

A photograph of two men standing in a grassy field. The man on the left is older, balding, wearing a dark blue t-shirt and jeans. The man on the right is younger, wearing a light blue shirt and a dark vest with a green 'G' logo. Both are holding and examining clumps of green grass. In the background, there are several black and white cows and a farm building under a cloudy sky.

**'I've chosen
Germinal for
15 years; their
products tick
every box'**

Ruairi Delaney

Ballyhaunis, County Mayo

Product Catalogue
2021

High-quality homegrown forage is essential to maintaining a sustainable future for the livestock industry.

As grass and forage specialists, we are committed to providing you with quality, high-performing products to make a real difference to your productivity and profitability.

Homegrown forage production is a key performance indicator for livestock farms and our high-quality grass mixtures help you succeed. Our grass varieties, complemented by high protein crops and forage brassicas, deliver improvements in forage use and environmental performance consistently driving on-farm efficiency.

Our focus is on developing the solutions you need to meet the challenges you face. Our product integrity is underpinned by our commitment to research and development. We work closely with Teagasc and the Agri-Food and Biosciences Institute in Northern Ireland (AFBI) and have a new research team at the Institute of Biological, Environmental and Rural Sciences (IBERS) in Wales. This brings together a unique collaboration of science and agriculture to address climate challenges and enhance agricultural productivity.

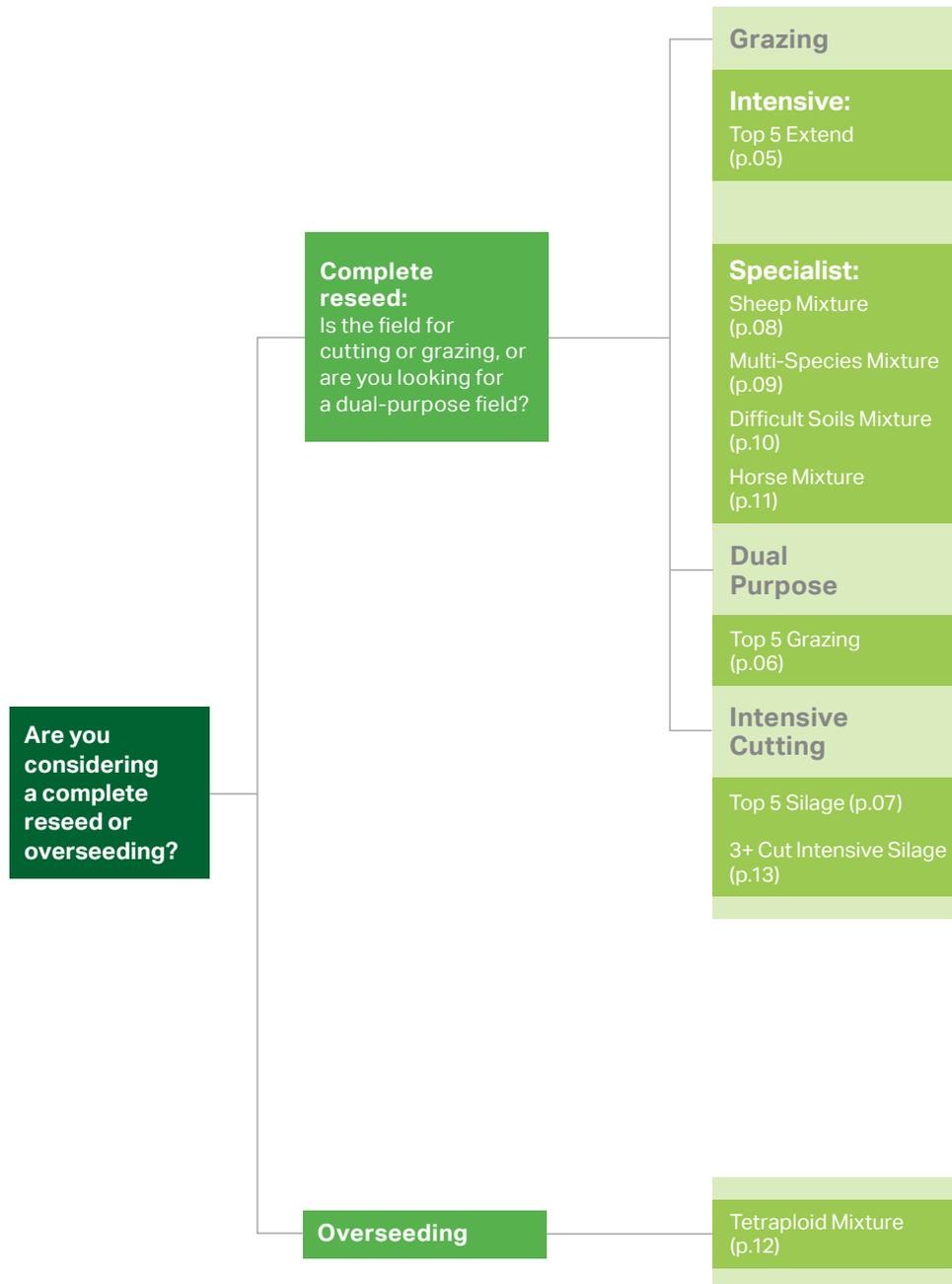
All our new varieties are 'road tested' at the Germinal Research Station, where trials are undertaken with scientific rigour in a real-life farming situation.

In addition to this year's catalogue detailing our full range of products, you'll hear from farmers about how they're using our products and the business gains they've made.

