

CIRCLE LEYS

**QUALITY GRASS
MIXTURES**



NICKERSON

Limagrain 



WELCOME

WELCOME

CIRCLE LEYS

Over the last 70 years farming has evolved significantly. However, during that time the one aspect that hasn't changed is the need for high quality forage as grazed grass or conserved forage to feed ruminant animals.

Almost 70 years ago Fred Craven created a group of leys for Sir Joseph Nickerson designed with a specific purpose in mind. In the subsequent years we have added to this mixture range as farming has changed and we have adapted the mixtures accordingly.

Core benefits such as yield, disease resistance and other agronomic characteristics are vital to production and are attained through use of unique and varied varieties from a range of plant breeders worldwide.

Unashamedly we have remained totally faithful to the original thought process based around high quality forage. Dry Matter Intake and overall D-value/ME are the main drivers throughout the range, allowing the ruminant to maximise intake and therefore maintenance and production from forage.



TIMELINE

1953

Sir Joseph Nickerson and Fred Craven launched Circle Leys. Red Circle & Green Circle introduced.



EARLY 60'S

Gold Circle introduced to suit mixed farms. Blue Circle introduced for both conservation and grazing for sheep/beef. Bronze Circle and Amber Circle introduced.



1972

Arable Circle introduced as the first ever ley specifically for arable farmers looking for fertility building and soil enhancement. Known today as Pro Plus.



2013

Circle Leys celebrates 60 years of excellence.



TODAY

Circle Leys continue to give outstanding performance and provide multiple options that fulfil the needs of today's farmers.



UNCOMPROMISING QUALITY GRASS SEED MIXTURES

TRUSTED BY GENERATIONS; PAST, PRESENT AND FUTURE



GROWTH PROMOTING AGENT

GROWTH PROMOTING AGENT

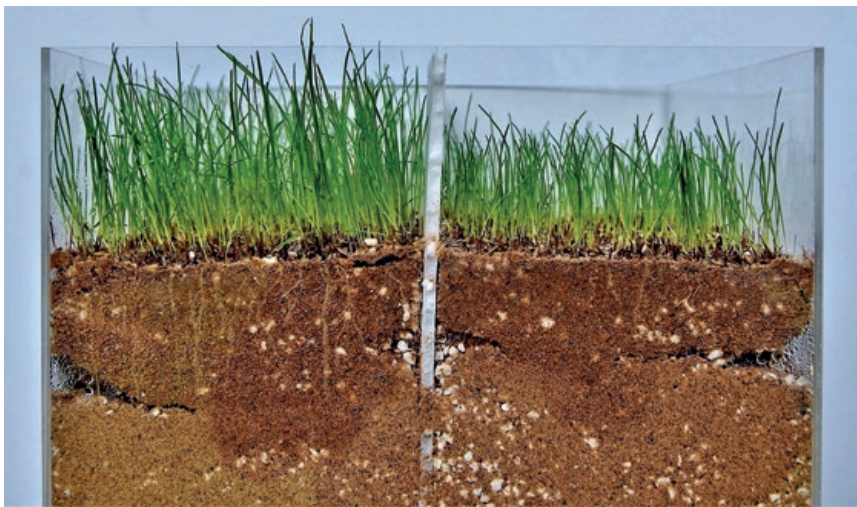
To improve establishment, most Circle Leys are treated with a GPA and Seed Film Coating as standard.

GPA (Growth Promoting Agent) is a researched blend of nutrients essential for plant growth. These stimulate seedling germination, particularly under stress conditions and also encourage larger root systems, enabling the plants to absorb soil nutrients more efficiently.

Seed Film Coating

Seed Film Coating is a technique that forms a polymer film around the seed in which a range of conventional and innovative seed treatments can be carried. Seed Film Coating offers a number of major benefits to the seed and its application.

- *Accurate application of GPA seed treatment*
- *Increased efficacy of the GPA*
- *Less dust in the seed*
- *Improved establishment*





SEED QUALITY

MIXTURE TRIALLING

The UK's finest range of grass mixtures

Mixture trialling

Nickerson believe in the importance of mixture trialling. Recommended Lists from DARD, NIAB and SAC are used as a starting point, but these take little account of how individual varieties perform when grown together in a farmer's grass ley. This is where Nickerson research begins.

