

## MESSAGES

- ▶ Practice “sustainability” farming in April.
- ▶ April is the most important month to manage the factors that drive the two key KPIs for dairy farming.
- ▶ Address, in early April, all the factors that influence the KPI’s.
- ▶ Make a breeding season plan and adopt the “Why Wait Programme”.
- ▶ Know the signs of heat and teach all your staff.
- ▶ Choose your AI bulls carefully and use Sire Advice to match to cows.
- ▶ Synchronise the heifers and late calvers.
- ▶ If ‘tight’ in grass in April, assess your options, early.
- ▶ Use protected urea for full year and 40 units in April.
- ▶ Graze silage ground twice before closing to save meal costs.

By Matt Ryan

### “SUSTAINABILITY” FARMING IN APRIL

- ▶ “Sustainability” the buzz word, now. Let’s embrace it!
- ▶ If you are not familiar with Teagasc’s 7-steps sustainability leaf, you should do so.
- ▶ I have some reservations in asking you start these actions, as we don’t know if and when they will set a base year. But you must be seen to be responsible and doing what people are recommending at this point in time.

1. Drive up EBI by €10/ year by mating your highest EBI cows with the highest EBI bulls.
- ▶ A €20 EBI increase in your herd leads to a 3 per cent reduction in your carbon footprint.
- ▶ No cost to but huge financial gain,
2. Substitute clover for chemical nitrogen:
  - ▶ A well-established clover sward will deliver a 10% reduction in your carbon footprint; we must now do 5-10 per cent of farm per year.
  - ▶ Big savings in your fertiliser N bill.
  - ▶ Sow clover in April.
3. Change to Protected Urea instead of CAN and Urea, resulting in:
  - ▶ A 71 per cent reduction in emissions of the Greenhouse (GHG) nitrous oxide, and,
  - ▶ Better quality water because of lower Nitrate losses in wet periods.
  - ▶ Small cost to you.
4. Slurry LESS (Low Emission Slurry Spreading) methods of managing slurry must be the norm – we must challenge people who ignore good practice and give all farmers a bad name.
  - ▶ Reduces Ammonia (NH<sub>3</sub>) and GHG losses significantly.
  - ▶ Increases N recovery in spring (all slurry tanks must be emptied by April) by 15 per cent, worth an extra €14/ha on every 3000gallon/acre.
  - ▶ Small cost to you.
5. Other easy things you should do are: carefully dispose of rubbish, plastic, medicine bottles and needles. Your vet will take the latter.
- ▶ All these are doable at little extra cost and little inconvenience to the farmer.



## KPI's MOST IMPORTANT MONTH

- The two key KPIs in dairy farming we are chasing are:
  1. 6-week calving date (90 per cent), and,
  2. Tons of grass DM utilised per hectare (14-16 tons).
- The factors that now influence next year's 6-week calving rate are:
  - The 3-week submission rate must be 90 per cent of the herd. This is influenced by:
    - » Poor fertility genetics,
    - » Good heat detection pre and post mating start date (MSD),
    - » BCS at calving and BCS loss to Mating,
    - » Calving difficulty,
    - » Womb infection,
    - » Disease,
    - » Mastitis and lameness,
    - » Stress,
    - » Energy deficit in the cow's diet,
    - » Minerals, particularly Iodine, Copper and Selenium,
    - » Synchronisation options – must be considered.
  - Conception rate to 1st service, which is influenced by:
    - » Poor fertility genetics,
    - » Poor AI technician technique,
    - » Poor straw management on and before mating day,
    - » Poor cow management on the day of service,
    - » Ill health, disease and minerals,
    - » Presenting cows for service that are actually not in-heat.
  - Heifer submission rate and conception rate.:
    - » Target: 100% of heifers in 2 weeks.
- The factors that, in April, influence tons grass utilised are:
  - Grass cover during the first two weeks of the month because grass grows grass.
    - » If too low you will be “chasing your tail” for the following 6 – 8 weeks.
    - » If too high, unlikely, summer growth will be low because tillering will be reduced.
  - Nitrogen usage and soil fertility levels,
  - Post grazing heights – must be 3.5 – 4 cms.
  - Grass measurement.

