

## Growing on-farm resilience

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

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

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

Germinal's grass seed range, highly rated for yield and silage performance, balances energy and protein to maximise meat and milk production, giving livestock farmers the edge.

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

Germinal is at the forefront of research and development in this area, helping farmers take the guesswork out of establishing multi-species successfully, and more about our innovative clover breeding is found on pages 20/21.

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

To connect with a Germinal expert and learn more about how Germinal's products can help your farm, visit: **germinal.ie** or follow **@wearegerminal** on Facebook or **@Germinal Ire** on twitter.

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# Planning your forage requirements



Germinal Varieties 2023

## **Germinal mixtures**

Germinal's grass seed range includes the most profitable varieties with the highest quality, yield and silage performance in the 2023 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** Top 5 Grazing – cut and graze

**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





## ■Top5 Extend



AVAILABLE WITH OR WITHOUT WHITE CLOVER



HIGH CLOVER OPTION AVAILABLE Top 5 Extend is a high-quality intensive grazing mix designed to meet the demands of intensive grassland farmers.

Top 5 Extend is a highly palatable mixture producing 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.

### Benefits of Top 5 Extend

- 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:

T = Tetraploid

D = Diploid

| Kg / acre | Variety            | Туре                   | Heading Date |
|-----------|--------------------|------------------------|--------------|
| 3.20      | AberGain           | Perennial Ryegrass (T) | 04 June      |
| 3.00      | Ballintoy          | Perennial Ryegrass (T) | 04 June      |
| 2.70      | AberChoice         | Perennial Ryegrass (D) | 11 June      |
| 2.50      | Ballyvoy           | Perennial Ryegrass (D) | 03 June      |
| 0.60      | White Clover Blend |                        |              |
| 12.00     |                    |                        |              |

Fig 02.

**Top 5 Extend:** Spread of heading dates

MAY JUNE
20 21 22 23 24 25 26 27 28 29 30 31 1 2 3 4 5 6 7 8 9 10 11 12 13 14 14 15 16 17 18 19 20

OPTIMAL CUTTING WINDOW



## ■Top5 Grazing



AVAILABLE WITH OR WITHOUT WHITE CLOVER



HIGH CLOVER OPTION AVAILABLE

Fig 03.

#### **Top 5 Grazing:**

T = Tetraploid D = Diploid 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 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
- Excellent spring and autumn growth

MAY | JUNE

| Kg / acre | Variety            | Туре                   | Heading Date |
|-----------|--------------------|------------------------|--------------|
| 2.50      | Ballintoy          | Perennial Ryegrass (T) | 04 June      |
| 2.50      | Gracehill          | Perennial Ryegrass (T) | 04 June      |
| 3.20      | AberBann           | Perennial Ryegrass (D) | 10 June      |
| 3.20      | Drumbo             | Perennial Ryegrass (D) | 05 June      |
| 0.60      | White Clover Blend |                        |              |
| 12.00     |                    |                        |              |

Fig 04.

**Top 5 Grazing:** Spread of heading dates

20 21 22 23 24 25 **26 27 28 29 30 31** 1 2 3 **4 5 6 7 8 9 10** 11 12 13 14 14 15 16 17 18 19 20 OPTIMAL CUTTING WINDOW



## ■Top5 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.

## Benefits of Top 5 Silage

OPTIMAL CUTTING WINDOW FOR HIGH QUALITY 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 without white clover on request

#### Fig 05.

#### Top 5 Silage:

T = Tetraploid D = Diploid

| Kg / acre | Variety            | Туре                   | Heading Date |
|-----------|--------------------|------------------------|--------------|
| 2.90      | AberClyde          | Perennial Ryegrass (T) | 25 May       |
| 2.50      | Dunluce            | Perennial Ryegrass (T) | 29 May       |
| 3.20      | AberMagic          | Perennial Ryegrass (D) | 28 May       |
| 2.80      | AberWolf           | Perennial Ryegrass (D) | 30 May       |
| 0.60      | Alice 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 06.

**Top 5 Silage:** Spread of heading dates

15 16 17 **18 19 20 21 22 23** 24 **25 26 27 28 29 30** 31 1 2 3 4 5 6 7 8 9 10 11 12 13 14 14 15



## **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
- Includes white clover ideal for sheep grazing

Fig 07.

