

Messages:

- ▶ “What would I expect dairy farmers to know?”
- ▶ Breeding targets and the ‘why’?
- ▶ Use 1.5 to 2 AI straws per cow in your herd.
- ▶ Manage the grass wedge to grow more grass & maintain quality.
- ▶ Two-thirds of your annual N must be applied before 21May.
- ▶ Understand banking matters for ‘your own good’.
- ▶ Fatigue management: recognise it and manage it.

By Matt Ryan

WHAT WOULD I EXPECT DAIRY FARMERS TO KNOW?

- ▶ You must know that there are two essential KPIs:
 - 6-week calving rate,
 - Tons of grass utilised per ha.
- ▶ You must know the targets/actions that contribute to achieving those milestones.

BREEDING TARGETS & THE ‘WHY’

- ▶ This month is the driver of dairy farmers’ most important KPI for 2019; namely – 6-week calving rate in 2020.
- ▶ Do you know what you have to achieve during the breeding this season? The following targets must be the goal:

• Submission rate (3 weeks)	90 per cent
• Non return rate (NRR) to 1st service (Cows)	70 per cent
• Non return rate (NRR) to 1st service (Heifers)	70 per cent
• Non-Detected-Oestrus (NDO)	10 per cent
• Normal (18-24 day) return interval	65 per cent
• 42 day NRR (a) Cows	85 per cent
• 42 day NRR (b) Heifers	95 per cent
• Services per conception	1.7
• Culled as empty	6 per cent
• Herd calving interval (days)	365
• AI/Bull/Scanning/Drugs Costs	0.9 cents/litre

- ▶ You can’t measure these unless you have good records:
 - Use the ICBF breeding chart and pocket notebook to record all breeding details on the ICBF site
 - Use ICBF Herd Plus data from last year to establish where you are weak and use it this year to stay on top of problems arising.
 - Look at your 2018 reports to see if you can learn anything that will make the 2019 breeding season have better results.
- ▶ Poor submission rates can be due to many factors but many farmers miss 20-40 per cent of their cows in-heat and 30 per cent of the herd should come in heat every week (or 4.3 per cent per day) for 1st 3 weeks:

- Heat lasts on average 9 hrs (range 2-18 hrs) and the cow in heat only stands for 2-3 seconds for “standing mount”- therefore, the cows’ will only be seen in “standing heat” for 1-2 minutes for all of the 2-18 hour period. Difficult! Also, if the heat period is disturbed (collecting for milking, strangers, dogs, people, machinery nearby, etc.), she may not stand for heat any more. Such breaks occur in 30-40 per cent of cows.
- Lame cows often refuse to be mounted and so tail-paint may not work.
- 10-15 per cent of cow show heat at night and may not show signs in the morning.
- Heat may occur in 4-8 per cent of pregnant cows – insemination at that heat may cause abortion and delayed calving.
- Tail paint or whichever heat detection aid is a must routine on every farm and with 3 observations per day (before morning and evening milkings and 9pm) will pick up 90 per cent of in-heat cows.
- For tail-paint to work well/easy to interpret it must only be 2 inches wide by 9 inches long from the tail head forward to highest point on back bone – all loose hair must be removed first.
- Ensure cows are on an adequate plain of nutrition prior and during the breeding season.
- ▶ The non-return rate (NRR) should be 70 per cent or better; that means that in a 100-cow herd that 30 cows should have been submitted each week and only 9 cows repeating in week four. What is wrong if more repeating?
 - BCS was either too fat at calving or lost too much weight up to mating start date (MSD so energy could have been reduced,
 - Service day management:
 - Poor storage of AI straws,
 - Poor AI technician technique,
 - Cows under stress on day due to feed or water shortage,
 - Poor facilities for service; the ordinary cattle crush is not suitable for AI service.
 - The best time to serve a cow is 12-24 hours after the onset of heat.
 - The repeat window is 18-24 days.
 - If there is blood on the vulva she is gone off heat – only 7 per cent chance she will go in-calf. Use that information to “pick” her up next time.
 - Minerals could be a problem (usually 4-5 in line of causes), particularly, Se, I, Cu, Co, and maybe P, Mn, or Mg.
- ▶ 18-24 Day return interval: A high per cent repeat intervals of less than 18 days suggests poor heat detection and that cows are being submitted who are not in heat.
 - A lot of intervals greater than 24 days suggests ‘over cautious’ heat detection and failure to AI cows that are on heat; but there could be embryo loss.

- ▶ Remember a missed heat will cost you €250 on your next year's profit. Many farmers are having 10+ missed heats per 100 cows. Good heat detection is the way to avoid that loss.
- ▶ Because nearly half the cows in the country are by stock bulls I suggest that farmers with a low EBI herd should use all Beef AI and buy in good calves next spring or better still do a contract NOW with someone for them next spring.
- ▶ If you have a vasectomised bull, one per 20- 30 cows, let him into the herd 5-6 weeks after start of mating date. Before that he will be wrecked.

