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ISSUE 91 - September 2020  www.dairygoldagri.ie
Dear Milk Matters Reader,

Within this month’s Nutrition Matters, we explore how much concentrate will need to be fed for the month of September to allow your farm to grow enough grass to meet its demand for the month. Milk lactose is lower this year than it has been for the past few years. It is important that we are mindful of this and keep a feeding plan in place to maintain lactose as high as possible for as long as possible.

Hi-pro Ecolac should be your feed of choice now. It is formulated to maintain autumn milk production while being environmentally responsible.

In Grass Matters, John Maher will discuss the importance of keeping grass in spring calved cows diet as long as possible. He also discusses which fertiliser we should be using right now.

In Fertility and Breeding Matters, Dennis Howard looks at our priorities for the months. Right now, we should be pregnancy testing our cows, planning for dry off, vaccinating our cows against salmonella and preventing lameness.

While John Vallence, Edmond Curtin and Karl Skehan look at maximising the feed value of maize silage through correct harvesting, the value of alternative feeds and the important questions to ask before purchasing a dry cow mineral.

Yours Sincerely,

Liam Stack

Liam Stack M.Agr.Sc
RUMINANT TECHNICAL MANAGER, DAIRYGOLD AGribusiness
THE YEAR TO DATE

By LIAM STACK, M.Agr.Sc, Ruminant Technical Manager

Grass Growth

Milk production to week 33 (figures based on ICBF cow numbers):

<table>
<thead>
<tr>
<th></th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total annual Milk Yield per cow in Dairygold (kg)</td>
<td>3981</td>
<td>3309</td>
<td>4021</td>
<td>4071</td>
</tr>
<tr>
<td>Total annual Milk Solids per cow (kg)</td>
<td>295</td>
<td>283</td>
<td>298</td>
<td>305</td>
</tr>
<tr>
<td>YTD Average Protein %</td>
<td>3.40</td>
<td>3.42</td>
<td>3.36</td>
<td>3.46</td>
</tr>
<tr>
<td>YTD Average Fat %</td>
<td>4.02</td>
<td>4.00</td>
<td>4.04</td>
<td>4.02</td>
</tr>
<tr>
<td>YTD Average Lactose %</td>
<td>4.92</td>
<td>4.91</td>
<td>4.82</td>
<td>4.81</td>
</tr>
</tbody>
</table>

Milk Protein % (weeks 1-33)

Milk Butterfat % (weeks 1-33)

Milk Lactose % (weeks 1-33)
What is the role of concentrates?

1. Prolong the Grazing Season

As we reach September and beyond, we need to extend our rotation lengths and build a wedge of grass to carry us through to housing. We need to spread fertiliser to encourage maximum grass growth and lower our farms demand for grass.

Across the month of August, we should have increased our farm covers to c.1000kgDM/ha from 500-600kgDM/ha. We need to continue building covers to mid-September. From there, if we’ve planned correctly, we should have a nice wedge of grass to carry us to housing.

Across the early month of September, we generally need to build a further 100-200kg grass DM per Ha depending on our farms stocking rate.

Without concentrates your cows will eat 17kg DM of grass daily (higher yielding cows will have a higher demand of c.25%). At a stocking rate of 2 cows per Ha on the milking platform that’s a grass demand of 34kg DM daily, at a stocking rate of 3 cows per Ha that’s a demand of 51kg DM daily. Every 3 kg of concentrates you feed drops grass demand by 2.5kgDM/day per cow. At stocking rates of 2.5+ a minimum of 3 kg of concentrates is required to allow grass covers to build.

At higher stocking rates up to 6 kg and/or grass silage may be required.

