

# BarForage NEWS

ISSUE 11 • Spring 2019

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British Isles**  
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*with Reseeding*



 **BARENBRUG**





# Welcome

## Issue 11 Spring 2019

**Welcome to the latest edition of BarForage News – our newsletter for grassland farmers here in the UK.**

Across the country it's been another weather led season with the autumn producing lower levels of conserved grass than required and the spring while dry has not warmed up yet, giving some wide variances in grass growth so far.

Whatever grass you grow on your farm, the challenge will be to get the very best quality possible. Optimising both yield and quality is essential, and one obvious solution is to regularly replace the worst performing fields with new leys making sure operational efficiency is achieved.

At Barenbrug in these ever-changing times, we aim to be at the forefront of grass sward management. Whether you are looking to improve your rotation, improve drought

resistance, increase soil fertility or need a fast-growing silage ley, we can help.

As a company, we are working hard to help you optimise efficiency, anticipate future developments and provide product and guidance to all livestock farmers.

We continue to invest in trials at our research farm Cropvale, we are always happy to spend time with farmers who wish to find out more about the science of grass.



*Paul Johnson*  
**Managing Director**

# Meet the Team

The agriculture team at Barenbrug has a busy few months ahead with an industry event to attend every couple of weeks.

If you are planning to visit any of the shows on the right, please stop by our stand to say hello!

**Highland Sheep**  
Wednesday 12th June 2019

**National Dairy Event**  
11th September

**Borderway Agri Expo**  
1st November 2019

**Agriscot**  
20th November 2019





# Get your feet in the field

**78% of the UK's land mass is agricultural land. Of that 18.8 million hectares, grassland accounts for 66%. Temporary and permanent grass equates to 18.2 million acres in the UK making it our biggest single crop but it is the first one to be overlooked as a crop. Looking over the wall, hedge or fence is simply not good enough to manage this vital component to UK livestock farming, you must get your feet in the field to make appropriate management plans and decisions.**

Looking over the gate, the field can often look green and growing but its not until you go in and more closely asses the sward that you can really judge what is going on. When you get your feet in the field is when you see the grass species present – or absent, the weeds and what growth stage they are at, any pests, any gaps or the extent of damage from any flooding or drought periods.

Some species of grass have the potential to yield over 20t of DM / ha in their first year but AHDB estimated the average grass yield in the UK to be less than half in 2017. A 12t yield from a 2 cut system could produce nearly £7000 worth of milk and over £8000 worth of beef or lamb giving reseeding a return on investment of over 10 times.

The Barenbrug Good Grass Guide is a free tool which can help you condition score your grass, make a plan to improve the poorest performing fields, keep records to maintain your optimum performance and turn your grass into gold. By getting your feet into the field and adopting the principles in the Barenbrug Good Grass Guide, you can build a much more accurate picture of your grassland health than by using drive-by agronomy just looking over the fence. Regular monitoring , the same as you do with livestock, combined with regularly soil sampling every 3 – 5 years, maintaining soil pHs over pH6 and minimising soil compaction will provide a significant return on grassland investment.

We estimate that reseeding at a cost of around £250/acre for perennial species can have a return on investment of 5 – 10 times within the first year dependant on techniques and management systems. If the average grass yield across was increased by 50% from where it is now, that would be worth £223/acre which amounts to a significant value over 18.2million acres. As well as improving yields, investing in grassland improves nutritive quality, disease resistant, nutrient efficiency and reduces environmental impacts.

