Messages:

- **Follow the guidelines to manage grass in drought.**
- **Your 2nd last Nitrogen but take account of residual N**
- **Now is the best time to control Docks but not if grass under stress!**
- **Weigh replacements and manage accordingly,**
- **Stop bulling in or around 6-12th July.**
- **Lameness: prevent and control.**
- **Manage grass by knowing grass covers.**
- **Begin now to overcome winter feed issues.**

By Matt Ryan

MANAGING WITH LIMITED GRASS IN DROUGHT:

- Some parts of the country are still suffering drought conditions, resulting in varying quantities of grazing grass available.
- Define drought?
- Every week the IFJ give the "Soil Moisture Deficits" across the whole country.
  - It may range from 9 mm in Kerry to 57mm for most of the remainder of the country.
  - That means there is a rain or water shortage of 57mm (over 2.25 inches) in some areas.
- At levels between 50-75mm, grass growth is restricted, but new research shows that it sets in at lower levels on light soils.
  - Above 75mm drought conditions exist where no growth takes place.
- This information should be used to size up the extent of the problem and the growth potential of your farm and the actions you need to take. Brendan Horan, Moorepark suggests the following approach:
  - In a drought, swards decay when moisture stressed so delaying the drop in AFC by extending rotation length early is unlikely to be beneficial to feed supplies on the farm as the material remaining is of decreasing in quality, due to increased stem and some decay.
  - Early supplementation simply results in reduced pasture utilisation.
  - Therefore, the best advice is to maintain a 21 - 24 day rotation length and allow AFC to drop to 400 before supplementing. At this point then, supplementation will have to increase rapidly and significantly to meet animal requirements but at least the farm will be well cleaned out in preparation for new growth when it rains.
  - The level of supplementation will depend on available grass but very likely 5kg silage DM and 6-7kg meal (12-16% P) needs to be fed with grass.
  - Palm kernal (PKE), because of its cost and convenience to feed ad lib, should be considered as a replacement for some meal and possibly all the silage.
  - Fertilizer Nitrogen should continue at per the following:
  - At 25kgDM/ha growth: delay any N spreading until rain is forecast,
  - 25-50kg DM/ha growth: spread reduced N (15kg/ha).
  - 50+kg DM/ha growth: apply normal rates of N.
  - But when the rain comes, you must have adequate nitrogen in the soil, slow down the rotation length drastically for the first 7-13 days to let PGC build up to near ideal.
- Grass budget twice/week, even when rain comes so as to get off the expensive meal feeding merry-go-round quickly.
- Feed options that may be considered:
- Pulp or barley would do fine.
  - Where high meals are fed (4kgs), feed a 16% protein ration.
  - Feed maize (some farmers may have it) as it would be ideal with grass.
  - Graze silage ground. Think of zero grazing silage ground from an outside farm (cheap).
  - If grazing silage ground (heavy covers) pre-cut it. Only cut one day's feed at a time, being very careful to estimate the quantity made available to herd for the day. Remember a cow will eat 17 -18 kgDM per day and from this you calculate the herd demand.
  - Feed baled silage. If it is very good, milk yield and protein will decrease very little (Moorepark). This is the preferred option this year with low milk price.
  - Reduce stocking rate now, if you have too many cattle sell them now, as it will reduce the demand for grazed grass now and winter feed later on.
  - What might seem a rather radical suggestion would be to go on once per day milking (OAD), as it reduces the demand for grass/feed, cow body condition will improve, milk yield will decrease 26% (MS/cow decrease by 20%), and reduce work-load.
- Some of the suggestions made in this section will be appropriate for anyone who is "tight" in grass.
  - Refrain from topping, as grass shortage means paddocks will be well grazed out. A few seed heads

may look bad but in an overall context they have no adverse effect.
- When rain delivers high growth rates:
  - It will take 7 – 12 days to get back to where the AFC should be; hence, meal feeding will have to continue at the high rates for most of this period – grass grows grass.
  - The grass will becomes very sour and unattractive to cows due to high N and low dry matter.
  - Many farmers are short of winterfeed, therefore, they must close up fields for late silage.
  - With growth rates of 70+kg, one should be able to stock cows on the grazing area at 4.5 cows/ha with a small amount of meals. Make this decision early so as not to 'trip yourself up' cutting silage from late September on.
- Rotation length, depending on growth, will be 21-23 days.

