

Building resilience

Trust Germinal for expert advice and
climate smart strategies for grassland
management

Product Brochure
2023

 **Germinal**

Sowing future seeds.

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Growing on-farm resilience

With high on-farm costs during 2022 and continuing pressure to implement sustainable farming practices, the financial and environmental advantages of producing high quality homegrown forage have become even more important.

Last year also demanded resilience against changing weather patterns, with many areas seeing prolonged dry periods, emphasising the need to adapt.

Germinal is supporting farmers through these changes offering grass and forage seed varieties of the highest quality bred to fit today's requirements.

The Aber High Sugar Grass (HSG) range, highly rated for its ME yield, balances energy and protein to maximise meat and milk production, giving livestock farmers the edge.

Alongside high-quality grasses, interest in clovers and the use of more diverse swards has never been greater. Their enhanced nutritional profile together with the environmental advantages of nitrogen-fixing, drought tolerance and increasing soil nutrients mean they are an obvious choice for progressive farmers.

Germinal is at the forefront of research and development in this area, helping farmers take the guesswork out of establishing multi-species successfully, and more about our innovative clover breeding is found on pages 22-23.

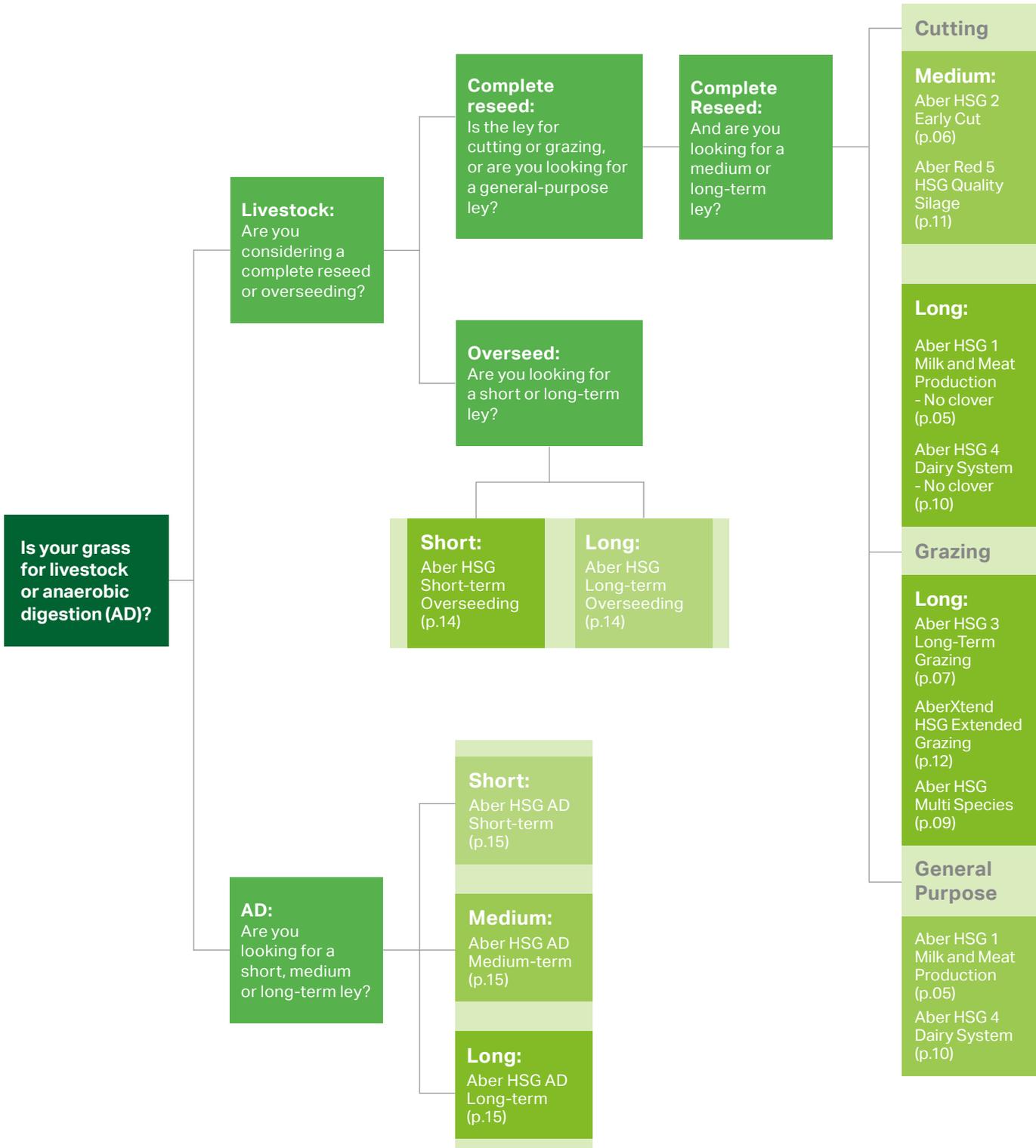
As well as detailing our latest varieties and specialist mixtures, throughout this brochure farmers share how they're using Germinal products to support their business.

To connect with a Germinal expert and learn more about how Germinal's products can help your farm, visit: [germinal.ie](https://www.germinal.ie) or follow [@wearegerminal](https://www.facebook.com/wearegerminal) on Facebook and twitter.

David Little
Area Sales Manager, Northern Ireland
Germinal Ireland



Planning your forage requirements



White and red clovers, herbs, chicory and plantain are available for use in mixed swards. To discuss your specific requirements and which product is best for you, contact your local Germinal grass and forage technical expert, see page 37 for details.



Aber High Sugar Grass (HSG)

As the name suggests, Aber High Sugar Grass (HSG) varieties contain higher levels of water-soluble carbohydrates (sugars), and therefore energy, than conventional ryegrass. This readily available energy helps rumen bacteria convert more of the protein in forage into meat and milk. It also reduces ammonia and methane production created when protein is wasted.

Aber HSG varieties dominate the most highly-rated varieties for Aber HSG varieties dominate those most highly rated for metabolisable energy (ME) yield/ha, a key determinant of livestock performance. Any improvement in ME can produce important increases in milk production and liveweight gain.

Every product in the Aber HSG range contains a carefully selected combination of Aber varieties to fit specific requirements.