Mixture trialling is the key to ensuring that only the very best grass mixtures find their way onto your farm.

Highest seed standards possible

Good establishment is essential to achieve full production potential. Poor establishment results in weed invasion, increased poaching and loss of yield. Seed of the highest quality is therefore critical to achieve good establishment.



Germination Standards

Species	UK Certified Seed Legal Minimum	Circle Leys Target
Perennial Ryegrass	80%	90% +
Italian Ryegrass	75%	85% +
Hybrid Ryegrass	75%	85% +

Germination standards achieved by Circle Leys

Purity Standards

Species	UK Certified Seed Legal Minimum	HVS	Circle Leys Target
Perennial Ryegrass	96%	98%	98% +
Italian Ryegrass	96%	98%	98% +
Hybrid Ryegrass	96%	98%	98% +

Nickerson purity standards are higher than the UK certified seed legal minimum and HVS





CIRCLE LEYS QUICK

REFERENCE CHART



CIRCLE LEYS QUICK

REFERENCE CHART



	Red Circle	Blue Circle	Gold Circle
Page number	10 - 11	12 - 13	14
Longevity	up to 10 yrs	5 - 8 yrs	4 - 6 yrs
Dairy cow grazing	●●●●●	●●●●	●●●●●
Beef stock grazing	●●●●●	●●●●●●	●●●●●
Sheep grazing	●●●●●	●●●●●●	●●●●●
Clamp silage	●●●●●	●●●●	●●●●●●
Hay / Bale silage	●●	●●●●●●	●●●●●
Early Spring Growth	●●	●●●●●	●●●●
Intermediate PRG		✓	✓
Late PRG	✓	✓	✓
Italian Ryegrass			
Westerwold Ryegrass			
Timothy	✓ [†]	✓	✓
Italian Hybrid			
Perennial Hybrid		✓	
White Clover	✓ [*]	✓ [*]	✓ [*]
Red Clover			

Bronze Circle	Amber Circle	Silver Circle	Green Circle	Pro Plus	Catch Crop
15	17	16	18 - 19	20	21
4 - 6 yrs	3 - 4 yrs	3 yrs	2 yrs	2 yrs	1 - 2 yrs
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		✓		✓	
				✓	

* Available with or without white clover † Available with or without Timothy



RED CIRCLE

RED CIRCLE

- High yields
- Quick recovery from cutting
- Winter hardy and drought tolerant
- Easy to establish
- Excellent poaching resistance

Excellent animal performance

Achieved by using late Perennial Ryegrasses, Clover and Timothy. This blend of species will improve palatability in dry weather and in mid-summer, ensuring maximum intake of high quality grass and optimising animal production.

Very high quality

Red Circle's blend of late heading Perennial Ryegrasses, Clover and Timothy provide high D-value combined with high levels of sugar, minerals and protein content.

Red Circle constituent graph:



- Late Perennial Ryegrass (Dip) 1,010 seeds/m²
- Late Perennial Ryegrass (Tet) 220 seeds/m²
- Timothy 620 seeds/m²
- White Clover 350 seeds/m²

Summary:

GRAZING

SILAGE

EARLY SPRING GROWTH

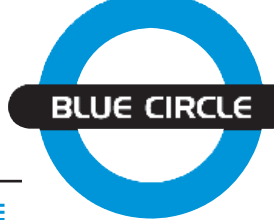
PERSISTENCY

PACK SIZE



Red Circle is available in a number of variations:

- Red Rotation (without clover)
- Northern Red (without Timothy)
- Organic Red - Available with organically produced constituents



BLUE CIRCLE

BLUE CIRCLE

SUGGESTED USE: **GRAZE** | **CUT/GRAZE** | **GRAZE** | **CUT/GRAZE**

- Very early bite and silage
- Responds well to high and low inputs
- Very high yielding
- Winter hardy and drought tolerant
- Resistant to poaching
- Superb hay
- Rapid establishment
- Quick recovery from cutting
- Excellent ground cover

Blue Circle is a multi-purpose, long term mixture designed for the farmer who wants exceptional all-round performance from his grass.