In previous years if you have been building these covers without the additional feeding you have been either:

- under feeding your cows to build covers, this will start a yield and lactose decline
- not building your cover adequately forcing early housing

<table>
<thead>
<tr>
<th>Predicted September growth rate (kg/DM/Ha)</th>
<th>45</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stocking rate</td>
<td>2.5</td>
</tr>
<tr>
<td>Grass growth required per day to meet your herds demand (kg/DM/Ha)</td>
<td></td>
</tr>
<tr>
<td>Feeding 0kg in the parlour</td>
<td>43</td>
</tr>
<tr>
<td>Cover built per month (kg/DM/Ha)</td>
<td>38</td>
</tr>
<tr>
<td>Feeding 3kg in the parlour</td>
<td>36</td>
</tr>
<tr>
<td>Cover built per month (kg/DM/Ha)</td>
<td>134</td>
</tr>
<tr>
<td>Feeding 6kg in the parlour</td>
<td>30</td>
</tr>
<tr>
<td>Cover built per month (kg/DM/Ha)</td>
<td>231</td>
</tr>
</tbody>
</table>

2. Magnesium, trace elements and vitamins needed

a. Leafy autumn grass is high in potash, therefore Mg is required to guard against tetany
b. Autumn grass is low in Se, Cu, I, Zn

3. Manage BCS

Milking cows gain condition more efficiently than dry cows. Take action now to ensure cow BCS is on target. A failure to correct BCS now will leave cows with a BCS of 2.75 or less in October requiring special attention. These cows will need high feeding rates at grass or an extended dry period.
4. Maintain milk lactose

Milk lactose is affected by stage of lactation and energy nutrition. Every effort must be taken to keep lactose percentages as high as possible now to prevent milk price deductions and forced early drying off.

Lactose levels of less than 4.45% affect your monthly balance score card, if your lactose levels are less than 4.2% it will affect both your balance score card and monthly base price.

Reasons for low lactose - Low energy intake:
Autumn grass is generally lower in DM, sugar and UFL than summer grass. As we move into the autumn more concentrates are required for the same level of production as is required by summer grass. Higher levels of concentrate feeding alone is no guarantee of high levels of energy intake or milk lactose %. Higher levels of concentrates must come in conjunction with an overall higher daily intake.

For example:
Farmer B below is feeding 2kg more concentrates to his cows than Farmer A but he is allocating 4kg DM less grass daily. His cows total daily intake is 15% lower (15.4kg DM daily vs 13.2 kg DM daily) and energy intake is 12% lower (14.6 UFL vs 12.9 UFL) than farmer A.

Farmer B despite feeding more concentrates will have a lower lactose.
Reason = over estimating grass allocation to his cows

<table>
<thead>
<tr>
<th></th>
<th>Farmer A</th>
<th>Farmer B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grass Allowance (kgDM)</td>
<td>12</td>
<td>8</td>
</tr>
<tr>
<td>Concentrate feeding (kg Fresh)</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>Overall intake</td>
<td>15.4</td>
<td>13.2</td>
</tr>
<tr>
<td>UFL intake</td>
<td>14.6</td>
<td>12.9</td>
</tr>
</tbody>
</table>

What to do if lactose is low
As with all milk constituents your bulk tank is the best place to assess your cow’s diet. If your lactose is lower than it should be or falling faster than it should be you need to allocate more feed (total) to your cows.

If farmer B above allocates 2kg DM more grass to his cows his lactose will improve.

If farmer B is heavily stocked and cannot afford to allocate more grass to his cows, he can either:
- feed the 6 kg of concentrates + an additional 2kg of extra concentrates to his cows
- feed the 6 kg of concentrates and add an additional 3kg DM grass silage (1 bale per 75 cows per day) to his cows

Maintaining milk volume during adverse weather:
Milk volume should decline at no greater than 2% per week or 10% per month. Volume declines of greater than this are an indication of poor energy nutrition. Once volume starts to decline it’s very hard to stop. This is especially true as we approach late lactation. After a production decline adding energy back into the diet is not guaranteed to give a volume increase. However, it will slow the drop back to a more natural rate.

Average milk volume supplied to Dairygold have declined by 5% between weeks 33 and 34. This compares to a 2% average for 2017 to 2019.

Lower grass dry matters coupled with cows standing with the backsides to the weather leads to a big drop in overall cow energy intakes. During these periods we need to ensure we are holding cow intakes.

ACT QUICKLY, A late lactation decline in volumes is very hard to correct. Up concentrate levels and consider some silage to hold intakes and preserve milk volumes.

