germinal.ie

# Ask for **Germinal**

# Climate Smart Performance

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

Product catalogue **2024** 





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# **Change for the better**

As we approach another season, we have experienced ongoing impacts of changing weather patterns and continued pressure to improve practices and reduce our carbon footprint.

Adapting to change is not new for farmers as they are natural adopters of on-farm methods to get the results they need. For Germinal, agricultural change is about adaptation and mitigation, both critical in the face of climate-related risks. There are many challenges to tackle – reducing inputs such as fertiliser application to restrict greenhouse gas emissions, maximising animal performance and food production, while facing a changing climate.

Focusing on forage solutions, Germinal continues to offer the highest-performing grass varieties for meat and milk production with our Aber High Sugar Grasses (HSG) also possessing the climate smart advantage of reducing harmful emissions.

Year after year, Aber HSG varieties deliver proven economic performance on the Pasture Profit Index. In 2024, we have the top-three or better for Intermediate Diploids, Intermediate Tetraploids, Late Diploids and Late Tetraploids to give you a complete grass offering. This is a testament to the enduring excellence of our Germinal Horizon breeding team.

This year's catalogue also contains solutions to other key environmental issues like nutrient management and soil fertility with clovers and multi-species mixtures to support your sustainable food production.

Farmers are resilient and so, farming systems must be also. The scientific and applied research we do at Germinal Horizon directly targets climate change problems and we're continually looking at grasses, clovers and other multi-species forage solutions.

Choose performance plus environment.

We are excited to introduce our 2024 product range and support all farmers on their own commitment and journey towards positive progress.

Here's to a productive year ahead.

#### **Ben Wixey**

Agricultural Director Germinal UK and Ireland

# **Germinal mixtures**

Germinal's grass seed range includes the most profitable varieties with the highest quality, yield and silage performance in the 2024 Teagasc Pasture Profit Index (PPI) and Irish Grass Recommended List.

The varieties show outstanding performance across the most important traits for Irish grass-based production systems.

Our mixtures are formulated using these traits to produce high-quality, high-yielding, palatable swards tailored specifically to meet all your needs on farm.

Intensive grazing	Top 5 Extend
Dual purpose – cut and graze	Top 5 Grazing
Specialist grazing	Multi-Species Mixture Sheep Mixture Horse Mixture Difficult Soils
Intensive silage	Top 5 Silage Red Clover Intensive Silage Hybrid Silage
Overseeding	Tetraploid Mixture



# **Alan Hughes**

Alan Hughes knows using only the highest quality grass seed is going to see him achieve his aim of producing 85-90% milk from forage on his Co. Carlow farm.

"In an ideal year we have cows at grass for 300 days, so grass quality is central to our productivity.

"I've spent time learning what goes into a grass mixture and have become far more selective about what I use, what works best in my soils and how to recognise quality seed varieties.

"Germinal mixes only contain the highest quality varieties recognisable from the PPI. I currently use Top 5 Extend, a mix of diploid and tetraploid perennial ryegrasses, which suits our grazing system and produces the silage yield we need."

### Farm details

- Dunleckney Farm, Bagnalstown, Co. Carlow
- 245 acres across one block
- 250 Holstein Friesians with Jersey cross
- Spring calving 90% over a six-week block
- Butterfat: 4.54%
- Protein: 3.8%

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# Top5 Extend



High clover option available



This highly palatable mixture produces good quality forage for dairy and beef cattle, sheep and finishing lambs.

Primarily a premium grazing mixture, Top 5 Extend also provides a high-yielding silage cut. It is best cut towards the end of May, 5-10 days before its heading date in early June.

#### Key benefits

- Suitable for dairy, beef and sheep systems
- High palatability to drive dry matter intakes and animal performance
- Outstanding seasonal grazing yield and quality
- Suitable for intensive grazing, cut-and-graze or zero grazing systems

Fig 01.				
Top 5 Extend:	Kg / acre	Variety	Туре	Heading Date
T = Tetraploid	3.25	AberGain	Perennial Ryegrass (T)	04 Jun
D = Diploid	3.00	Balllintoy	Perennial Ryegrass (T)	04 Jun
	3.00	AberChoice	Perennial Ryegrass (D)	11 Jun
	2.00	Ballyvoy	Perennial Ryegrass (D)	03 Jun
	0.75	White Clover Blend	Medium Leaf	
	12.00			

Fig 02.		MAY	JUNE
Top 5 Extend:	20 21 22 23 24 25	26 27 28 29 30 31	1 2 <b>3 4 5 6 7 8 9 10 11</b> 12 13 14 14 15 16 17 18 19 20
Spread of heading dates		OPTIMAL CUTTING WINDOW	



# Top 5 Grazing



Fig 03.

High clover option available Top 5 Grazing is ideally suited to rotational grazing or set stocking, but also offers an opportunity for a heavy silage cut in late May or early June.

The dense leafy sward produced by Top 5 Grazing makes it the best selection for intensive animal production systems. Its yield and quality are retained in both grazing or cut-and-graze systems.

#### Key benefits

- Suitable for dairy, beef and sheep systems
- High palatability to drive dry matter intakes and animal performance
- Supreme grazing yield and quality
- Suitable for intensive grazing or cut-and-graze systems
- Excellent spring and autumn growth

Top 5 Grazing:	Kg/acre	Variety	Туре	Heading Date
T = Tetraploid	3.15	AberBann	Perennial Ryegrass (D)	10 Jun
D = Diploid	3.10	Drumbo	Perennial Ryegrass (D)	05 Jun
	2.50	Ballintoy	Perennial Ryegrass (T)	04 Jun
	2.50	Gracehill	Perennial Ryegrass (T)	04 Jun
	0.75	White Clover Blend	Medium Leaf	
	12.00			

Fig 04.	M/	MAY JUNE
Top 5 Grazing:	20 21 22 23 24 25 <b>26 27 28 29 30 3</b>	<b>31</b> 1 2 3 <b>4 5 6 7 8 9 10</b> 11 12 13 14 14 15 16 17 18 19 20
Spread of heading dates	OPTIMAL CUTTING WINDOW	IG



# Top 5 Silage



Top 5 Silage is a specialist grass mixture created specifically for the production of a superior quality silage with excellent aftermath grazing.