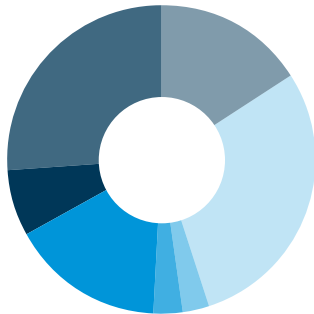
Excellent big bale silage

Blue Circle achieves this by having a selected range of ryegrasses of different heading dates and growth habits. Silage with a high dry matter is readily achieved with Blue Circle.

Top class grazing

Blue Circle is ideal for long term grazing of sheep and suckler cows. By using a carefully selected blend of Ryegrasses, Clover and Timothy, grass with high digestibility, sugar and protein content is produced.

Blue Circle constituent graph:



- Intermediate Perennial Ryegrass (Dip) 560 seeds/m²
- Intermediate Perennial Ryegrass (Tet) 150 seeds/m²
- Late Perennial Ryegrass (Dip) 340 seeds/m²
- Late Perennial Ryegrass (Tet) 350 seeds/m²
- Hybrid Ryegrass (Tet) 70 seeds/m²
- Timothy 620 seeds/m²
- White Clover 350 seeds/m²

Summary:

- GRAZING
- SILAGE
- HAY
- EARLY SPRING GROWTH
- PERSISTENCY
- PACK SIZE

- • • • •
- • • • •
- • • • •
- • • • •
- 5 - 8 YEARS
- 14KG

Blue Circle is available in a number of variations:

- Blue Rotation (without clover)
- Organic Blue - Available with organically produced constituents

BLUE CIRCLE



GOLD CIRCLE



BRONZE CIRCLE

SUGGESTED USE: CUT/GRAZE | CUT/GRAZE | CUT/GRAZE | GRAZE

SUGGESTED USE: CUT/GRAZE | CUT/GRAZE | CUT/GRAZE | GRAZE

GOLD CIRCLE

BRONZE CIRCLE

Gold Circle are 4-6 year cutting leys that produce high yields of quality silage with good grazing potential.

Very high yields

Gold Circle contains varieties that are high yielding on the NIAB, SAC and DARD Recommended Lists and are proven in Nickerson mixture trials.

Top quality silage and hay

Achieved by selecting varieties and species with high D-value, high levels of sugar and protein content.

Gold Circle constituent graph:



- Intermediate Perennial Ryegrass (Dip) 450 seeds/m²
- Intermediate Perennial Ryegrass (Tet) 220 seeds/m²
- Late Perennial Ryegrass (Dip) 450 seeds/m²
- Late Perennial Ryegrass (Tet) 70 seeds/m²
- Timothy 620 seeds/m²
- White Clover 350 seeds/m²

Summary:

GRAZING

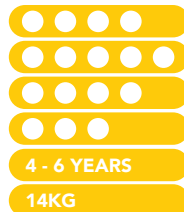
SILAGE

HAY

EARLY SPRING GROWTH

PERSISTENCY

PACK SIZE



Good early spring growth

Modern Intermediate and Late Perennials start growth much earlier than older varieties, providing a good quality early bite or an early silage cut.

Reliable and durable

The use of prolific tillering varieties aids moisture retention, reduces soil contamination in silage, and aids rapid recovery after cutting.

Extended grazing

Late Perennial Ryegrasses start growth early and finish late, giving 3 weeks more leafy grazing. They also grow well in summer when other species slow down production.

Management

Gold Circle has erect growth for easy cutting and wilting. It can be managed to utilise Clover content for optimum grazing output.

Gold Circle is available in a number of variations:

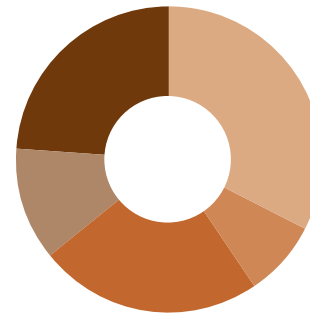
- Northern Gold (without Timothy)
- Organic Gold - Available with organically produced constituents

Bronze Circle is a similar mixture to Gold Circle, just without the white clover. White clover is beneficial in many situations - it increases protein and improves palatability and dry matter intake, but it comes with other issues.