Milk supply profile 2017-2020

To maintain energy intake:
1. Continue to utilise the best grassland management techniques. Maintaining quality grass in the diet for as long as possible guarantees your cows are getting access to the highest energy feedstuff

2. Be-wary of low dry matter grass
Wet grass has the potential to lower energy intakes by 30-50% on individual days.

3. Feed concentrates when and where appropriate
When grass is very wet up the concentrate feeding levels to compensate for the lower grass dry matter intake.
VALUE OF ALTERNATIVE FEEDS

By EDMOND CURTIN, B.Agr.Sc,
Dairy Area Sales Manager

Your cows diet can be made up of; grass silage, cereal silages (wholecrop wheat, barley, triticale), maize silage, concentrates, straw, hay, wet feeds (brewer grain, traffordgold), fodder beet, rape, kale; to mention a few.

When trying to establish the value of a feed source we must take the energy (UFL) and protein (PDI) content into account.

For example, valuing fodder beet on energy only will give a valuation of €41 pet Tn (after losses) vs Barley.

Valuing fodder beet from an energy and protein standpoint vs barley and soya would give a valuation of €39 pet Tn (after losses).

It is important to consider both when assessing your options.

VALUE OF FEEDSTUFFS RELATIVE TO BARLEY AND SOYABEAN MEAL

<table>
<thead>
<tr>
<th>Feedstuff</th>
<th>Value after Losses (per t as fed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grass silage very good quality (77 DMD)</td>
<td>€46</td>
</tr>
<tr>
<td>Grass silage “good quality” (72 DMD)</td>
<td>€38</td>
</tr>
<tr>
<td>Grass silage “poor quality” (65 DMD)</td>
<td>€30</td>
</tr>
<tr>
<td>Maize silage ~ 33% starch</td>
<td>€50</td>
</tr>
<tr>
<td>Maize silage ~ 30% starch</td>
<td>€48</td>
</tr>
<tr>
<td>Maize silage ~ 25% starch</td>
<td>€47</td>
</tr>
<tr>
<td>Whole crop cereal silage ~ 4T winter wheat</td>
<td>€51</td>
</tr>
<tr>
<td>Whole crop cereal silage ~ 3T spring barley</td>
<td>€51</td>
</tr>
<tr>
<td>Whole crop cereal silage ~ 2T spring barley</td>
<td>€47</td>
</tr>
<tr>
<td>Brewer’s grains</td>
<td>€61</td>
</tr>
<tr>
<td>Eornagold</td>
<td>€94</td>
</tr>
<tr>
<td>Trafford Gold</td>
<td>€118</td>
</tr>
<tr>
<td>Apple Pulp</td>
<td>€25</td>
</tr>
<tr>
<td>Sugar beet - tops and leaves</td>
<td>€23</td>
</tr>
<tr>
<td>Fodder beet</td>
<td>€39</td>
</tr>
<tr>
<td>Sugar beef</td>
<td>€47</td>
</tr>
<tr>
<td>Potatoes</td>
<td>€46</td>
</tr>
</tbody>
</table>

For more information please contact our inside sales team on 022-31644 or your Area Sales Manager
SWITCH AND SAVE ON YOUR FARM INSURANCE – YOU’VE NOTHING TO LOSE.

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Zurich Insurance is regulated by the Central Bank of Ireland.
Hi-Pro ECO LAC Dairy

By SUSAN CASEY, B.Agr.Sc, Area Sales Manager

Hi-Pro ECO LAC is designed around the core values that extend right throughout the Dairygold quality feeds range. It is:
- High in UFL, energy is the first limiting factor in animal nutrition.
- Has a high inclusion of maize meal and digestible fibres, to complement grazed grass, maintaining rumen function and maximise the levels of milk protein produced. With autumn grass being low in sugars, a high level of maize meal is very important for driving on milk protein %.
- Has a good PDI balance to maximise milk production
- Has a high inclusion of trace minerals and vitamins included pro-rata with the calmag
- Contains Agolin, a natural rumen modifier that increases yield.

Agolin
Agolin is a blend of high quality plant active ingredients that alters the rumen bacterial population to lower methane emission, increase milk yield and improve cow fertility.

KEY POINT: Agolin® Ruminant has been certified by the carbon trust to reduce enteric methane emissions in cattle by 10% per day (± 4%) and by 14.4% per litre fat corrected milk.