- A stocking rate of 4.5 cows/ha from 20th April, driven by a pre-grazing cover of 1750kgs DM on a 21-day rotation.
- As part of your planning process go through these listed here and ensure you have them in place.
- How can we make these targets happen? See below.

## WHY IS ACHIEVING BREEDING SEASON TARGET IMPORTANT?

- The following losses accrue:
  - 6weeks calving %: Every 1% below target you lose €8.22/cow in herd.
  - Calving interval: For every 1 day lost you lose 0.12c/litre.
  - Replacement rate: for every 1% over 18% you lose 0.14c/litre.
  - Days in milk: For every 30 days short of target, you lose 0.6c/l.
  - Herd age (Lactations): Every 1 Lact. below target 4.5 = loss 1.5c/l.
- The 6-week target and herd age more or less embrace all other losses listed.
- 100 cow farmers on average are losing over €28,000 by not achieving these targets.
  - A serious loss, mainly due to:
    - ◆ National 6-week calving rate being 65 per cent.
    - ◆ National age of herd being 3.5 lactations.
- Farmers are now appreciating the convenience of compact calving from a labour and time management point of view.

## BREEDING SEASON PLAN

- Decide on your MSD (mating start date) based on your targeted median calving date for 2022 and the number of days from start of calving to median calving date in 2021.
- Based on Research the following mean calving dates are advised:
  - South (dry land): 14th February.
  - North (or wet land): 24th February.
- The target number of days from start of calving to median calving date is 15-20 days:
  - The median calving date is that day when 50% (half) of the cows have calved,
  - Look up your current years figure on the ICBF site for your herd.

- ▶ Then, subtract your days from the target median calving date in 2022, to help you decide on the start of mating date.
- ▶ A farmer targeting a median calving date of 20th Feb 2022 should follow this plan:
  - ▶ Because of short gestation bulls being mated to short gestation cows, many farmers are not going to AI until 10th May this year.
  - ▶ This plan will help you achieve the 3-week 90 per cent submission target.
  - ▶ Due to their biological position, heifers take 6-7 days longer to go back in calf the 2nd year; hence the need to calve the heifers 6-7 days before the cows.
  - ▶ Where the 6- week calving rate is poor on a farm, I recommend the “Why wait programme”
    - ▶ This involves moving cows being served in week 2 to week 1 and from week 3 to week 2, but you need very good pre-mating records.
    - ▶ See Table 1 for the date/procedures which must be followed to the “letter of the law”.
    - ▶ You must accurately identify and record cows coming on heat during the last 21 days before MSD – mark them with a special colour or marking, as per Table 1 suggestions. That means for a MSD of 1st May, pre-mating heat recording must start on 7 April with all calved cows painted “Red”. Cows identified as being on heat in weeks 1, 2, and 3 are painted yellow, blue and green respectively, leaving the “red” ones to be seen by the Vet.
    - ▶ To move week 2 expected heats to week 1, all cows with blue paint should get 2 cc PG on the MSD.
    - ▶ On the 7th May (or 7 days after MSD), cows with yellow paint should get 2cc PG.
      - » They will come bulling 2-4 days after (cows rarely come on heat the day after PG).
      - » With this programme you will have AI'd 60 per cent of your cows within 7 days and 90 per cent within 14 days of MSD.
      - » Many of my clients have successfully done it in 2020, with very good calving results in 2021.
  - ▶ As you will see from Table1, I am recommending an early scan, 32-39 days post service. It is done only once per week as outlined.