2nd LAST NITROGEN:

- Hard to believe! But apply as the return on money invested is massive.
  - One should take advantage of exceptional growth rates to build up winter feed reserves.
  - But always make quality bales in such circumstances to feed instead of purchased meal.
  - Allowing for what was recommended above the amount to be used depends on stocking rate, following the standard recommendation:
  - If SR is 2.5 Cow/ha:28units of protected Urea mid-July
  - If lower SR: no N until mid-August.
  - These are whole farm recommendations, therefore, where there are outside farm blocks these figures should be increased by 15-20% on the milking platform, while being reduced on outside blocks.
  - Remember, by late July, over 88% of your annual Nitrogen should have been applied.
  - If, in early July you haven't over 76% of your N applied, rectify by applying a bit more now, otherwise, you will not be able to build up grass in autumn.
  - For every one ton (DM) your grass yield lower than last year and you are up-to-date on N spread, then there is an extra 25kg(20 units) N in the soil. Take into consideration when applying N now.
- Stick with one spreading day of the whole farm in the month.
  - There will be some cover of grass to give a shading effect from the sun and there will probably be more dew on the grass.
  - It is working well on farms, but according to Moorepark it results in 3-5% less in grass growth during the main summer months. This is small for the benefits and farmers are wasting much more than that amount of grass by poor grazing management.
- Sulphur deficiency is widespread this year since on a wide range of soils.
  - Between May and September 20 units/acre should be applied on all light soils. If not yet applied, do it now.

NOW TIME TO CONTROL DOCKS:

- Docks are the bane of dairy farmers' lives and apart from being unsightly cost money:
  - One Dock (big one) every 35m² reduces grass yield by 1% per acre, which represents a loss €7-13 per acre.
- Decide on the spray to use.
  - This decision is based on the amount of clover in the pasture.
  - Type of dock also influences choice,
- Best results are got by spraying 3-4 weeks after cutting silage.
  - Grass growth is slow relative to the growth of the dock.
  - Grass ground cover is low resulting in less loss of grass yield.
  - Spray now in July or August.
  - Spray on warm, sultry days.
  - If going to stitch in clover next year kill the docks this year.
- Give serious consideration to spot spraying where docks aren't too plentiful.
  - A job for a holiday student – make sure to show him/her how and get them to think how to map out the area to be done so as to miss none.

MANAGE R1'S AND R2'S TO TARGET WEIGHTS

- Replacement heifer (0-1 yr) are known as R1's,
  - Replacement heifers (1-2 yrs) are known as R2's
- This is a big review time for your R1's and R2's – chat your contract rearer.
- On 1st July, R1's should be 27% of the cows weight:
  - Friesian (560kg) 150kgs
  - Jersey Cross (530 kg)..... 143kgs
  - Calves less that these weights must get "special attention".
- Calf weight at 6 months has a major influence on bulling weight, which influences the following:
  - They will not calve in the first 15 days of the calving season (target).
  - First calvers are yielding 500-1000 litres of milk below