How it works:
Energy lost as methane can account for up to 8% of the gross energy you feed your cows. Preventing or lowering this loss makes more of this potential feed energy available for your cows. Your cow can then use this extra energy to:
- produce more milk,
- maintain body condition score,
- go back in calf.

KEY POINT: Reduced Methane losses is a positive from an environmental and a production standpoint.

Results from the Meta-analysis of 20+ animal trials

<table>
<thead>
<tr>
<th>Increased Milk Yield: Fat and Protein corrected Milk (FPCM):</th>
<th>+4.1%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methane:</td>
<td></td>
</tr>
<tr>
<td>- 8.8% per/cow per day</td>
<td></td>
</tr>
<tr>
<td>- 10% per kg of milk</td>
<td></td>
</tr>
<tr>
<td>- 12.9% per kg DMI</td>
<td></td>
</tr>
<tr>
<td>Food Conversion Efficiency:</td>
<td></td>
</tr>
<tr>
<td>+ 4.4%</td>
<td></td>
</tr>
</tbody>
</table>

Fertility:
- Increase Backfat 21%
- AI attempts -9%

If you have any queries on Hi-Pro Ecolac please contact our inside Sales Team on 022 31644, your local area sales manager or your branch agri lead.
If you’re buying your dry cow minerals now be cautious and ensure that your minerals are going to meet the requirements of the cow.

Mineral Feeding Pre-Calving
The objectives of a Dry Cow Management Program are for the cow to calve:

1. In an optimum calcium status; This is a function of the silage mineral status and the level mineral of Magnesium and Vitamin D3 in the pre-calving mineral level.
2. With reduced metabolic disorders; This is influenced by the mineral Magnesium, Iodine, Selenium and Vitamin E & A levels.
3. In an optimum immune status; This is influenced by the mineral, Vitamins and trace elements (Selenium and Vitamins A & E).
4. Producing high quality colostrum; This is influenced by mineral and vitamin supplementation.

**Mineral must haves:**
A mineral that is formulated to meet the must haves in the accompanying tables will result in (assuming BCS, energy and protein nutrition and calving management are correct):
- Reduction in sub-clinical milk fever
- Less retained placenta
- Reduced calf mortality

**Enhanced immunity and thrive**
**Improved cow fertility**

<table>
<thead>
<tr>
<th>Element</th>
<th>What It Effects</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mg</td>
<td>Milk Fever</td>
<td>A pre-calver mineral should contain 30+ grms per day</td>
</tr>
<tr>
<td>Cu (Copper)</td>
<td>Fertility, immune status, production</td>
<td>A pre-calver mineral should contain c.400mg/day. To limit losses and maximise cow availability c.25-30% of this Cu should be in the bioplex form</td>
</tr>
<tr>
<td>Zn (Zinc)</td>
<td>Lameness, SCC, Mastitis, Production</td>
<td>A pre-calver mineral should contain c.500mg/day. To limit losses and maximise cow availability c.25-30% of this Zn should be in the bioplex form</td>
</tr>
<tr>
<td>Se (Selenium)</td>
<td>Retained Cleansings, Colostrum Quality, Afterbirth, SCC, Mastitis</td>
<td>A pre-calver mineral should contain c.5mg/day. To limit losses and maximise cow availability c.25-30% of this Se should be Seipex</td>
</tr>
<tr>
<td>Iodine</td>
<td>Weak Calves, Embryonic Deaths</td>
<td>A pre-calver mineral should contain, but not exceed 60mg/day.</td>
</tr>
<tr>
<td>Vitamin A</td>
<td>Retained Placenta</td>
<td>A pre-calver mineral should contain &gt;60,000 iu/day.</td>
</tr>
<tr>
<td>Vitamin D</td>
<td>Milk Fever</td>
<td>A pre-calver mineral should contain &gt;12,000 iu/day.</td>
</tr>
<tr>
<td>Vitamin E</td>
<td>Retained Cleansings, Colostrum Quality, Afterbirth, SCC, Mastitis</td>
<td>A pre-calver mineral should contain &gt;500 iu/day.</td>
</tr>
</tbody>
</table>
Have you had an issue with Metabolic Disorders on your farm?