General Purpose

Aber HSG 1 Milk and Meat Production
Aber HSG 4 Dairy System

Grazing

Aber HSG 3 Long-Term Grazing
AberXtend HSG Extended Grazing
Aber HSG Multi-Species

Cutting

Aber HSG 2 Early Cut
Aber Red 5 HSG Quality Silage

Overseeding

Aber HSG Short-term Overseeding
Aber HSG Long-term Overseeding

Anaerobic digestion

Aber HSG for AD Short-term
Aber HSG for AD Medium-term
Aber HSG for AD Long-term

Mark Housby

When Mark Housby took on the management of a 256-hectare tenancy with Robert and Jackie Craig, one of the first things he did was reseed all the grass leys.

"We knew quality grass was going to drive our system, so we reseeded using Aber HSG 4 with white clover, knowing we'd invested in the best seeds we could. We like the combination of tetraploid and diploid varieties, and the cows find the sugars hugely palatable, driving performance and milk solids. It's a great mix, delivering quality feed and performance for cutting and grazing.

"More recently we've overseeded a third of the farm with a multi-species mix to address the farm's dry conditions. The different species within the diverse swards work with nature increasing our resilience to drought while still producing valuable food for the cows. We've also reduced nitrogen fertiliser by 50% and looking to reduce this further next year."

Farm details

- Peepy Farm, Bywell, Stocksfield, Northumberland
- 480 Irish and NZ Friesians x Jerseys cows
- 50:50 spring/autumn block
- Average yield 6,500 litres with 4,000 from forage
- First Milk supplier
- Grass measured weekly: best paddocks approximately 16.5tDM/ha
- Soil sampled regularly

LONG-TERM



Aber HSG 1

Milk and Meat Production



AVAILABLE WITH PUNA II AND TONIC PLANTAIN



AVAILABLE WITHOUT CLOVER

Aber HSG 1 is your best choice when looking for a high-performance general-purpose ley.

Well suited to set-stock grazing by dairy and beef cattle, sheep and finishing lambs and offers potential for a heavy, high-quality silage cut in late May.

Aber HSG 1 contains a mixture of high sugar grasses for increased digestibility and dry matter intakes. It produces a dense sward, which resists poaching. Aber HSG 1 is best cut 5-10 days before its heading date and with good management maintains a quality sward for 5-7 years. A white clover blend is included as standard. Chicory and plantain can be included for added drought tolerance and sward variety.

Fig 01.

Aber HSG 1 Milk and Meat Production:

T = Tetraploid

Kg / acre	Variety	Type	Heading Date
3.00	AberZeus	Perennial Ryegrass	25 May
3.00	AberWolf	Perennial Ryegrass	26 May
3.00	AberGreen	Perennial Ryegrass	28 May
4.00	AberGain	Perennial Ryegrass (T)	03 Jun
1.00	AberPasture	White Clover Blend	
14.00			

Heading date average for Aber HSG 1 Milk and Meat Production is 29 May for Northern Ireland. When cutting for silage, aim to cut 5 - 10 days before average heading date for optimum quality. Optimum spread of heading dates within mixtures for grazing and cutting results in better performance of the leys.

Fig 02.

Aber HSG 1 Milk and Meat Production:

Spread of heading dates



Benefits of Aber HSG 1

- High digestibility to drive dry matter intakes
- Outstanding grazing yield and grazing D-value
- Lower ammonia and methane excretion reducing environmental impact
- 100% high-ranking Aber HSG perennial ryegrasses
- Correct balance of diploid and tetraploid varieties

MEDIUM-TERM



Aber HSG 2 Early Cut



AVAILABLE WITH RED CLOVER

Aber HSG 2 Early Cut is ideal for a high-quality, high-yield silage cut in mid-May.

A straight grass mixture of outstanding Aber HSG varieties, HSG 2 delivers quality and yield. It performs under medium and high levels of nitrogen and persists for three to four years, twice as long as Italian ryegrass-based swards.

Including red clover in your cutting mixtures

The addition of red clover can increase the overall forage potential, improve the protein content of silage and reduce protein loss in the clamp. Pastures also benefit from red clover's ability to fix nitrogen at over 150kg N/ha, improve soil structure and tolerate drought.

Fig 03.

Aber HSG 2 Early Cut:

T = Tetraploid

Kg / acre	Variety	Type	Heading Date
5.00	AberEcho	Hybrid Ryegrass (T)	14 May
5.00	AberEve	Hybrid Ryegrass (T)	20 May
5.00	AberWolf	Perennial Ryegrass	26 May
15.00			

Heading date average for Aber HSG 2 Early Cut is 20 May for Northern Ireland.

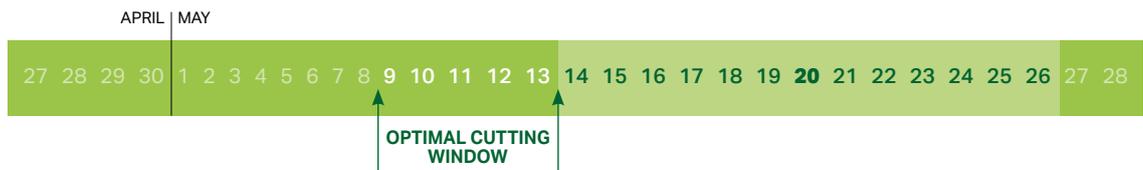
When cutting for silage, aim to cut 5 - 10 days before average heading date for optimum quality.

Optimum spread of heading dates within mixtures for grazing and cutting results in better performance of the leys.

Fig 04.

Aber HSG 2 Early Cut:

Spread of heading dates



Benefits of Aber HSG 2 Early Cut

- 100% high-ranking Aber HSG varieties
- Compatible heading dates
- High metabolisable yield (ME) yield
- Aber High Sugar Grasses enhance fermentation, particularly when red clover is included

LONG-TERM



Aber HSG 3 Long-Term Grazing

Aber HSG 3 is a high-performance grazing ley for both cattle and sheep in rotational and set-stocking systems.

It contains a mixture of diploid Aber HSG varieties to produce a dense sward with high stock-carrying capability. Aber HSG 3 comes in three varieties with options tailored to specific farm requirements.



AVAILABLE WITH PUNA II AND TONIC PLANTAIN



AVAILABLE WITHOUT CLOVER



AVAILABLE WITH TIMOTHY

Fig 05.

Aber HSG 3 Long Term Grazing:

Kg / acre	Variety	Type	Heading Date
2.00	AberZeus	Perennial Ryegrass	25 May
3.00	AberWolf	Perennial Ryegrass	26 May
3.00	AberGreen	Perennial Ryegrass	28 May
2.00	AberBann	Perennial Ryegrass	07 Jun
3.00	AberChoice	Perennial Ryegrass	08 Jun
1.00	AberPasture	White Clover Blend	
14.00			

Heading date average for Aber HSG 3 Long Term Grazing is 31 May for Northern Ireland. When cutting for silage, aim to cut 5 - 10 days before average heading date for optimum quality. Optimum spread of heading dates within mixtures for grazing and cutting results in better performance of the leys.