### KNOW THE SIGNS FOR HEAT:

- ▶ Because every heat missed is €150 lost, it is important that everyone on the farm team are trained to ‘read the signs’ of heat as follows:
  - ▶ Cows coming into heat (duration 6-10 hrs):
    - ▶ Will not stand to be mounted,
    - ▶ Will be smelling other cows,
    - ▶ Attempts to ride other cows,
    - ▶ Displays a moist, red and slightly swollen vulva,
    - ▶ She is restless and bellows.
  - ▶ Cow is on standing heat (for 2-30 hrs, averaging 15 hrs) when:
    - ▶ Hair and skin rubbed off the crest of the tail head,
    - ▶ Dirt marks on flank or back,
    - ▶ Nervous, excitable and restless,
    - ▶ May ride other cows,
    - ▶ May stand with back arched and tail in the air,
    - ▶ Spends more time than usual grazing,
    - ▶ Displays moist red vulva,
    - ▶ There will be a clear mucus discharge from vulva,
    - ▶ May hold the milk,
    - ▶ Frequently changes from their usual order in the milking parlour – often leads the way from the paddock or lags behind.
  - ▶ Cow after heat signs:
    - ▶ Will not stand to be mounted,
    - ▶ Smells other cows,
    - ▶ Clear mucus discharge from vulva.
  - ▶ You, as manager, should train your staff/family by sending them to the cows’ paddock the week before MSD to identify cows in all three categories; get them to write them down.
    - ▶ Involve yourself with them; and after 2-3 days you and they will be much better and comfortable with the task.
    - ▶ They must also use that info in the parlour, having made notes as he/she brings the cows from the paddock, because, once milking starts there is very little time (10-15 secs or 8 in a rotary) to identify heats.

### USE SIRE ADVICE TO SELECT BULLS:

- ▶ This is very simple to operate and the benefits enormous.

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- ▶ Teagasc have set the following AI Bull Team Targets:
  - ▶ EBI €280; Fertility €120; Milk €80; Calving €40; Beef €15+; Health €7+.
  - ▶ They recommend the following number of bulls/herd: 50-100 cows = 7 bulls; 100 -150 = 8; 150-200 = 9; 200-250 = 11; 250-300 = 12; 300-350 = 13; 350-400 = 14.
- ▶ As well as the above Teagasc targets I like to focus on % F & P with the result my recommended bulls (heifers in brackets) are:
- ▶ If using Jersey seriously consider sexed semen.
- ▶ Use a dairy stock bull if you wish to reduce profit by €100 per year for every cow in your herd.
- ▶ If using a beef bull consider synchronising these cows so that they are served 6-10 days early to prevent calving date slippage.

## YOU MUST SYNCHRONISE HEIFERS

- ▶ Anyone who tells you they don't do this is telling you they don't believe research as this is essential if you want compact calving herd.
  - ▶ Because the herds calving date slips by 4 – 6 days each year, you must calve all the heifers in the first 4 weeks of calving, starting 5-7 days before the cows.
- ▶ This can be organised by synchronizing heifers as follows:
  - ▶ Day 1: Apply the heat detection aid - scratch cards or crayons.
  - ▶ Day 1-6: Bull heifers seen on heat.
  - ▶ Day 6: Inject non-bulled heifers with 2cc Prostaglandin.
  - ▶ Day 7-11: Most heifers will come bulling and should be served.
  - ▶ Day 12 -18: Put on scratch card on all heifers,
  - ▶ Day 19 – 24: Heifers (some) will repeat, so AI on standing heat.
  - ▶ This reduces heat detection time from 21 to 9 days.
  - ▶ If 30 per cent of the heifers have not been mated on day 6 do not proceed with this synchronization programme as something is wrong.
- ▶ There are other options – talk to your Vet or Adviser.
- ▶ It is almost certain that in most parts of the country that iodine is deficient or marginal, therefore, put 1cc/ hd/day of Iodine in the water trough for heifers from 1 April – 1 June.