Dermot Campion
Managing Director,
Germinal Ireland



Planning your forage requirements



Germinal mixtures

Germinal's grass seed range includes the most profitable varieties with the highest quality, yield and silage performance in the 2021 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 3+ Cut Intensive Silage
Overseeding	Tetraploid Mixture





Ruairi Delaney

Ruairi Delaney sowed Top 5 Extend when he first set up his County Mayo dairy farm, using it throughout the farm's grazing platform and baling for winter silage. His cows are milked robotically and graze in an A-B-C grazing system, moving to new grass every eight hours.

"In this kind of setup, our grass allocation has to be very tight to give cows the exact amount of grass they require throughout the season. Top 5 Extend has done very well, yielding 12t DM/ha every year, and has helped us achieve 85% milk from forage.

"It's a very effective, straightforward product that ticks every box with good growth and nice thick swards. It grows well through autumn and the cows graze it fully leaving little behind."

Farm details

- Ballyhaunis, County Mayo, Ireland
- 80ha farm, including 45ha grazing block
- 140 spring calving Holstein/British Friesian cows
- 466kg milk solids/cow/year
- 5,738 litres milk/cow/year
- 4.32% butterfat and 3.55% protein
- 800kg meal/cow/year fed through the robot
- Graze cows on A-B-C system

Top5 Extend



AVAILABLE WITH OR WITHOUT CLOVER

Top 5 Extend is a high-quality intensive grazing mix designed to meet the demands of intensive grassland farmers. Suited to grazing by dairy and beef cattle, sheep and finishing lambs.

Top 5 Extend is your best choice when looking for a high-performance intensive grazing sward. Primarily offering a premium grazing mixture, Top 5 Extend also provides a high-yielding silage cut. It is best cut 5-10 days before its heading date towards the end May.

Benefits of Top 5 Extend

- Suitable for all grazing stock (NB. unsuitable for horses)
- 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:

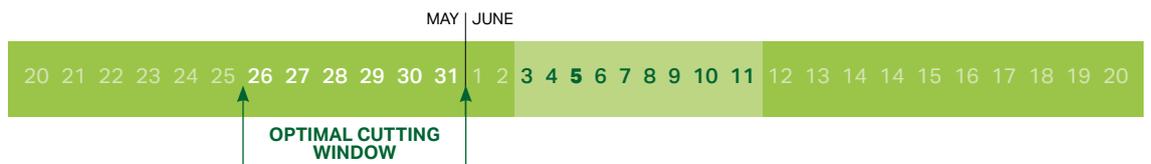
T = Tetraploid

Kg / acre	Variety	Type	Heading Date
2.75	Gracehill	Perennial Ryegrass (T)	04 June
3.25	AberGain	Perennial Ryegrass (T)	04 June
2.75	AberChoice	Perennial Ryegrass	11 June
2.25	Ballyvoy	Perennial Ryegrass	03 June
1.00	Coated White Clover		
12.00			

Fig 02.

Top 5 Extend:

Spread of heading dates



Top5 Grazing



Top 5 Grazing is ideally suited to rotational grazing or set stocking, but also offers 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.

Benefits of Top 5 Grazing

- Suitable for all grazing stock (NB. unsuitable for horses)
- High palatability to drive dry matter intakes and animal performance
- Supreme grazing yield and quality
- Suitable for intensive grazing or cut-and-graze
- Excellent spring and autumn growth

Fig 03.

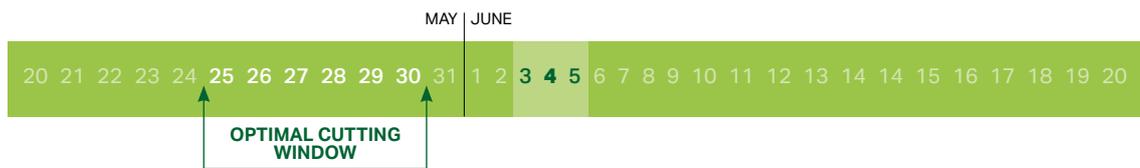
Top 5 Grazing:

Kg / acre	Variety	Type	Heading Date
2.00	Gracehill	Perennial Ryegrass (T)	04 June
2.50	Ballintoy	Perennial Ryegrass (T)	04 June
4.50	Drumbo	Perennial Ryegrass	05 June
2.00	Ballyvoy	Perennial Ryegrass	03 June
1.00	Coated White Clover		
12.00			

T = Tetraploid

Fig 04.

Top 5 Grazing: Spread of heading dates



Top5 Silage



Top 5 Silage is a specialist grass mixture created specifically for the production of a superior quality silage with first cut in late May.

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. Alternatively, Top 5 Silage gives high-quality aftermath grazing.

Benefits of Top 5 Silage

- 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 with white clover

Fig 05.

Top 5 Silage:

T = Tetraploid

Kg / acre	Variety	Type	Heading Date
3.00	AberClyde	Perennial Ryegrass (T)	25 May
2.50	AberMagic	Perennial Ryegrass	28 May
2.50	Dunluce	Perennial Ryegrass (T)	29 May
4.00	AberWolf	Perennial Ryegrass	30 May
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 06.

Top 5 Silage:

Spread of heading dates



All farms in derogation are required to sow a minimum of 0.6 kg uncoated clover or 1.0 kg coated clover per acre when reseeding. This mixture does not contain clover. If necessary please request clover or speak to one of our sales team for advice.

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.

Benefits of Sheep Mixture

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

Fig 07.