If you are looking for a first cut in late May, Top 5 Silage is ideal, while also offering a second cut about six weeks later.

#### Key benefits

- Produces high-quality silage without compromising yield
- Mixture contains top PPI ryegrass varieties
- Optimum heading date range enables high-quality first cut silage late May
- Excellent spring and autumn growth
- Available without white clover on request

#### Top 5 Silage:

- T = Tetraploid
- D = Diploid

Kg/acre	Variety	Туре	Heading Date
3.00	AberClyde	Perennial Ryegrass (T)	25 May
2.70	AberSpey	Perennial Ryegrass (T)	27 May
3.00	AberMagic	Perennial Ryegrass (D)	28 May
2.70	Galgorm	Perennial Ryegrass (D)	26 May
0.60	Alice	White Clover Large Leaf	
12.00			

Optimum spread of heading dates within mixtures for grazing and cutting results in better performance of the leys. When cutting for silage, aim to cut 5-10 days before average heading date for optimum quality.

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#### Top 5 Silage:

Spread of heading dates

						MAY									Y JUNE															
15	16	17			21	22			25	26	27	28				1														
	OF F(	OR HI	L CUT GH QU	WIND (SILA	OW GE																									



# **Sheep Mixture**

### A specialist mixture for intensive sheep grazing systems.

Our Sheep Mixture offers grass and clover varieties specifically selected for sheep production systems. Its excellent spring and autumn growth supports grazing when feed demand is highest.

#### Key benefits

- High palatability to drive intakes and animal performance
- Outstanding yield potential
- Dense and persistent sward
- Includes white clover ideal for sheep grazing

#### Fig 07.

# Sheep Mixture:

D = Diploid

Kg/acre	Variety	Туре	Heading Date
2.80	AberBann	Perennial Ryegrass (D)	10 Jun
2.70	Drumbo	Perennial Ryegrass (D)	05 Jun
2.20	Ballintoy	Perennial Ryegrass (T)	04 Jun
2.30	Gracehill	Perennial Ryegrass (T)	04 Jun
2.00	White Clover Blend	Small and Medium Leaf	
12.00			

Fig 08.								MAY	JU	JNE											
Sheep Mixture:	20 2		25	26	27			31	1		4	5 (	67	8 9	10						
Spread of heading dates				0	PTIN		TTIN V	G													



# **Multi-Species Mixture**

## This is a specialist mix for lower input systems where improving soil health is a priority.

Multi-Species Mixture contains high-quality grasses, legumes and herbs, providing multiple sources of protein, energy and minerals for grazing livestock. Soil health benefits from the plant species' different abilities to fix and lift nitrogen, reducing environmental impact.

#### Key benefits

- Superior sward performance through complementary plant species
- Improved soil structure
- Increased drought tolerance
- · Ideal for finishing lambs, cattle and dairy systems
- Reduced effect of internal parasites
- High-quality feed through the summer

Kg/acre	Variety	Туре	Heading Date
3.00	Ballintoy	Perennial Ryegrass (T)	04 Jun
3.60	AberChoice	Perennial Ryegrass (D)	11 Jun
0.70	Comer	Timothy	
1.50	White Clover Blend	Legume	
1.50	Red Clover Blend	Legume	
1.00	Tonic Plantain	Plantain	
0.70	Puna II	Chicory	
12.00			

#### Fig 09.

#### Multi-Species Mixture:

T = Tetraploid

D = Diploid



09

# **Difficult Soils**



The Difficult Soils mixture is ideal for challenging conditions where outstanding ground cover and persistency are required.

A specialist mix for wet, peaty or heavier soils, Difficult Soils contains timothy for its suitability in demanding ground but can be excluded on request.

#### Key benefits

- High sward density
- Good persistency
- · Increased palatability to drive dry matter intakes
- Suitable for dairy, beef and sheep systems

#### Fig 10.

#### Difficult Soils Mixture:

T = Tetraploid D = Diploid

Kg/acre	Variety	Туре	Heading Date
3.60	Ballyvoy	Perennial Ryegrass (D)	03 Jun
3.70	Drumbo	Perennial Ryegrass (D)	05 Jun
3.10	Briant	Perennial Ryegrass (T)	03 Jun
1.00	Comer	Timothy	
0.60	White Clover Blend	Medium Leaf	
12.00			

Optimum spread of heading dates within mixtures for grazing and cutting results in better performance of the leys. When cutting for silage, aim to cut 5-10 days before average heading date for optimum quality.

#### Fig 11.

#### Difficult Soils Mixture:

Spread of heading dates

												MAY	JU	JNE									
				23	24			27		29	30		1		3	4	5						
					C	OPTI	MAL		TTIN V	G													



# **Horse Mixture**



Horse Mixture is a specialist option for pastures supporting the grazing of horses and ponies.

It's ideal for horses and ponies because it creates a high fibre, low protein grass sward and tolerates tight grazing.