In a recent survey of 155 Irish Farms, a dramatic decrease was shown in the incidences of metabolic disorders following the use of the correct Pre-calver mineral. This can give annual savings of up to €810 per farm.

If you would like free independent advice from a highly experienced team of qualified advisors, simply let us know in Branch or by contacting your local Dairygold representative.
DAIRYGOLD GO-TO FARM INITIATIVE

FARMER PROFILE: Martin O’Brien, Ballykitt, Mallow, Co. Cork

Martin O’Brien and his son Jerome milk 370 cows near Ballyclough with assistance from relief staff. Martin was a member of the Leanfarm pilot group and joined the Go To lean farmers that host waste walks. The O’Briens have hosted many Leanfarm waste walks sharing lean ideas among fellow Dairygold milk suppliers within the Mallow and surrounding regions. Martin has been involved in farm Discussion Groups over many years which has helped grow his business. Leanfarm has helped him to drive on again and seek out new ideas to continue his farm growth.

“Adopting new techniques and modern farming practices will have a positive effect on all our metrics. If the hours worked are reducing on our farm this will reduce the hours worked per cow, reducing the labour cost on the farm.”

“We are advocates for treating and using relief staff appropriately. We do not ask them to do jobs we wouldn’t do ourselves. We are flexible with them in the quiet periods, this ensures they are available for the times of need.”

According to Martin the following are benefits of having reliable staff:

- Adds time to our roster
- Allows for a change of focus
- Allow you to deviate personal time & achieve a better work life balance.
- Allows us to create opportunities on the farm or outside the farm.

An overview of the Labour effective measures on the O’Brien Farm

Milk Times/Frequency:
“The milking times we operate are 7am in the morning and 3.30pm in the afternoon. This is a 16-8 hour milking interval. It works extremely well on our farm”.

Better lifestyle. “The milking is completed at 5-5.30pm which allows us to spend time with family and on hobbies”.

Happier staff. “Fixed afternoon milkings at 3pm to 3.30pm ensure a consistent finishing time. This in turn helps retain staff and makes your farm more attractive for employees”.

Focused. “Milking at 3pm helps organise my day. We aim to get a lot of farm jobs done between 10am-3pm. There is of course the occasional evening we run late after milking, at silage for example, but we find it important not to let the afternoon milking slip”.

Grazing efficiencies: “I have good roadways allowing me to utilise as much grass as possible. We have lots of reels and posts in a fixed location in the yard. Cows have the best appetite after milking, so offer grass first and silage after if needed”.

“Grass measuring reduces the amount of time topping and improves grass utilisation. Multiple entrance points to paddocks, Water troughs located in the centre of paddocks When cows are at grass in spring, along with the yield increase, cows’ udders are cleaner. This reduces the milking time by 10 minutes”.

Quad/Bobman: “The Quad has been the best investment for us in the past year, it has saved ½ to a full labour unit, saves 1hr per day. The Bobman limes all the cubicles during the spring and autumn months saving circa 1.5hrs per day”.
There’s no point stretching the work to fill the day, there are enough busy days.

Benefits Delivered to the O’Brien Farm

- Significant time savings on the necessities.
- Better forward planning.
- More focus on technical advancements.

The O’Brien’s view on the main BENEFITS of Leanfarm

“There’s no point stretching the work to fill the day, there are enough busy days”
Dairygold Agribusiness
your sustainability Partner

Soil Sampling
- improves pH
- improves soil fertility
- efficient use of fertiliser
- improves farm profitability

Targeted Fertiliser Plan for your Farm
- We will recommend where you will get most benefit from your farm slurry
- We will plan field by field, month by month, NPK application
- We will advise you on how much lime each field should receive over the next 3 years

Protected Urea products – to lower ammonia and nitrous emissions
- Within Dairygold, we have a range of protected urea products. These products are powered by differing additives some coating the urea granule, some contained within the CCF.

These products:
- Decrease the ammonia losses by 84% when compared to urea
- Decrease the nitrous oxide emissions by 73% when compared to C.A.N.

Natural Feed Additives - to lower methane and greenhouse gas emission
- Our Post Calver Gold and Hi Pro Ecolac ranges contain natural feed additives that have been accredited by the Carbon Trust to reduce greenhouse gas and methane emission by kg of fat and protein corrected milk.

