



NEWSLETTER

In this newsletter we will be covering the following topics:

- Grass Quality is the Challenge
- Monitoring Calf Health and Managing SCC Mid-Season
- Minimising the Risk of Summer Mastitis in Replacement Heifers
- Teagasc Environment Newsletter
- Farm Development Programme - Focus Farm Data

GRASS QUALITY IS THE CHALLENGE

Compiled by John Maher, Teagasc Dairy Specialist

The month of May has brought many challenges due to poor weather conditions. One of these challenges will be grass quality over the next few weeks. We are now in the stemming phase of the grass plant but due to a poor May, this problem of stemmy grass will be more to the fore.

Regardless of soil type and level of rainfall, the key objective over the coming weeks will be to maintain an adequate supply of high quality grass!!!

Where grass growth is adequate (about 65 Kg DM/ha/day and view www.pbi.ie or the Grass10 newsletter for growth rates) a 20 day rotation and grazing 1400 kg DM/ha will be the target. It will also keep the sward at the right stage of growth. So the grass plant is right for grazing when it is at the 2 to 3 leaf stage. A leaf appears every 7 days on the ryegrass plant during June and July. The ryegrass plant can only carry 3 leaves at any one time. When the fourth leaf appears, the first leaf dies and more stem also appears. Stem and dead material are lower in feed quality, difficult to graze, reduce cow intake and grow less grass.

Grass Quality:

Grass quality can be poorer in June due to increased stem content. This will decrease the digestibility of the grass to be grazed. Grass stem is also difficult for the cows to graze. Therefore the energy intake of the cow will decrease and then cow performance will decrease.

It is natural for the plant to try to reproduce and go to seed. By default, stem content increases. However with the right approach to grazing management, grass can be kept leafy.

High quality pastures are green to the base and have a much better stem to leaf ratio. Leafy grass is highly digestible. Every 5% increase in leaf content increases digestibility by 1 unit.

The only real way of ensuring high grass quality is to graze covers of grass at the correct pre-grazing yield. Many farmers



unfortunately try to graze grass that is too high in yield and the paddock should have been grazed 2- 3 days earlier. Grazing grass covers of 1300-1500 kg DM/ha while maintaining an average rotation length of 18-21 days (assumes an average growth of 65 KgDM/ha/day) will help maintain grass quality during June. Maintaining an average grass cover of 160-180 KgDM/LU will ensure that high quality pasture is maintained.

Round Bale Silage

Grass growth is often well above the demand of the herd during the mid-season on farms especially those with heavy land. This surplus of grass needs to be identified quickly and not wasted. Grazing grass that is surplus to requirements results in wastage. This is the grass that should be converted to round bale silage rather than be left behind by the cows or wasted by topping. Making round bale silage is very useful way to keep grass supply under control and provide quality short term high quality feed in times of deficits and/or poor grazing conditions. There should be a greater emphasis on making high quality silage as cows will end and begin lactation with some silage in their diet.

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Milk protein content

Milk protein content is a very good indirect measure of grass quality. When grass quality is high and the right cover of grass is grazed, milk protein content will rise consistently through lactation. Milk solid yield will follow this trend also.

Milk protein content should increase every month from the month of March. As most of the cow's diet is made of grazed grass, the quality of grass eaten has a large influence on milk protein content. Milk protein production suffers the most when grass is stemmy. Often milk protein falls by 0.1-0.2% during mid-season months. This will result in a lower value milk cheque. So we must aim to have the right grass ahead of the cows as much as possible. Avoiding the mid-season dip in milk protein



content also ensures a higher performance for the rest of the season.



Fertiliser

Grazing ground requires about 30 units of N/ac for the month. However, where 1st cut silage area is coming back into the grazing rotation, apply about 40 units N/ac. Slurry should be applied to the silage ground for 2nd cut silage. Every 1,000 gals of good quality slurry is almost equivalent to 1 bag of 0:7:30/ac. Normally 80 units N/ac is required for 2nd cut silage.

See the table below for slurry and fertiliser requirements for 2nd cut silage.