#### Key benefits

- Excellent yield performance for both cutting and grazing
- Produces a dense and persistent sward
- Minimal poaching due to the smooth-stalked meadow grass
- Available with or without mixed herbs high in trace elements

#### Fig 12.

#### Horse Mixture:

Kg/acre	Variety
7.00	Perennial Ryegrass
3.00	Smooth Stalked Meadow Grass (Kentucky Bluegrass)
1.50	Timothy
0.50	Mixed Herbs
12.00	



# **Tetraploid Mixture**



High clover option available

## A specialist mix for overseeding in intensive grazing systems.

Overseeding helps rejuvenate swards damaged by poaching with minimal time out of production. The heavier seeds of high-quality perennial ryegrass varieties contained within the mixture give it the ability to establish rapidly.

The larger, more upright leaves also make the swards easier to graze. The more open growth habit of these grasses, however, makes this mixture less suited to heavier soil types due to an increased risk of poaching.

#### Key benefits

- · Increased palatability driving higher intakes
- High-quality grasses giving superior animal performance
- Excellent sward utilisation
- Rapid establishment

Tetraploid Mixturo:	Kg/acre	Variety	Туре	Heading Date
wixture.	3.75	AberGain	Perennial Ryegrass (T)	04 Jun
T = Tetraploid	3.70	AberSpey	Perennial Ryegrass (T)	27 May
	3.80	Ballintoy	Perennial Ryegrass (T)	04 Jun
	0.75	White Clover Blend	Medium Leaf	
	12.00			
Fig 14.				
Tetraploid Mixture:	15 16 17 18 19 20 2	21 22 23 24 25 26 27 28 2	29 30 31 <b>1</b> 2 3 4 5 6 7 8 9	9 10 11 12 13 14 14 15
Spread of heading dates		OPTIMAL CUTTING WINDOW		

## Tips to successfully overseed grass

- ✓ Overseed in the spring or after cutting silage
- ✓ Unsuitable for swards with a 'butt' as good seed-to-soil contact is required
- ✓ Scratch the surface with tines to create soil contact for the seed and help pull dead grasses from the sward
- ✓ Sow at a rate of 10 kg/acre by spreading or stitching in to ensure even distribution of seed
- ✓ Roll after sowing if ground conditions allow
- ✓ Requires rain immediately after sowing to aid germination and establishment
- ✓ Apply lime, P and K to correct deficiencies
- ✓ Graze frequently at low covers to control the existing sward

Fig 13.

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# **3+ Cut Intensive Silage Options** Red Clover Intensive Silage

A mix designed specifically for high-quality silage production.

Red Clover Intensive Silage is ideal for increasing on-farm protein production to reduce bought-in feed requirements and cut fertiliser costs.

#### Key benefits

- Improved protein content of silage
- Reduces the need for artificial nitrogen
- Outstanding grazing yield and quality
- Suitable for aftermath grazing, but avoid overgrazing

Red Clover
Intensive Silage:

T = Tetraploid D = Diploid

Fig 15.

Kg/acre	Variety	Туре	Heading Date
2.00	AberMagic	Perennial Ryegrass (D)	28 May
2.00	AberWolf	Perennial Ryegrass (D)	30 May
3.50	Barwave	Perennial Ryegrass (T)	22 May
0.50	White Clover	Large Leaf	
4.00	Red Clover		
12.00			

# Hybrid Silage

# A mix containing hybrid ryegrass to produce large quantities of high-quality silage during peak grass growth.

If you aim for three or four cuts in the pit by mid-July onwards, Hybrid Silage is the best option for you, with first cut in mid-May. Sward quality allows grazing after the final cut towards the back end of the year.

#### Key benefits

- Three to four high-quality, high-yielding silage cuts
- Excellent spring and autumn growth, suited to an early or late grazing
- Option to include red clover for enhanced protein content

#### Fig 16.

#### Hybrid Silage:

T = Tetraploid

Kg/acre	Variety	Туре	Heading Date
8.00	AberEcho	Hybrid Ryegrass (T)	18 May
8.00	AberEve	Hybrid Ryegrass (T)	22 May
16.00			



# **Organic Mixtures**

A range of mixtures designed specifically to perform on organic farms.

Our organic grass seed mixtures contain high-quality varieties featured on the Irish Grass Recommended List. They are all designed for organic systems, containing varieties with proven performance on Irish farms.

## Organic Perennial Ryegrass (100% Organic)

Kg/acre	Variety	Туре	Heading Date
5.20	Organic AberChoice	Perennial Ryegrass (D)	11 Jun
1.30	Organic AberWolf	Perennial Ryegrass (D)	30 May
3.25	Organic AberClyde	Perennial Ryegrass (T)	25 May
3.25	Organic AberSpey	Perennial Ryegrass (T)	27 May
13.00			

#### Fig 18.

Fig 17. Organic Perennial Ryegrass: T = Tetraploid D = Diploid

Permanent Pasture:

T = Tetraploid D = Diploid

## Permanent Pasture (77% Organic)\*

Kg/acre	Variety	Туре	Heading Date
4.80	Organic AberChoice	Perennial Ryegrass (D)	11 Jun
1.20	Organic AberWolf	Perennial Ryegrass (D)	30 May
2.00	Organic AberClyde	Perennial Ryegrass (T)	25 May
2.00	Organic AberSpey	Perennial Ryegrass (T)	27 May
1.00	Comer	Timothy	
2.00	White Clover Blend		
13.00			

## Red Clover Silage (71% Organic)\*

Kg/acre	Variety	Туре	Heading Date
4.00	Organic AberChoice	Perennial Ryegrass (D)	11 Jun
1.00	Organic AberWolf	Perennial Ryegrass (D)	30 May
2.10	Organic AberClyde	Perennial Ryegrass (T)	25 May
2.10	Organic AberSpey	Perennial Ryegrass (T)	27 May
3.40	Red Clover		
0.40	White Clover		
13.00			

\*Note: Organic farmers need a derogation before purchasing these mixtures as they contain conventional and organic seed.

#### Red Clover Silage:

T = Tetraploid D = Diploid



# **Mixtures** for Anaerobic Digestion (AD)

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

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

The Germinal 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.

