TECHNICAL NEWS

Lakeland AGRI

July/August 2021

Effect of Perennial Ryegrass Content and Compaction on Grassland Productivity

Alan Hurst, Technical & Product Manager, Lakeland Agri

When farmers are asked about the factors affecting the productivity of their grassland, the percentage of perennial ryegrass in the sward and/or soil compaction do not always feature as main reasons for sub optimal performance. With ground conditions currently good on most farms, it is worth taking the time to assess the fields that are not producing the tonnes of grass year on year. All farms have at least one or two parcels that seem to fall behind the others at all stages of the year, but it is particularly noticeable in the springtime.

Assuming these problematic fields are correct on soil pH and receiving the required nutrients on an annual basis (N, P, K + S), I would suggest starting with the following when trying to diagnose the problem:

1) % PRG in Sward - Walk through the sward and estimate the percentage of perennial ryegrass present. When compared to weed grasses, ryegrasses will have a purple base to the plant and a shiny under surface on the leaf. If unsure of exactly what to look for, start by going into a field that was reseeded in the last 2 years, take a close look at the plant that makes up most of the grass population present (PRG) and you will see both the purple base that exists at the base of the ryegrass plant and the shiny underside on the leaf. Any swards containing under 60% perennial ryegrass should be reseeded at first opportunity if aiming to maximise productivity from a parcel of land.

2) Soil Compaction - Soil compaction is the second element which should be examined as it can reduce dry matter yields by up to 40% in extreme cases. Assessing the level of compaction can be carried out by taking a spade and digging up several sods to look at both the sods themselves and the profile of the soil when the sod is removed.

See below the difference between a healthy soil and one that is badly compacted.

Healthy Soil

Compacted Soil

Grassland reseeding is well proven to be one of the best paying investments on livestock farms with a return on investment in under two years on dairy farms.

The following are differing grassland scenarios and recommendations:

Scenario 1: Low levels of PRG +/- compaction

In situations where low levels of perennial ryegrass is the cause for poor performance (i.e. no evidence of compaction below the surface), it is recommended to reseed at first opportunity. Complete a soil test to establish pH, P and K status of the soil in situations where an up-to-date soil analysis is not available.

Where low levels of perennial ryegrass and compaction co-exist, establish the level of topsoil in the field and where possible plough the field to break up the compaction pans that exist below the surface. In shallow soils (less than 8 inches of topsoil), where compaction exists in that top 6 inches, choose a minimal cultivation technique that will cultivate the ground at reseeding, rather than just direct drilling the seed.

Scenario 2: High level of compaction + acceptable levels of perennial ryegrass (> 60 %)

For parcels with acceptable levels of Perennial ryegrass (over 60 %) but high levels of surface compaction, the following approach is recommended:

- When ground conditions are suitable, soil aeration on a regular basis with the correct type of aerator.
- Correct any Calcium: Magnesium imbalances that exist in the affected soil.
- Treat slurry to be used with a suitable slurry additive, with a view to enhancing soil life as opposed to damaging it following application.

To find out more about how Lakeland Agri can help you with your grassland productivity, please contact Alan Hurst on 00353 87 2901663 or Christopher Cahill on 00353 87 1934502

Lakeland Agri Grass Seed Mixtures

Formulated using the highest performing varieties on DAFM 2021 Recommended List.

Delivery can be organised onto farm for orders of 10 bags or more.

For more details on our latest grass seed mixtures, please visit www.lakelandagri.ie

Benefits to Feeding Weanlings in Late Summer

The success to any suckler calf-to-weanling or indeed finishing system, will be maximising performance from excellent quality grass. As the year moves on and grass quality begins to decline, the key to maintaining performance with your calves or weanlings is the quality of feed being fed in conjunction with the grass.

The **Lakeland Agri Super Weanling Pellet** is a high energy, 16% crude protein ration which contains soyabean meal as one of its protein sources. The **Lakeland Agri Super Weanling Pellet** is extremely energy dense, utilising **barley** and **maize** as its energy sources. It also has added **yeast** to aid in maintaining optimum rumen function to drive performance, and finally, it contains a **high-spec mineral package** to ensure the mineral demands of the weanling are met.

A weanling's response to concentrates when paired with good quality grazed grass can be as high as a 4:1, i.e., for every 4kg concentrate input = 1kg body weight output.