Sheep Mixture:

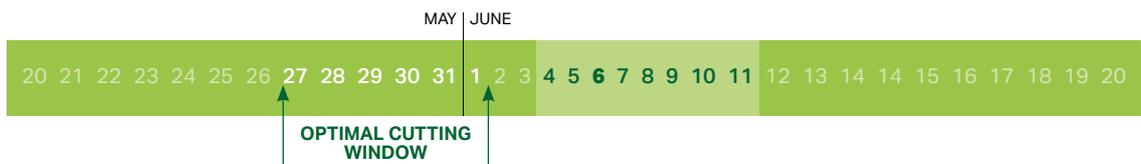
T = Tetraploid

Kg / acre	Variety	Type	Heading Date
2.50	Gracehill	Perennial Ryegrass (T)	04 June
3.00	Ballintoy	Perennial Ryegrass (T)	04 June
3.00	Drumbo	Perennial Ryegrass	05 June
2.00	AberChoice	Perennial Ryegrass	11 June
0.75	Small Leaf Coated White Clover		
0.75	Medium Leaf Coated White Clover		
12.00			

Fig 08.

Sheep Mixture:

Spread of heading dates



Multi-Species Mixture

Multi-Species Mixture 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.

Benefits of Multi-Species Mixture

- 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

Fig 09.

Multi-Species Mixture:

T = Tetraploid

Kg / acre	Variety	Type	Heading Date
2.00	Gracehill	Perennial Ryegrass (T)	04 June
2.50	Ballintoy	Perennial Ryegrass (T)	04 June
4.50	Drumbo	Perennial Ryegrass	05 June
0.75	Puna II	Chicory	
0.75	Tonic	Plantain	
1.50	Coated White Clover		
12.00			



Difficult Soils



AVAILABLE WITH OR WITHOUT CLOVER



AVAILABLE WITH OR WITHOUT TIMOTHY

Difficult Soils Mixture is a specialist mix for wet, peaty or heavier soils.

The Difficult Soils Mixture is ideal for challenging conditions where outstanding ground cover and persistency are required. Timothy is added to the mixture of perennial ryegrasses and white clover for its ability to fix nitrogen but can be excluded on request.

Benefits of Difficult Soils Mixture

- High sward density
- Good persistency
- Increased palatability to drive dry matter intakes
- Suitable for all grazing stock (NB. unsuitable for horses)

Fig 10.

Difficult Soils Mixture:

T = Tetraploid

Kg	Variety	Type	Heading Date
3.50	AberGreen	Perennial Ryegrass	31 May
3.00	Briant	Perennial Ryegrass (T)	03 June
3.50	Kerry	Perennial Ryegrass	02 June
1.00	Timothy		
1.00	Coated White Clover		
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



Horse Mixture



AVAILABLE
WITH OR
WITHOUT
MIXED HERBS

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

Horse Mixture is ideal for horses and ponies because it creates a high fibre, low protein grass sward and tolerates tight grazing.

Benefits of Horse Mixture

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

Fig 12.

Horse Mixture:

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



Tetraploid Mixture

The Tetraploid Mixture is a specialist mix for overseeding in intensive grazing systems.

Overseeding helps rejuvenate swards with minimal time out of production. If you are looking to overseed swards damaged by poaching, the Tetraploid Mixture is the best option for you. 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 well suited to heavier soil types due to an increased risk of poaching.

Benefits of Tetraploid Mixture

- Increased palatability driving higher intakes
- High-quality grasses giving superior animal performance
- Excellent sward utilisation
- Suited to overseeding to repair damaged swards
- Rapid establishment

Fig 13.

Tetraploid Mixture:

T = Tetraploid

Kg	Variety	Type	Heading Date
4.00	Gracehill	Perennial Ryegrass (T)	04 June
4.00	AberGain	Perennial Ryegrass (T)	04 June
4.00	AberClyde	Perennial Ryegrass (T)	25 May
12.00			



Tips to successfully overseed grass

- Sow at a rate of 8 kg/acre when overseeding
- Ensure good soil-to-seed contact – not suitable in swards with a “butt”
- For badly poached ground - a full reseed may be more cost effective
- Ideally overseed in the spring or after cutting silage
- Watch the weather – requires rain very soon after sowing, poor germination and establishment will occur if weather comes dry after sowing
- Ideally scratch the surface with tines to create soil contact for the seed and also help pull dead grasses from the sward
- Use appropriate sowing method to spread or stitch in to ensure even distribution of the seed
- Apply lime, P and K to correct deficiencies
- Roll after sowing assuming ground conditions allow
- Ensure frequent grazing at low covers after sowing to control the old sward

Farms in derogation are required to sow a minimum of 0.6 kg uncoated clover or 1.0 kg coated clover per acre when reseeding. This mixture does not contain clover. If necessary please request clover or speak to one of our sales team for advice.

3+ Cut Intensive Silage



3+ Cut Intensive Silage is a specialist silage mix designed to produce large quantities of high-quality silage from three or four cuts during peak grass growth.

This mix meets the needs of farmers with a high demand for silage or trying to maximise yield potential from out-farms. If you aim for three or four cuts in the pit by mid-July onwards, 3+ Cut Intensive 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.

Red clover can be included to increase the protein content of your silage.

Benefits of 3+ Cut Intensive Silage

- Narrow heading date range to optimise the balance between yield and quality
- Produces 3-4 high-quality, high-yielding silage cuts
- Excellent seasonal growth allowing aftermath grazing following final cut
- Works well with red clover for enhanced protein content

Fig 14.

3+ Cut Intensive Silage Mixture:

T = Tetraploid

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

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 15.

3+ Cut Intensive Silage:

Spread of heading dates



The role of white clover

White clover offers many benefits in today's sustainable livestock farming systems. It can supply over 150kg nitrogen/ha reducing the requirement and cost of fertiliser applications. Its strong creeping stolons make it tolerant of grazing and enables the plant to store energy and protein over winter into spring.