Fig 06.

Aber HSG 3 Long Term Grazing:
Spread of heading dates



Benefits of Aber HSG 3 Long-Term Grazing

- Combines an excellent grazing yield and D-value
- Outstanding autumn production
- Very persistent sward with good 'bottom'
- High digestibility to drive dry matter intakes
- Lower ammonia and methane excretion reducing environmental impact
- Persists for up to 10 years



Sam Chesney

Red clover and multi-species gamechangers

Sam Chesney is focused on finishing animals cost effectively using homegrown forage and that now includes 45 hectares of multi-species on his grazing platform.

"We've kept the mix relatively simple, with the Aber High Sugar Grasses of AberBann, AberGain and AberSpey, alongside AberClaret red clover and AberDai and AberHerald white clovers, plus Puna II chicory and Tonic plantain. We also added Comer timothy as it copes well with our cold, windy conditions.

"They are all Germinal varieties because they listen to what I need and give me the best mix. They have a big research facility, so I go to where the knowledge is. I know with Germinal I will be given technical advice as well as the best seed.

"AberClaret red clover also continues to be central to our system, currently averaging 30 bales/acre without any fertiliser. Used in our finishing rations, we've been able to reduce our meal protein by 2%.

"I see red clover and mixed species swards as gamechangers for beef and sheep farmers. Their effect on the environment is another big plus. Our emissions are sitting at 17.3kg CO₂/kg deadweight for sheep and 25.8kg CO₂/kg deadweight for cattle even without including carbon sequestration from the land or hedges."

Farm details

- Coolbrae Farm, Ards Peninsula, Co. Down
- 70 hectares (173 acres), of which 45ha grazing, 25ha silage
- 105 Limousin Angus cross cows/Stabiliser calves
- 100 ewes




AVAILABLE
WITHOUT
RED CLOVER



AVAILABLE
WITHOUT
CLOVER

LONG-TERM

Aber HSG Multi-Species

Aber HSG Multi-Species is a specialist mixture for lower input systems where improving soil health is a priority.

A mixture of Aber HSG varieties, timothy, herbs and legumes, including red and white clover, each component brings specific qualities to improve soil health, boost dry matter production and increase animal performance. Aber HSG Multi-Species produces a dense sward which resists poaching.

Fig 07.

Aber HSG Multi-Species Grazing:

T = Tetraploid

Kg / acre	Variety	Type	Heading Date
3.00	AberClyde	Perennial Ryegrass (T)	23 May
3.00	AberZeus	Perennial Ryegrass	25 May
3.00	AberGreen	Perennial Ryegrass	28 May
1.00	Comer	Timothy	
0.75	Tonic	Plantain	
0.50	Puna II	Chicory	
1.00	AberPasture	White Clover Blend	
0.50	AberClaret	Red Clover	
1.00	Rozeta	Red Clover	
13.75			

Benefits of Aber HSG Multi-Species

- Superior sward performance through complementary plant species
- Improved soil structure and fertility
- Increased drought tolerance
- Lower ammonia and methane excretion reducing environmental impact
- Higher nutrient levels driving improved animal performance

LONG-TERM



Aber HSG 4 Dairy System



AVAILABLE WITH PUNA II AND TONIC PLANTAIN



AVAILABLE WITHOUT CLOVER

Aber HSG 4 Dairy System is ideal if you are looking for one or two cuts of high-quality silage before focusing on rotational grazing.

It produces a first cut in mid to late May with an optional second cut four to five weeks later, before providing rotational grazing mid to late season as well as through the winter.

Fig 08.

Aber HSG 4 Dairy System:

T = Tetraploid

Kg / acre	Variety	Type	Heading Date
3.00	AberWolf	Perennial Ryegrass	26 May
3.00	AberGreen	Perennial Ryegrass	28 May
4.00	AberGain	Perennial Ryegrass (T)	03 Jun
3.00	AberBann	Perennial Ryegrass	07 Jun
1.00	AberDai	White Clover	
14.00			

Heading date average for Aber HSG 4 Dairy System is 1 June for Northern Ireland. When cutting for silage, aim to cut 5 - 10 days before average heading date for optimum quality. Optimum spread of heading dates within mixtures for grazing and cutting results in better performance of the leys.

Fig 09.

Aber HSG 4 Dairy System:

Spread of heading dates



Benefits of Aber HSG 4 Dairy System

- Long-lasting ley with outstanding quality
- Top yields of high ME silage at first cut
- 100% Aber HSG perennial ryegrasses
- Balance of diploid and tetraploid varieties
- High digestibility to drive dry matter intakes
- Lower ammonia and methane excretion reducing environmental impact



MEDIUM / LONG TERM

AberXtend HSG Extended Grazing

AberXtend HSG offers a high-performing sward for dairy, beef and sheep over a longer grazing period with exceptional growth during the shoulders of the season.

AberXtend HSG is the mixture for livestock farmers aiming to increase yields and lengthen the grazing season. Its varieties top the rankings for spring and autumn performance in the recommended lists for the UK and Ireland without compromising other quality criteria - grazing D-value, ME yield and overall dry matter.

AberXtend's white clover blend increases digestibility and dry matter intakes and well managed, the sward maintains quality for up to seven years.

Fig 12.

AberXtend HSG Extended Grazing:

T = Tetraploid

Kg / acre	Variety	Type	Heading Date
4.00	AberZeus	Perennial Ryegrass	25 May
5.00	AberGreen	Perennial Ryegrass	28 May
4.00	AberGain	Perennial Ryegrass (T)	03 Jun
1.00	AberPasture	White Clover Blend	
14.00			

Heading date average for AberXtend HSG is 29 May for Northern Ireland.

When cutting for silage, aim to cut 5 - 10 days before average heading date for optimum quality.

Optimum spread of heading dates within mixtures for grazing and cutting results in better performance of the leys.

Fig 13.

AberXtend HSG Extended Grazing:

Spread of heading dates



Benefits of AberXtend HSG Extended Grazing

- High-quality grazing from early spring to autumn
- Exceptional grazing and metabolisable energy (ME) yield
- High digestibility to drive dry matter intakes
- 100% Aber HSG grasses with Germinal white clovers
- Lower ammonia and methane excretion reducing environmental impact

John Martin

Improved animal and plant genetics reap reward

John Martin's production goals are being met by focusing on genetics - those of his 680-ewe lambing flock and the grass supporting it. He now routinely produces 500kg of lamb carcass per hectare.