During 2020, Lakeland Agri carried out a 72-day trial on the farm of Paddy Boyle, to examine the daily liveweight gain of stock being fed a high quality 16% coarse weanling ration versus stock being fed on the **Lakeland Agri Super Weanling Pellet.**

"The group of cattle fed on the Lakeland Agri Super Weanling Pellet performed superbly. When compared to coarse ration, the pellet was very clean with no wastage," says Paddy who farms on a part-time basis outside Maudabawn, Co. Cavan. Paddy runs a suckler to weanling system consisting of commercial stock and pedigree limousin cattle. His pedigree suckler cows calve in both an autumn and spring calving system, leaving Paddy with a mixture of strong bulls to sell at 16/18 months and younger calves to sell at weaning. The commercial cattle calve in the springtime and the offspring are generally sold at 10 months of age prior to the housing season.

All animals were weighed at the start, midway point and at the end of the trial. Both groups were creep fed while still suckling their dam and received 4.5kg/day of the high quality coarse weanling ration or the **Lakeland Agri Super Weanling Pellet**. Grassland management was similar throughout the trial for both groups.

At the end of the trial, the group on the high quality 16% coarse weanling ration gained an average of 86.1kg, or an average of 1.19kg/day. Whereas the group on the **Lakeland Agri Super Weanling Pellet** gained an average of 92.8kg, or 1.29kg/day. This translated to an improved performance of 0.10kg/day, or an additional 6.7kg weight gained across the trial period. This is equivalent to an increase of over **8% daily liveweight gain** across the trial period.

Paddy concludes, **"I will definitely use the Lakeland Agri Super Weanling Pellet again, and highly recommend it to other farmers looking to improve the efficiency of their weanling feeding system."**

Pictured Paddy Boyle

SPECIAL OFFER Super Weanling Pellet

£20/€20 off RRP

on Lakeland Agri's Super Weanling Pellet
From 5th July – 31st August 2021.

For further information on how the **Lakeland Agri Super Weanling Pellet** can improve the efficiency of your weanling rearing system, please contact your local Lakeland Agri Technical Sales Representative or our Customer Services Centre on 0818 47 47 20.

Maximising the Benefits of the Autumn Rotation Planner

Christopher Cahill, Technical & Nutritional Support Representative, Lakeland Agri

Autumn grass, **when managed correctly**, is generally of good quality. As the year progresses, perennial ryegrass varieties reduce the level of stem grown and fibre level of the sward. As a result, the crude protein level is high, typically at least 19-20%, and energy levels are good at 11-12 mega-joules/ kg DM. The main issue we face with autumn grass is where dry matter drops to 12-14% and achieving adequate grass intakes becomes the challenge.

Although it may seem like we have only recovered from a challenging spring, we are at the point in the year where we must begin to think about the autumn rotation planner and indeed, setting the farm up for spring 2022.

The purpose of an autumn grassland management programme and a rotation planner is to prolong grazed grass in the animal's diet, while allowing paddocks "to be closed" for the winter so that sufficient grass will be present to facilitate early spring turnout of livestock.

It is important to start building your grass from the beginning to the middle of August (based on growth rates at the time), so that the peak supply of grass on the farm occurs roughly in the middle of September. As seen in **Table 1**, the level of grass supply (measured as average farm cover, or cover/livestock unit) that you should aim to have will depend on the overall stocking rate of the farm.

The autumn rotation planner will keep you organised to hit the targets of 60-70% grazed and closed by the 1st of November. From that point, it is about utilising the remaining 30-40% of the grass throughout November, while remaining conscious of not overgrazing the farm so that there will be sufficient grass cover for the spring. How quickly you utilise this remaining 30-40% will largely depend on planned housing date, farm grazing infrastructure and the ability to on-off graze stock, and ground conditions. Each farms specific closing cover will depend on the ability to graze early in the springtime, and the stocking rate of the farm. Guidelines are included on **Table 1**.