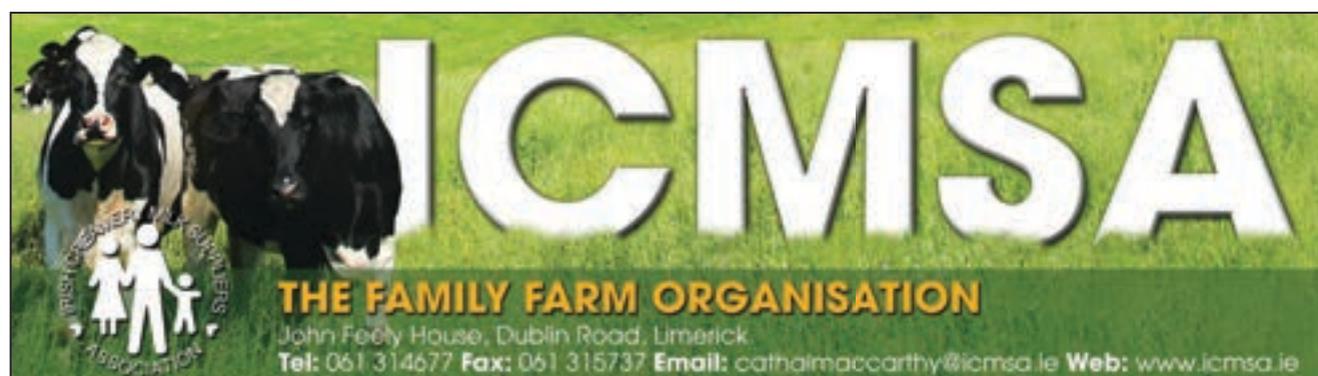
1½ TO 2 AI STRAWS PER COW:

- ▶ Yes, that's the minimum number of Dairy AI, straws you should use this year.
 - For every 50 cows use 75 AI straws
 - It is a very simple way of planning and knowing you will have adequate replacements in 2 years' time.
 - If you are planning to expand you must use 2+ straws for every cow in the herd, or 100 AI straws per 50 cows. That means all the heifers must be AI'd once.
- ▶ Farmers who are serious about expansion and have the scope should use nothing else but 'Dairy AI' on all cows;
 - See the updated bull list on the ICBF web site,
 - Don't be afraid to use Jersey on high, yielding, infertile Holsteins as it will increase the profit of the progeny by €180 per cow.
- ▶ Keep focused on using highest EBI bulls with over €120 of the EBI coming from fertility and that improve protein by at least 0.15 per cent.
- ▶ The "mop-up" stock bull must NOW be checked for fertility and ability to "do -the-job"
 - Hand mate each stock bull you have NOW with 3-4 cows you are not using for replacement heifers. In 3 weeks' time if greater than 50 per cent repeat, you know the bull is in trouble.
 - Remember, one in 10 bulls are infertile, while one in three become infertile at some stage during the season.
 - At a recent discussion group one farmer owned up to the fact that he has 21 cows to calve in late May/June due to his stock bull's problems last

year. Some loss of milk – he is now having to sell off these cows.

MANAGING THE GRASS WEDGE?

- ▶ Quality grass is grass that is over 80 per cent DMD and is necessary to maximise milk yield and percentage protein from cows.
- ▶ The quality of grazed grass is totally dependent on grazing grass that is the correct height (pre grazing cover) for each individual farmer's stocking rate.
- ▶ Tight grazing (4 – 4.5cms), especially early in the season, can prevent the build-up of tall grass areas in paddocks. But it can result in decreased milk production if not well managed.
- ▶ When surpluses do arise, as they will, they should be taken out as round bale and fed back again to cows later in the year when grass becomes scarce. But, even with this principle, some minimum topping will be necessary and it should be done early in May rather than later.
- ▶ Topping must be carried out when the 'tall grass' areas greater than 25 per cent of the paddock area; but if this is happening frequently it means you are under-grazing paddocks.
- ▶ If the tall grass area is 25 per cent in May, it will be 35 per cent to 40 per cent of the paddock in June because of the fresh dung deposited during this grazing. Tall grass is grass around dung pads and other under grazed areas. It will be getting nitrogen and not be eaten – imagine the financial loss from this.
- ▶ New Zealand experimental work has shown that topping is preferable to pre-mowing.
- ▶ Finally, keep the benefits in mind. There is a potential extra 500 litres of milk per cow – free of charge – if grass quality can be maintained at a high level during April-September.
- ▶ Remember, topping will not be necessary if you graze 'tightish' and graze at the correct pre-grazing cover (PGC) for your stocking rate.
 - Hence, the use of the Grass Wedge will save you topping money/time and insure quality grass.
 - For example, at a stocking rate of 4.7 cows/Ha, the target pre-grazing cover
 - Stocking Rate X Allowance X Rotation Length + Residual = 4.7 x 17 x 21 + 50 = 1,730 kg DM/Ha.
 - The target pre-grazing yields increase as the stocking rate increases (and declines as it falls).



