Intermediate perennial ryegrass</i>	22nd May
AberSpey (T) <i>Intermediate perennial ryegrass</i>	30th May
AberZeus <i>Intermediate perennial ryegrass</i>	27th May
Hipast <i>Festulolium</i>	20th May
Nashota (T) <i>Late perennial ryegrass</i>	4th June
Dolina <i>Timothy</i>	8th June

TechniSward Long term

6+
years



An extremely versatile long-term mixture that will thrive in any area of the UK

✓ Hay/haylage	✓ Beef grazing
✓ Cutting	✓ Sheep grazing
✓ Dairy grazing	✓ Aftermath grazing

- Minimum suggested sowing rate of 15kg/acre (37kg/ha)
- Timothy provides highly palatable early grazing
- A dense and durable sward that will withstand hard grazing
- Persistent and winter hardy
- White clover option available
- Organic version available with 12% white clover



Variety	Heading date
Galgorm <i>Intermediate perennial ryegrass</i>	22nd May
AberZeus <i>Intermediate perennial ryegrass</i>	27th May
AberSpey (T) <i>Intermediate perennial ryegrass</i>	30th May
Cancan <i>Late perennial ryegrass</i>	10th June
Wetherby <i>Late perennial ryegrass</i>	30th May
Nashota (T) <i>Late perennial ryegrass</i>	5th June
Dolina <i>Timothy</i>	8th June

TechniSward Extreme drought prone

5+
years

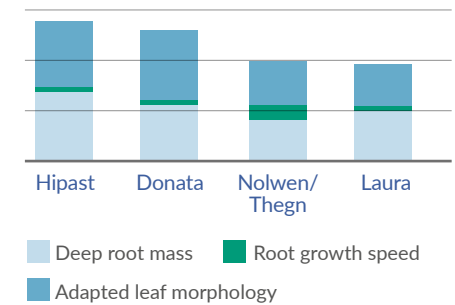


A specialist long term grazing mixture that can withstand long periods of hot dry weather

- Minimum recommended sowing rate 15kg/acre (37kg/ha)
- Incredibly dense hard-wearing sward
- Contains deep rooting varieties including tall fescue plus™ festuloliums
- White clover helps maintain ground cover, reducing moisture losses to evaporation
- Available without clover



Drought coping mechanisms



Hipast <i>Festulolium</i>
Nolwen (T) <i>Intermediate perennial ryegrass</i>
Thegn (T) <i>Late perennial ryegrass</i>
Donata <i>Soft leaved cocksfoot</i>
Laura <i>Meadow fescue</i>
Dual purpose white clove blend

TechniSward Extreme flood prone

5+
years



A specialist long term grazing mixture specifically designed for flood prone land

- Minimum recommended sowing rate 15kg/acre (37kg/ha)
- Incredibly dense hard-wearing sward
- Contains deep rooting varieties including Hipast tall fescue plus™ festulolium and Donata soft leaved cocksfoot
- Creeping red fescue helps to prevent soil erosion due to its extensive rhizomes that hold the sward together in the face of fast flowing flood waters
- All varieties are proven to be winter hardy, give good ground cover and have excellent stress tolerance
- While no grass sward can withstand months under water this mixture has shown that it fares better than most when faced with fast rising and falling seasonal flood water



Hipast <i>Festulolium</i>
Dolina <i>Timothy</i>
Bowie <i>Late perennial ryegrass</i>
Donata <i>Soft leaved cocksfoot</i>
Laura <i>Meadow fescue</i>
Evora <i>Smooth stalked meadow grass</i>
Maxima <i>Creeping red fescue</i>

Herbal leys

Key benefits

- Improvements in soil structure and fertility
- Drought tolerance
- Improved animal performance and health
- Good for building soil carbon stocks
- May be suitable for environmental schemes

Drought tolerance

Diverse swards containing a range of grasses, herbs and legumes have a wide range of root types and depths, from shallow fibrous roots to deep penetrating tap roots that can extend to several metres below ground, breaking through compacted soil to reach moisture at levels that ryegrass could never reach.

Additionally; the diverse root structures in herbal leys help to build soil organic matter and for every 1% increase the soils water holding capacity can increase by up to 188,000l per hectare.

Soil health and fertility

Diverse herbal mixtures are made up of multiple stratified layers both above and below ground with the different species growing to different heights within the sward and with varying leaf sizes and shapes. This allows for maximum capture of sunlight whatever the time of day and position of the sun. This in turn means that more CO² and water are converted to sugars. Sugar that is surplus to the plants requirements is released into the soil around the roots and is used by the mycorrhizal fungi encouraging them to colonise the area around the roots where they form a symbiosis with the plant which helps the plant to make use of soil nutrients such as phosphorous.