Table 1. Targets for farm cover and closing date based on stocking rate of farm

Autumn Grazing Targets			
Date	**Cover/Cow (Kg DM)**	**Average Farm Cover (Kg DM/Ha)**	**Rotation Length**
STOCKING RATE OF 2.5 LU/HA			
1st August	**180**	**450**	**20 Days**
Mid - August	**200**	**500**	**25 Days**
1st September	**300**	**750**	**30 Days**
Mid - September	**400 - 450**	**1,000 - 1,100**	**35 Days**
1st October	**400**	**1,000**	**40 Days**
1st November	**60% of your grazing platform should be closed for Spring at this stage**		
Fully Housed		**550 - 600**	
STOCKING RATE OF 3.0 LU/HA			
Mid - August	**250**	**750**	**25 Days**
1st September	**330**	**990**	**30 Days**
Mid - September	**370**	**1100**	**35 Days**
1st October	**380**	**1150**	**40 Days**
1st November	**60% of your grazing platform should be closed for Spring at this stage**		
Fully Housed		**600 - 650**	
STOCKING RATE OF 3.5 LU/HA			
Mid - August	**220**	**770**	**25 Days**
1st September	**280**	**980**	**30 Days**
Mid - September	**340**	**1200**	**35 Days**
1st October	**335**	**1175**	**40 Days**
1st November	**70% of your grazing platform should be closed for Spring at this stage**		
Fully Housed		**700 - 750**	

For more information on the value of autumn grass and to discuss required concentrate feeding levels for your stock, please contact Christopher Cahill on 00353 87 193 4502.

Are your Cows getting Enough Water?

Colin Casey, Branch Manager of Lakeland Agri, Coolshannagh, Monaghan.

Now that we are in the summer period it is an opportune time to check that your cows are getting enough water. It is worth remembering that the primary component of milk is water and therefore ensuring your cows are provided with an adequate water supply is paramount to maximising milk yields during warm weather.

Top Tips for an Efficient Water System

Trough Capacity – troughs which are too small for the herd result in an inadequate water reserve, and a drop in milk yield. The recommendation is for 9L/Cow (2 gallons per cow) or 720ltrs (160 gallons) for 80 cows. Allow trough space of 450mm (18 inches) per cow so that 10% of your herd should be able to fit around the drinking trough at any one time. Cows queuing to access water is a sign that there is not enough space for cows to drink. In situations where cows are clearly suffering from heat stress, the number of drinkers/ water trough space should be increased significantly to address the challenge.

Location of the Water Trough – particular attention should be paid to where the water trough is going to be in the paddock. In an ideal situation, the water trough should be in the middle of the paddock to allow the cows access to water from all sides. Cows should not have to walk more than 250 metres to get to a drinker.

Flow Rate – We can underestimate how much water a cow requires. Research has shown that on a hot day cows can drink anywhere from 60ltrs to 110ltr per day. A dairy cow can drink up to 14L of water per minute, with 30-50% drank within the first hour after milking. The trough should always be full after milking. Therefore, the rate in which the water enters the drinker is important to consider.

Pipe Size - Ensure pipe size is correct. If the pipe is too small, it can disrupt the flow of the water to the trough and reduce water pressure. The pipe should be at least 25mm (1") or 32mm (1 ¼").

Leaks – Troughs can overflow, and pipes can leak. Leaks can add considerably to water bills. Use quality fittings and install isolation valves on pipelines to isolate different sections of the paddock water supply.

At Lakeland Agri we stock an extensive range of concrete drinking troughs available in 20, 40, 50, 80, 165 and 400 gallon capacity. Complementing these are the full range of Philmac Water fittings along with Hydrodare and MDPE Water Piping.

For more information contact any of the Lakeland Agri Stores:

Martin McCooey, Lough Egish:
00353 42 9747216

Colin Casey, Monaghan Town:
00353 47 30622

Emmet Flood, Longford Town:
00353 43 3345042

Father's Day Giveaway – Celebration Time!

Lakeland Agri held a Father's Day Giveaway on Facebook recently to celebrate and thank all the special Dad's out there.

Our 3 lucky winners walked away with a voucher to spend in any of the Lakeland Agri stores.

WINNERS:
- Jayne Curwin
- Martina Keenan
- Arnold Gibson

Congratulations once again to all our winners and thank you to everyone who entered.

Like our page @LakelandAgri

Be sure to LIKE us on Facebook for all the latest technical news and advice and to keep up to date with our super product offerings in store!

For more information, contact the Lakeland Agri Sales team or our Customer Services Centre on 0818 47 47 20

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Delivering Sustainable Feeding Solutions