## TARGET GRAZING STOCKING RATES:

- ▶ Aim for the following grazing stocking rates which will free up the remainder of the farm for silage and you can calculate if those acres deliver enough silage for next winter:

Animals/hectare	April – May	June – July
Cows	4.5 to 4.7	3.6
Cattle (Wt. /ha)	2500	2200(kgs)
Calves/ha	22	14

- ▶ If these high stocking rates result in grass being tight you can graze some of the silage ground. But you must make this plan because silage ground will get 100 units N/acre whereas if you depend on taking out surpluses off grazing paddocks they will only have got less than 40 units/acre.
- ▶ This plan ensures a large 1st cut which is cheapest silage, and maximise the response from nitrogen.
  - ▶ This is an essential principal in trying to grow more grass from less availability of N.
  - ▶ As well as grazing slightly higher covers, which must be matched to grazing SR/ha.

## SHORT OF GRASS OPTIONS?

- ▶ All the signs are there that we will be short of grass in April: Mainly because the rotation length from 1st grazing will have been too short. Nitrogen was applied too late and too little used to date.
- ▶ The first step in overcoming the problem is: Estimate the average farm cover (AFC) by measuring the farm grass cover.
- ▶ The target AFCs are:
  - ▶ Moorepark type soil: 150-200 kgs DM per livestock unit.
  - ▶ Solohead type (wettish) soil: 210 Kgs DM per livestock unit.
- ▶ Therefore, for example, if you are stocked at 2.5 cows per hectare you need the following average farm covers on the grazing area in early April:
  - ▶ Dry Land: 500 Kgs DM per hectare.
  - ▶ Wettish/heavy land: 525 Kgs DM per hectare.
  - ▶ Calculate your own required cover for your stocking rate.
- ▶ The cheapest way to overcome grass shortage on the grazing area is to graze the silage ground a second time by delaying the closing date.

Table 1: "Why Wait Programme" for 1st May MSD\* or any MSD\*

Group	Heat in the Period pre-MSD (*)	Colour Paint on cows back	Expected Period Post MSD* (days)	PG Date to achieve 2 to 1 and 3 to 2	Colour Paint	Scan Period	Colour Paint	The recommended weekly Scan day will be this day post MSD*	Actual Scan Date for a 1st May MSD*
1.	-21 to -14 days	Yellow	0 – 7 days	None	Yellow	32 to 39 days	Yellow	+39 days	8th June
2.	- 14 to – 7 days	Blue	7 to 14 days	1st May or MSD	Blue	39 to 46 days	Blue	+46 days] (Wk 3 to wk 2 cows)	15th June
3.	- 7 to 0 days	Green	14 to 21 days	7th May or MSD +7 days	Green	46 to 53 days	Green	+53 days	22th June Very Few

(\*) MSD = Mating Start Date

TABLE 2: My Top 15 Bulls - ranked under six headings  
(Source: Various Catalogues & Active Bull List)

RANK	EBI	FERTILITY	MAINTENANCE	Kgs MS	% PROTEIN	% FAT
1	FR6484	FR6718	FR4965	FR5803	FR6076	FR6076
2	FR6547	FR6469	FR6229	FR6475	FR4547	FR 6517
3	FR6499	FR6978	FR6625	FR7011	FR5851	FR5851
4	FR6481	FR6625	FR6628	FR6499	FR6472	FR6978
5	FR7020	FR7014	FR6547	FR6484	FR7026	FR6628
6	FR6472	FR6484	FR6617	FR7020	FR6049	FR6475
7	FR6978	FR6481	FR4845	FR6628	FR6978	FR4571
8	FR6718	FR6433	FR7011	FR7026	FR5515	FR5515
9	FR7026	FR6517	FR6484	FR5860	FR6073	FR7020
10	FR6475	FR6954	FR6031	FR6472	FR4845	FR6718
11	FR6469	FR6031	FR5515	FR6616	FR6547	FR6472
12	FR6625	FR6547	FR5803	FR4965	FR6481	FR4965
13	FR7014	FR7020	FR5851	FR6481	FR7020	FR6229
14	FR7011	FR6535	FR6433	FR5530	FR6475	FR6481
15	FR6954	FR5860	FR6073	FR6954	FR6517	FR6049