Animal health and performance

Diverse swards containing herbs and legumes benefit livestock performance in several different ways:

- Legumes are protein rich and have the benefit of fixing N
- The deep roots of many of the species bring up essential minerals, trace elements and vitamins from deep within the soil
- Some legumes are bioactive meaning that they contain condensed tannins or polyphenol oxidase. These compounds can protect protein from rumen fermentation meaning that the risk of bloat is reduced, and the protein is degraded in the hind gut where it is used more efficiently by the animal
- Fermentation within conserved forages is also improved and dry matter losses at ensiling are reduced
- Some herbs and legumes have anthelmintic properties, and so reduce parasitic worm burdens
- The diverse nature of the sward tends to drive up utilisation and dry matter intakes

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The deep roots of many of the species bring up essential minerals, trace elements and vitamins from deep within the soil

TechniSward Herbal light land



- TechniSward's light land herbal mixture contains species specifically selected to work well in drought prone soils
- Hipast festulolium with it's tall fescue genetics is deep rooting and incredibly drought tolerant whilst it's perennial ryegrass genetics ensure excellent grazing quality
- Sainfoin and Lucerne are light land specialists that fix nitrogen and provide high quality protein and health benefits

Hipast <i>Perennial plus festulolium</i>	20%	Lucerne	4%
Nolwen (T) L PRG	14%	Birds foot trefoil	0.5%
Donata <i>Cocksfoot</i>	16%	Plantain	3.5%
Winnetou <i>Timothy</i>	7%	Chicory	1%
Laura <i>Meadow fescue</i>	4%	Sheeps burnet	1.75%
Altaswede <i>Red clover</i>	10%	Sheeps parsley	1%
Sainfoin	17%	Yarrow	0.25%

TechniSward Herbal medium to heavy land



- TechniSward herbal medium to heavy land is designed to work across a wide range of growing and soil conditions
- The grasses and legumes have been selected to provide optimum performance in both grazing and cutting scenarios
- Chicory is included at a low level to reduce the issues associated with ensiling whilst still taking advantage of its animal health and soil improving benefits

Lofa <i>Hybrid plus festulolium</i>	25%	Birds foot trefoil	0.5%
Nolwen (T) L PRG	24%	Plantain	4%
Winnetou <i>Timothy</i>	10%	Sheeps burnet	2.5%
Donata <i>Cocksfoot</i>	12%	Chicory	1%
Laura <i>Meadow fescue</i>	5%	Sheeps parsley	1.5%
Red clover blend	10%	Yarrow	0.25%
Alsike clover	4%	Black medick	0.25%

For more herbal leys including herbal overseeding mixtures please see our [guide to environmental and cover crop seeds](#).

TechniSward MeadowMax

6+ years



Laura <i>Meadow fescue</i>	20%
Maxima <i>Creeping red fescue</i>	20%
Coma <i>timothy</i>	16%
Donata <i>Soft leaved cocksfoot</i>	17%
Hipast <i>Grazing festulolium</i>	17%
Tower <i>Tall fescue</i>	10%

MeadowMax is a mixture of traditional noncompetitive grasses designed to work in extensive farming systems

Intensive cutting	✓	Beef grazing
✓ Cutting	✓	Sheep grazing
Dairy grazing	✓	Aftermath grazing

- MeadowMax brings together traditional native grasses and modern genetics to produce a sward that is long lasting, hard wearing and environmentally sustainable
- This mixture works well in parkland scenarios where its long growing season makes it suitable for early grazing followed by a cut of hay and then more grazing well into the autumn
- The tussocky nature of MeadowMax when left uncut makes it perfect for use as a field margin or wildlife friendly buffer strip
- Sow at 13 to 15 kg/acre (32–37kg/ha)

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The tussocky nature of MeadowMax when left uncut makes it perfect for use as a field margin or wildlife friendly buffer strip





Maize undersowing mixtures

Key benefits

- Reduce nitrate leaching
- Potential for better digestate utilisation
- Improves soil structure
- Helps to reduce soil erosion
- Increase soil organic matter levels
- Potential for winter livestock grazing
- May be suitable for SFI SAM 2 winter cover cops action

Concerns around the environmental impact of growing a maize crop need to be taken seriously and treated as a matter of priority

Future environmental legislation may well require that maize stubbles are protected from soil erosion and nutrient leaching by utilising cover crops. Establishing a cover crop after maize has been harvested, especially in a late season where weather conditions have deteriorated is a significant challenge.

Undersowing the maize crop with a grass seed mixture designed specifically for that purpose has proved to be successful when done correctly. It is imperative to sow at the right time with the right species so the growing crop isn't affected.