John's achieving these outputs by breeding more efficient ewes, with a mature liveweight down from 110kg to 80kg, and boosting the productivity of his grassland by using the best available grass seed varieties.

Quality rotational grazing and grass silage come from leys predominantly reseeded with Aber High Sugar Grasses and Germinal white clovers. Grass silage typically analyses at over 12MJ/kg ME with good protein content.

John's latest seed mixture contained the high-quality perennial ryegrass varieties of AberZeus, AberMagic, AberGreen, AberClyde and AberGain with AberDai white clover. All these high-ranking varieties feature on the latest recommended lists.

Farm details

- Gordonall, Greyabbey, Co. Down
- 75 hectares comprising 52 ha improved grass, 8 ha spring barley (following Redstart/Appin turnips), 15ha short rotation coppice willows
- 680 composite ewes
- 1.84 lambs/mature ewe
- > 85% grass-finished lambs
- > 220g average daily gain (ADG)
- 612kg lamb carcass weight produced/ha



Aber HSG Overseeding

To boost your grassland production in the short to medium term, and see an early return on investment, overseeding can provide a quick fix.

The Aber HSG Overseeding mixtures are specifically designed to rejuvenate swards with minimal time out of production by establishing rapidly and blending with existing grass leys.

Aber HSG Long-Term Overseeding

Fig 14.

Aber HSG Long-Term Overseeding:

T = Tetraploid

Kg / acre	Variety	Type	Heading Date
3.00	AberClyde	Perennial Ryegrass (T)	23 May
3.00	AberGain	Perennial Ryegrass (T)	03 Jun
4.00	AberBite	Perennial Ryegrass (T)	04 Jun
10.00			

Benefits of Aber HSG Long-Term Overseeding

- 100% tetraploids for rapid establishment
- Perennial ryegrasses for persistency
- High ranking Aber HSG varieties

Aber HSG Short-Term Overseeding

Fig 15.

Aber HSG Short-Term Overseeding:

T = Tetraploid

Kg / acre	Variety	Type	Heading Date
5.00	AberEcho	Hybrid Ryegrass (T)	14 May
5.00	AberNiche	Festulolium	22 May
10.00			

Benefits of Aber HSG Short-Term Overseeding

- Rapid establishment
- High yielding under cutting
- New festulolium for increased rooting



Aber HSG for AD

Grass provides a cost-effective, environmentally sustainable feedstock for anaerobic digesters.

Compared to crops requiring annual cultivations, grass leys allow more opportunity to spread the liquid or solid waste product from digesters without the need to plough back in.

The Aber HSG mixtures for AD offer a distinct advantage over other grassland varieties with their high water-soluble carbohydrate (sugar) content generating a higher yield and rate of biogas production whether ensiled or a fresh crop.

Aber HSG mixtures for AD

Fig 16.

AD Short-term:

T = Tetraploid

Kg / acre	Variety	Type
5.00	AberEcho	Hybrid Ryegrass (T)
4.00	AberClyde	Perennial Ryegrass (T)
5.00	AberNiche	Festulolium
14.00		

Fig 17.

AD Medium-term:

T = Tetraploid

Kg / acre	Variety	Type
6.00	AberEcho	Hybrid Ryegrass (T)
8.00	AberWolf	Perennial Ryegrass
14.00		

Fig 18.

AD Long-term:

T = Tetraploid

Kg / acre	Variety	Type
5.00	AberWolf	Perennial Ryegrass
4.00	AberGreen	Perennial Ryegrass
5.00	AberBite	Perennial Ryegrass (T)
14.00		

Reseeding

Timing

Spring reseeding

- Improving temperatures aid germination and establishment of new sward
- Opportunity to take several grazings to help tiller the new sward
- Improved soil conditions will make it easier to apply a post-emergence spray
- The sward will be well "settled" in the following spring
- Easier to establish clover

Autumn reseeding

Autumn reseeding may suit from a feed budget perspective, but there are some risks:

- Lower soil temperature can decrease seed germination – aim to sow seed by early September
- Poor weather may make it more difficult to graze a new reseed or apply a herbicide for weed control – grazing helps tiller the grass plants and creates a dense sward

Follow our 10-point plan when reseeding.

1

Soil test. Target pH is 6.3, target P and K index is 3. If ploughing, wait until after ploughing to soil sample

2

Spray off the old sward with glyphosate

3

Cultivate to ensure a fine, firm seedbed is achieved. Ploughing will help level any rough fields. Apply lime as per soil test results

4

Select Recommended List varieties suited to intended field use e.g. grazing or silage

5

Sow 14 kg seed/acre in good conditions (warm with rain forecast), no deeper than 10 to 15 mm

6

Roll well to ensure good soil/seed contact

7

Apply N, P and K as per guidelines and soil test results

8

Monitor reseed for pest attack e.g. slugs, frit fly, leatherjacket, rabbits etc. Take immediate action where necessary

9

Post-emergence weed spray is essential approx. 5-6 weeks after establishment and prior to first grazing. Where clover is sown, use a clover-safe spray

10

Graze the new reseeds frequently and at light covers to assist in tillering and to help create a dense sward

Reseeding advice

The method used to reseed usually makes little difference to yield in the first full year. It is more important the reseed is done properly and managed well.

Liming

Liming is important to help counteract any acidity resulting from the old sward decaying. Even if a field was limed within two years, apply 1-2 tonnes lime at sowing helps the new sward establish well.

Seedbed

Ground preparation is critical, aiming to produce a fine, firm and level seedbed – one you can ride a bike across! If direct drilling, check for rain before drilling as it's less successful in dry conditions.

Roll

Post-sowing rolling is essential to help compress the soil and keep more moisture in the seedbed. It also helps seed-to-soil contact and the best chance of successful germination.

Pests

Pest attacks are more prevalent with an autumn reseed. The following all help reduce the risk of an attack: killing off an old sward effectively and removing dead material; allowing sufficient time between spraying and cultivation; preparing a good seedbed in the best reseeding conditions; post-sowing rolling. Common pests include:

- **Frit-fly** – can result in patchy, poorly-established reseeds. Frit-fly larvae burrow into the base of newly-emerging grasses, cutting off the plant at the growing point. Autumn reseeds and min-till are at greatest risk.
- **Leatherjacket** – found in bare patches. Leatherjackets are the larvae of the crane fly (Daddy-long-legs). They cut off the plant just below the surface, destroying the seedling. Large crow populations can indicate a leatherjacket problem.
- **Slugs** – indicated by shredded leaves, slugs are most prevalent in wet weather or damp sections of a field, particularly areas with high surface trash or inadequate rolling. Direct-drilled reseeds are at greatest risk as slits in the ground provide shelter for slugs. Use pellets if direct drilling or if a problem is identified. Risk is reduced by creating a fine, firm seedbed with adequate rolling.