# Kg / acre Variety Type AD Medium-term: Kg / acre Variety Type T = Tetraploid 5.00 AberEve Hybrid Ryegrass (T) D = Diploid 7.00 AberWolf Perennial Ryegrass (D) 12.00

Fig 21.			
AD Long-term:	Kg / acre	Variety	Туре
T = Tetraploid	4.50	AberWolf	Perennial Ryegrass (D)
D = Diploid	3.00	AberMagic	Perennial Ryegrass (D)
	4.50	AberClyde	Perennial Ryegrass (T)
	12.00		





# **Clover in the climate fight**

Clovers are members of the legume family and have stand out advantages as a multi tasking forage option with environmental and economic benefits. Clovers in pasture can mitigate the negative effects of climate change by lowering reliance on the application of chemical fertiliser. They are also a great source of homegrown traceable protein.

With a heritage well beyond Germinal's almost 200 years, clover is not a new tool to agronomy, but at Germinal Horizon we have invested in research to innovate it as a modern technology tool. Germinal DoubleRoot is a world first hybrid white clover with rhizomes and stolons, offering greater resilience to different climatic factors. This adaptive quality makes it a great choice in soils affected by water deficit or cold climate stress.

Dr Jo Matthews, Technical Trials Manager at Germinal Horizon Wiltshire, comments, "The most underutilised and undervalued crop on farms is clover. This climate-friendly plant has the power to reduce your reliance on mineral fertiliser, to boost your homegrown protein supply and fundamentally reduce your outgoings and maximise your livestock production. It's a very simple thing to adopt and has huge potential from a sustainability perspective."

You will find links below to farmer profiles and technical information on using our exclusive red and white clover mixtures, both driving performance of livestock and supporting nutrient efficient protein production.



Scan or click <u>here</u> to view our online articles



Scan or click <u>here</u> to view our online Knowledge Hub



# **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 increases its resilience to cold and drought. In the dry summer of 2022, red clover was still producing 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.



Scan or click <u>here</u> to view our full Red Clover Guide

# **Colin Doherty**

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.

"We aim for our first cut of red clover in May, with the last in mid-October and a total 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, Co. Limerick
- 280-acre grass-based system; 260-270 days at grass
- 220 Friesian X Jersey cows
- 430 kg milk solids



# White clover

# White clover is good for production and the environment, offering many benefits to today's sustainable livestock farming systems.

Able to supply up to 150kg nitrogen/ha, white clover reduces the need for artificial fertiliser and cost of application without impacting grass yield. A high-quality and digestible plant, white clover also supports higher animal feed intakes and enhanced performance.

To gain the most from white clover, an established sward needs a clover content of 25-30%.

It can be used in a full reseed or oversown into an existing sward.

#### Key benefits

- 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





## Tips to successfully overseed with white clover

- Start by controlling weeds, check the herbicide residue period - it can be up to four months before clover can be oversown safely
- Take a silage cut or graze tightly and remove any grass thatch to give good soil visibility and soil-to-seed contact
- Oversow at 3-4kg clover/acre
- Don't begin oversowing if dry weather is forecast moisture is important for germination

## Management post-sowing

- Start grazing oversown swards after about 10 days, at light covers of 900-1,100kg DM/ha and down to a 4cm residual. This allows light to reach the sward base while the clover is establishing
- For the second grazing, graze again at a low cover of approximately 1,000kg DM/ha and a residual of 4cm
- Subsequently graze at 1,200-1,400kg DM/ha and to a residual of 4cm
- Reduce N fertiliser for two rotations to reduce grass growth

Derogation farms must sow a minimum 1kg coated clover/acre when reseeding or 0.6kg/acre uncoated clover.



Scan or click <u>here</u> to view our full White Clover Guide



# **Grass quality**

The quality of grass is a valuable attribute financially. Higher digestibility grasses drive dry matter intakes optimising animal performance through increased milk production and protein concentration.

Grass quality is defined by DMD or digestibility value. According to Teagasc, each unit DMD results in an extra 0.24kg milk/cow/day. In financial value, this represents an additional 10c/cow/day. For a 100-cow herd grazing a high digestibility grass for 300 days, this is worth €3,000 in extra milk production compared to a herd grazing conventional grass varieties.

Germinal varieties are highest across all four categories for quality and economic value in Teagasc's Pasture Profit Index delivering increased farm profitability.



# **Jimmy Madigan**

Kilkenny farmer Jimmy Madigan is already seeing economic and environmental benefits since reseeding with climate smart grasses and clovers in 2022.

"I feel clover swards are the way forward on this farm. We see our cattle thriving and our grass growth is exceptional. We're seeing improved weight gain across all groups of animals.

"If I can grow plenty of high-quality forage and grass at a lower cost to my pocket going forward, then it's definitely the way to go on this farm.

"Plus, it's receiving no chemical nitrogen, which is a big benefit to my pocket and a big benefit to the environment. Our annual nitrogen bill in 2023 was somewhere in the region of €30,000. I don't think that is sustainable on my part and it is not sustainable for the environment either.

"We are getting better animal performance; we're getting equal yields on our silage ground with no applications of nitrogen and our animals are doing better. Plus, we can produce a high-protein crop which reduces the need for expensive imported protein."