#### **Sheep Mixture:**

T = Tetraploid D = Diploid

| Kg / acre | Variety            | Туре                   | Heading Date |
|-----------|--------------------|------------------------|--------------|
| 2.20      | Ballintoy          | Perennial Ryegrass (T) | 04 June      |
| 2.30      | Gracehill          | Perennial Ryegrass (T) | 04 June      |
| 2.80      | AberBann           | Perennial Ryegrass (D) | 10 June      |
| 2.70      | Drumbo             | Perennial Ryegrass (D) | 05 June      |
| 2.00      | White Clover Blend |                        |              |
| 12.00     |                    |                        |              |

Fig 08.

**Sheep Mixture:** Spread of heading dates MAY JUNE

1 2 3 **4 5 6 7 8 9 10** 11 12 13 14 14 15 16 17 18 19 20

OPTIMAL CUTTING WINDOW



## **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

#### Kg / acre Variety Туре **Heading Date** 3.00 Ballintoy Perennial Ryegrass (T) 04 June 3.60 AberBann Perennial Ryegrass (D) 10 June 0.70 Timothy Comer 1.50 White Clover Blend Legume 1.50 Red Clover Blend Legume 1.00 Tonic Plantain 0.70 Puna II Chicory 12.00

#### Fig 09.

## Multi-Species Mixture:

T = Tetraploid

D = Diploid



## **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.

#### **Benefits of Difficult Soils Mixture**

- · 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 June      |
| 3.10      | Briant             | Perennial Ryegrass (T) | 03 June      |
| 3.70      | Drumbo             | Perennial Ryegrass (D) | 05 June      |
| 1.00      | Comer              | Timothy                |              |
| 0.60      | White Clover blend |                        |              |
| 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 JUNE

15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 1 2 3 4 5 6 7 8 9 10 11 12 13 14 14 15

OPTIMAL CUTTING WINDOW



Horse Mixture 11

## **Horse Mixture**



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
- Minimal poaching due to the smooth-stalked meadow grass
- Available with or without mixed herbs high in trace elements

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



**Horse Mixture:** 



## **Tetraploid Mixture**

The Tetraploid Mixture is 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.

#### **Benefits of Tetraploid Mixture**

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

Fig 13.

Tetraploid
Mixture:

T = Tetraploid

| Kg    | Variety            | Туре                   | Heading Date |
|-------|--------------------|------------------------|--------------|
| 3.80  | AberGain           | Perennial Ryegrass (T) | 04 June      |
| 3.80  | Ballintoy          | Perennial Ryegrass (T) | 04 June      |
| 3.80  | Gracehill          | Perennial Ryegrass (T) | 04 June      |
| 0.60  | White Clover Blend |                        |              |
| 12.00 |                    |                        |              |



#### Tips to successfully overseed grass

- Overseed in the spring or after cutting silage
- Unsuitable for swards with a 'butt' as good seed-to-soil 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

## 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. Aim for a first cut between red clover's early flower bud and 50% flowering stage, with subsequent cuts at five to six weekly intervals. The sward also provides excellent aftermath grazing for finishing lambs.

#### **Benefits**

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

Fig 14.

Red Clover Intensive Silage
T = Tetraploid
D = Diploid

| Kg / acre | Variety            | Туре                   | Heading Date |
|-----------|--------------------|------------------------|--------------|
| 2.0       | AberMagic          | Perennial Ryegrass (T) | 28 May       |
| 3.5       | Barwave            | Perennial Ryegrass (T) | 22 May       |
| 2.0       | AberWolf           |                        |              |
| 4.0       | Red Clover         |                        |              |
| 0.5       | Alice White Clover |                        |              |
| 12.00     |                    |                        |              |

## AVAILABLE WITH OR WITHOUT RED CLOVER



## Hybrid Silage

A mix containing hybrid ryegrass to produce large quantities of high-quality silage 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, 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.