To gain the most from white clover, an established sward needs a clover content of 25-30%, but it is slower to establish than grass due to its smaller seed size. To overcome this, Germinal's coated white clover establishes quicker and is more productive than uncoated seed. The coating contains phosphorus to promote root growth and rhizobium inoculants to improve nitrogen fixation. Coated white clover can be used in a full reseed or to overseed clover into an existing sward.

Tips to successfully overseed with white clover

- Ensure adequate soil pH and P and K indices
- Seed must make contact with the soil – an old sward with a "butt" is unsuitable
- Control weeds before sowing clover – it is much more costly and less effective to try to control weeds when clover is growing
- The ideal time for overseeding is following a heavy silage harvest or following tight grazing in late April or May
- Watch the weather – requires rain after sowing. Poor germination and establishment will occur if weather comes dry after sowing
- Sow 2 kg/acre of coated white clover seed with 1 bag 0:7:30
- Clover can be broadcast or stitched into the sward
- Sow in 2 directions – up/down and then across the field
- Roll after sowing
- Avoid spreading N for the remainder of the year

Management post-sowing

- Graze frequently, at low covers (<1200 kg DM/ha) for the first few grazings to allow light to reach the base of the sward
- Subsequently, graze at 1200 -1400 kg DM/ha to a residual of 4 cm
- Avoid cutting for silage as clover can then out-compete grass
- Maintain optimum pH, P and K in the soil

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



Brian Hogan

Over the last eight years, Brian and Pat Hogan have committed to choosing top-performing grass varieties to achieve the most from their grazing platform. This has allowed them to increase their herd size and see a significant rise in the farm's productivity and profitability.

"The Top 5 mixtures grow well and produce good yields. One of my highest-yielding fields is Top 5 Extend and has been for several years now. AberGain, AberChoice and Ballintoy are also great performers helping us reach our production goals. Our graze out is much improved with these varieties; the cows love them and they clean out really well. Last year, we achieved our 16tDM/ha goal with nine grazings from each paddock.

"I'm now starting to introduce more clover into the swards, using the coated white clover to help it establish faster and better. Not only does the clover increase palatability but I'm also hoping it'll allow us to reduce the amount of applied nitrogen we use in the future."

Farm details

- Horse and Jockey, Co. Tipperary
- 99 hectares (244 acres), with 39.5 hectares (98 acres) grazing platform
- 140 cow spring calving, Holstein/Friesian herd with some Jersey crossbred
- Average milk yield 7,000 litres
- 4.43% fat and 3.66% protein
- 566kg milk solids per cow per year

Reseeding

Timing

Spring reseed

- 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 reseed

Autumn reseed 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 reseed.

- 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 seed bed is achieved. Ploughing will help level any rough fields. Apply lime as per soil test results
- 4 Select Irish 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. Farms in derogation must include 1 kg/acre coated clover (0.6 kg/acre uncoated clover seed) in their mixtures
- 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, apply approx. 5-6 weeks after establishment, prior to 1st grazing. Where clover was 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. More important is making sure whichever method you use 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, applying 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. It helps compress the soil, keeping 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 points all help reduce the risk of an attack: killing off an old sward effectively and removing dead thrash; allowing sufficient time between spraying and cultivation; preparing a good seedbed in the best growing conditions for a new reseed; 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 feeding can indicate a leatherjacket problem.
- Slugs: most prevalent in wet weather or damp sections of a field, particularly in areas with high levels of surface trash or inadequate/no rolling. Slugs are indicated by shredded leaves. Direct-drilled reseeds are at greatest risk as slits in the ground provide shelter for slugs. Use slug 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 the new sward. Weeds are easier and cheaper to control when they are seedlings and most susceptible to herbicides. Apply a spray targeting the weed types present 5-6 weeks after sowing. If clover is in the sward, take care to use a clover-safe spray at the three-leaf stage.

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.

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



Irish Grass Recommended List 2021

Intermediate Varieties

Variety Name	Ploidy	Heading Date	Simulated Grazing (t DM/ha)				Mean DMD%	Silage (t DM/ha)		Ground Cover (1-9)
			Spring	Summer	Autumn	Total Yield		1 st Cut	2 nd Cut	
Moira	D	26-May	1.59	6.99	2.46	11.05	827.3	4.99	3.67	6.1
Astonconqueror	D	27-May	1.42	7.35	2.39	11.15	837.6	5.31	3.38	6.1
AberMagic	D	28-May	1.15	7.68	2.65	11.50	845.1	4.70	3.69	6.2
Nifty	D	28-May	1.17	7.53	2.46	11.19	831.8	4.75	3.65	6.4
AberWolf	D	30-May	1.27	7.32	2.37	10.95	841.7	4.88	3.85	6.8
AberGreen	D	31-May	1.14	7.80	2.58	11.56	840.6	4.39	3.79	6.6
Gusto	D	31-May	1.19	7.25	2.49	10.96	842.0	4.36	3.54	5.7
Fintona	T	24-May	1.23	7.34	2.40	11.00	837.6	5.32	3.58	5.4
AberClyde	T	25-May	1.26	7.65	2.35	11.25	852.1	5.14	3.66	5.6
Elysium	T	27-May	1.23	7.26	2.24	10.75	844.3	4.86	3.79	6.0
Dunluce	T	29-May	1.06	7.45	2.41	10.95	844.7	4.55	4.17	5.4