#### **Farm details**

- Madigan Farm, Ballyhale, Co. Kilkenny
- 252 acres farmed
- 50-60 bulls
- 85-90 cows for calving
- 200 store lambs
- Finishing 150 cattle per year



# Irish Grass Recommended List 2024

## **Intermediate Varieties**

			:	Simulated G	razing (t DM	1/ha)	DMD	Silage (t DM/ha)		Ground Cover
Variety Name	Ploidy	Heading Date	Spring	Summer	Autumn	Total Yield	g/kg DM	1 <sup>st</sup> Cut	2 <sup>nd</sup> Cut	(1-9)
Barwave	т	22 May	1.51	7.44	2.40	11.35	836.3	5.13	4.39	5.0
Fintona	Т	24 May	1.24	7.23	2.30	10.78	839.3	5.36	3.90	5.4
AberClyde	т	25 May	1.23	7.61	2.27	11.12	852.0	5.24	3.98	5.6
Tollymore	Т	25 May	1.33	7.33	2.30	10.95	844.6	5.67	4.22	5.7
AberSpey	т	27 May	1.16	7.49	2.44	11.08	858.5	4.85	4.16	5.7
Dunluce	т	29 May	1.09	7.35	2.33	10.77	845.8	4.59	4.55	5.5
Galgorm	D	26 May	1.36	7.76	2.50	11.63	845.3	5.38	3.87	5.8
Moira	D	26 May	1.58	6.87	2.37	10.82	826.9	5.02	3.98	6.1
Astonconqueror	D	27 May	1.38	7.24	2.27	10.89	835.7	5.28	3.83	6.0
AberMagic	D	28 May	1.13	7.52	2.56	11.22	845.1	4.79	4.02	6.1
AberWolf	D	30 May	1.26	7.33	2.31	10.90	841.0	4.85	4.26	6.6
AberGreen	D	31 May	1.17	7.64	2.49	11.30	842.3	4.43	3.99	6.5
Gusto	D	31 May	1.25	7.18	2.44	10.87	839.1	4.44	3.91	5.8

## **Late Varieties**

			:	Simulated G	razing (t DM	l/ha)	DMD	Silage (	t DM/ha)	Ground Cover
Variety Name	Ploidy	Heading Date	Spring	Summer	Autumn	Total Yield	g/kg DM	1 <sup>st</sup> Cut	2 <sup>nd</sup> Cut	(1-9)
AberBite	Т	01 Jun	0.94	7.33	2.34	10.61	849.6	4.73	4.53	6.0
Astonenergy	Т	01 Jun	1.00	7.10	2.26	10.37	854.3	4.55	3.87	5.5
Triwarwic	Т	02 Jun	1.07	7.24	2.13	10.44	842.7	4.79	4.27	5.8
Nashota	Т	03 Jun	1.27	7.31	2.20	10.78	846.0	4.79	4.39	6.0
Glenfield	Т	03 Jun	1.31	7.50	2.22	11.03	841.3	4.90	4.43	5.4
Meiduno	Т	03 Jun	1.24	7.30	2.28	10.82	849.2	4.52	4.19	5.3
Briant	т	03 Jun	1.01	7.36	2.28	10.65	841.4	4.67	4.34	5.5
Aspect	Т	03 Jun	1.02	7.18	2.13	10.33	848.7	4.39	4.49	6.1
Gracehill	т	04 Jun	1.23	7.42	2.39	11.03	841.1	5.51	4.44	5.5
AberGain	т	04 Jun	1.15	7.43	2.31	10.89	852.2	4.94	4.40	5.6
Ballintoy	т	04 Jun	1.21	7.36	2.28	10.85	846.7	4.68	4.35	5.5
Anurad	Т	05 Jun	1.27	7.22	2.23	10.73	846.9	4.60	4.08	5.5
Xenon	Т	07 Jun	1.02	7.13	2.18	10.33	846.3	4.15	4.66	6.1
AberPlentiful	Т	08 Jun	1.30	7.49	2.32	11.11	842.2	4.48	4.51	5.5
Solas	Т	10 Jun	1.05	7.09	2.35	10.48	838.0	4.39	4.72	5.7
Oakpark	D	02 Jun	1.14	7.23	2.33	10.70	833.5	4.51	4.46	6.5
Ballyvoy	D	03 Jun	1.34	7.06	2.29	10.69	843.3	4.30	4.20	6.2
Callan	D	03 Jun	1.37	6.89	2.16	10.42	830.2	4.77	3.84	6.2
Drumbo	D	05 Jun	1.09	7.01	2.24	10.33	842.9	4.36	4.24	6.2
Astonking	D	05 Jun	1.32	7.18	2.20	10.69	828.5	4.53	4.20	5.8
AberBann	D	10 Jun	0.97	7.94	2.54	11.45	832.2	4.59	5.24	5.9
AberChoice	D	11 Jun	1.04	7.56	2.39	10.99	844.8	4.35	4.79	6.0
Bowie	D	16 Jun	1.08	7.22	2.35	10.65	839.1	3.99	5.07	6.4

Rows in green indicate Germinal varieties (D= Diploid; T= Tetraploid)

Source: 'Grass and White Clover Recommended List Varieties for Ireland 2024'. Department of Agriculture, Food and the Marine





# Pasture Profit Index 2024

# Intermediate Diploids

Va	riety Detai	ls		PPI Sub-Indices (€/Ha/Year)						<sup>1</sup> Teagasc Grazing
Variety Name	Ploidy	Heading Date	TOTAL PPI (€/Ha/year)	Spring	Summer	Autumn	Quality	Silage	Persistency	Utilisation Trait (1-5 star)
Galgorm	D	26 May	266	60	66	67	25	47	0	-
AberMagic	D	28 May	198	22	57	74	18	27	0	***
AberWolf	D	30 May	186	43	49	46	11	37	0	**
Moira	D	26 May	183	95	31	52	-32	36	0	***
Astonconqueror	D	27 May	182	63	46	41	-10	42	0	****
AberGreen	D	31 May	173	28	62	66	5	12	0	*
Gusto	D	31 May	156	40	43	60	2	10	0	****