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- You must also watch your average farm covers (AFC). The target figure is 150 – 200 kg DM/LU. For example, at a stocking rate of 4.7 cows/Ha, the target average cover, with good grazing management, would be:
- Stocking Rate x 170 = 4.7 x 170 = 800 kg DM/Ha.
- If your PGC is greater than 1730 and your AFC is greater than 800 then is very likely you will need to cut out 1-2 paddocks immediately for silage.
- If both figures are under these target then you will either have to feed some meal for a short period or graze so of the silage ground.

64 PER CENT OF NITROGEN USED BY 31 MAY:

- ▶ You won't grown enough grass if you don't have 64 per cent on your year's nitrogen allowance used by the end of May and 76 per cent used by mid June, because there are only 3 applications left for the remainder of the year.
 - For most highly stocked farms where they are allowed to use 226units/acre they should have 144 units applied by mid May and 172 before mid June.
- ▶ This is the month to use Nitrogen.
 - Growth rates and responses (1kgN, cost€1.15 will grow 30 kgDM grass, worth €50 in milk) are best.
 - Will enable you get most of your winter feed in the 1st cut (cheapest by far).
- ▶ You must use Nitrogen appropriate for your stocking rate (see Table 1).
 - If you use too much you will have none left for the remainder of the year and be in trouble with the Nitrate Directive.
- ▶ James Humphreys (Moorepark) indicated that there is no significant difference in annual grass yield, or annual milk yield (unpublished work), when N is bulk spread once per month compared to spreading N after every grazing.
- ▶ On light soils deficient in Sulphur, you will grow more grass (10-50 per cent based on Research).
 - With no restriction in Sulphur use, you must use 20-30 units of Sulphur from now to the end of season.
 - If using Sulphur on copper deficient or molybdenum antagonised deficiency, make sure to give animals a copper bolus.

GRAZING TIPS THAT PAY

- ▶ Practice 24, 36 or 48 hour grazing areas for cows (forget about strip

Stocking Rate		Fertiliser N	
April/May		May	June
(acre/LU)	(LU/Ha)	(Units N/acre)	(Units N/Acre)
> 0.71	< 3.45	14	0-14
0.67 - 0.71	3.45 - 3.7	21	14
0.63 - 0.67	3.7 - 3.95	28	21
0.59 - 0.63	3.95 - 4.25	35	28
0.55 - 0.59	4.25 - 4.45	42	35
< 0.55	> 4.45	42	42

TABLE 1: Fertiliser N for different stocking rates on the grazing area during May and June

grazing or 12-hour blocks)..What happens is the cows have too small a space from which to get their feed.

- This results in the 'bully' cows chastising the timid cows with the
- result the latter have to stop grazing and move away, thus reducing their grazing time. Heifers, shy feeders suffer/stressed due to this bullying.
- High performing cows also suffer because they have to eat more grass to produce the extra milk.

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- These cows will be grazing late in the afternoon while other lower yielding cows will be lying down (observe this yourself).
- Unfortunately, for the high yielding cows who are grazing late in the afternoon, grass cover will be low. Consequently, bite size is small and, intake is reduced by 1-2 Kgs DM, as well as the DMD will be 1-2 per cent lower due to stem. Therefore, these cows will lose weight.
- ▶ If after any grazing there is grass remaining in paddock (1cm = 200kgsDM/ha), cows should be “asked” to go back out and “clean it out”. This is best done by letting cows straight out of the parlour; bullies and dominant cows will be first and will have it cleaned by the time the shy feeders arrive. After 1-2 hours they should be moved to the “new paddock”
- ▶ Cows should enter a fresh paddocks in the evening (not after mornings milking) because the grass will have a lot higher sugars – could result in 1-2 litres more milk.

UNDERSTANDING BANKING MATTERS

- ▶ Pat O’Meara, AIB Agri Advisor, suggests the following for working capital and how to ready yourself to obtain future finance.
- ▶ First have a proper structure to your finances; with adequate amount of working capital

(Overdraft, Credit Line or Stocking Loans) for your farm:

- These facilities need to be in credit for at least 30 days (not consecutive) per year,
- Top businesses have their facilities in credit for the summer months at a minimum. A good guide is to have facilities in the region of €200-300 per cow.
- Your larger milk cheques will always put you in credit,
- For specialised dairy farmers who have typically higher facilities and generally use them, it is a case of stop investing money from Cash Flow. This will enable you to build a buffer to deal with price/cost volatility and/or a difficult year.
- ▶ The main determinant for getting support for your next investment will be based on the historical financial performance of your business and household.
 - Have high profit per cow or per hectare.
 - It will be greatly influenced by direct payments, land rent, interest, depreciation, and labour cost, but a profit per cow of €500 is minimum.
 - Control the level of living expenses by paying yourself a set amount each month/ week into a personal bank account. This amount will be used to predict future requirements from the farm.