#### **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

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

## Fig 15.

#### Hybrid silage

T = Tetraploid

## **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.

#### 1. Organic Perennial Ryegrass (100% Organic)

| Kg / acre | Variety            | Туре                   | Heading Date |
|-----------|--------------------|------------------------|--------------|
| 6.50      | Organic AberChoice | Perennial Ryegrass (D) | 11 June      |
| 6.50      | Organic AberClyde  | Perennial Ryegrass (T) | 25 May       |
| 13.00     |                    |                        |              |

## 2. Permanent Pasture (77% Organic) \*

| Kg / acre | Variety            | Туре                   | Heading Date |
|-----------|--------------------|------------------------|--------------|
| 6.00      | Organic AberChoice | Perennial Ryegrass (D) | 11 June      |
| 4.00      | Organic AberClyde  | Perennial Ryegrass (T) | 25 May       |
| 1.00      | Comer              | Timothy                |              |
| 2.00      | White Clover Blend |                        |              |
| 13.00     |                    |                        |              |

## 3. Red Clover Silage (74% Organic) \*

| Kg / acre | Variety            | Туре                   | Heading Date |
|-----------|--------------------|------------------------|--------------|
| 4.80      | Organic AberChoice | Perennial Ryegrass (D) | 11 June      |
| 4.80      | Organic AberClyde  | Perennial Ryegrass (T) | 25 May       |
| 3.40      | Red Clover Blend   |                        |              |
| 13.00     |                    |                        |              |

<sup>\*</sup> Organic farmers need a derogation before purchasing these mixture as they contain conventional and organic seed

#### Fig 16.

#### Organic Perennial Ryegrass:

T = Tetraploid

D = Diploid

#### Fig 17.

## Permanent Pasture:

T = Tetraploid

D = Diploid

#### Fig 18.

## 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 leys 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.

## Mixtures for AD

Fig 19.

#### AD Medium-term:

T = Tetraploid

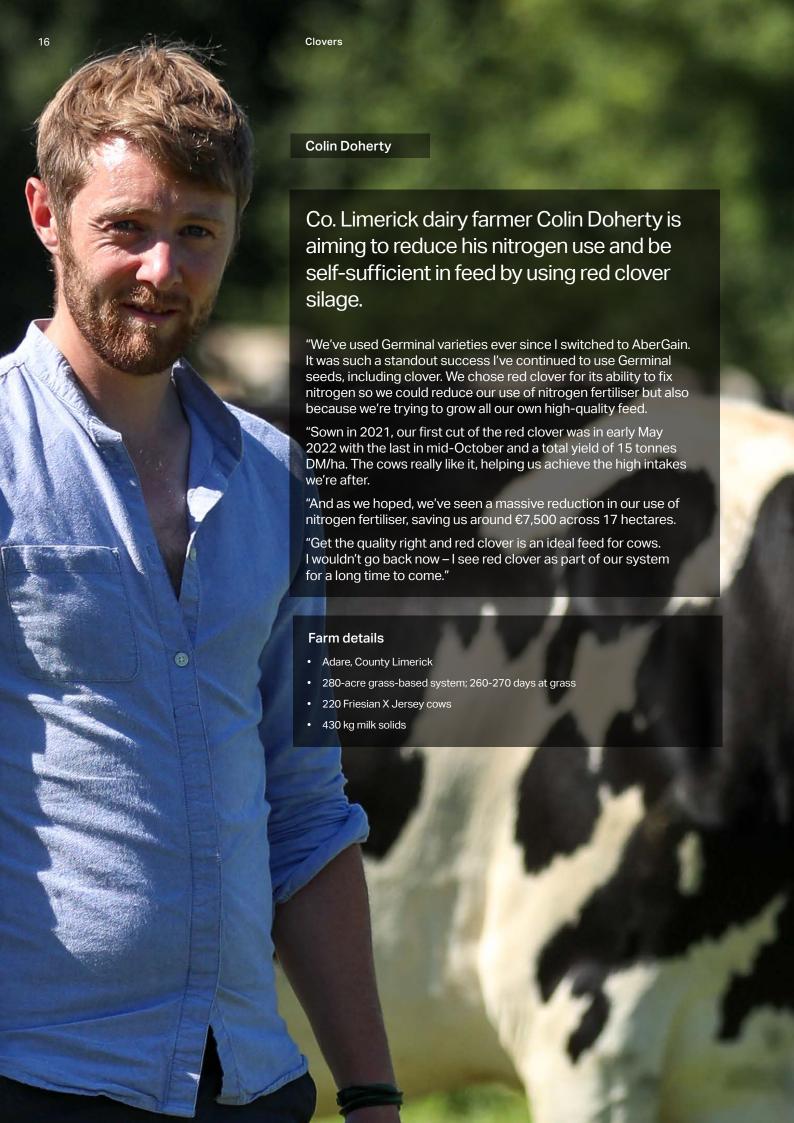
| Kg / acre | Variety  | Туре                |
|-----------|----------|---------------------|
| 5.00      | AberEve  | Hybrid Ryegrass (T) |
| 7.00      | AberWolf | Perennial Ryegrass  |
| 12.00     |          |                     |