# Intermediate Tetraploids

١	Variety Details		PPI Sub-Indices (€/Ha/Year)						<sup>1</sup> Teagasc Grazing	
Variety Name	Ploidy	Heading Date	TOTAL PPI (€/Ha/year)	Spring	Summer	Autumn	Quality	Silage	Persistency	Utilisation Trait (1-5 star)
AberSpey	т	27 May	240	26	56	59	65	34	0	****
AberClyde	т	25 May	229	38	61	41	44	45	0	****
Barwave	т	22 May	227	84	54	55	-19	52	0	*****
Tollymore	Т	25 May	225	54	49	44	21	70	-13	-
Fintona	Т	24 May	174	40	45	45	-4	47	0	****
Dunluce	т	29 May	172	14	50	48	24	35	0	****



# **Pasture Profit Index 2024**

# Late Diploids

v	ariety Deta	ils				<sup>1</sup> Teagasc Grazing				
Variety Name	Ploidy	Heading Date	<b>TOTAL PPI</b> (€/Ha/year)	Spring	Summer	Autumn	Quality	Silage	Persistency	Utilisation Trait (1-5 star)
AberChoice	D	11 Jun	174	7	58	54	22	32	0	**
AberBann	D	10 Jun	171	-5	74	71	-25	56	0	***
Ballyvoy	D	03 Jun	170	57	38	43	19	13	0	*
Bowie	D	16 Jun	163	13	45	50	29	26	0	-
Oakpark	D	02 Jun	135	24	45	48	-11	29	0	*
Drumbo	D	05 Jun	130	14	36	37	25	16	0	*
Astonking	D	05 Jun	126	52	43	33	-25	22	0	***
Callan	D	03 Jun	109	61	32	29	-35	21	0	****

# Late Tetraploids

V	/ariety Deta	ils		PPI Sub-Indices (€/Ha/Year)						
Variety Name	Ploidy	Heading Date	TOTAL PPI (€/Ha/year)	Spring	Summer	Autumn	Quality	Silage	Persistency	Utilisation Trait (1-5 star)
Gracehill	т	04 Jun	225	37	53	54	11	70	0	**
AberGain	т	04 Jun	217	24	53	46	48	45	0	****
Nashota	Т	03 Jun	194	45	48	33	28	39	0	****
AberPlentiful	Т	08 Jun	193	50	56	46	11	29	0	***
Glenfield	Т	03 Jun	191	50	56	36	4	44	0	****
Ballintoy	т	04 Jun	183	34	51	42	24	33	0	****
Anurad	Т	05 Jun	180	45	45	37	32	21	0	****
Meiduno	Т	03 Jun	180	39	48	42	28	22	0	****
AberBite	Т	01 Jun	148	-11	49	49	33	40	-13	****
Astonenergy	Т	01 Jun	145	1	40	40	50	13	0	****
Briant	т	03-Jun	140	2	51	42	13	32	0	***
Solas	Т	10-Jun	131	7	40	50	1	32	0	***
Xenon	Т	07-Jun	127	4	41	31	30	21	0	****
Triwarwic	Т	02-Jun	125	11	46	26	7	35	0	-
Aspect	Т	03-Jun	125	3	43	26	28	25	0	****

Rows in green indicate Germinal varieties (D= Diploid; T= Tetraploid)

<sup>1</sup>Grazing utilisation Trait. A hyphen "-" indicates no grazing data available

Source: 'Grass and White Clover Recommended List Varieties for Ireland 2024'. Department of Agriculture, Food and the Marine



# **Forage crop selection**

Alternative forage crops play a valuable complementary role in grassland-based farming systems. They provide a cost-effective homegrown option for outwintering livestock and overcoming grass shortfalls during the summer.

There are three fundamental questions to ask when selecting forage crops:

- 1. When do you want to use the crop?
- 2. When will the land become available to grow the crop?
- 3. How many animals does the crop need to feed?

Use the table below to select the best crops to fit your requirements.

#### Fig 22.

#### Forage crop selection and production guide:

Сгор	Variety	Sowing Time	Seeding rate (per acre)	Time of Utilisation	Expected DM Yield (t DM/ha)	DM%	CP%	Metabolisable Energy (MJ/kg DM)
Kale	Maris Kestrel	May-Jun	2.5-3.0kg*	Nov-Feb	10-12	14-16	16-18	12.5-13.5
Hybrid Brassica	Redstart	May-Aug	3.5-4.0kg	Jun-Feb	6-8	12-14	18-20	10-11
Forage Rape	Stego	Jul-Aug	3.5-4.0kg	Oct-Feb	4-6	12-14	18-20	10-11
Swede	Triumph	May-Jun	400g	Nov-Feb	10-12	10-12	10-12	12.5-13.5
Leafy Turnip	Appin	Apr-Sept	2.0-3.0kg	Jun-Feb	3-5	8-10	18-20	10-11

\*If broadcasting seed increase to 4.0kg/acre seeding rate.

# John Hannon

John Hannon grows Redstart to graze his Suffolk cross flock of 120 breeding ewes and 40 replacements, having begun using it seven years ago to reduce his bought-in feed costs.

"The lambs absolutely love the Redstart and their fast growth shows it. Since introducing it, our lambs finish with an extra 1kg of weight. I think the meat quality has improved too.

"Anecdotally, I've also found since using Redstart the sheep don't have any worms – I never have to dose them. They don't seem to pick any diseases up when out grazing now, and the only thing I've really changed is the Redstart.

"I find Redstart useful as a break crop and it seems to suit our sandy soils. It's easy to sow and after applying a bit of fertiliser two weeks in it takes off. It's a low cost reseed for me, gaining two or three grazes out of it with no weed problems."