Weed control

Post-emergence weed spray provides the best opportunity for weed control in a new sward. Weeds are easier and cheaper to control and most susceptible to herbicides when they are seedlings. Apply a spray targeting the weed types present 5-6 weeks after sowing. If clover is in the sward, take care to use as clover-safe spray at the three-leaf stage.



Summerhill

Quality cutting and grazing mixture

Summerhill is for producers aiming for one or two high quality silage cuts followed by the best possible aftermath grazing. First cut will be late May, with the option of a second cut approximately 4 – 6 weeks later, or before rotational grazing.

Fig 19.

Summerhill:

T = Tetraploid

Kg / acre	Variety	Type	Heading Date
2.00	AberClyde	Perennial Ryegrass (T)	23 May
4.00	AberMagic	Perennial Ryegrass	27 May
2.00	AberBite	Perennial Ryegrass (T)	04 Jun
2.00	AberBann	Perennial Ryegrass	07 Jun
3.00	AberLee	Perennial Ryegrass	07 Jun
1.00	AberPasture	White Clover Blend	
14.00			

Heading date average for Summerhill is 01 June for Northern Ireland.

When cutting for silage, aim to cut 5 - 10 days before average heading date for optimum quality.

Benefits of Summerhill

- Long-lasting ley with outstanding quality
- Good yield credentials for grazing and cutting
- Careful balance of intermediate and late, diploid and tetraploid varieties
- High digestibility and dry matter intakes
- Lower ammonia and methane excretion reducing environmental impact





Marathon

Grass mixture ideally suited to general purpose use

Marathon has similar qualities to Summerhill, producing one or two high quality silage cuts before offering excellent aftermath grazing. The addition of timothy to this high-quality mix also makes it suitable for heavier ground.

Fig 20.

Marathon:

T = Tetraploid

Kg / acre	Variety	Type	Heading Date
3.00	AberGreen	Perennial Ryegrass	28 May
2.00	AberAvon	Perennial Ryegrass	01 Jun
2.00	AberBite	Perennial Ryegrass (T)	04 Jun
2.00	AberPlentiful	Perennial Ryegrass (T)	06 Jun
3.00	AberLee	Perennial Ryegrass	07 Jun
1.00	Comer	Timothy	
1.00	AberPasture	White Clover Blend	
14.00			

Heading date average is 03 June for Northern Ireland.

When cutting for silage, aim to cut 5 - 10 days before average heading date for optimum quality.

Benefits of Marathon

- Contains a balance of intermediate and late, diploid and tetraploid varieties
- Excellent persistence and density
- Lower ammonia and methane excretion reducing environmental impact
- Suitable for all areas





Sheepmount

Specialist sheep mixture

Fig 21.

Sheepmount:

T = Tetraploid

Kg / acre	Variety	Type	Heading Date
2.00	AberGreen	Perennial Ryegrass	28 May
2.00	AberAvon	Perennial Ryegrass	01 Jun
2.00	AberPlentiful	Perennial Ryegrass (T)	06 Jun
4.00	AberLee	Perennial Ryegrass	07 Jun
1.00	Comer	Timothy	
2.00	Maxima	Creeping Red Fescue	
1.00	AberSheep	White Clover Blend	
14.00			

Heading date average for Sheepmount is 04 June for Northern Ireland.

When cutting for silage, aim to cut 5 - 10 days before average heading date for optimum quality.

Benefits of Sheepmount

- Intensive sheep grazing
- High carrying capacity
- Palatable forage
- Specialist white clover blend for sheep grazing
- Dense sward



Equestrian

Specialist horse and pony mixture

Fig 22.

Horse Paddock:

T = Tetraploid

Kg / acre	Variety	Type	Heading Date
5.50	Kerry	Perennial Ryegrass	02 Jun
2.00	Briant	Perennial Ryegrass (T)	03 Jun
4.00	AberLee	Perennial Ryegrass	07 Jun
2.00	Maxima	Perennial Ryegrass	
1.00	Comer	Timothy	
0.50	Senu	Meadow Fescue	
15.00			

Heading date average for Horse Paddock is 04 Jun for Northern Ireland.

When cutting for silage, aim to cut 5 - 10 days before average heading date for optimum quality.

Benefits of Equestrian

- Creeping grasses to minimise poaching
- Rapid establishment
- Dense and persistent sward
- Good grazing and hay yields
- Very palatable



Germinal Climate Smart Options

Germinal is harnessing the opportunities science brings to improve efficiencies in agriculture, making a positive contribution to the future of farming.

Germinal Horizon, our research and innovation team, has scientists at world-leading grassland research centre, the Institute of Biological, Environmental and Rural Sciences (IBERS) at Aberystwyth University, and researchers on our own Germinal Horizon R&D farm sites.

This team of specialists are applying research through trials and education bridging the gap between pure science and real life on-farm application.

Climate smart forage solutions

Germinal's extensive knowledge of forage seed development combined with science is allowing us to truly innovate in plant breeding and bring world-first climate smart products to farmers.

Climate smart seed varieties help farmers adapt to climate change and its impacts while remaining productive and profitable. These varieties are more efficient, require fewer inputs and reduce the impact on the land and water.

Climate smart options are high performance products with environmental and economic benefits.



Aber HSG

Our **Aber High Sugar Grass (HSG)** range is a climate smart leader scientifically proven to reduce livestock emissions. Over the last 20 years, **Aber HSG** varieties have been sown across 4.6 million acres.



DoubleRoot

DoubleRoot is the first hybrid clover with improved persistency and resilience by combining the growing traits of white clover and Caucasian clover making them suitable for a wider range of climates and soils.

Joining weather resilient roots below the ground with the strength of stolons or 'runners' formed above ground, DoubleRoot clover varieties are more drought and cold tolerant than standard clover.

This novel root system also benefits soil health and structure and reduces the need for applied fertiliser due to clover's natural nitrogen-fixing ability.



LandStrong

LandStrong mixtures increase soil fertility, boost biodiversity and reduce fertiliser inputs to support sustainable farming systems.

The range includes Germinal's Countryside Stewardship multi-species mixes carefully formulated to protect and restore wildlife habitats and the natural environment. The mixtures are specific to the requirements of current government grants.