FATIGUE MANAGEMENT

- ▶ The following suggestions are from “Fatigue Management – when tiredness is always there”, University of Aberdeen. Please share with other members in your home.
- ▶ What is “fatigue”:
 - A decline in mental and/or physical performance that results from prolonged exertion, sleep loss and/or disruption of the internal clock,
 - It is a constant state of tiredness.
 - Are you or anyone in your household exhibiting any such symptoms?
- ▶ What causes fatigue on the farm? Analyse these in relation to yourself or someone in your household who may be affected:
 1. Poor sleep patterns or poor quality of sleep
 2. Poor diet or lack of eating
 3. Mental health issues such as stress or depression
 4. Grief or loss
 5. Feeling ill and the side effects of taking medication
 6. Working long hours
 7. A high workload
 8. Working early morning or late nights
 9. Complex or monotonous tasks
 10. Adverse weather conditions
 11. Excessive noise levels
- ▶ On-the-job strategies for coping with fatigue:
 - Share plans when working alone or remotely
 - Ask for help if tired and

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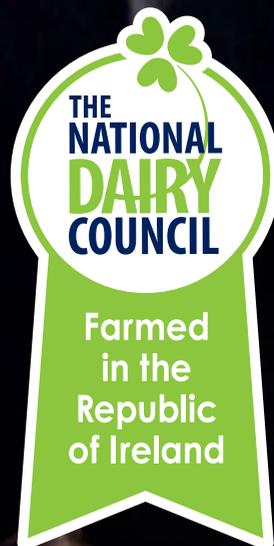
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- report any instances of fatigue
 - Pay specific attention to tasks during early mornings and late evenings and when very busy
 - Rest regularly in a safe place
 - Manage the environment, have good lighting, assess risks of where you work
 - Share the responsibility of operating machinery and handling cattle
 - Mildly exercise before work to improve alertness
 - ▶ Off-the-job strategies:
 - Sleep and rest:
 - Get a sleep patten that works for you and document any sleep issues
 - Try to rest if you have trouble sleeping
 - Make the environment suitable for sleeping
 - Relaxation techniques:
 - Read a book or newspaper before bed
 - Go for a walk
 - Meet friends or spend some time with your family.
 - Diet:
 - Hydrate (Water) regularly
 - Avoid drinking too much caffeine as coffee only helps temporarily
 - Eat healthy snacks instead of chocolate
 - Light meals at regular times are better than irregular heavy meals
 - Consult your doctor if the problem persists
- BITS AND PIECES**
- ▶ If you need to know your milk yield for this year, multiply your May peak per cow per day by 220
 - Example, if a cow peaks at 25litres/day in May, then her expected yield per cow per year will be 5500litres/year
 - Or if you sell 2.0 kgs MS/cow/day, multiply by 250 and you will know you will sell 500 kg MS/cow this year.
 - ▶ Cut 1st cut silage in two lots:
 - Fields closed 6 – 8 weeks should be cut late May.
 - Late closed (light covers) fields should be cut 10-15 June.
 - This procedure should ensure an even arrival of aftergrass and less chance of shortages in June -July.
 - ▶ The following 'labour saving' suggestions may help to make your life easier:
 - Spread once every 4-6 weeks, depending on your stocking rate, instead of after each grazing,
 - Milk every 16:8 or near it instead of 12:12 milking intervals as there is no loss of milk, and this enables you finish at 6.00 to 6.30pm.
 - If really working long hours and always 'coming from behind', then you should use contractors for fertiliser spreading, spreading slurry, cutting silage, fencing, and milking (FRS) cows occasionally,
 - ▶ Postpone weaning late calves off milk substitute until calf is at least 110kgs.
 - ▶ Animal preventative care:
 - Treat calves for black leg, hoose (be on lookout for 1st calf coughing) and stomach worms at little later.
 - Young cows with low immunity may need a hoose/worm dose,
 - If Iodine or copper are an issue on your farm consider a suitable bolus now,
 - It is still vital to take care to prevent grass tetany,
 - Lameness is a debilitating problem, affecting milk yield, fertility and body condition – if widespread examine the possible causes, get veterinary help and treat accordingly, possibly keeping in a paddock near the yard,
 - Condition cow now again in mid-month so that fertility or milk yield are not adversely affected.
 - Stay on top of mastitis issues by constantly monitoring SCC and occasionally doing a CMT test if not milk recording.

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