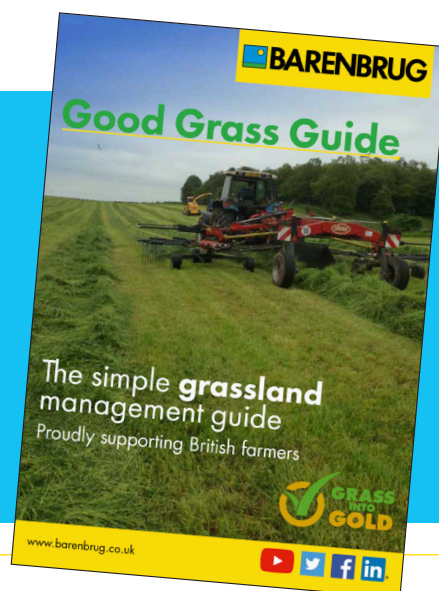
## FREE Guide

4 simple steps to success

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# Grass into Gold

## Farm's quest for more clover

**Carl and Ruth Walters from Low Hullock Howe near Penrith joined the Barenbrug Grass Into Gold Scheme in 2017 after a number of years being unsatisfied with grass performance.**

Predominately a sheep farm, Carl also runs a small herd of cattle and has everything from decent in-by arable ground to common grazing fell land. The grassland policy at Low Hullock is a two cut silage system on around 50 acres with a further 20 for hay production. With nearly 1000 ewes on the farm, the sheep effectively take the first cut across much of the ground and silage is normally made for the first time in late June. Reseeding is done under HLS environmental schemes where spring barley is undersown with perennial grass seed mixtures.

Carl has been in Low Hullock Howe for almost 30 years and in joining the scheme, wants to improve the over productivity and management of the grass land. The biggest focus is on the more rotational ground where there is bigger potential for greater gains to be made in terms of both quantity and quality of forage.

Soil samples have shown slightly low levels of pH and K, which is typical of many silage fields we see across the country, and so lime has been applied to some fields and a higher K fertiliser has been used to address the deficiencies and match crop off takes. One area Carl has noticed a large difference in his field is where clover is absent. The fields with clover are greener and more productive as well as being higher in feed value so a big goal on the farm is to increase the white clover levels. Clover has been included in the grass mixtures, however is often killed out due to spring barley management so post establishment, Ensign White Clover Blend has been oversown into the grass ley. So far, this has been done using an airseeder between first and second cut,

however results have been variable and not as successful as Carl hoped. In 2019, the plan is to try this after 2nd cut silage to avoid the competition from the 2nd cut grass crop as this may be a factor in restricting the clover establishment.

Going forward there are a number of different areas Carl is hoping to target too. One field, an old fashioned hay meadow where productivity is dropping, however the awkward soil condition does not allow for ploughing. A difficult field is going to be reseeded with Barforage Combi in spring 2019. This field has previously yielded very well but in recent years has not grown good crops of grass at all. It has been soil sampled and received lime and farm yard manure and will be closely monitored throughout the year to assess the latest reseed. Another field is a much heavier, wetter field, prone to flooding in winter and with a short window of opportunity to work and dependant on the conditions this field may be worked on later this year.



**Including clover in a low or no N management system provides clear benefits to sward health and productivity**



Commenting on grassland Carl says "My dream is to grow the grass like a dairy farmer but up here in the hills. It is becoming more important to really plan ahead with grassland policy to balance supply and demand. Input costs are high so we need to try and match winter fodder crops to demand but also avoid grazing fields getting away from stock as it is expensive to bring in the balers for small fields that have got away from you. Some fields can be fertilised, some fields are more productive and can be fertilised, you really have to think hard about cost and balancing production across the farm".

In general, 2018 was kind to Carl and Ruth. Normally a wet farm, the drier year where they still received timely showers meant their grass growth was not compromised too much and the early spring of 2019 has meant there is plenty grass for ewes and lambs and decent weather allowed turnout from the shed too.