TechniSward **Soilmax**

At sowing

- Specifically designed to be drilled at the same time as the maize crop (inter-row)
- The slower germinating tall fescue and tall fescue plus™ helps to suppress weed emergence without competing with the maize
- As the grasses mature the root mass develops, helping retention of any residual nutrients which are left in the soil post-harvest
- The deep rooting grass species help to improve soil structure
- Sow at 3 to 5kg/acre (7.5–12.5kg/ha)

40% Hipast *Tall fescue plus™ festulolium*

50% Tower *Tall fescue*

10% Donata *Soft leaved cocksfoot*

TechniSward **Enviromax**

4-6 leaf stage

- An under-sown mix which is more suited to being sown inter-row once the maize has established and is at the 4-6 leaf stage
- This mixture establishes more quickly than SoilMax ensuring establishment before the canopy closes
- Excellent ground cover post-harvest with a fibrous root system for soil stabilisation
- Capable of providing high quality winter grazing
- Sow at 3 to 5kg/acre (7.5–12.5kg/ha)

70% Twymax *Tetraploid late perennial ryegrass*

20% Hipast *Tall fescue plus™ festulolium*

10% Donata *Soft leaved cocksfoot*

TechniSward **Fastmax**

4-6 leaf stage

- Suitable for sowing at the 4-6 leaf stage
- This mixture establishes quickly but then slows as the maize canopy closes above it.
- Once maize is harvested the sward will quickly establish effective ground cover to protect the soil over the winter months and then provide a crop of silage the following spring
- Sow at 3 to 5kg/acre (7.5–12.5kg/ha)

30% Lofa *Festulolium*

60% Alamo *Diploid italian ryegrass*

10% Donata *Soft leaved cocksfoot*



Equine mixtures

Key benefits

- Lower sugar, no ryegrass mixtures
- Highly palatable
- Dense and hard wearing
- Drought tolerant
- Long growing season

TechniSward Horse paddock



A persistent and hard-wearing, ryegrass free paddock mixture that is low in the plant sugars that can cause laminitis in horses

- Though slower to establish than mixtures containing ryegrasses, this mixture will be incredibly dense and resilient once established and will be more drought tolerant than ryegrass mixtures, reducing the need for supplementary feeding during dry summers
- The relatively small seed size of these grasses means that a sowing rate of 14kg/acre will provide a sufficient plant density in most situations. Jumping paddocks and other high traffic areas should be sown at 17-20kg/acre

26% Hipast	Tall fescue plus festulolium
14% Winnetou	Timothy
16% Donata	Soft leaved cocksfoot
21% Evora	Smooth stalked meadow grass
15% Maximan	Creeping red fescue
8% Laura	Meadow fescue

TechniSward Herbal horse paddock



A mixture of traditional grasses, herbs and legumes designed for competition horses and brood mares

- The addition of beneficial herbs and the bioactive legume Birdsfoot trefoil have been shown to improve health and performance in competition horses. Diverse herb rich swards supply essential minerals such as copper via Yarrow. Copper deficiency in pregnant mares during the third trimester has been linked to Developmental Orthopaedic Disease
- Sow at 14kg/acre
- This mixture may not be suitable for overweight horses and ponies.

26% Hipast	Tall fescue plus festulolium
14% Winnetou	Timothy
12% Donata	Soft leaved cocksfoot
20% Evora	Smooth stalked meadow grass
12% Maximan	Creeping red fescue
8% Laura	Meadow fescue
2% Ribwort plantain	
0.5% Birds foot trefoil	
1.75% Sheeps burnet	
1.5% Sheeps parsley	
0.25% Yarrow	



Forage crops

Key benefits

- Economical to grow
- Reduces bought in feed costs
- Provides a break in cropping

Rapid Root (for autumn use)

The forage rape element of this mixture ensures a rapid establishment and high protein yields, whilst the stubble turnips are high in energy and improve the stock holding capacity. Sow mid-April to mid-September

60% Forage rape	Sowing rate	6-8.5 kg/ha
35% Stubble turnip	Pack size	5 kg
5% Kale	Treatment	Untreated

Winter graze (for use December onwards)

This mixture is ideal for sowing after winter cereals to provide grazing from December onwards, winter hardiness is excellent. Sow from mid-July to mid-September.

35% Forage rape	Sowing rate	6-8.5 kg/ha
60% Stubble turnip	Pack size	5 kg
5% Kale	Treatment	Untreated

Stubble turnips



- Extremely versatile crop that can be grown for either summer or autumn/winter use for grazing in situ
- Bulbing and leafy varieties are available

Dry matter yield (t/ha)	Dry matter content (%)	Crude protein	D-value	ME (MJ / kg DM)
4-4.5	9-12	17-18	70	10.5-11

Fodder beet



- Grown as a main crop rather than a break crop, Fodder beet has similar inputs to sugar beet. The roots are very palatable with a high energy value
- Fodder beet can be lifted and stored or grazed in situ

Dry matter yield (t/ha)	Dry matter content (%)	Crude protein	D-value	ME (MJ / kg DM)
18-22	12-19	12-13	78	12.5-13.5