In development

DeepRoot

A performance ryegrass with a deeper taproot that resists cold and drought and gives additional spring growth.

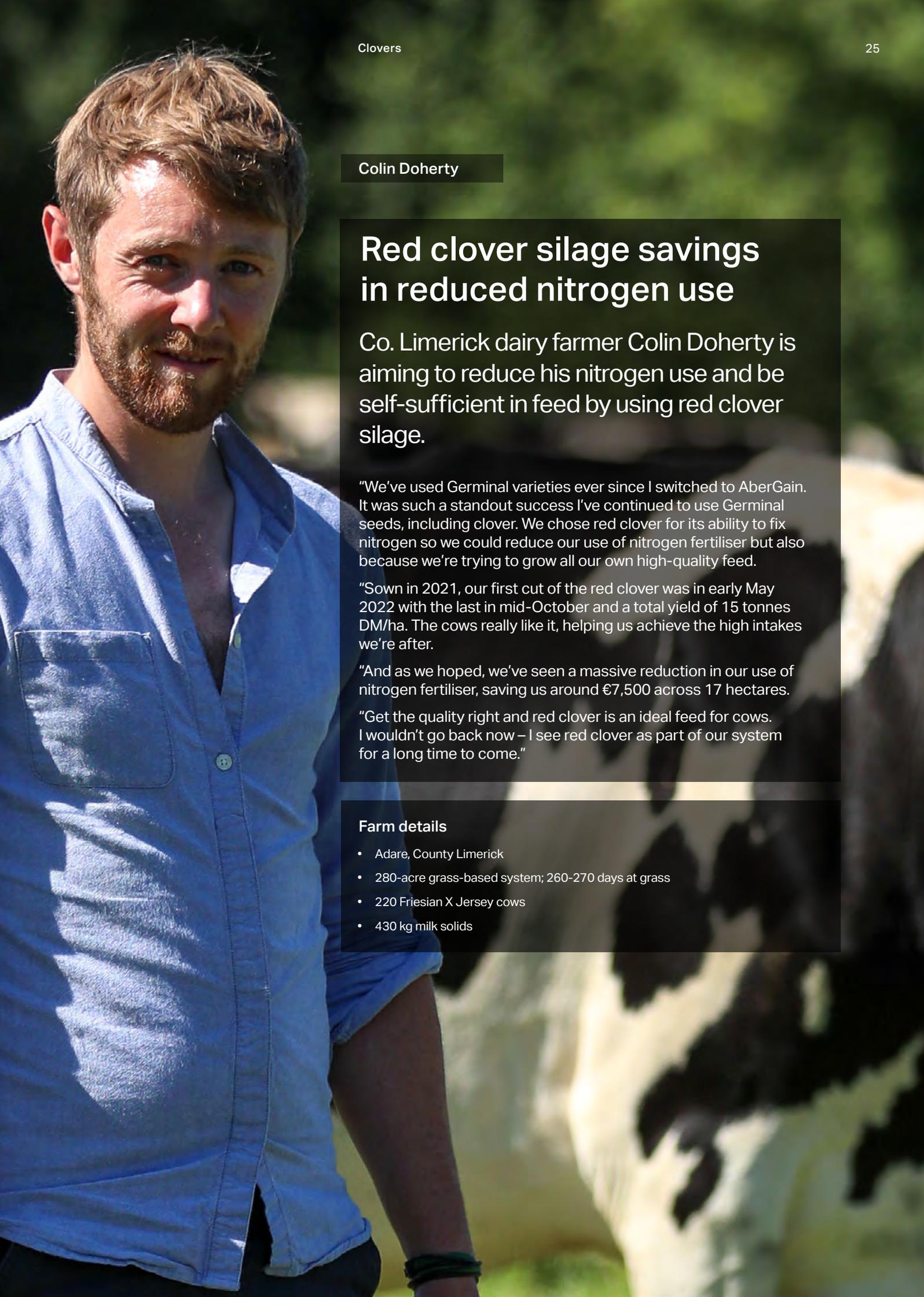
Red clover

Red clover is a high-quality, cost-effective source of homegrown protein able to be grazed or cut and with the ability to fix nitrogen reducing the need for both bought-in feed and N fertiliser.

When cut, it typically has a dry matter (DM) percentage, metabolisable energy (ME) content and crude protein level above that of grass silage. With a protein content of 16-20% and containing an enzyme reducing protein breakdown in the clamp, it is an attractive option for feeding high-performing livestock.

Red clover also performs well in severe weather, its long taproot increasing its resilience to cold and drought. In the dry summer of 2022, red clover was still producing 10-15 tonnes DM/ha in many areas. The long taproot also benefits soil structure and fertility.

One of its shortcomings has been its relatively short persistence in the sward but the new generation Germinal red clovers, including AberClaret, have overcome this problem. Bred at Germinal Horizon in Aberystwyth, AberClaret lasts at least four years in a cutting sward and is significantly more tolerant of grazing. This longer productive life makes it more compatible with medium to long-term leys.



Colin Doherty

Red clover silage savings in reduced nitrogen use

Co. Limerick dairy farmer Colin Doherty is aiming to reduce his nitrogen use and be self-sufficient in feed by using red clover silage.

"We've used Germinal varieties ever since I switched to AberGain. It was such a standout success I've continued to use Germinal seeds, including clover. We chose red clover for its ability to fix nitrogen so we could reduce our use of nitrogen fertiliser but also because we're trying to grow all our own high-quality feed.

"Sown in 2021, our first cut of the red clover was in early May 2022 with the last in mid-October and a total yield of 15 tonnes DM/ha. The cows really like it, helping us achieve the high intakes we're after.

"And as we hoped, we've seen a massive reduction in our use of nitrogen fertiliser, saving us around €7,500 across 17 hectares.

"Get the quality right and red clover is an ideal feed for cows. I wouldn't go back now – I see red clover as part of our system for a long time to come."

Farm details

- Adare, County Limerick
- 280-acre grass-based system; 260-270 days at grass
- 220 Friesian X Jersey cows
- 430 kg milk solids

White Clover

The role of white clover

White clover increases the nutrient intake of livestock, particularly during the summer when grass productivity may be slowing down.

A high-quality source of protein, it supports constituent levels in dairy cows and drives performance in sheep and cattle.

Its strong creeping stem makes white clover tolerant of grazing and enables the plant to store energy and protein over winter and into spring. It is also able to fix nitrogen, reducing the need for N fertiliser applications.

The Germinal white clover blends are leading the way in producing higher yields and lasting longer. Newer varieties are achieving optimum targets of a 30 - 35% contribution to total sward dry matter under a range of management systems, with five Germinal varieties found on the latest recommended grass and clover list.