Late Varieties

Variety Name	Ploidy	Heading Date	Simulated Grazing (t DM/ha)				Mean DMD%	Silage (t DM/ha)		Ground Cover (1-9)
			Spring	Summer	Autumn	Total Yield		1 st Cut	2 nd Cut	
Oakpark	D	2-Jun	1.13	7.32	2.41	10.89	833.7	4.45	4.10	6.6
Ballyvoy	D	3-Jun	1.33	7.16	2.37	10.89	843.7	4.24	3.84	6.3
Callan	D	3-Jun	1.36	7.04	2.28	10.74	832.1	4.71	3.58	6.2
Smile	D	4-Jun	0.95	6.98	2.35	10.33	834.5	4.16	3.97	6.3
Drumbo	D	5-Jun	1.08	7.11	2.32	10.53	843.2	4.30	3.91	6.2
AstonKing	D	5-Jun	1.32	7.14	2.24	10.72	832.6	4.43	3.73	5.8
AberChoice	D	11-Jun	1.05	7.65	2.46	11.18	849.5	4.17	4.23	6.0
Bowie	D	16-Jun	1.05	7.34	2.43	10.85	839.3	3.73	4.73	6.5
AberBite	T	1-Jun	0.93	7.41	2.42	10.80	849.2	4.66	4.15	5.8
AstonEnergy	T	1-Jun	0.96	7.23	2.35	10.57	854.6	4.47	3.55	5.5
Triwarwic	T	2-Jun	1.06	7.34	2.21	10.64	843.0	4.73	3.91	5.8
Briant	T	3-Jun	1.00	7.46	2.36	10.85	841.7	4.60	3.98	5.5
Aspect	T	3-Jun	1.01	7.28	2.22	10.53	849.0	4.33	4.12	6.1
Glenfield	T	3-Jun	1.29	7.60	2.31	11.23	841.7	4.84	4.07	5.7
Meiduno	T	3-Jun	1.21	7.42	2.37	11.03	849.3	4.54	3.87	5.2
Nashota	T	3-Jun	1.22	7.36	2.32	10.91	846.8	4.84	4.22	6.1
AberGain	T	4-Jun	1.11	7.50	2.40	11.04	854.3	4.88	4.05	5.6
Ballintoy	T	4-Jun	1.12	7.47	2.34	10.98	845.7	4.65	3.93	5.5
Gracehill	T	4-Jun	1.21	7.52	2.47	11.23	841.4	5.45	4.08	5.7
Xenon	T	7-Jun	1.01	7.24	2.27	10.57	846.6	4.10	4.34	6.2
Aberplentiful	T	8-Jun	1.26	7.61	2.40	11.30	843.2	4.41	4.15	5.4
Solas	T	10-Jun	0.99	7.24	2.46	10.72	838.8	4.38	4.29	5.8

Rows in yellow indicate Germinal varieties

Source: Department of Agriculture, Food and Marine

Pasture Profit Index 2021

Intermediate Tetraploids

Variety Details			TOTAL PPI (€/Ha/year)	PPI Sub-Indices (€/Ha/Year)						'Teagasc Grazing Utilisation Trait (1-5 star)
Variety Name	Ploidy	Heading Date		Sub-indices						
			Spring	Summer	Autumn	Silage	Quality	Persistence		
AberClyde	T	25-May	225	42	62	48	41	31	0	****
Fintona	T	24-May	168	38	50	53	-9	36	0	****
Dunluce	T	29-May	161	10	54	54	20	22	0	****
Elysium	T	27-May	157	38	46	36	13	24	0	-

Intermediate Diploids

Variety Details			TOTAL PPI (€/Ha/year)	PPI Sub-Indices (€/Ha/Year)						'Teagasc Grazing Utilisation Trait (1-5 star)
Variety Name	Ploidy	Heading Date		Sub-indices						
			Spring	Summer	Autumn	Silage	Quality	Persistence		
AberMagic	D	28-May	199	24	63	81	17	14	0	**
Astonconqueror	D	27-May	195	70	50	52	-7	30	0	****
Moira	D	26-May	187	97	36	61	-33	25	0	****
AberWolf	D	30-May	179	44	49	50	10	26	0	***
AberGreen	D	31-May	169	23	68	74	0	4	0	*
Gusto	D	31-May	149	31	46	64	11	-4	0	****
Nifty	D	28-May	127	28	57	61	-34	15	0	**

Rows in yellow indicate Germinal varieties

¹This is a provisional trait, a hyphen "-" indicates no grazing data available

Source: 'Grass and White Clover Recommended List varieties for Ireland 2021',
Department of Agriculture, Food and the Marine

Pasture Profit Index 2021

Late Tetraploids

Variety Details			TOTAL PPI (€/Ha/year)	PPI Sub-Indices (€/Ha/Year)						¹ Teagasc Grazing Utilisation Trait (1-5 star)
Variety Name	Ploidy	Heading Date		Sub-indices						
			Spring	Summer	Autumn	Silage	Quality	Persistence		
Gracehill	T	4-Jun	222	35	57	61	12	56	0	*
AberGain	T	4-Jun	212	18	56	54	52	32	0	***
Nashota	T	3-Jun	200	37	51	45	32	36	0	-
Glenfield	T	3-Jun	188	48	60	44	5	31	0	-
AberPlentiful	T	8-Jun	186	42	60	54	13	16	0	**
Meiduno	T	3-Jun	180	34	53	50	30	13	0	***
Ballintoy	T	4-Jun	159	19	55	47	19	19	0	***
AberBite	T	1-Jun	156	-13	52	56	35	26	0	**
AstonEnergy	T	1-Jun	138	-7	45	48	51	0	0	*****
Briant	T	3-Jun	137	-1	55	49	15	19	0	***
Solas	T	10-Jun	129	-2	46	61	6	19	0	**
Xenon	T	7-Jun	128	2	46	40	31	9	0	*****
Aspect	T	3-Jun	122	1	47	34	29	12	0	*****
Triwarvic	T	2-Jun	122	9	50	33	9	21	0	-