For more information on these products or to discuss how we can work together to achieve greater environmental sustainability please contact your Area sales manager, your local branch Agri lead or our inside sales department. Inside Sales Team on 022 31644
As an industry we are striving to grow more grass in a sustainable manner. Grass is a cheap, high energy feedstuff. Milk produced from it has enhanced human health benefits and a lower carbon footprint when compared to milk produced from grain.

The foundation to growing this grass sustainably is good soil fertility. Correcting soil pH is the same as spreading 2.5 bags of CAN/acre/year. It unlocks soil P and K and it leads to a better grass growth response to freshly applied N, P and K.

In the recent past our soil fertility has improved but we have still only 21% of our soils in optimum health.

Dairy soil health
- 21% of soils have optimum pH, P & K
- 59% of soils with a soil pH >6.2 (3% increase)
- 48% of soils at P index 1 & 2 (7% Decrease)
- 41% of soils at K Index 1 & 2 (7% Decrease)

The proportion of soils in index 4 is now greater than index 3. Soils are like a vault when it comes to P. The depth of the vault varies with soil type. However, once the ‘vault’ is full, any additional P is at a greater risk of ending up in our watercourses. As you fix your soil pH you should release more of the vaulted P, making it available for growth. If your soils are index 4 you should not be spreading chemical P.

The annual cost of soil sampling is roughly 50 cents/acre/year. This is the same cost as 0.5 units/acre of P fertiliser.

Dairy soil health
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KEY POINT: By soil testing, you can save €23/acre on fertiliser. This is on land with high P and K levels (Index 4) and stocked at 2 dairy cows/ha (0.8cows/acre) *smartfarming.ie

KEY POINT: Soils with P Index 3 will yield more grass DM than a soil in P Index 1. Approximately 0.6t/acre (or 1.5t/ha) This extra grass could be worth approximately €180/acre (assuming all other nutrients are optimum). *smartfarming.ie
Within Dairygold we are dedicated to working with you to improve your soil’s fertility and your farm’s nutrient use efficiency. We have a team of soil samplers available to sample your farm, our analytical service laboratory in Lombardsatown, Co. Cork, is INAB accredited and we have a team of Area Sales Managers that are trained in the nutrient requirements of your crops and that are available to develop a bespoke fertiliser plan for your farm.

For accurate results when taking soil samples:
- Do not sample within 12 weeks of spreading slurry or chemical P
- Take a soil sample every 4 ha /10 ac at a minimum - Sample the area in a W pattern, taking a minimum of 20 cores per sample area
- Ensure the sample depth is 10cm
- Take different samples from areas that are different soil types, cropping history, slope drainage etc
- Avoid any unusual spots like old fences, ditches, dung or urine patches, drinking troughs etc.

Key Point: Soils with P Index 3 will yield more grass DM than a soil in P Index 1. Approximately 0.6t/acre (or 1.5t/ha) This extra grass could be worth approximately €180/acre (assuming all other nutrients are optimum). 

*smartfarming.ie
Steps to improving soil fertility:

1. GET YOUR SOIL TESTED - Soil testing and fertiliser planning are key requirements for any successful farm and should be carried out during the winter period in advance of fertiliser purchases. Dairygold’s analytical service laboratory in Lombardsatown, Co. Cork provide a comprehensive sampling and testing service from our lab at competitive prices. Please contact our Inside Sales Team on 022 31644, your Area Sales Manager or your local branch to arrange soil sampling.

2. ADDRESS THE pH OF THE SOIL - Farmers should aim to maintain mineral soils at pH levels of 6.3.

3. OPTIMAL P & K INDICES - Aim for a target index of 3 for both Phosphorus and Potassium.

4. SLURRY & MANURES - Apply slurry to silage ground and fields that are index 1 and 2 for Phosphorus and Potassium.

5. BESPOKE FERTILISER PLAN - Use Dairygold field by field fertiliser programme to build a bespoke fertiliser programme that maximises your farms nutrient use efficiency (NUE) through the targeted application of slurry, lime, chemical nitrogen, phosphorus and potassium.

Dairygold’s paddock by paddock customised fertiliser programme.