In modern agriculture, there has been a loss of many herbicides which are clover safe, so leaving the clover out allows for a larger portfolio of herbicides to be used, with greater efficacy. The removal of Clover means that the ley can be sown later in the season, as soil temperatures will not be as important.

The removal of clover also allows for an additional kilo of perennial ryegrass to be added to the bag, which increases perennial ryegrass seeds/m² to 107%, over that of a conventional clover mixture.

Bronze Circle constituent graph:



- Intermediate Perennial Ryegrass (Dip) 450 seeds/m²
- Intermediate Perennial Ryegrass (Tet) 220 seeds/m²
- Late Perennial Ryegrass (Dip) 450 seeds/m²
- Late Perennial Ryegrass (Tet) 150 seeds/m²
- Timothy 620 seeds/m²

Summary:

GRAZING

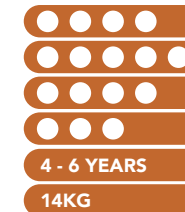
SILAGE

HAY

EARLY SPRING GROWTH

PERSISTENCY

PACK SIZE





SILVER CIRCLE

SUGGESTED USE: CUT/GRAZE | GRAZE | CUT/GRAZE | GRAZE

Silver Circle is a 3 year ley ideal for fattening lambs and beef animals. It can also be used to produce heavy cuts of quality silage or hay if required.

- Palatable grazing
- Quality hay and silage
- Excellent ground-cover
- Good resistance to poaching

High stocking rates

The inclusion of high yielding Hybrid Italian gives bulky early production which allows high stocking rates.

Continuous growth throughout the season

Silver Circle contains a range of grass species that produce a steady, but increasing amount of growth throughout the season.

Good early spring growth

Silver Circle contains varieties with excellent early growth which allows for an early turn out of stock and a huge saving in concentrate bills.

Silver Circle constituent graph:



- Intermediate Perennial Ryegrass (Dip) 510 seeds/m²
- Intermediate Perennial Ryegrass (Tet) 220 seeds/m²
- Late Perennial Ryegrass (Tet) 150 seeds/m²
- Hybrid Ryegrass 240 seeds/m²
- White Clover 530 seeds/m²

Summary:

GRAZING

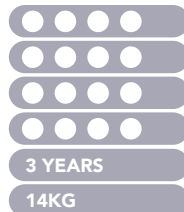
SILAGE

HAY

EARLY SPRING GROWTH

PERSISTENCY

PACK SIZE



AMBER CIRCLE

SUGGESTED USE: CUT/GRAZE | CUT | CUT/GRAZE | GRAZE

Amber Circle is a 3-4 year, highly productive, cutting and grazing mixture for the farmer who wants an "Italian Ryegrass" level of production but does not want to re-seed after 2 years.

- Superb early spring growth
- Quick recovery from cutting
- Superb hay
- Good disease resistance
- Simplified weed control
- Reliable and persistent

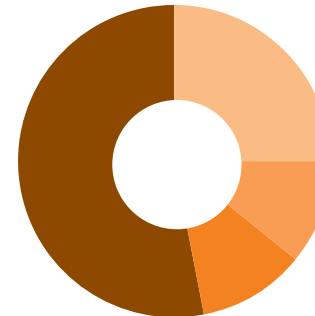
Very high yields

Amber Circle contains varieties that produce very high yields at the first conservation and subsequent cuts.

Early silage plus "early bite"

Perennial Ryegrass varieties are chosen for good early spring growth characteristics.

Amber Circle constituent graph:



- Intermediate Perennial Ryegrass (Dip) 680 seeds/m²
- Intermediate Perennial Ryegrass (Tet) 150 seeds/m²
- Late Perennial Ryegrass (Tet) 150 seeds/m²
- Hybrid Ryegrass 310 seeds/m²

Summary:

GRAZING

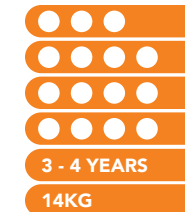
SILAGE

HAY

EARLY SPRING GROWTH

PERSISTENCY

PACK SIZE



SILVER CIRCLE

AMBER CIRCLE



GREEN CIRCLE



GREEN CIRCLE

GREEN CIRCLE

SUGGESTED USE: CUT/GRAZE | CUT | CUT | CUT/GRAZE

Green Circle is a 2 year intensive silage/grazing mixture. Green Circle is also excellent for zero grazing, aftermath grazing and flushing ewes.