Aber HSG mixtures are offered with clover as standard.

Fig 23.

AberPasture:
Cattle set stocking
and rotational
sheep grazing

%	Variety
75%	AberDai (medium leaf)
25%	AberAce (small leaf)

Fig 24.

AberSheep:
Continuous or
rational grazing,
upland or lowland

%	Variety
25%	AberDai (medium leaf)
50%	AberAce (small leaf)
25%	AberLasting (small leaf)

Benefits of Germinal clover blends

- Increased output of milk and meat from forage
- Improved soil structure and grazing quality
- Balanced grass/clover sward
- Suitable for a wide range of soil types and management systems
- 100% Germinal clover varieties

Alternative forage crops



Growing alternative forage crops is all about cost efficiency, helping to cut bought-in feed costs and fill feeding gaps. They complement efforts to improve grassland and produce high-quality grazing and grass silage, as a companion, break or following crop.

Herbs such as chicory and plantain can be used in a mixed grazing sward to provide a high-quality feed rich in valuable minerals while protein-rich lucerne offers an alternative cutting crop.

The wide variety of available brassicas ranges from leafy kales and forage rapes to root crops, including stubble turnips and swedes. They are a versatile feeding solution to fill summer grazing gaps, extend autumn grazing, or support outwintering systems taking the pressure off conserved forage stocks.

When used between grass leys, brassicas are an effective break crop, disrupting the life cycle of pests able to damage newly established leys.

Tonic Plantain



Tonic plantain is an ideal forage herb in mixed species swards with Aber High Sugar Grasses and Germinal white and red clovers to boost growth and liveweight gain.

It is a protein- and mineral-rich forage well suited to intensive or rotational grazing systems and a nutritious addition to a mixed sward.

Tonic plantain offers good spring and autumn growth, allowing a longer productive season and shows rapid regrowth post-grazing.

Benefits of Tonic plantain

- More milk or meat production
- Increased daily liveweight gain
- Heavier weights at weaning
- High dry matter production from early spring to late autumn
- Reduces the effects of internal parasites
- High in minerals, especially copper and selenium
- High digestibility to drive intakes and growth



Puna II

Perennial chicory



Puna II is a forage crop for use as a pure stand or part of a mixed sward in medium to long-term rotational grazing.

Puna II perennial chicory is the superior choice of chicory when seeking a broad-leaved forage crop as part of a mixed sward with grass and clover or grown alone in a pure stand. It can boost growth rates and productivity to finish stock earlier and better. This perennial variety, bred in New Zealand, gives greater persistency lasting 2-5 years, longer than the short-lived common chicory.

Benefits of Puna II perennial chicory

- Outstanding animal performance (e.g. lamb growth rates of 300-400g/day)
- Yields up to 15tDM/ha in a season; crude protein up to 25%; D-value 70-80
- High mineral content, including zinc, potassium and copper
- Good tolerance to drought, acid soils and major pests
- Rapid regrowth after grazing
- Reduces the effect of internal parasites
- Provides high quality feed through the summer
- Does not cause bloating



Timbale Milky-Max

Lucerne

Lucerne offers the potential to provide an economic source of homegrown protein, reducing reliance on bought-in feed and fertiliser.

If you are looking for an alternative cutting crop, lucerne is certainly worth considering. It can also be grazed under specific conditions and, however you choose to use it, lucerne offers a highly digestible alternative for livestock farmers. It's best suited to free-draining soils, so avoid heavier land, and is able to thrive in dry conditions. Able to fix nitrogen, lucerne not only reduces the need for applied N fertiliser but leaves residual nitrogen in the soil for subsequent crops.

With good management, lucerne maintains quality for 4 - 6 years.

Benefits of lucerne

- Highly palatable, protein-rich complementary feed to drive intakes
- Outstanding yield and D-value
- Good drought tolerance
- Selected varieties for UK conditions
- Lower ammonia excretion reducing environmental impact

Varieties selected for UK conditions

Timbale

Milky-Max

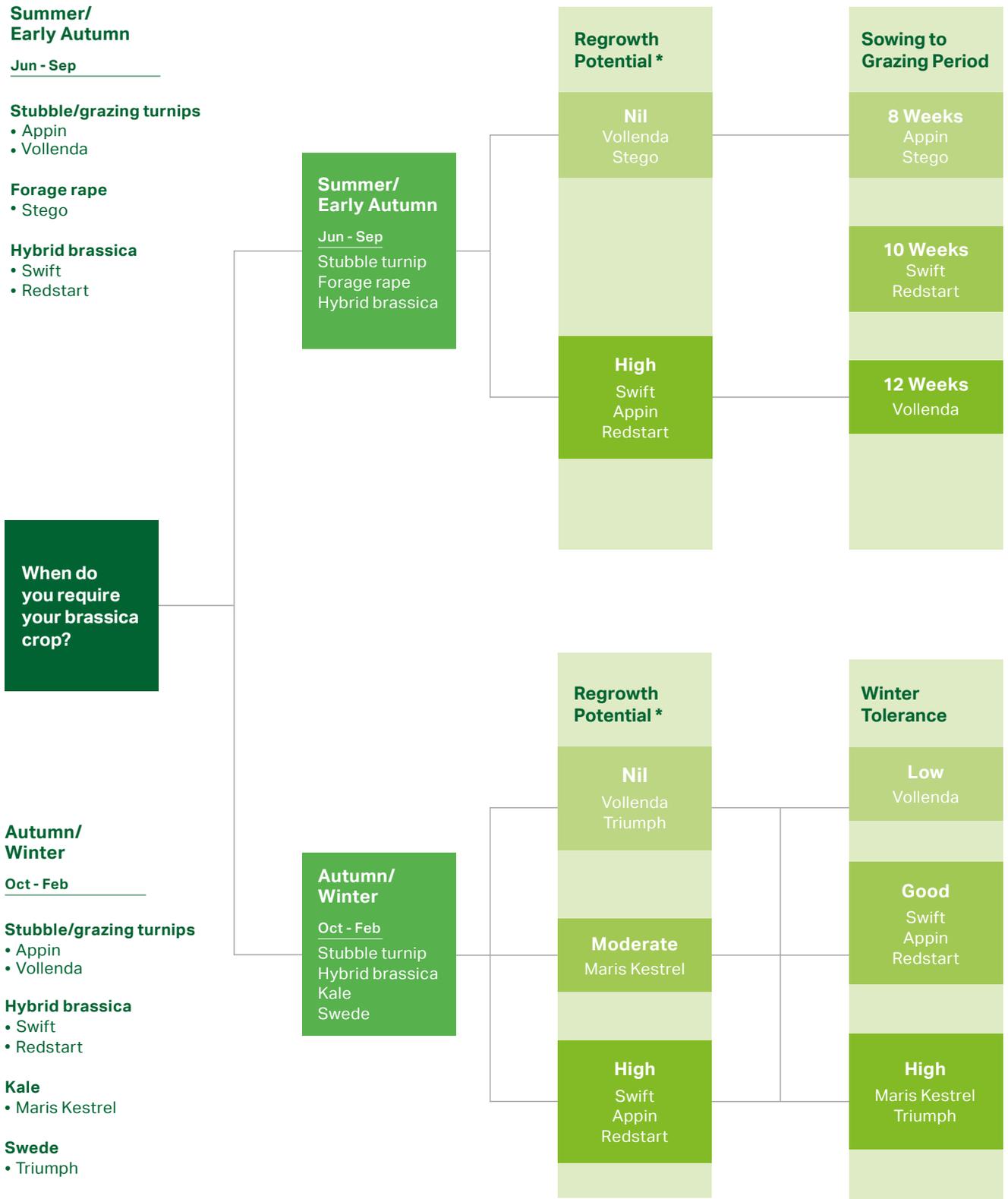
Supplied pre-inoculated and treated with Seed Applied Solution for better establishment and to stimulate early development