#### Fig 20.

#### AD Long-term:

T = Tetraploid

| Kg / acre | Variety   | Туре                   |
|-----------|-----------|------------------------|
| 4.50      | AberWolf  | Perennial Ryegrass     |
| 3.00      | AberMagic | Perennial Ryegrass     |
| 4.50      | AberClyde | Perennial Ryegrass (T) |
| 12.00     |           |                        |



Clovers 17

## **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 as well as benefiting 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 swards.



## 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%. Slower to establish than grass due to its smaller seed size, Germinal's white clover is coated to improve establishment and productivity. The larger seed size creates better soil-to-seed contact and the coating's beneficial ingredients promote faster germination and more energy for the seed. It can be used in a full reseed or oversown into an existing sward.

#### Tips to successfully overseed with white clover

- Start by controlling weeds, checking 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
- Use Germinal's bigger and heavier coated clover seeds for better soil contact
- Oversow at 3-4kg coated 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 4 cm 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. Reseeding 19

## Reseeding

## Timing

## Spring reseeding

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

#### **Autumn reseeding**

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

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

## Follow our 10-point plan when reseeding.

- 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
- Cultivate to ensure a fine, firm seed bed is achieved.
  Ploughing will help level any rough fields. Apply lime as per soil test results
- Select Irish Recommended List varieties suited to intended field use e.g. grazing or silage
- Sow 14 kg seed/acre in good conditions (warm with rain forecast), no deeper than 10-15 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
- Apply N, P and K as per guidelines and soil test results
- Monitor reseed for pest attack e.g. slugs, frit fly, leatherjacket, rabbits etc. Take immediate action where necessary
- Post-emergence weed spray is essential, apply approx. 5-6 weeks after establishment, prior to first grazing. Where clover was sown, use a clover safe spray
- Graze the new reseeds, frequently and at light covers to assist in tillering and to help create a dense sward

# Germinal Climate Smart Options

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

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

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

## Climate smart forage solutions

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

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

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



## Aber HSG

Our **High Sugar Grass** varieties are climate smart leaders scientifically proven to reduce livestock emissions. Over the last 20 years, High Sugar Grass varieties have been sown across 4.6 million acres.

## **■** DoubleRoot

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

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

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

# Climate Smart Soil Support

## LandStrong

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

The range includes Germinal's multi-species and cover crop mixes carefully formulated to protect and restore wildlife habitats and the natural environment.

In development

## ■DeepRoot

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

## **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 0.24 kg 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.



## Irish Grass Recommended List 2023

## **Intermediate Varieties**

|                |        |              | :      | Simulated G | razing (t DM | I/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)        |
| Moira          | D      | 26-May       | 1.65   | 7.08        | 2.43         | 11.17       | 826.8   | 4.89                | 4.16                | 6.1          |
| Astonconqueror | D      | 27-May       | 1.46   | 7.39        | 2.34         | 11.19       | 835.7   | 5.21                | 3.93                | 6.2          |
| AberMagic      | D      | 28-May       | 1.19   | 7.69        | 2.62         | 11.51       | 844.9   | 4.64                | 4.09                | 6.2          |
| AberWolf       | D      | 30-May       | 1.33   | 7.45        | 2.35         | 11.12       | 840.9   | 4.85                | 4.45                | 6.7          |
| AberGreen      | D      | 31-May       | 1.23   | 7.82        | 2.55         | 11.60       | 842.2   | 4.31                | 4.13                | 6.5          |
| Gusto          | D      | 31-May       | 1.30   | 7.37        | 2.50         | 11.18       | 838.9   | 4.32                | 4.04                | 5.8          |
| Barwave        | Т      | 22-May       | 1.56   | 7.62        | 2.45         | 11.64       | 836.0   | 4.98                | 4.51                | 4.9          |
| Fintona        | Т      | 24-May       | 1.30   | 7.40        | 2.35         | 11.05       | 839.1   | 5.22                | 4.01                | 5.4          |
| AberClyde      | Т      | 25-May       | 1.31   | 7.74        | 2.32         | 11.38       | 852.0   | 5.23                | 4.04                | 5.6          |
| Dunluce        | Т      | 29-May       | 1.14   | 7.54        | 2.38         | 11.05       | 845.6   | 4.52                | 4.62                | 5.4          |