Early bite

Green Circle gives grazing or zero grazing up to 3 weeks earlier than other leys. This means big savings in feed costs at a time of high milk and meat prices.

Extensive use

Green Circle can also produce high quality hay and big bale silage and as a clamped product it is ideally suited to Anaerobic Digestion systems. The use of Italian Ryegrass and Tetraploids, which are naturally high in sugar, ensures a rapid stable fermentation.

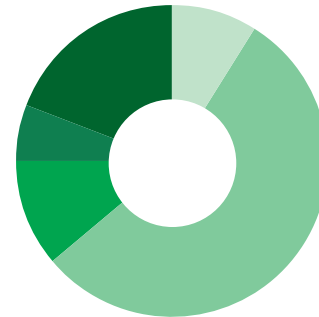
Easy to manage

Varieties with a narrow band of heading dates are chosen which ensures all constituents in Green Circle head and reach 70 D-value at the same time.

Rapid establishment & disease resistance

Green Circle contains aggressive varieties, enabling a quick return to production. This is enhanced by using high germination seed that is treated with a GPA. Additionally a mixture of varieties with good resistance to Rhynchosporium, Mildew and Ryegrass Mosaic Virus helps to ensure disease-free swards.

Green Circle constituent graph:



- Intermediate Perennial Ryegrass (Dip) 230 seeds/m²
- Intermediate Perennial Ryegrass (Tet) 70 seeds/m²
- Hybrid Ryegrass (Tet) 130 seeds/m²
- Italian Ryegrass (Dip) 640 seeds/m²
- Italian Ryegrass (Tet) 100 seeds/m²

Summary:

GRAZING

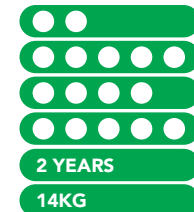
SILAGE

HAY

EARLY SPRING GROWTH

PERSISTENCY

PACK SIZE



TWO FULL YEARS OF PRODUCTION -

Because Green Circle contains Perennial Ryegrasses it will not thin out in the second year like many straight Italian Ryegrass Leys.

GREEN CIRCLE





PRO PLUS

SUGGESTED USE: **GRAZE/CUT** | **CUT** | **CUT** | **GRAZE/CUT**

PRO PLUS

- High protein forage
- High quality fibre source
- High yield mixture
- Fertility building mixture
- Ideally suited for both conventional and organic systems

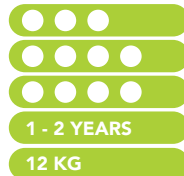
Pro Plus constituent graph:



- Intermediate Perennial Ryegrass (dip) 230 seeds/m²
- Hybrid Ryegrass (tet) 200 seeds/m²
- Italian Ryegrass (dip) 230 seeds/m²
- White Clover 350 seeds/m²
- Red Clover 430 seeds/m²

Summary:

GRAZING
SILAGE
HAY
PERSISTENCY
PACK SIZE



Pro Plus Circle is a combination of Red and White Clover, Italian, Hybrid and Perennial Ryegrasses, for 1 or 2 years of production.

Traditionally used to produce high quality hay. Pro Plus Circle is equally suitable for silage, aftermath grazing and restoration of soil structure (green manuring).



Pro Plus Circle is available with organically produced constituents for organic units.

CATCH CROP

CATCH CROP

CATCH CROP

Catch Crop is a 1 year ley designed to produce large quantities of grass over a short period.

Growth pattern

The inclusion of Westerwolds means the ley can be sown in the spring and still produce good stemmy growth that year. It produces high yields of forage as silage and is ideal for baling the same year as it is sown.