Fig 25.

Improved development of roots and foliage is seen in the lucerne seedlings on the right as a result of Seed Applied Solution seed treatment:



Planning your brassica crops



* Rate and extent of regrowth depends on weather conditions.

Kale

Maris Kestrel

Maris Kestrel

Kale is a high-quality, cost-effective winter feed for all classes of stock.

It can also help overcome grass shortages towards the end of summer. This high-yielding, high leaf-to-stem ratio variety is highly digestible, suitable for grazing.

Benefits of kale

- High palatability driving intakes
- Good cold weather and frost tolerance
- Stems resistant to lodging
- Ideal for outwintering

Variety

Maris Kestrel Sow at 2 - 3kg/acre from May to the end of June. Feed from July to the following February.



Hybrid brassicas

Swift and Redstart

 **Swift**

 **Redstart**

If you're looking for a flexible, cost-effective forage crop, hybrid brassicas are a new interspecies of kale and rape, ideal for high energy grazing of cattle and sheep.

The crop grows quickly and vigorously, offering grazing options from July to around the end of January depending on sowing date.

Benefits of hybrid brassicas

- High energy and protein
- Suitable for cattle and sheep
- Good cold weather and frost tolerance
- Good late season yields

Variety

Swift Sow at 2 - 3kg/acre from May to the end of August. Feed from July to the following January.

Redstart Sow at 2 - 3kg/acre from May to the end of August. Feed from July to the following January.



Grazing turnip

Appin



Grazing turnip offers a flexible feeding option reducing reliance on concentrates during the autumn and winter.

As well as providing a main crop, it can be used as a catch crop during summer grazing shortfalls.

Benefits of grazing turnip

- High palatability and easy-to-digest driving intakes
- Suitable for cattle and sheep
- Fast growing with excellent regrowth potential offering versatile grazing
- Wide sowing window

Variety

Appin Drill at 2 - 3kg/acre from March to mid-September. Feed from May to December.

Stubble turnip

Vollenda



Stubble turnip is another flexible cost-effective feeding solution in summer, autumn or winter for sheep or cattle.

It, too, can be used as a catch crop during summer shortfalls.

Benefits of stubble turnip

- High energy and protein
- Suitable for cattle and sheep
- Easy establishment and quick growth
- Good clean grazing for lambs

Variety

Vollenda Drill at 2 - 3kg/acre from May to the end of August. Feed from July to the following January.

Forage rape

Stego

Stego

Rape is a fast-growing, high protein feed particularly well-suited to finishing lambs.

It also offers potential for extended grazing of cattle through summer, autumn and winter.

Benefits of forage rape

- High leaf-to-stem ratio
- Excellent disease resistance
- Suitable for outwintering

Variety

Stego Drill at 3kg/acre (or broadcast at 4kg/acre) from March to July. Feed from June to December.

Swede

Triumph

Triumph

A high-yielding feed suitable for outwintering all classes of stock.

Benefits of swede

- High energy feed for cattle and sheep
- Outstanding dry matter yields
- Good cold weather tolerance

Variety

Triumph Drill at 1kg/acre for natural seed drill from mid-May to end of June. Feed from December to March.

Irish Native Wildflower Mixtures

Our wildflower mixtures contain native seed sourced from Ireland and suit a variety of soil conditions and individual requirements. They are designed to provide food sources for pollinators from late spring through to autumn and are ideal for increasing the biodiversity of your garden, roadside verge or local amenity area.

Flowering Meadow

The outstanding colour of the flowering species provides a rich food source to encourage pollinators such as butterflies and bees. A blend of annual and perennial species selected to produce colour over several years, it produces an abundance of flowers ideal for gardens or any low maintenance areas.

- Contains 100% Irish Native Wildflowers
- Sowing rate: 1.5 g/m²
- Pack size: 500 g

Acid/ Heavy soils

This mix of annual and perennial wildflowers with appropriate grasses produces a grassland meadow suited to heavy soils, with the flowering species benefitting pollinators such as bees and butterflies.

- Contains 60% Irish Native Wildflowers and 40% Ornamental Grasses
- Sowing rate: 2 g/m²
- Pack size: 1 kg

Light Soils

This mixture of flowering species and grasses designed for light soil types, creates a natural meadow to benefit pollinators and improve biodiversity.

- Contains 60% Irish Native Wildflowers and 40% Ornamental Grasses
- Sowing rate: 2 g/m²
- Pack size: 1 kg

Annual Meadow

This annual mix gives an outstanding display of colour in its first year. In subsequent years, an annual reseeding programme builds a strong seed bank to maintain a colourful display from seed regenerated through soil disturbance. It can be sown on its own or with any of the options above to supplement the perennial mixtures and increase colour in the first year.

- Contains 100% Irish Native Wildflowers
- Sowing rate: 1.5 g/m²
- Pack size: 1 kg

Find out more

Should you require any more information or to request a selection of free brochures and technical guides please visit our website:

germinal.ie



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The mixtures in this brochure are correct at the time of going to press and the supplies of the varieties used in the mixtures should be adequate for this season. If however we do run short of some, they will be replaced by the next best variety on the Recommended List.



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