- ▶ Because of the ground conditions in Feb/Mar the objective must be not to complete the first round before:
  - ▶ Dry Land: 5-12th April
  - ▶ Heavy Land: 12-18th April
  - ▶ More precisely when you have 1200-1300kgs DM cover on 1st couple of paddocks on the 2nd rotation.
  - ▶ Use the principle of “grass grows grass”!
- ▶ The second rotation must not end before 1st May, or more precisely, until there is at least 1550 on the first 3-4 paddocks for the 3rd rotation.
- ▶ Farmers who are into budgeting could push these dates back by 3-5 days.
- ▶ Meals, may have to be fed on most, if not all farms but because the high cost this year it must be minimum.
  - ▶ 2-4 Kgs can be justified where a grass budget shows that need
  - ▶ Eighteen (18) kgs grass DM will sustain 26 l/day (2-2.2 kgs MS). Approx 1 kg meal must be provided for every kg of grass under this allocation.
  - ▶ The % P in the meal should be 12-14% P.
- ▶ Feeding pit silage should be seen as a last resort at this time of year.
- ▶ Poached or damaged paddocks need TLC care, on the 2nd grazing graze on dry days only.
- ▶ Most farmers are not grazing out paddocks well enough in April:
  - ▶ It is a fundamental



requirement of good grassland management, particularly in April.

- ▶ Every 1cm post grazing height remaining represents 250kg DM. which will feed 14 cows for one day.
- ▶ What does 3.5 – 4.0 cms post grazing look like? Learn! Buy a plate meter for the discussion group to teach yourselves this most important skill.
- ▶ A big advantage of tight (3.5 – 4 cms) grazing in April-May is you will have:
  - ▶ Thicker grazing pastures for the remainder of the year.
  - ▶ The growing point of the plant will be kept low, near the ground, so that less stem will develop and so reduce the need for topping later in the year.

## USE PROTECTED UREA!

- ▶ Protected urea is 90 per cent the cost of CAN and about 10% more expensive than urea.
- ▶ Trials have shown that it grows as much grass as CAN and there are lower N losses than urea.
- ▶ It can be spread throughout the year, being more

efficient on volatilisation losses, nitrous oxide losses and will reduce greenhouse gas and ammonia emissions.

- ▶ Use Nitrogen NOW to match your stocking rate during the following months, May and June, as follows:-

Stocking Rate May/June (L.U/ha)	N(Urea) Units/Acre (Whole farm)		
	Apr	May	N by 15th April
3.74 or less	23	23	69
3.75 – 4.0	30	28	123
4.0 +	40	40	123

- ▶ If you haven't adequate P & K on by now apply 2.25 bags 18:6:12 per acre on grazing area.

▶ Sulphur with the Nitrogen should be used on all soils from early April: Use 5-20 units per acre.

## SHORT REMINDERS

- ▶ As there is big demand over supply for bulling heifers now, you should plan to be bulling heifers that are only 250 kgs now and bull on 15 May - 1 June. Feed these 2kg meal (barley/pulp) with very good quality grass and delay service to mid/late May.
- ▶ Farmers with poor EBI's should put all their cows in-calf to beef breeds and do a contract with some very good farmer to supply you heifer calves next year.
- ▶ White clover should either be stitched in to a few swards after the second grazing or sown in grass seed mixtures where there are no weeds in the pasture.
  - ▶ If pastures to be reseeded had docks etc they should be reseeded without clover, then sprayed at the seedling stage and clover stitched in subsequently.
  - ▶ Take good advice on this.
- ▶ With N restrictions coming consider sowing HI ryegrasses with perennial grass mixes.
- ▶ You MUST weigh R2's now to monitor target weights. Contract rearers must be asked to submit R1 and R2 weights every 3 months at minimum.
- ▶ OAD milk cows losing BCS and late calvers so that they will recycle early.
- ▶ Metricheck all cows one month before MSD.

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