- 1kg of seed provides on average, 1.5million seeds – a little goes a long way
- White clover can provide up to 150kg N/ha/ annum dependant on soil fertility and climatic conditions
- White clover varieties vary from small leafed to large leafed – using a blend gives management flexibility in the field
- Clover is safe for beef sheep or dairy enterprises and can be cut or grazed.
- Adding white clover to pure grass swards can improve overall protein levels by 2-3%.
- Clover rich swards improve intakes and therefore daily liveweight gain or milk production
- To optimise clover performance aim to maintain soil pH of 6.5 and soil P & K status at Index 2 (or Moderate).
- Clover doesn't like waterlogging so keep on top of soil compaction especially in heavier soils and higher rainfall areas

## FREE Sward Stick

Order your FREE  
Sward Stick at [www.barenbrug.co.uk](http://www.barenbrug.co.uk)  
Or send us a message on social media:  
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# Varieties

## Our most recent additions to the Barenbrug grass variety portfolio

### New for 2019

The season for 2019 has kicked off with two excellent new varieties included in Barforage Mixtures across the UK. Both Gosford, an intermediate diploid, and Ballintoy, a late tetraploid are the results of the British Breeding programme and all the seed was also grown on British farms.

Gosford produces high quality silage and grazing showing impressive early spring and late season yields. It has a heading date of 29th May. Ballintoy has a heading date of 1st June and is very high yielding under both silage and grazing management combined with great D values.

Coming next year are three more Barenbrug varieties; Glasker (early perennial), Callan (late perennial) and Barclamp (hybrid rygrass).

### Dundrod Joins the Recommended family

Diploid perennial ryegrass DUNDROD became the 29th current variety from the Barenbrug breeding programmes to be recommended on a UK list. Dundrod will feature on both the RCGL 2019/20 for England and Wales and the SRUC Grass and Clover Varieties for Scotland 2019/20.

Dundrod comes from the AFBI programme in Northern Ireland and is the 45th UK bred variety to be recommended since the partnership with Barenbrug commenced in 1991. Other varieties have also been recommended in other countries too.

With a heading date of 2nd June, Dundrod is classified as a late heading variety and has a very good 1st cut yield of 107% of control and an overall average cutting yield equal to control. Under grazing management, the total yield is 102% with strong performance from early summer onwards as you would expect from later variety. Dundrod's other strengths are an excellent ground cover and winter hardiness score and a crown rust resistance of 7.7. Dundrod will be available in Barforage mixtures in the next few years.

Dundrod is named after a small village in Country Antrim who's oldest buildings are a small farm steading dating back to pre 1830's.

**Dr Gillian Young**  
AFBI Grass breeder



# Moira and Fintona cement place at the top of the RL.

The new edition of the Recommended Grass and Clover Varieties List (RGCL) as well as having added Dundrod, will show Intermediate Diploid Moira and Intermediate Tetraploid Fintona promoted from provisional varieties to fully recommended G varieties. Moira performs well under both silage and grazing management with a total grazing yield of 102% and total cutting yield of 104% combined with a good crown rust resistance. Moira has a heading date of 24th May.

Fintona remains the highest yielding perennial ryegrass available and has been given a G classification. With a cutting yield of 108% and a grazing yield of 104%, Fintona is a strong performer under both management systems and throughout the year. It has a first silage cut yield of 110% and a heading date of 20th May, the earliest in this group. It also has a particularly good resistance to dreschlara.

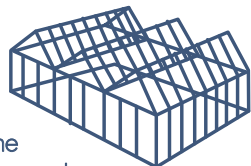
Other available varieties from our UK breeding programme include Moyola, Glenariff, Seagoe, Glenarm, Clanrye and Dundrum.

# The Story of Grass...

The breeding and commercialisation of a new grass cultivar is a long and challenging business.

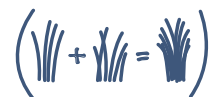
## Years 1-3: The Beginning

The first stage is to decide what we want the cultivar to achieve, then work begins in the greenhouse/polytunnel with the initial cross.



## Years 4-6: Selection

Field assessments and selections based on desired characteristics and selection of parental plants.



## Year 7: Isolation

Crossing of parental plants to produce seed of potential new cultivar.