Our unique fertiliser planner maximises your farms nutrient use efficiency (NUE) through the targeted application of slurry, lime, chemical nitrogen, phosphorus and potassium.

1. Soil Fertility Status:
The Dairygold fertiliser programme identifies the proportion of your farms on target for lime, phosphorus and potassium.

2. Bespoke fertiliser plan to drive efficiency growth.
The Dairygold fertiliser programme identifies which fields need slurry, chemical phosphorus and potassium. It pulls all this information together to generate:
• The total nitrogen and phosphorus (kg) required

Total Nitrogen and Phosphorus recommended within the plan

**Yearly Kg N & P used within the Fertiliser Plan**

<table>
<thead>
<tr>
<th></th>
<th>Kg</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nitrogen</td>
<td>5540</td>
</tr>
<tr>
<td>Phosphorus</td>
<td>229</td>
</tr>
</tbody>
</table>

• The total tonnes of the differing products required for the year

**Yearly Fertiliser Requirement (T)**

<table>
<thead>
<tr>
<th>Product Description</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>Protected Urea 46%</td>
<td>6.0</td>
</tr>
<tr>
<td>Sweet 18s + S + Na + Mg</td>
<td>3.3</td>
</tr>
<tr>
<td>Protected Urea 38% N + 7.5% S</td>
<td>4.4</td>
</tr>
<tr>
<td>GREENGROW CUT 21-2-2-10 + S</td>
<td>1.4</td>
</tr>
</tbody>
</table>

• A round by round and field by field fertiliser plan

A field by field fertiliser plan for slurry and index builders. Index builders are straight phosphorus or potassium. These products can be used to build low phosphorus and potassium indexes.

3. Field by field and year by year liming plan:

For more information on how to maximise your nitrogen use efficiency through our Sustainable Soils Service please contact our inside Sales Team on 022 31644, your Area Sales Manager or your local branch to arrange soil sampling.
Francis Collins

Farm:
Francis Collins milks 100 cows on his family farm in Glenmore, Strand, Co. Limerick on a milking platform of 80 acres. His cow type is a Holstein Friesian delivering 490 kg of milk solids per cow. He took over the farm twenty years ago from his father Jeremiah and has doubled his cow numbers in that time. His grazing season length extends from Mid-March to late October. His soil type is a heavy natured mineral soil with pockets of black soil with a shale bedrock. He is part of the Soils Pilot Project in the Dairygold / Teagasc Joint Programme.

Adapting to changing times:
Francis is continually looking to improve efficiencies within the farm gate, trying to produce more milk solids per hectare while minimising input costs. Through focusing on soil fertility and improved grass management, he has reduced his reliance on concentrates to bridge feed deficits during the year. He now feeds on average 650 kg of concentrates per cow down from a previous average of 1.2 tonne. Up to a 120 tonne of lime, at two tonne/acre has been spread on his farm in an effort to get the farm pH to 6.3. He has experienced no issues with softening of ground from lime application and has only seen benefits in his farms potential to grow more grass. He is using protected urea for the first time this year and has used a local contractor to spread his spring slurry with a chord and dribble bar attachment to maximise the grass growing potential of the slurry.

Farmer view:
Francis believes the visual representation of his soil results in picture format are very practical (Figure 1). He laminated the maps and placed them in the milking parlour dairy. It has made him aware on a daily basis of where Lime is required and which fields are lacking or sufficient in either phosphorus (P) or potassium (K). This targeted approach to fertiliser application has led to him reducing his chemical fertiliser P and K use by 40 % over the past two years. The colour co-ordinated pH, P and K maps simplify his fertiliser choices for each paddock and contribute hugely to making it happen in terms of soil fertility improvements.

Figure 1. Soil fertility maps and fertiliser recording board.
GRASS MATTERS

By JOHN MAHER, Dairy Specialist, Teagasc Moorepark

Outlined below is the Weekly PastureBase Ireland report for August 18th. It demonstrates the average growth rate of 70 Kg DM/ha/day which is above normal for August on most farms. Demand of the herd is about 18 kg DM/ha lower.

-a growth surplus of 13kg /ha above demand of the herd for the rest of the month (growth rate of 65 kg/day for 13 days), therefore there should be a surplus of 170 kg DM/ha by September 1st. Add this 170 kg/ha to the AFC of 325 kg/ha and AFC will be about 1000 kg DM/ha at a stocking rate of 3.2cows/ha.