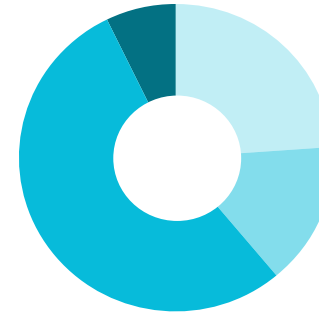
Alternative use

The ley can be sown in autumn. Whilst Westerwolds are not known to be winter hardy, the inclusion of Italian Ryegrass and Perennial Ryegrasses mean that it winters well, producing unrivalled early spring growth.

Before maize

The ley can be sown the previous autumn and a cut taken prior to maize being planted in the spring. It can produce large yields which will be higher in DM and quality than forage rye.

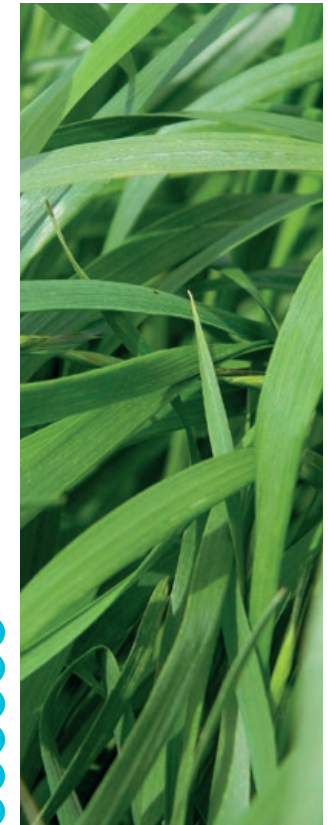
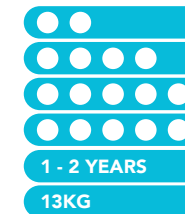
Catch Crop constituent graph:



- Intermediate Perennial Ryegrass (tet) 70 seeds/m²
- Italian Ryegrass (dip) 550 seeds/m²
- Italian Ryegrass (tet) 150 seeds/m²
- Westerwolds 250 seeds/m²

Summary:

GRAZING
SILAGE
HAY
EARLY SPRING GROWTH
PERSISTENCY
PACK SIZE





OTHER FORAGE

BEFORE YOU DRILL



OTHER FORAGE

BEFORE YOU DRILL

While grass leys provide the backbone of all ruminant diets there are a plethora of other forages.

All these forages maximise their potential when matched with a quality Nickerson Circle Ley.



MAIZE

LG maize is a perfect complement to all Circle leys, with excellent agronomic and feeding characteristics.



FODDER BEET

LG Fodder beet provides an excellent energy source combined with superb dietary fibre.



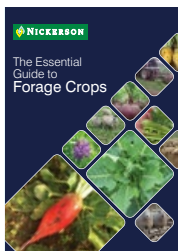
LUCERNE

Lucerne offers a superb forage with the most rumen friendly protein source.



CEREALS

LG cereals offer many opportunities as a complementary feed in terms of wholecrop and grain using numerous different methods.



Nickerson Forage Crops - Growing a Total Mixed Ration
Contact your local Nickerson Seed Specialist or email seeds@nickerson.co.uk



The two main factors to consider are your soil status and condition.

Ensure the area is tested for appropriate nutrient levels - pH, in particular, is vitally important.

Full Reseed: soil needs to be consolidated, which starts early. Every pass should aim to further consolidate the seedbed. Do not wait and roll it twice afterwards - the area will be far more level and uniform if you start consolidation early. Ideally, roll prior to sowing as this also gives a more uniform sowing depth.

Longer term leys will achieve a greater ground cover if the seed is broadcast uniformly, as it attains a high percentage of yield from tiller density.

Short term leys tiller density and growth habit are different, so sowing in rows using a conventional drill can be an option.

A two-year break from long term grass is ideal to reduce the risk of pests. Failing this, reducing pest population and dense organic matter can often be achieved by using a grazing catch crop, such as stubble turnips.

Overseeding: is simply a short-term fix and will not have a long-term benefit. It will allow a yield increase in many situations but a field by field assessment is essential. Firstly, consider any pests and how to control them. Secondly, assess the level of undesirable plant species that are present.



 **NICKERSON**



CIRCLE LEYS

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