### Farm details

- Kiltoom Farm, Keadagh, Co. Roscommon
- 120 breeding ewes, 40 replacements
- Suffolk/Texel crosses
- All lamb sold to Irish Country Meats

# Maris Kestrel

## Kale Maris Kestrel

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

The leading kale variety in Ireland, it is high-yielding with a high leaf-to-stem ratio and its success lies in livestock being able to use the whole plant. Ideal for outwintering, it can also help overcome late season grazing deficits.

#### Key benefits

- High digestibility driving intakes
- Vigorous early growth
- Resistance to lodging
- · Long utilisation period and good winter hardiness

#### Variety

Maris Kestrel

Sow at 2.5-3.0kg/acre (4.0kg/acre if broadcasting) from May to June. Feed from November to February. Yield 10-12t DM/ha

# Redstart

# **Hybrid brassicas**

Redstart (Rape x Kale)

Redstart is a high-energy, high-protein, versatile grazing crop combining rapid growth with good performance all year.

It grows fast like a typical forage rape while also tolerant of cold, frosty conditions like kale. Redstart offers grazing options through summer, autumn and winter, and is an ideal catch crop for countering late season grazing shortages.

#### Key benefits

- High energy and protein
- Good winter hardiness for outwintering
- · Regrowth and late season yield potential
- Suitable for cattle and sheep

#### Variety

Redstart Sow at 3.5-4.0kg/acre from May to August. Earlier sowings offer potential for multiple grazings; later sowings can be used until February. Yield 6-8t DM/ha

# Stego

# Forage rape

Stego

Stego is a fast-growing, high-yielding forage rape suitable for cattle and sheep.

This rape variety offers high-energy grazing through the autumn and winter and is ideal for outwintering.

#### Key benefits

- High energy and protein
- Fast, vigorous growth
- High leaf-to-stem ratio
- Outstanding whole plant D-value with minimal residual matter
- Excellent disease resistance, including mildew
- Regrowth potential

#### Variety

Stego Sow at 3.5-4.0kg/acre from July to August. Feed from October to February. Yield 4-6t DM/ha

# Triumph

## Swede Triumph

Triumph is a high-yielding winter-hardy feed for cattle and sheep.

This well-shaped swede is an excellent autumn and winter feed ideal for outwintering. A hectare of high-energy Triumph swedes provides the equivalent yield and energy to 7-10 tonnes of barley.

#### Key benefits

- Outstanding winter hardiness
- Excellent D-value
- Strong clubroot and mildew resistance

#### Variety

Triumph Sow at 0.4kg/acre from May to June. Feed from November to February. Yield 10-12t DM/ha



# Leafy turnip

Appin is a high-yielding, cost-effective leafy turnip for cattle and sheep.

It is a versatile feed able to provide a catch crop to overcome summer shortfalls as well as autumn and winter grazing. It can also be a source of fresh and worm-free grazing for lambs.

#### Key benefits

- · Easily established by undersowing or scratching into stubbles
- Wide sowing window
- · Fast growing with excellent regrowth potential

#### Variety

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

# Vollenda

# Stubble turnip

Vollenda

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

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

#### Key benefits

- 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.



# Growing and grazing brassicas successfully

Brassicas are popular crops for outwintering but can also be ensiled and zero-grazed successfully.

#### Sowing advice

- Selecting the best site for growing brassicas is vital to their success
- Choose flat or gently sloping sites with free-draining soil – avoid steep slopes and sites close to a watercourse or water supply (NB. cross-compliance is important if outwintering stock)
- When grazing brassica or catch crops in-situ, provide an adequate lie-back area which is always accessible to grazing livestock in line with GAEC requirements
- A grass/vegetated buffer strip must be maintained around the external area and water feature boundaries as per GAEC regulations
- Leave a minimum of four years since last brassica crop to reduce risk of clubroot

#### Successful grazing management:

- To avoid rumen upsets, introduce stock to brassicas gradually for 1-2 hours per day, building up to full access over 7-10 days
- Brassicas are highly digestible and low in fibre so livestock must have access to silage, hay or straw. Aim for 70% brassicas: 30% fibre
- Place bales in the field during summer to minimise machinery travelling when ground conditions are poor
- Provide unrestricted access to water
- Strip graze in long, narrow strips to maximise crop utilisation, ensure all animals have equal access and minimise trampling. Move the strip fence daily

- Soil test approximately eight weeks before sowing to check soil fertility. Aim for pH 6.0-6.7 and P&K indices of 3
- Spray off old sward with glyphosate. Graze hard or cut 7-10 days later to remove surface trash
- Sow seeds into a fine, firm seedbed at a maximum depth of 10mm. Can also be direct drilled or broadcast but increase seed rate if broadcasting. Roll well after sowing
- Spread two bags of granulated lime if broadcasting or direct drilling to counteract acidity of dying trash
- Apply lime, N, P and K as per soil test and crop recommendations
- Monitor closely for pests, diseases and weed ingress, particularly during establishment
- On sloping land, graze from top to bottom to reduce run-off
- Give bolus minerals to supplement the low selenium, copper, iodine and cobalt content of brassicas
- Monitor crop utilisation. Livestock should be content and the crop well utilised
- Avoid grazing brassicas after they've started flowering around late February, as the glucosinolate concentrate increases presenting a risk to animal health





# John Large

Using catch crops provides County Tipperary farmer John Large with an efficient way to finish lambs during autumn and outwinter ewes.

"I grow forage rape, Redstart and Soil Booster Graze on my brother Denis' beef and tillage farm. This fits well with Denis' rotation and the catch crops' positive effect on soil structure benefits Denis in spring.

"We've found once the lambs start grazing brassicas, their worm burden normally drops right down to almost zero. This is a big bonus for me. And we've started using Redstart because its vigorous regrowth means it offers multiple grazings. Our stock do well on it, with lambs finishing quickly and to weight.