Table 2:- Second Cut Silage N, P & K Req. (off-takes)^{3,4} Based on Grass Yield & Fertiliser Programmes

Grass Yield (ton DM/ha) ²	N kg/ha (units/ac)	P kg/ha (units/ac)	K kg/ha (units/ac)	S kg/ha (units/ac)	Fertiliser Options ¹	
					No Slurry ¹	Cattle Slurry gal/ac ⁶
2 (4t/ac fresh grass) ⁵	50 (40)	8 (6)	50 (40)	8 (6)	2 bags/ac 15-3-20 + S 0.2 bag/ac ProUrea 46	1,500gals/ac 0.8 bags/ac ProUrea +S
3 (6t/ac fresh grass) ⁵	75 (60)	12 (10)	75 (60)	12 (10)	3 bags/ac 15-3-20 + S 0.3 bag/ac ProUrea 46	2,000gals/ac 1.2 bags/ac ProUrea+S
4 (8t/ac fresh grass) ⁵	100 (80)	16 (13)	100 (80)	15 (12)	4 bags/ac 15-3-20 + S 0.45 bag/ac ProUrea 46	2,500gals/ac 1.6 bags/ac ProUrea+S

¹ Protected Urea (Urea 46% N) or (Urea 40% + 6% + NBPT). ² Apply 4kg P & 25kg K per tonne of grass dry matter (DM). ³ N, P & K advice for crop off takes based on grass DM yield at harvest time. ⁴ Apply additional P & K for soil fertility build up after grass harvest refer to Teagasc Green Book for specific rates. ⁵ Fresh grass @ 20% DM. ⁶ Slurry applied with low emission applicator.

MONITORING CALF HEALTH AND CONTROLLING SCC MID SEASON

Compiled by Martin Kavanagh MVB Cert DHH

Spring 2021 has been cold and wet. Conditions have been difficult for calves outdoors since March. In recent years, calves are being left out from seven or eight weeks of age on many farms. The cold weather has impacted these calves. Vets have reported many call outs to groups of calves with pneumonia or severe scouring at grass.

- Many calf groups are being left out too young and too light without adequate shelter. On some farms, calves go to once a day feeding at 4-5 weeks of age and may be fed outside at this point to take the pressure off the housing. Calves without a run back to a shed or that are not housed at night are at risk of pneumonia caused by wind and wet chill.
- Calf groups that are very well done inside, weaned, and eating well are running into trouble from scouring at grass. The exact cause of Summer Scour Syndrome is not clear, and the conditions vary on each farm.

The following are some general rules and observations.

Calves should be introduced to grass slowly, ideally by strip grazing the calves for up to 2 weeks and controlling their intake so the stomachs can adapt to the grass. Continue to feed ration, 2 kgs minimum and feed 1-2 kgs dry matter of grass per day. Reduce the protein in the ration to a 16%. Other fibre sources such as hay or dry silage should be available also. The key is to train the calves to graze so they can adapt gradually to high protein, low fibre grass.

If the problem is recurring every year, take samples of the growing grass in the calf paddocks April/May and test for Molybdenum and copper status. Calves are very susceptible to Molybdenum toxicity, and they will suffer from acute scours



that are not alleviated until they leave the affected pasture. Calves that are affected need to be rehoused. If molybdenosis is a diagnosed problem, there is a regime that can be followed using specific copper boluses that provide copper to the rumen. Copper boluses cannot be given to calves while still on milk.

General rules for parasite control are:

For coccidia, dose calves when they are at pasture 1- 2 weeks or when they first show signs. Dose for worms when calves are outdoors more than 3 weeks or show signs of coughing. Always get some dung samples tested to check for unusual parasites such as Nematodirus, and to confirm the presence of coccidia that may warrant repeated dosing.

Calves at grass that are scouring are at risk of Vitamin B1 deficiency. Monitor the calves daily for signs of blindness.

SCC control

This Spring SCC and mastitis cases have been difficult to control on some farms. The following are some of the situations that we have come across recently. The most significant is the level of teat end damage we are seeing because of overmilking on newer machines that are designed to milk out fast. The machine can test fine with the technician but overmilking and teat end damage can result from what the milker does.

- Low volume of teat dip usage. You should use at least 30 mls of post dip per cow per day. For problem herds, use a chlorohexidine-based product, preferably with more than 0.3% concentration. Also, lack of coverage of the teat. It takes time to spray a cow's teats properly – slow down.
- Overmilking. There are many parlours that have extra units fitted and have one milker. We have recorded times from the cluster on to cluster off more than eight minutes and in a few extreme cases, more than 10 minutes. Most cows will be milked out in 5-7 minutes. Overmilking will cause teat end damage. This can be visually observed, and teat ends can be scored. As part of a routine mastitis investigation a sample of 25 cows is taken and the teats scored. If greater than 20% of teats score 3 or 4 then there is a significant issue with overmilking or high vacuum at the teat end.
- Poor cluster removal. Failure to allow the vacuum to drop when removing the cluster is common. When the vacuum is shut off to the cluster, you need to wait a couple of seconds for the air to get through the air bleed hole and allow the vacuum to drop. Pulling off the cluster under vacuum will further damage teat ends.