## **Late Varieties**

|               |        |              |        | Simulated G | razing (t DM | /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)        |
| Oakpark       | D      | 02-Jun       | 1.19   | 7.40        | 2.38         | 10.98       | 833.3   | 4.33                | 4.55                | 6.5          |
| Ballyvoy      | D      | 03-Jun       | 1.39   | 7.24        | 2.34         | 10.97       | 843.1   | 4.14                | 4.32                | 6.2          |
| Callan        | D      | 03-Jun       | 1.43   | 7.08        | 2.23         | 10.74       | 830.1   | 4.55                | 3.96                | 6.2          |
| Drumbo        | D      | 05-Jun       | 1.14   | 7.19        | 2.29         | 10.62       | 842.6   | 4.19                | 4.36                | 6.2          |
| Astonking     | D      | 05-Jun       | 1.37   | 7.34        | 2.24         | 10.95       | 828.3   | 4.36                | 4.29                | 5.8          |
| AberBann      | D      | 10-Jun       | 1.03   | 8.11        | 2.59         | 11.74       | 832.2   | 4.46                | 5.36                | 5.9          |
| AberChoice    | D      | 11-Jun       | 1.09   | 7.73        | 2.44         | 11.26       | 844.8   | 4.18                | 4.93                | 6.0          |
| Bowie         | D      | 16-Jun       | 1.11   | 7.43        | 2.40         | 10.94       | 838.7   | 3.63                | 5.22                | 6.4          |
| AberBite      | Т      | 01-Jun       | 0.99   | 7.49        | 2.39         | 10.87       | 849.5   | 4.55                | 4.62                | 5.8          |
| Astonenergy   | Т      | 01-Jun       | 1.03   | 7.27        | 2.30         | 10.60       | 854.1   | 4.33                | 3.95                | 5.5          |
| Triwarwic     | Т      | 02-Jun       | 1.12   | 7.42        | 2.18         | 10.72       | 842.5   | 4.63                | 4.39                | 5.8          |
| Nashota       | Т      | 03-Jun       | 1.32   | 7.51        | 2.26         | 11.09       | 845.7   | 4.68                | 4.54                | 6.0          |
| Glenfield     | Т      | 03-Jun       | 1.36   | 7.68        | 2.28         | 11.31       | 841.1   | 4.74                | 4.55                | 5.7          |
| Meiduno       | Т      | 03-Jun       | 1.27   | 7.50        | 2.33         | 11.10       | 848.8   | 4.41                | 4.31                | 5.2          |
| Briant        | Т      | 03-Jun       | 1.06   | 7.54        | 2.33         | 10.93       | 841.2   | 4.51                | 4.47                | 5.5          |
| Aspect        | Т      | 03-Jun       | 1.07   | 7.36        | 2.19         | 10.61       | 848.5   | 4.13                | 4.77                | 6.0          |
| AberGain      | Т      | 04-Jun       | 1.20   | 7.63        | 2.37         | 11.20       | 852.0   | 4.91                | 4.56                | 5.6          |
| Gracehill     | Т      | 04-Jun       | 1.28   | 7.60        | 2.44         | 11.31       | 840.9   | 5.35                | 4.56                | 5.6          |
| Ballintoy     | Т      | 04-Jun       | 1.22   | 7.59        | 2.30         | 11.11       | 846.6   | 4.59                | 4.44                | 5.4          |
| Anurad        | Т      | 05-Jun       | 1.33   | 7.40        | 2.28         | 11.01       | 846.7   | 4.64                | 3.82                | 5.6          |
| Xenon         | Т      | 07-Jun       | 1.08   | 7.33        | 2.23         | 10.64       | 846.1   | 3.98                | 4.77                | 6.2          |
| AberPlentiful | Т      | 08-Jun       | 1.36   | 7.67        | 2.37         | 11.40       | 842.1   | 4.27                | 4.69                | 5.5          |