their potential, mainly because they are too small at calving.
  - I find the wastage from first to second calvings is very high, due to heifers calving down too small and being badly managed from calving to service.
- Research has shown that moderate R1's on 1st July can make good weanlings on 1st November if grazing management between July and November is top drawer.
  - If you have them on good grass they will gain 0.8 kgs/day.
- Practice the Leader-Follower system.
  - R1's should graze in front of the cows or the R2's,
  - Calves will "do" really well while the R2's will also perform well.
  - Don't graze too tight and top if necessary. Parasites will have no effect on the calves.
- Or let the R1's graze some of the cow paddocks.
  - Let them into covers of 900-1,100 Kgs DM.
  - Let them graze out the area in 3-4 days and then move on.
  - Some farmers let them graze in front of cows, moving out of the cow paddock 3-4 days before cows are due to graze the paddock. The calves spend 2 days in the paddock with the result they only graze the tips of the leaf, therefore, they make great progress.
- All farms have late, "weak" R1's (below target). How do you manage them to gain most weight cheaply with as little extra work as possible?
  - Let these graze in front of the main bunch of calves on the very best of grass.
  - If that isn't possible give them fresh grass in front of cows or R2's
  - Stay feeding milk/replacer to them until they are 125-130 kgs weight.
  - 1-2 Kgs of meal could be justified to these but don't keep them near the house in a "calf paddock" to feed meals because parasites will prevent thrive.
  - Another option is to put 2 small calves in each cow paddock and leave them there, even as cows come to the paddock. They will thrive really well and no meals or dosing is needed.
    This is called the "buddy-buddy" system of management, all you need is 2 strands of wire and I know farmers who have successfully done it.
  - It is best to give best quality grass and no meals than to give them poor quality grass with meals.
  - Move calves into aftergrass, particularly on outside farms and keep them on it for as long as possible.
- No meals should be fed to strong calves, that is, calves 10-15 kgs above target.
  - The response is poor, requiring 8 Kgs of meal to give 1 Kg weight gain.
- To prevent stomach worms with minimum dosing, keep calves on aftergrass as long as possible.
  - Give a white or yellow dose in early July and move to aftergrass, having left them on the old paddock to 'flush out' all the worms.
- R2 targets – 67% of mature cow weight now:
  - Friesian: 375kgs
  - Jersey X: 355kgs
- Animals under these weights should get priority treatment; by grazing them with calves or else in front of the main heifer mob. Very small animals will respond to meals(16-18%P)
- If you have replacements out on contract you must have weights for all animals now; done by an independent scales person. The ICBF provide this service and it is good value.
  - All agreements should have this clause included.
  - It reassures both parties and gives plenty of time for remedial action.
- Keep R2's away from areas where flies are prevalent.

WHEN TO STOP BREEDING?

Decide on your last calving date for 2021. It is high time farmers tightened up the calving pattern because late calvers are generally infertile and uneconomical.
Relate service date to calving date and act.

Service	Calving Date
July 6	15 April
July 12	21 April
July 18	27 April
July 24	3 May

- The following targets should be set as the absolute limit to finish bulling:
  - Dry land 6 July
  - "Late" land 12 July
- However, anyone short of cows or replacements with plenty of land at milking parlour might go on for longer:
  - Continue to use short gestation Friesian AI bulls, such as FR4728, FR5112, FR4800, FR4721 or Jersey. Any of the beef breeds will be 5-15 days longer
  - Gestation length is derived from the EBI caving index. Every €10 is the equivalent of 1.5 days longer/shorter gestation than another bull.
  - These bulls will be worth over €40/ heifer more profit next year.
  - This is a very important piece of advice if you have to continue serving with AI and it is essential to do so until 1.3 AI straws per cow in the herd are used.
  - Too many replacements is not a good idea as they are too expensive to rear. It is not a good idea to rent land and plan to sell heifers off it.
  - Therefore, use beef breed AI once you have use 5 straws per replacement heifers required in 2022.
  - With records check if the stock served cows are repeating – if so switch back to AI Friesian.
- With 2-3 weeks of the breeding season remaining, vigilance is required to identify all bulling cows.
  - The pay off will be great with less cull cows to off load – a loss of €700-1000 per cow. .
  - Put a chin-ball on the stock bull so as to identify the expected calving date.
  - You need one bull per 20-25 expected bulling cows.

LAMENESS MUST BE MINIMISED!