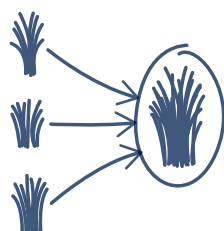
## Years 12-15: Official Trials

We send the chosen varieties to various official independent trials which determine if the variety's performance is sufficient to get it registered.



## Years 8-10: Private Trials

We carry out multiple performance tests. These can take place on farms, in fields, at sports arenas, anywhere that is appropriate.



## Year 11: First Multiplication

It's time to decide on the very best varieties and multiply to create pre-basic seed.

## Year 16: Official Registration

Once registered, the seed is sown for harvest and it's commercial use.



## Year 17: Process Complete

After 17 years of research and development the first grass seed goes on sale.





# Trialling in the British Isles

## Cropvale, Clonakilty & Churchfield update

Breeding new grass varieties takes a long time and a lot of work. Our varieties are developed and independently assessed over a period of 15 – 17 years before commercialisation.

As part of the Royal Barenbrug group, in the British Isles we have connections to 3 different trial sites where we run our own trials. Cropvale in England, Loughgall in Northern Ireland and Clonakilty in Southern Ireland. As well as these three sites, The Royal Barenbrug Group has a further 19 different research and development locations across the world.

The final part of variety development is the independent testing to be added to the recommended list. As part of that process, our varieties are evaluated on 11 different UK sites and 16 GB sites so we know they will work in a variety of different locations.

Breeding is successful. Statistical analysis of National List data from the UK between 1975 and 2015 showed conservation yield to have improved by over 0.5% per year and grazing yields to have increased by 0.35% per year and there is no sign of a plateau.



## Cropvale Farm

In the vale of Evesham, our grass trial work has now entered its second decade. If you go to Cropvale today, you will see the following trials:

- Italian, Hybrid and Perennial Ryegrass variety evaluation - both from our own breeding programme as well as some from other breeders
- Independent NIAB disease testing plot - part of the official recommended list process
- White Clover
- Lucerne
- Red Clover
- Biodiversity mixtures – a trial also being run in Holland and France
- Cocksfoot and Tall Fescue variety evaluation
- A range of mixture trials and demonstrations - currently from 3 different sowing years; 2015, 2017 and 2018
- Wildflower mixtures
- A species gaminerie
- Extensive amenity plots including wear trial, regenerating grasses and golf roughs.
- Seed treatment trial

Cropvale farm is very important to us for several reasons. We evaluate breeding material from several of our own Barenbrug breeding programmes, we evaluate breeding material from other breeders, we develop new products, we update existing products and hugely important, we use the site to educate and enthuse distributors and farmers about grass seed, grass varieties and grassland management.



# Clonakilty, Co. Cork, Republic of Ireland

This Barenbrug site is one of the newest across the world with the first trials of around 150 different varieties were established in autumn 2017 and a second sowing in autumn 2018. The site will be managed by the team from AFBI and evaluates material from the Loughgall breeding programme and from Europe and New Zealand.

Clonakilty has a 10-month growing season, very different from Cropvale and Loughgall so will provide useful data to supplement and compare with the results from the other sites. The long growing season and mild spring and autumn allows for better testing of shoulder growth potential.

Based on previous trials with New Zealand material around 10 years ago, we expect to find a good fit with the Southern Ireland climate of long growing season and mild winters. The first results are very encouraging with early spring growth from these varieties. The Clonakilty trials gives the opportunity to select the best adapted ones that also have a good annual production and show good persistence.

# Churchfield, Loughgall, N. Ireland

Alongside the breeding trials in Northern Ireland we also run independent Barenbrug variety and mixture trials. We currently have plots in the ground from 2 sowing years, 2017 and 2018 with both cutting and simulated grazing management trials running concurrently.