Late Diploids

Variety Details			TOTAL PPI (€/Ha/year)	PPI Sub-Indices (€/Ha/Year)						¹ Teagasc Grazing Utilisation Trait (1-5 star)
Variety Name	Ploidy	Heading Date		Sub-indices						
			Spring	Summer	Autumn	Silage	Quality	Persistence		
AberChoice	D	11-Jun	182	9	62	60	43	8	0	**
Ballyvoy	D	3-Jun	167	54	42	50	21	-1	0	*
Bowie	D	16-Jun	152	9	50	57	31	5	0	-
Oakpark	D	2-Jun	132	21	49	55	-10	16	0	***
Drumbo	D	5-Jun	129	12	40	45	27	4	0	*
Callan	D	3-Jun	123	59	38	41	-25	11	0	****
AstonKing	D	5-Jun	115	52	42	36	-19	4	0	****
Smile	D	4-Jun	68	-8	35	48	-9	0	0	-

¹This is a provisional trait, a hyphen "-" indicates no grazing data available

Forage crop selection

Alternative forage crops play a valuable complementary role in grassland-based farming systems. They provide a cost-effective homegrown option for overwintering 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 16.

Forage crop selection and production guide:

Crop	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 - June	2.5-3.0 kg*	November - February	10 - 12	14 - 16	16 - 18	12.5 - 13.5
Hybrid Brassica	Redstart	May - August	3.5 - 4.0 kg	June - February	6 - 8	12 - 14	18 - 20	10 - 11
Forage Rape	Stego	July - August	3.5 - 4.0 kg	October - February	4 - 6	12 - 14	18 - 20	10 - 11
Swede	Triumph	May - June	400 g	November - February	10 - 12	10 - 12	10 - 12	12.5 - 13.5
Leafy Turnip	Appin	April - September	2.0 - 3.0 kg	June - February	3 - 5	8 - 10	18 - 20	10 - 11

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



Forage brassicas

Kale

Maris Kestrel

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

It provides a good late summer/early autumn feed for cattle or sheep and a useful solution for late season grazing deficits. It is also ideal for out-wintering stock. The leading kale variety in Ireland, its success lies in livestock being able to utilise the whole plant.

Benefits of Maris Kestrel

- High digestibility driving intakes
- Outstanding leaf-to-stem ratio and whole plant D-value
- Vigorous early growth
- Resistance to lodging
- Good winter hardiness
- Long utilisation period
- Suitable for all classes of stock

Fig 17.

Maris Kestrel:

Maris Kestrel	
Sowing time	May to June
Seed rate:	2.5 - 3.0 kg/acre (increase to 4.0 kg/acre if broadcasting)
Yield	10 - 12 t DM/ha
Utilisation period	November to February



Hybrid brassicas

Redstart (Rape x Kale)



Redstart offers a unique utility crop combining rapid growth with good performance all year.

If you're looking for a high energy, versatile grazing crop, Redstart is ideal. Its hybrid qualities give it the ability to grow fast like a typical forage rape while remaining tolerant of cold, frosty conditions like kale. Redstart offers a variety of grazing options through summer, autumn and winter, and is an ideal catch crop for countering late season grazing shortages.

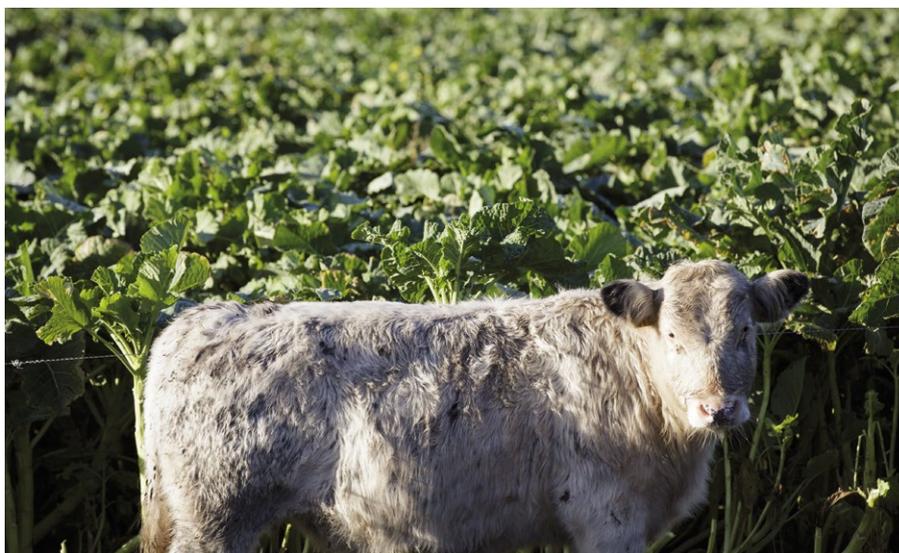
Benefits of hybrid brassicas

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

Fig 18.

Redstart:

Redstart	
Sowing time	June to August
Seed rate:	3.5 - 4.0 kg/acre
Yield	6 - 8 t DM/ha
Utilisation period	Earlier sowings have the potential for multiple grazings. Later sowings can be utilised until February



Forage brassicas

Forage rape Stego

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 out-wintering.

Benefits of forage rape

- 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

Fig 19.

Stego:

Stego	
Sowing time	July to August
Seed rate:	3.5 - 4.0 kg/acre
Yield	4 - 6 t DM/ha
Utilisation period	October to February



Forage brassicas

Swede Triumph

Triumph

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

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

Benefits of Triumph

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

Leafy turnip Appin

Appin

Appin is a high-yielding leafy turnip offering cost-effective and flexible feeding options for cattle and sheep.

If you're looking for a versatile feed able to provide a catch crop to overcome summer shortfalls as well as autumn and winter grazing, Appin is the right choice. It can also be used as a source of fresh and worm-free grazing for lambs.