- Dirty air bleeds. Air bleed holes in the cluster must be cleaned twice per week to make sure there is proper milk flow and vacuum release.
- Some herds are getting outbreaks of mastitis caused by environmental bacteria. Cell counts will rise rapidly and fall as quickly in these cows. It is helpful to get samples

taken of the mastitis cases before you treat them. Some of these cases are caused by bacteria that are difficult to treat and the more knowledge we have the easier it is to make a treatment plan. The key treatment for cows with swollen and painful quarters is an anti-inflammatory to get the swelling and temperature down.

SCC and mastitis control is governed by many factors. We are seeing more and more issues in herds that have grown beyond the capacity of the labour on the farm to manage. Time in the parlour is precious and making sure cows are not overmilked and damaged as a result is critical. Cluster removers that are set up correctly can make a huge difference to teat end health and reducing SCC.

Unfortunately, there are still some herds that have contagious mastitis spread and need to cull cows to reduce the infectious pressure.

The more we discover on farms the more we see that high SCC has many causes and many solutions. Each farm is uniquely different, and one size does not fit all. At the very least, have your vet or the farm services team check out teat health.

MINIMISING THE RISK OF SUMMER MASTITIS IN REPLACEMENT HEIFERS

Summer mastitis is an acute infectious disease of the udder that occurs mainly during July, August and September.

Causes

Flies play a big role in summer mastitis as they can firstly cause damage to the teat orifice and secondly by transmitting the bacteria from infected udders to healthy udders. It is believed it occurs most often during these months as fly populations are at their highest during this time.

Symptoms

The most common first sign of summer mastitis is one or more enlarged teat on the heifers or a cluster of flies around the teat orifice. The quarter can also be swollen hot and painful. If it hasn't been noticed early, the animal may have a high temperature, stiff joints and or be lame. When the teat is drawn, the mastitis will be a yellowish colour containing blood clots. The damage to the teat or quarter is generally done by the time the symptoms can be seen.

Prevention Methods

The first control measure is to ensure to check your stock daily as early detection is crucial. Pour on insecticides ("Ectospec" or "Spot On") can be used as they act as fly repellants. These products should be only applied in dry weather and should be applied at least twice during this three month period.

Stockholm tar can also be applied directly to the udders of the animals and it acts as a physical barrier. This should be applied every 3-4 days and can be quite labour intensive.

ENVIRONMENT

June 2021

REAP the benefits

Edited by
Catherine Keena,
Countryside Management Specialist



Species for LIG:
Forget me not.



Ragged robin.



Self-heal.



*Lady's smock or
cuckoo flower.*



*Greater bird's foot
trefoil.*

If you are one of the many farmers who applied for the Results-based Environment-Agri Pilot (REAP) and are fortunate to be accepted – you may be interested to know more.

The purpose of REAP is to test the 'results-based' approach to agri-environment schemes and to prepare farmers, advisors and the Department of Agriculture, Food and the Marine (DAFM) for the next rural development programme. The duration will be two years: 2021 and 2022.

If accepted into REAP, you must choose between two and 10ha of grass fields on your farm. Tillage fields or peatland with heather are

not eligible. Your advisor will walk these grass fields in June or July and score each field with you using one of two scorecards: one for low input grassland (LIG), or one for multi-species ley (MSL). The score determines the level of payment. The advisor will also discuss with you the option of planting trees or hedges. The field score is based on: the number and abundance of non-grass species; the extent of field boundaries including hedges, stone walls, earth banks and watercourses; the width of grassy margins – either one, two or three metres; and, an additional five metre option for MSLs.

Measures to reduce nutrient and sediment run-off to waters from January 1, 2021

ISSUE

TO REDUCE NUTRIENT AND SEDIMENT RUN-OFF TO WATERS

Bovine exclusion
and fencing of
watercourses



Water trough
(20m from
watercourses)



Crossing
watercourses
with cows daily



If fenced across the
watercourse both sides



Farm roads
(waters/surface
waters)



Fence required both
sides along water



WORKS TO BE COMPLETED

All bovine access (with the exception of crossing points) to be excluded from watercourses including drinking points. Watercourses are marked as solid blue lines on OSi layer 1:5,000. All fences must be 1.5m back from top of the bank.