The variety trials focus on perennial ryegrasses which makes up around 85% of seed sales in Northern Ireland. It includes recent and current material, several exciting upcoming varieties and several control varieties from other breeders. The mixture demonstration plots display a large variety of the Barforage mixture portfolio from Barbumper, a short term westerwold ryegrass mixture through to Barmix, our very popular long term multispecies sward. David Linton, Barenbrug's Regional Manager for Northern Ireland says "The fact that we have a facility to trial and compare not just varieties but our own mixtures here in Northern Ireland is testament to Barenbrug's commitment to Northern Ireland

agriculture. Not only are we producing terrific locally bred grasses in conjunction with our colleagues at AFBI but we are now able to prove that these varieties and mixtures perform exceptionally in local conditions".



**Dr Gillian Young, David Linton & David Johnston**

# BarForage Catalogues

Available online at [www.barenbrug.co.uk](http://www.barenbrug.co.uk)







# Return on Investment with Reseeding

**Farmers who don't treat grassland as a crop are missing out on thousands of pounds worth of production if they rule out proper management and reseeding grass leys.**

The agricultural grass team at Barenbrug has calculated that farmers that reseed grass leys can expect a ten-fold return on investment as a minimum - depending on the focus of their farm. Using control \*RGCL figures, Barenbrug estimates that reseeding with perennial ryegrasses has the potential farmers to achieve grass yields of around 11.48 t DM/ha on a two cut silage system. That's enough grass to generate 134,000 MJ of energy or the equivalent of:

- **25,283 litres of milk worth \*127.3p/l = £6902**
- **2233kg lamb worth \*1410.5p/kg = £9166**
- **2481kg beef worth \*314.1p/kg = £7792.**

Adding autumn grazing of around 4.2t DM yield and 52,906MJ produced in addition to the 2 cuts total annual production stands at 15.65tDM/ha and 186,906MJ of energy.

In 2017, AHDB estimated the average yield of grass in the UK to be 7.9t DM/ha. Comparing seed sales to the temporary and permanent grass area in the UK, the UK reseeding rate stands somewhere between 2 and 4% per year meaning we are more likely to drop in overall grass production than gain.

Assuming the average yield is only 50% of potential, livestock farmers could be missing out on £4813 of milk, £6393 of lamb or £5435 of beef within the first 12 – 15 months of reseeding perennial species which will continue to perform after that initial period used to calculate.

With the average full reseed costing between £650 - £700<sup>2</sup> per hectare, we speak to many people who struggle to see past the initial expense but the potential production from increasing average productivity by even 20% more than covers the cost. Reseeding, when done properly and with attention to details WILL provide a huge return on investment. Commenting, Mhairi Dawson, Research & Development Manager at Barenbrug UK, said: "Future proofing your forage by investing in a reseed is a great way to improve productivity and resilience, and counter the weather-related problems we've seen over the past eighteen months. It can be difficult to comprehend the value of a reseed, until you see the impact it can have on production levels - particularly when growing conditions are unfavourable."

Our biggest take home message is that we need all livestock farmers to also become grassland farmers. Its so important to get your feet into the field and assess what is going on rather than looking over the fence and seeing green. The Barenbrug Good Grass Guide is a simple grass condition scoring tool – a similar concept to livestock body condition scoring – to help growers make decisions to improve poor swards and maximise productivity from highly performing fields and also provides space for field records.

\* **RGCL = Recommended Grass and Clover List 2018-2019. Independent data.**

\*1 **AHDB 5 year average price (2014 – 2018 inc)**

\*2 **Calculated using National Association Agricultural Contractors Prices (2017-2018)**



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Wales and North of England

# Barenbrug

## Grass experts since 1904

Our profession is plant breeding; selecting and developing quality varieties with the essential, unique characteristics to meet the ever-increasing demands from farmers for top quality forage grass.

From its founding days in 1904 the Royal Barenbrug Group has grown into a global seed company with breeding and research stations on six continents.

Still privately owned, our knowledge and experience of grass seed is second to none.

We specialise in plant breeding, seed production and the international marketing of forage grass, forage crops and turf grasses.

With over 700 employees and operating companies in 18 countries on 6 continents, we have been the leading grass seed business in the world for over 100 years.



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