## Pasture Profit Index 2023

## **Intermediate Tetraploids**

| V            | ariety Details | S            |                          |        | ¹Teagasc<br>Grazing |        |         |        |             |                                    |
|--------------|----------------|--------------|--------------------------|--------|---------------------|--------|---------|--------|-------------|------------------------------------|
| Variety Name | Ploidy         | Heading Date | TOTAL PPI<br>(€/Ha/year) | Spring | Summer              | Autumn | Quality | Silage | Persistency | Utilisation<br>Trait<br>(1-5 star) |
| AberClyde    | Т              | 25-May       | 253                      | 51     | 66                  | 46     | 44      | 46     | 0           | ****                               |
| Barwave      | Т              | 22-May       | 244                      | 93     | 61                  | 59     | -20     | 50     | 0           | -                                  |
| Fintona      | Т              | 24-May       | 190                      | 49     | 52                  | 49     | -5      | 45     | 0           | ****                               |
| Dunluce      | Т              | 29-May       | 184                      | 23     | 58                  | 52     | 24      | 34     | -6          | ****                               |

## **Intermediate Diploids**

| Variety Details |        |              | PPI Sub-Indices (€/Ha/Year) |        |        |        |         |        |             |   |
|-----------------|--------|--------------|-----------------------------|--------|--------|--------|---------|--------|-------------|---|
| Variety Name    | Ploidy | Heading Date | TOTAL PPI<br>(€/Ha/year)    | Spring | Summer | Autumn | Quality | Silage | Persistency | Grazing<br>Utilisation<br>Trait<br>(1-5 star) |
| AberMagic       | D      | 28-May       | 215                         | 31     | 64     | 78     | 18      | 24     | 0           | ***   |
| AberWolf        | D      | 30-May       | 209                         | 54     | 54     | 48     | 11      | 43     | 0           | **  |
| Moira           | D      | 26-May       | 209                         | 108    | 39     | 57     | -32     | 36     | 0           | ***   |
| Astonconqueror  | D      | 27-May       | 206                         | 75     | 52     | 48     | -10     | 42     | 0           | ***   |
| AberGreen       | D      | 31-May       | 193                         | 38     | 69     | 70     | 5       | 11     | 0           | *   |
| Gusto           | D      | 31-May       | 176                         | 50     | 51     | 64     | 2       | 9      | 0           | ***   |

## Pasture Profit Index 2023

## **Late Tetraploids**

| V             | ariety Details | s            |                          |        |        | ¹Teagasc<br>Grazing |         |        |             |                                    |
|---------------|----------------|--------------|--------------------------|--------|--------|---------------------|---------|--------|-------------|------------------------------------|
| Variety Name  | Ploidy         | Heading Date | TOTAL PPI<br>(€/Ha/year) | Spring | Summer | Autumn              | Quality | Silage | Persistency | Utilisation<br>Trait<br>(1-5 star) |
| AberGain      | Т              | 04-Jun       | 241                      | 34     | 61     | 50                  | 47      | 49     | 0           | ****                               |
| Gracehill     | Т              | 04-Jun       | 241                      | 46     | 60     | 58                  | 10      | 67     | 0           | **                                 |
| Nashota       | Т              | 03-Jun       | 214                      | 53     | 57     | 39                  | 28      | 38     | 0           | -                                  |
| Glenfield     | Т              | 03-Jun       | 207                      | 59     | 63     | 40                  | 3       | 41     | 0           | -                                  |
| AberPlentiful | Т              | 08-Jun       | 204                      | 59     | 63     | 50                  | 11      | 26     | -6          | **                                 |
| Ballintoy     | Т              | 04-Jun       | 195                      | 36     | 60     | 43                  | 23      | 32     | 0           | ****                               |
| Meiduno       | Т              | 03-Jun       | 195                      | 45     | 56     | 46                  | 27      | 21     | 0           | ****                               |
| Anurad        | Т              | 05-Jun       | 191                      | 54     | 52     | 41                  | 31      | 19     | -6          | ***                                |
| AberBite      | Т              | 01-Jun       | 175                      | -2     | 56     | 53                  | 32      | 36     | 0           | ****                               |
| Briant        | Т              | 03-Jun       | 156                      | 10     | 58     | 46                  | 13      | 29     | 0           | ***                                |
| Astonenergy   | Т              | 01-Jun       | 151                      | 5      | 47     | 43                  | 49      | 6      | 0           | ****                               |
| Xenon         | Т              | 07-Jun       | 143                      | 12     | 49     | 35                  | 29      | 17     | 0           | ****                               |
| Triwarwic     | Т              | 02-Jun       | 141                      | 20     | 53     | 30                  | 7       | 32     | 0           | -                                  |
| Aspect        | Т              | 03-Jun       | 136                      | 11     | 50     | 30                  | 27      | 23     | -6          | ****                               |