- The target: less than 5% of herd affected; less than 1% repeat cases.
- The cost of each case of lameness is €300 and affected cows have been getting 1.4 cases per year. Therefore, serious financial costs accrue.
- It is all very fine to get someone in to pair or fix a cow but the basic causal problem must be fixed.
  - Regular use of FRS to maintain your herds' feet can be justified.
- What are the causes?
  - Meal levels and type: can have a major effect, particularly in early spring if badly balanced and where excessive amounts are fed. Fibre being a most essential ingredient.
  - Mineral status: If all other issues listed are not the problem, investigate this.
  - Silage , if badly preserved, too wet or made from high nitrogen,
  - Grass: high nitrogen, very wet grass, particularly in spring and autumn (likely to be a problem this year) is no help.
  - Cubicles/housing: 110 cubicles is required per 100 cows; clean yard and cubicles; easy access to feed area; and concreate that is not damaged or "rough".
  - Roadways: They must be wide, particularly the last 100 m near parlour; with no water or dirt lying on them; very few bends and those that are there must be rounded. Long distances cause serious demands on cows' feet.
  - Collecting yard: Adequate space (1.2 – 1.5 sq. metres) is required, but too much space is worse; few right angled bends entering/exiting the yard; yard surface is critical and type and movement of backing gate can adversely influence incidence, The operator coming out directly to the cows to move them in is a really bad job.
  - Milking parlour: Too much time standing on concrete due to long milkings is damaging; right angled, poor exits; bad surface.
  - Drover: Patience require; no biting dogs or quads (must be 20 meters back from last cow);
  - Cow locomotion: This is a great measure of identifying a developing problem. Cows must walk with even weight bearing and rhythm on all four feet, with a flat back, where long fluid strides are possible
  - Staff knowledge of the subject:
  - Most staff, including family members, are very unaware of the financial consequences of lameness and the protocols necessary to prevent. If your farm falls into this category take steps to correct.

MANAGE SURPLUS GRASS BY MEASURING:

- To maintain the highest quality grass and minimise topping, grass cover should match stocking rate and rotation length.
- The following target grazing covers are suggested:

Stocking Rate Cows/ha	Rotation Length (days)	Daily demands (Kg Dm/Ha)	Pre Grazing Cover (Kgs DM/Ha)	Average Farm Cover Kgs Dm/Ha
4.0	25	72	1850	800
3.5	25	63	1625	700
3.0	25	54	1400	600
2.7	25	49	1275	540
2.47	25	45	1175	490
2.20	25	40	1050	440
2.00	25	36	950	400

- Your DIY to estimating grass cover is as follows:
  a. Establish your stocking rate (cows per hectare) on the grazing area.
  b. Work on a rotation length of 25 days approx. – it could be 21-22 days if growth is over 70kg DM/day (possible).
  c. Calculate daily demand per hectare by multiplying your stocking rate by 18 which is the kgs of dry matter that should be given to a cow for a day.
  d. Calculate the pre-grazing cover by multiplying the rotation length by your daily grass demand and adding on post-grazing residual, targeted at 500kgDM/ha
  e. Finally, calculate the average farm cover required by multiplying your stocking rate by 200 (220 in wet land) – 180 would be ok with high growth rates.
- If the pre-grazing grass cover is greater than the target figure, then the "strong" paddocks should be removed for cutting only if the average farm cover is also greater than the target.
- If the pre-grazing and average farm covers are less than the targets, then meal (palm kernal or soya hulls) or baled silage (preferable option if silage not scarce) must be introduced.
- Any farmer not measuring grass will not survive this volatile milk price era.
- This is the way to manage your grass to maximise milk yield and protein so as to increase farm profits.

Brief Notes:

- Now is the time to prepare for August reseeding:
  - Identify the poorest grass yielding field as the economic response will be greatest on these.
  - Spray silage or grazing (1200+ grass cover) fields with Roundup in late July, cut/graze of 7-10 days later, leaving no trash and then sow by way of mini till. Apply lime and N, P & K
- Start to build up Autumn grass from 20th July, either by:
  - Reducing stocking rate.
  - Increasing nitrogen.
  - Closing up for a 3rd cut to graze.
  - Slowing down rotation length to 26-30 days.
- Castrate bull calves.
- Empty slurry tanks now- use trailed and shoe.
- Winter feed is going to be an issue on many farm; therefore, begin steps now to minimise the problem later:
  - With expected high growth rates it should be possible to close up significant areas for silage by stocking cows at 4-4.5 cows per ha and R2's at 2400kgs/ha. Fertilise the remainder for silage.
  - PKE is easier fed now to cows than during winter and should be used to keep grazing SR high.

Value for money rented silage ground may be available.

- To free up some time:
  - Milk cows 13 times per week.
  - Milk cows at 16 hour 8 hour intervals.
  - Spread fertiliser once per month.
  - Instead of topping, cut strong paddocks for silage and graze at correct cover.
  - From what I see and hear most dairy farmers badly need a complete break off farm for a week or so. Because of Covid-19 all farmers have not had a break – not even one day or night – since 1st February. Make a plan to get away from the farm for a break.