Water troughs (including nose pumps) must be moved 20m away from watercourses on OSi layer 1:5,000 as above.

Bovines can cross watercourses without a bridge/culvert. Fences required both sides of watercourses (cattle cannot have access into watercourse or up/down stream). Best practice to install bridges/culverts where animals cross.

Camber roadways away from waters. Divert direct run-off away from waters. Applies to all surface waters and waters (all water courses, rivers/streams/drains/dry drains).

WHICH FARMS?

All three orange boxes here apply to:

1. Farms with a grassland stocking rate (GSR) $\geq 170\text{kg nitrogen (N)/ha}$.
2. Derogation farms.
3. Farms exporting slurry to reduce whole farm stocking rate (WFSR) that comes under 170kg N/ha .
4. Tillage farms with a GSR $\geq 170\text{kg N/ha}$
GSR = *organic N (before exports) produced by grazing livestock on the holding/grassland area.*
5. All farms where WFSR $\geq 170\text{kg N/ha}$.

Whole farm stocking rate excluding N exports $\geq 170\text{ kg N/ha}$

Organic N (before exports) produced by grazing livestock (excludes pigs and poultry)/ holding area (grassland plus arable/tillage/WBC).

Applies to every farm, regardless of stocking rate

MESSAGE FROM ASSAP

Protect our bathing waters

In Ireland we are fortunate to have a large number of beaches and lakes that are suitable for bathing purposes, including swimming and water sports. Bathing waters are a great resource to have in the country from a recreational and tourism point of view, and there is great pride in seeing the public availing of these facilities. The EPA monitors 147 different locations for their suitability for public bathing during the bathing season which runs from June 1 to September 15. The majority of these bathing locations are on the coast (with a number of lakes also being monitored) with 95% meeting or exceeding the minimum required standard. While the results are positive, there is a risk of bathing locations being impacted from contamination with pathogens. *E. coli* or intestinal enterococci are pathogens of particular concern, the source of which can be human or animal.

Farming activities with a risk of pathogen losses are poor practice in the application of slurry during summer, and cattle access to lakes or streams that flow into lakes. Slurry is a source of pathogens and summer is the time it has the greatest impact on bathing waters. Rainfall during or after land spreading can lead to surface runoff of slurry into the drainage network. Buffers between the spreading area and watercourses help break the pathway and reduce pathogen losses. Animal access to streams and watercourses can lead to direct excretion of pathogens while animals are drinking.



95% of our bathing locations meet or exceed minimum standards.



Places to swim are a great resource for everyone.

Top tips

- ▶ Check the weather forecast and do not spread slurry if heavy rainfall is predicted.
- ▶ Adhere to the required buffer zones for slurry spreading – 5m from drains or streams and 20m from lakeshores. In fields that are of high risk with many drains or prone to flooding, increased buffers are recommended or in some cases that no slurry is applied.
- ▶ Prevent cattle access to watercourses, providing alternative water supplies to livestock.

FARM DEVELOPMENT PROGRAMME

Please see the current data on the focus farms in the Tipperary Co-op/Teagasc Farm Development programme.

Week Ending 28 th May 2021	John, Charlotte and John G Crowe	Peter Hughes and Paul Maguire	Glen Tour Farms	Seamus, James and Janice Farrell	T.J. Ryan	Solohead Research Farm
Milk Yield (Litres)	27.5	28	25.5	30	29.4	25
Butterfat %	3.95	4.20	4.17	4.07	4.08	4.42
Protein %	3.69	3.48	3.55	3.58	3.54	3.65
Concentrate Fed (Kgs/Days)	3	1.5	3	4.5	4	2
SCC ('000)	70	58	32	171	97	193
3 Week Submission Rate (%)	96	88	90	93	89	96
Mating Start Date	24 th April	4 th May	28 th April	27 th April	4 th May	22 nd April
% of the Herd Served	100	92	98	99	94	96
Farm Cover (Kgs DM/Ha)	848	900	630	612	775	820
Cover Per Cow (Kgs DM)	190	200	187	175	222	200
Stocking Rate on Milking Platform (Lu's/Ha)	4.45	4.5	3.37	3.5	3.49	4.1
Fertiliser Spread to Date (Units/Acre)	110	85	100	80	75	80

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