## **Late Diploids**

| ٧            | ariety Details | S            |                          | PPI Sub-Indices (€/Ha/Year) |        |        |         |        |             |                                      |  |
|--------------|----------------|--------------|--------------------------|-----------------------------|--------|--------|---------|--------|-------------|--------------------------------------|--|
| Variety Name | Ploidy         | Heading Date | TOTAL PPI<br>(€/Ha/year) | Spring                      | Summer | Autumn | Quality | Silage | Persistency | Grazing Utilisation Trait (1-5 star) |  |
| AberBann     | D              | 10-Jun       | 190                      | 5                           | 81     | 75     | -25     | 54     | 0           | ***                                  |  |
| AberChoice   | D              | 11-Jun       | 190                      | 15                          | 65     | 58     | 22      | 30     | 0           | ***                                  |  |
| Ballyvoy     | D              | 03-Jun       | 186                      | 65                          | 46     | 47     | 19      | 10     | 0           | *                                    |  |
| Bowie        | D              | 16-Jun       | 170                      | 19                          | 53     | 54     | 28      | 16     | 0           | -                                    |  |
| Oakpark      | D              | 02-Jun       | 149                      | 32                          | 52     | 52     | -12     | 25     | 0           | *                                    |  |
| Drumbo       | D              | 05-Jun       | 146                      | 23                          | 44     | 42     | 24      | 13     | 0           | *                                    |  |
| Astonking    | D              | 05-Jun       | 141                      | 61                          | 50     | 36     | -25     | 18     | 0           | ***                                  |  |
| Callan       | D              | 03-Jun       | 126                      | 71                          | 39     | 35     | -35     | 16     | 0           | ***                                  |  |

Rows in yellow indicate Germinal varieties

D= Diploid; T= Tetraploid

 $^{\rm 1}{\rm Grazing}$  utilisation Trait. A hyphen "-" indicates no grazing data available

Source: 'Grass and White Clover Recommended List varieties for Ireland 2023',

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 21.

Forage crop selection and production guide:

| Crop            | Variety       | Sowing Time       | Seeding rate<br>(per acre) | Time of Utilisation | Expected DM Yield<br>(t DM/ha) | DM%     | CP%     | Metabolisable<br>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.





## **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.

#### Benefits of Maris Kestrel

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

Fig 22.

**Maris Kestrel:** 

#### Variety

Maris Kestrel

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

# **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.

#### **Benefits of Redstart**

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

Fig 23.

**Redstart:** 

Variety

Redstart

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

Forage crops 29

## 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 24.

Stego:

Variety

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

## 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 ideal for out-wintering. A hectare of high energy Triumph swedes provides the equivalent yield and energy to 7-10 tonnes barley.

#### **Benefits of Triumph**

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

Fig 25.

Triumph:

Variety

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

# **Leafy turnip**Appin



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.

#### **Benefits of Appin**

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

Fig 26.

Appin:

Variety

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

## **Stubble turnip**Vollenda

## 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.

## Benefits of stubble turnip

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

Fig 27.