Benefits of Appin

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

Growing a successful brassica crop

Brassicas are popular crops for out-wintering but can also be ensiled and zero-grazed successfully. Selecting the best site for growing them is vital to their success.

Factors to consider when choosing a site for growing brassicas:

- Fields where grass production is falling
- Free-draining soil that dries out quickly
- Flat or gently sloping sites – avoid steep slopes
- Avoid sites close to watercourses or water supplies (NB. cross-compliance is important if outwintering stock)
- Duration since last growing a brassica crop – a minimum of four years to reduce risk of clubroot

Sowing advice

- Soil test approximately eight weeks before sowing to check soil fertility. Aim for a soil pH 6.0-6.7 and index 3 for P and K
- 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
- Spread two bags of granulated lime if broadcasting or direct drilling to counteract acidity of dying trash
- Roll well after sowing
- Apply lime, N, P and K as per soil test and crop recommendations
- Monitor crop closely for pests, diseases and weed ingress, particularly during establishment

Grazing management of brassicas

Introducing livestock to brassicas from grass needs to be done gradually. Sudden unrestricted access can cause rumen upsets due to the significant change in diet.

Successful grazing management:

- Introduce stock to brassicas for 1-2 hours/day, building up to full access over 7-10 days
- Brassicas are highly digestible and low in fibre so livestock grazing brassicas 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
- 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. At this time, the glucosinolate concentrate increases presenting a risk to animal health



Brian Nicholson

Fourth generation sheep farmer Brian Nicholson grazes 1,200 spring lambing ewes and replacements as well as 1,800 grass-finished lambs on his County Kilkenny farm. Brian aims to reduce inputs across the farm, relying on grass and forage to provide nutrition and maintain soil quality as much as possible. Ewes and rams are block-grazed on the high energy rape/kale hybrid, Redstart, over the winter, which also provides a break crop in the tillage rotation.

"Since we started grazing Redstart, it's proven itself to be a hardy and fast-growing forage that works well in our system. By providing clean ground for the sheep, it has also reduced the need for dosing as the worm burden is much lower. It grows well into the winter, so we are able to gain three to four rotations with a stocking rate of 62 lambs/ha (25 lambs/acre) and no meal supplemented.

"The rams' growth rate on Redstart is consistent with the lambs on grass, at 300g/day before finishing at 39-40kg. We achieve a better carcass quality in the Redstart-finished lambs than those finished on grass, with a 2-3% difference in killing-out percentage (KO%)."

Farm details

- Johnstown, Co Kilkenny
- 96ha (237 acres) tillage and grasslands
- 15ha (37 acres) forestry
- 1ha (2.5 acres) wild bird cover
- 950 ewes + 250 replacement ewe lambs
- 1.92 lambs/ewe
- 1,800 grass-finished lambs
- 300g average daily gain (ADG)

Environmental schemes

At Germinal, we produce a range of mixtures which comply with environmental schemes, such as GLAS and Greening.

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

1. Catch Crops

2. Wild Bird Cover

3. Arable Grass Margins

4. Environmental Management of Fallow Land

The information given on these four mixtures is a guide only. We recommend you check the latest guidelines by contacting the Department of Agriculture, Food and the Marine to ensure compliance.



Catch Crops

Also known as cover crops or green manure, catch crops play a role in the regulatory requirements for green cover under the GLAS scheme. The following specifications are relevant to farmers sowing these crops within GLAS.

- Catch crops must be sown annually by 15th September
- Use light cultivation techniques – ploughing is not permitted
- Use a mixture of at least 2 crops from the list of prescribed crops. The minimum seed rates of at least 2 of the species below must be sown annually
- Crops must remain in place until 1st December
- Grazing of catch crops is permitted after 1st December

Catch Crop Mixture Options

Soil Booster Pro

A quick-establishing catch crop mixture which suppresses weeds, improves soil structure and reduces nitrogen losses. It can be sown where oilseed rape is in the rotation as it does not contain radish or brassica.

Soil Booster Max

This mixture provides rapidly growing green cover to help condition the soil and reduce erosion. A good root structure increases air movement in the soil and improves drainage while scavenging nutrients from lower in the soil.

Soil Booster Plus

Offering the same benefits as Soil Booster Max, the nutrient-scavenging abilities of Soil Booster Plus makes nutrients available for the next cash crop.

Soil Booster Graze

Soil Booster Graze can be used for grazing animals after 1st December. It provides a valuable high energy feed for winter grazing of cattle and sheep. Always have fresh water and a fibre source, eg. silage, available when grazing this mixture.

Fig 20.

List of prescribed catch crops in GLAS and sowing rate (kg/ha) :

Crop	Sowing Rate (kg/ha)
Oats (& black oats)	75-100
Rye	65-80
Vetch	12
Crimson clover/ Berseem clover	10-15
Peas	30
Beans	90-100
Forage/ Fodder rape	3-5
Leafy turnip	5
Tillage radish	5
Mustard	6-10
Buckwheat	30-40
Phacelia	2-5

Wild Bird Cover

Wild Bird Cover is a spring-sown crop left unharvested over winter to provide food for farmland birds.

- Maximum area for payment is three hectares
- Establish Wild Bird Cover by 31st May
- Crop must remain in situ until 15th March the following year
- Livestock may enter the parcel from 15th March in the year of replanting
- Fertiliser can be applied at a maximum of half rate for a cereal crop
- Increase seeding rate by one-third if broadcasting and roll immediately after sowing
- One and two-year options available

One-Year option

- Must use a cereal e.g. oats, triticale, wheat or barley
- Must be re-sown each year while in the scheme

Fig 21.