Extended Graze



- Extended graze is a mixture of Italian ryegrass and hybrid forage brassica
- Sown in late summer or early autumn at a rate of 20-25kg/ha, this mixture can be grazed within 6-8 weeks of sowing and will go on to produce quality forage for up to 12 months
- The forage brassica element will provide a second grazing providing a residual stubble height of 4-6 inches is left following the first grazing
- Adding berseem clover to this mixture can lift protein yield, fix nitrogen for the following crop and improve soil structure

Dry matter yield (t/ha)	Dry matter content (%)	Crude protein	D-value	ME (MJ / kg DM)
15	12-15	13-15	68	10-11

Spitfire hybrid brassica



- Spitfire is a kale/rape hybrid brassica, capable of very high yields with excellent feed value
- A medium tall variety with a low dry matter stem which boosts utilisation, Spitfire can provide up to three grazing periods
- Spitfire demonstrates high vigour, establishing quickly and providing a utilisable crop within 9 weeks of sowing

Dry matter yield (t/ha)	Dry matter content (%)	Crude protein	D-value	ME (MJ / kg DM)
7-9	12-15	17-19	70	10.5-11.5

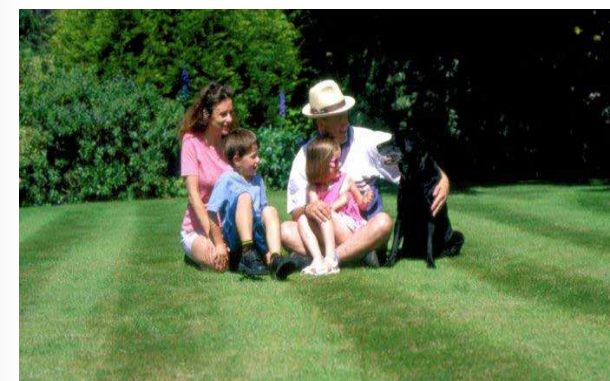
Amenity grass mixtures

TechniSward multi purpose landscaper



- Extremely hard-wearing land scaping mixture perfectly suited for use in caravan/camping sites and event car parks
- 50:50 mixture of amenity ryegrass and creeping red fescue

TechniSward Pro Master 51



- Hard wearing lawn with ryegrass that will establish quickly
- Ideal for general purpose lawns. Contains Double 4turf® for improved colour and increased drought tolerance

TechniSward Pro Master 52



- An economical and hard wearing fine lawn mixture containing only fescues for ease of management
- Suited to cutting with a cylinder mower



Silage inoculants

Key benefits

- Enhances the natural fermentation process
- Rapid pH drop
- Reduced dry matter losses
- Optimal nutrient retention

Giving nature a helping hand

Conserved forages form the bulk of most ruminant livestock's daily dry matter intake for much of the year, and as such, the quality of that forage is a major pre-determinant of enterprise efficiency.

In essence silage making is a straightforward process; cut and chop the crop, clamp, or bale it, exclude air, and let the bacteria in the clamp do the rest...simple!

However, much can go wrong, even when best practice is observed, and the knock-on effect on animal performance and farm profitability can be huge.

There are two critical points at which things can go wrong.

Ensiling

The principal objective of silage making is to achieve a rapid pH drop down to a safe and stable level. The more rapid the acidification is, the more we are able to preserve nutrients and reduce dry matter losses.

Feed-out

Once the clamp has been opened and exposed to oxygen, spoilage organisms such as yeasts and moulds will quickly become active, resulting in heating of the clamp and losses of both nutrients and dry matter.

Using an inoculant containing crop specific microorganisms influences and enhances the natural fermentation process and maintains aerobic stability in the presence of oxygen. The result is optimal preservation of dry matter and nutrients, meaning improved animal health and performance.

No matter how good you are at making silage, the results are almost always better when an inoculant is used.



Product	Crop type	Benefits
Pioneer 1188	Grass below 25% DM	<ul style="list-style-type: none">• Fermentation• Animal performance
	Grass and clover below 30% DM	
Pioneer 11A44	Grass above 35% DM with good digestibility	<ul style="list-style-type: none">• Significantly improves aerobic stability
	Cereal silages	
Pioneer 11G22 Rapid React	Grass or grass and clover 25% DM and above with good digestibility	<ul style="list-style-type: none">• Fermentation• Animal performance• Aerobic stability in as little as 7 days
	Grass or grass and clover 25% DM or above with poor digestibility	
	Arable silages	
Pioneer 11GFT	Grass and clover 25% DM and above with poor digestibility	<ul style="list-style-type: none">• Fermentation• Animal performance• Fibre digestibility• Aerobic stability
	Cereal silages	



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Use plant protection products safely. Always read the label and product information before use.