"I also grow Germinal's Soil Booster Graze and move the ewes onto it when the forage rape starts to become a bit stemmy. The combination of forage rape and leafy turnip adds variety and our ewes perform well on it.

"Forage crops grow well but take the time to sow them in the right place at the right time for a good supply of valuable winter grazing."

#### Farm details

- Co. Tipperary
- 650-ewe flock of Suffolk, Texel, Vindeen, Charolais
   and Belclare crosses
- 80 hectares over three blocks
- Lambing early spring
- Finishing in late summer to early autumn



# **Environmental schemes**

Germinal produces a range of mixtures which comply with DAFM environmental schemes, including the new ACRES scheme.

We have outlined our most popular mixtures but if you require a different formulation, please do not hesitate to contact us.

- 1. Grass Margins Arable
- 2. Winter Bird Food
- 3. Catch Crop

The information given on these mixtures for ACRES is a guide only.

We recommend you check the latest guidelines by contacting the Department of Agriculture, Food and the Marine or speak to your ACRES advisor to ensure compliance.

# **Grass Margins**

Arable

Arable grass margins provide a habitat for pollinators, support wider biodiversity including ground nesting birds, and help protect water quality from nutrient and sediment run off.

- Establish a 3, 4, 6 or 8m grass margin before 31st August 2024 by sowing a suitable seed mix (see Fig. 23) at a rate of 15kg/ha. Keep seed labels for duration of contract
- · Soil cultivation must not be carried out within the margin once established
- The margin must be managed annually, by mulching or mowing after 31st August and before 15th January
- Do not apply chemical or organic fertiliser or lime to the margin
- Do not apply pesticides or herbicides. Only spot treatment of noxious/ invasive weeds is permitted

Fig 23.

Arable Grass Margin ACRES Grass Mix:

Inclusion Rate (kg/ha)	Species	
10.00	Cocksfoot	
4.00	Timothy	
1.00	Red Clover	
15.00		



# **Catch Crops**

Also known as cover crops or green manure, catch crops play a role in the regulatory requirements for green cover under the ACRES scheme.

The following specifications are relevant to farmers sowing these crops within ACRES.

- Catch crops must be sown before 15th September each year using non-inversion techniques (ploughing is not permitted)
- Seed mixture must consist of at least two species using the monoculture seed rates outlined below. There is no maximum in terms of the number of species that can be used, but at least 100% of a full sowing rate must be reached. One species must not comprise of any more than 60% of a full sowing rate in the mix.
- Catch crop must remain in situ from the date of sowing to 1st January
- After 1st January light grazing or incorporation is permitted

Species	Monoculture seed rate kg/ha
Buckwheat	50
Crimson Clover	15
Berseem Clover	15
Balansa Clover	15
Squarrosa Clover	15
Forage/Fodder Rape	8
Mustard (White)	15
Mustard (Brown)	7
Oats	100
Black Oats	60
Phacelia	8
Sunflower	20
Rye	150
Tillage Radish	10
Vetch	30
Leafy Turnip	8
Peas	80
Beans	140
Linseed	30
Red Clover	20
Fodder Radish	10
*Kale/Rape Hybrid	8



Scan or click <u>here</u> to view our full range of Catch Crop Mixtures

Catch Crops:

Fig 24.

\*Note: The kale/rape hybrid is classified as one species; another species will be required to meet the minimum requirement of at least two species in the mix.



# **Winter Bird Food**

# Winter bird food provides a tailored food source for farmland birds throughout autumn and winter.

- Minimum payment area is 0.25ha; maximum area is 3ha
- Where necesssary, protect from livestock using a fence that is fit for purpose
- Establish the crop by 15th May using the following mix
  - At least one cereal: spring oats/triticale/wheat/barley
  - At least two of the following: linseed, oil-seed rape, phacelia, fodder radish, mustard, spring vetch, lucerne, chicory or birdsfoot trefoil
- Once sown, only spot treatment of noxious and invasive weeds is allowed. Pesticides are not permitted.
- Harvesting of the crop is not permitted and it must remain in situ until 1st March the following year
- Fertiliser can be applied up to a maximum of half the N and P rate for spring oats (as described in Statutory Instrument Number 113 of 2022)

Species	Monoculture seed rate kg/ha
Spring Oats	150
Spring Triticale	180
Spring Wheat	180
Spring Barley	160
Linseed	50
Spring Oil-Seed Rape	6
Phacelia	8
Fodder Radish	10
Mustard	15
Spring Vetch	40
Lucerne	25
Chicory	10
Birdsfoot Trefoil	12

**Note:** To ensure successful establishment, the minimum seed rate should be at least one third of the monoculture rate for each of the chosen species for a 3-way mix, or one quarter of the monoculture rate for each species for a 4-way mix.

#### Fig 25.

#### Winter Bird Food:



# 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.

# 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: 2g/m<sup>2</sup>
- Pack size: 500g and 1kg

# 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: 1.5g/m<sup>2</sup>
- Pack size: 500g and 1kg



# Irish Native Wildflower Mixtures

# 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: 2g/m<sup>2</sup>
- Pack size: 1kg

# 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: 1.5g/m<sup>2</sup>
- Pack size: 1kg





# LeisureLawn

LeisureLawn is a quick-establishing lawn seed for landscaping and domestic lawns.

LeisureLawn forms a hardwearing lawn which maintains a healthy green colour all year. Suitable for sowing from scratch or lawn restoration after winter.

#### Fig 26.

LeisureLawn:

Species	Mix %
Dwarf Perennial Ryegrass (2 varieties)	60
Strong Creeping Red Fescue	35
Chewings Fescue	5

Pack Size:	1, 2, 5, 10 or 20kg
Sow:	April to late August
Sowing rate:	25-30g/m² (100-120kg/acre)



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# 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 available variety.

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