Wild Bird Cover One year option:

Seed options	Seed rate where drilled*
Cereal and Linseed (Cereal can be oats, wheat, barley or triticale)	75 kg/ha cereal and 15 kg/ha of linseed
Cereal and Mustard (Cereal can be oats, wheat, barley or triticale)	75kg/ha cereal and 10 kg/ha of mustard

* Increase seeding rate by one-third if broadcasting

Two-Year option

- Must contain kale and a cereal (wheat/barley/oats/triticale)
- Seed cannot be mixed
- Half plot to be sown with kale, other half with cereal

Fig 22.

Wild Bird Cover Two year option:

Year	Sowing guidelines	Seed rate where drilled*
1	Establish half the plot with cereal and half with kale	75 kg/ 0.5 ha cereal and 3 kg/ 0.5ha of kale
2	Kale remains in situ, re-establish cereal in half of plot	75 kg/ 0.5 ha of cereal
3	Re-establish half of plot as kale and half as cereal	75 kg/ 0.5 ha cereal and 3 kg/ 0.5 ha of kale
4	Kale remains in situ, re-establish cereal in half of plot	75 kg/ 0.5 ha of cereal
5	Re-establish half of plot as kale and half as cereal	75 kg/ 0.5 ha cereal and 3 kg/ 0.5 ha of kale

* Increase seeding rate by one-third if broadcasting

Arable Grass Margin

Arable grass margins provide a habitat for flora and fauna, increase biodiversity and protect water quality.

- Establish margins of 3, 4 or 6m along the full length of LPIS parcel or field boundary
- Margins must remain in the same location for the duration of a contract
- Sow a grass mix containing a minimum of 60% Cocksfoot, Timothy or a combination of both at a seed rate of 25-30kg/ha
- Soil cultivation must not be carried out within the margin once it's established
- Mulch, mow or graze the margin once a year, but not between 1st March and 15th August
- Do not apply fertiliser or lime to the margin
- Pesticides may only be applied to the margin for the spot treatment of noxious or invasive weeds
- Retain all seed labels and receipts for the duration of a contract

Fig 23.

**Arable Grass Margin
GLAS Grass Mix:**

Type	Mix %
Timothy	60%
Perennial ryegrass	40%

Environmental Management of Fallow Land

The environmental management of fallow land provides food and habitat for ground nesting birds, other fauna and insects through the nesting season.

- Permitted area: 0.25 – 3 hectares
- Establish fallow area by sowing before 31st May
- Sow a grass mix containing a minimum of 60% Cocksfoot, Timothy or a combination of both at a seed rate of 25-30kg/ha
- Do not apply fertiliser to the fallow land
- Mulch or mow the area once a year, but not between 1st March and 1st September
- Retain all seed labels and receipts for the duration of a contract
- Do not graze. Area must be fenced and stock proof

Fig 24.

**Environmental Management of Fallow Land
GLAS Grass Mix:**

Type	Mix %
Timothy	60%
Perennial ryegrass	40%

Wildflower mixtures



WF1 Flowering Meadow

WF1 Flowering Meadow mix produces an abundance of flowers ideal for road verges, gardens or any area requiring low maintenance. The flowering species' outstanding colour provides a rich food source to encourage pollinators such as butterflies and bees.

A blend of annual and perennial species selected to produce an initial display of colour in the first year with the perennial species persisting in the following years.

Benefits of WF1 Flowering Meadow

- Low maintenance
- Abundant and colourful display of flowers
- Supports pollinators
- Increased biodiversity



WFG2 Flowering Meadow

WFG2 Flowering Meadow mix is an all-round mixture suitable for a range of sites and soils to produce a grassland meadow. The flowering species attract and benefit pollinators such as bees and butterflies, from April to September with the main flowering period between May and July. A blend of annual and perennial wildflowers with appropriate grass species.

Benefits of WFG2 Flowering Meadow

- Suited to a range of sites and soils
- Abundant and colourful display of flowers
- Supports pollinators
- Increased biodiversity
- Colourful and distinct landscape



Farm Pollinator Mix

The Farm Pollinator Mix supplies flowering species from spring to early autumn ideal for non-farmed spaces such as laneways and roadside verges, field, arable and watercourse margins and unused areas around farmyards. It increases the biodiversity value of your farm without loss to production and contains a blend of annual and perennial species highlighted by the All-Ireland Pollinator Plan as suitable for pollinators.

Benefits of Farm Pollinator Mix

- Increased biodiversity
- Colourful and distinct landscape
- Visual sign of Irish agriculture's sustainability
- Contains All-Ireland Pollinator Plan species
- Supports pollinators through the entire lifecycle



WF10 Cornfield Annuals

WF10 Cornfield Annuals mix is ideal for recreating a once common feature of farming areas giving an outstanding display of colour in its first year. In subsequent years, an annual reseeding programme builds up a strong enough seed bank to maintain a colourful display from seed being regenerated through soil disturbance. This blend of annual species can be sown on its own or to supplement a mixture of perennial species slower to establish.

Benefits of WF10 Cornfield Annuals

- Abundant and colourful display of flowers
- Supplements existing perennial species
- Increased biodiversity
- Supports pollinators

Leisure® Lawn



Leisure Lawn is a quick-establishing lawn seed for landscaping and domestic lawns

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

Fig 25.

Leisure® Lawn:

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

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



Find out more

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

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Leisure® is a registered trademark of Germinal Holdings Ltd.

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 on the DAFM Recommended List.

In the eventuality of coated clover seed being unavailable we will replace it a similar quantity of uncoated seed to maintain an equal proportion of clover in the mixture. From 1st January 2020 farms in derogation are required to sow 0.6 kg uncoated or 1.0 kg coated clover when reseeding. To ensure you are compliant speak to one of our sales reps.

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