Vollenda:

Variety

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

**Peter McGuinness** Peter McGuinness grows the hybrid brassica Redstart to support ewe performance over winter. It allows him double use out of the field and to build grass covers over winter to set up for lambing in spring. It also saves on winter housing and labour costs. "Redstart is consistently good. Our ewes always perform well on it with scanning rates around 1.81. It fits well into our rotation and is cost-effective. We go in with the one pass and stitch it straight into the winter barley stubble. If you prepare well and have the necessary fencing it is simple to manage over winter. "Redstart has always worked well for us and provides the ideal solution for overwintering ewes outdoors. The Germinal name really speaks for itself, representing both quality and strong technical knowledge." Farm details Trim, Co Meath 146 hectares (360 acres) including 14 hectares (36 acres) Redstart 800 Suffolk Texel cross ewes All ewes lambed outdoors starting mid-March Scanning rate 1.81 Average liveweight 42 kg

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# Growing and grazing brassicas successfully

Brassicas are popular crops for out-wintering 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. crosscompliance is important if out-wintering stock)
- Leave a minimum of four years since last brassica crop to reduce risk of clubroot
- 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

#### Successful grazing management:

- To avoid rumen upsets, introduce stock to brassicas gradually for 1-2 hours/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
- 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

Forage crops 3



## **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. Catch Crops
- 2. Winter Bird Food
- 3. Grass Margins arable

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.



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## **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 mix must consist of at least two species from the list below. The minimum seed rates as outlined must be used for each species
- Catch crop must remain in situ from the date of sowing to 1st January annually
- · After 1st January light grazing or incorporation is permitted

## Catch Crop Mixture Options

#### Soil Booster Pro

A quick-establishing catch crop mixture which supresses 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 January. It provides a valuable high energy feed for winter grazing of cattle and sheep. Always have fresh water and a fibre source, e.g. silage, available when grazing this mixture.

Fig 28.

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

| Crop               | Sowing Rate (kg/ha) |
|--------------------|---------------------|
| Buckwheat          | 30 – 40             |
| Crimson Clover     | 10 – 15             |
| Berseem Clover     | 10 – 15             |
| Forage/Fodder Rape | 4 – 5               |
| Mustard            | 8 – 10              |
| Oats               | 60 – 75             |
| Black Oats         | 30 – 40             |
| Phacelia           | 4 – 5               |
| Sunflower          | 10 – 15             |
| Rye                | 60 – 75             |
| Tillage Radish     | 4 – 6               |
| Vetch              | 15                  |
| Leafy Turnip       | 4 - 6               |
| Peas               | 40 – 50             |
| Beans              | 70 – 90             |
| Linseed            | 15                  |
| Red Clover         | 8 – 10              |

## **Winter Bird Food**

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

- Establish a 6 or 8 m winter bird food strip along a field boundary
- Minimum payment area is 0.25 ha; maximum area is 3 ha
- Protect from livestock using a fence that is fit for purpose
- Establish the crop by 15th May using the following mix (see table for sowing rates)
  - 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 birds-foot 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)

Fig 29.
Winter Bird Food

| 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: These monoculture rates should be adjusted according to the number of species in the chosen mix.

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## **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 8 m grass margin before 31st August 2023 by sowing a suitable seed mix (see Fig 29) at a rate of 15 kg/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 30.

Arable
Grass Margin
ACRES Grass Mix:

| Species    | Inclusion Rate (kg/ha) |
|------------|------------------------|
| Cocksfoot  | 10                     |
| Timothy    | 4                      |
| Red Clover | 1                      |
|            | 15                     |

# Irish Native Wildflower Mixtures

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

## **Flowering Meadow**

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

• Contains 100% Irish Native Wildflowers

Sowing rate: 1.5 g/m²
Pack size: 500 g

## Acid/ Heavy soils

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

• Contains 60% Irish Native Wildflowers and 40% Ornamental Grasses

Sowing rate: 2 g/m²

· Pack size: 1 kg

## **Light Soils**

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

• Contains 60% Irish Native Wildflowers and 40% Ornamental Grasses

Sowing rate: 2 g/m²

· Pack size: 1 kg

## **Annual Meadow**

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

• Contains 100% Irish Native Wildflowers

Sowing rate: 1.5g/ m²

Pack size: 1 kg



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## Leisure<sup>®</sup>Lawn



Fig 31.

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.

| 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:

germinal.ie ireland@germinal.com +353 (0) 504 41100



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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 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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