At this point in time, the average farm on Pasturebase is on target for September 1st in terms of grass supply!!

However weather conditions have been challenging, Strip grazing is necessary at times.

PastureBase Ireland Current Performance (August 18th):

<table>
<thead>
<tr>
<th>AFC</th>
<th>Stocking Rate</th>
<th>Cover/LU</th>
<th>Growth</th>
<th>Demand</th>
<th>Pre-Grazing</th>
</tr>
</thead>
<tbody>
<tr>
<td>825 kg DM/ha</td>
<td>3.2 LU/ha</td>
<td>258 kg DM/LU</td>
<td>70 kg DM/ha</td>
<td>52kg DM/ha</td>
<td>1671 kg DM/ha</td>
</tr>
</tbody>
</table>

This is before any additional land is brought into the farm for the cows or possibly replacements removed from the grazing platform to outfarms.

Outlined below are the targets for autumn for different stocking rates on the milking platform.

AUTUMN GRAZING TARGETS

<table>
<thead>
<tr>
<th>Date</th>
<th>Cover/Cow (Kg DM)</th>
<th>Average Farm Cover (Kg DM/HA)</th>
<th>Rotation Length</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>STOCKING RATE OF 2.5 LU/HA</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1st September</td>
<td>300</td>
<td>750</td>
<td>30 Days</td>
</tr>
<tr>
<td>Mid-September</td>
<td>400-450</td>
<td>1,000-1,100</td>
<td>35 Days</td>
</tr>
<tr>
<td>1st October</td>
<td>400</td>
<td>1,000</td>
<td>40 Days</td>
</tr>
<tr>
<td>1st November</td>
<td><strong>60%+ of your grazing platform should be closed for Spring at this stage</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fully Housed</td>
<td></td>
<td>600</td>
<td></td>
</tr>
<tr>
<td><strong>STOCKING RATE OF 3.0 LU/HA</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1st September</td>
<td>330</td>
<td>990</td>
<td>30 Days</td>
</tr>
<tr>
<td>Mid-September</td>
<td>370</td>
<td>1100</td>
<td>35 Days</td>
</tr>
<tr>
<td>1st October</td>
<td>380</td>
<td>1150</td>
<td>40 Days</td>
</tr>
<tr>
<td>1st November</td>
<td><strong>65%+ of your grazing platform should be closed for Spring at this stage</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fully Housed</td>
<td></td>
<td>650</td>
<td></td>
</tr>
<tr>
<td><strong>STOCKING RATE OF 3.5 LU/HA</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1st September</td>
<td>280</td>
<td>980</td>
<td>30 Days</td>
</tr>
<tr>
<td>Mid-September</td>
<td>340</td>
<td>1200</td>
<td>35 Days</td>
</tr>
<tr>
<td>1st October</td>
<td>335</td>
<td>1175</td>
<td>40 Days</td>
</tr>
<tr>
<td>1st November</td>
<td><strong>75% of your grazing platform should be closed for Spring at this stage</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fully Housed</td>
<td></td>
<td>700-750</td>
<td></td>
</tr>
</tbody>
</table>
The focus of grazing management during September is to build up grass for later in autumn and thereby increase the number of days at grass in October/November. However, paddocks need to be cleaned out well during this period to ensure that there will not be a build-up of dead material during closing up of paddocks. It is important to graze down to a residual of 4 – 4.5 cm in the autumn as this will remove dead material. This will stimulate extra growth of grass and growth of a new generation of grass tillers.

**Getting Grass Supply Right**

Rotation length should be about 28 to 30 days on September 1st.

**If Short?**

So if there is 90 acres on the platform you should be grazing about 3 acres/day. If you are grazing more than that, then you would need to slow down to 3 acres/day immediately. This can be achieved by feeding more ration or silage (surplus grass made into round bales) if you really need to slow down the rotation. The demand for grass can also be reduced by selling surplus cows, selling the cull cows, drying off low yielders etc. or removing other stock off the cow grazing platform. It is important to slow down the rotation as grass growth will decline rapidly during September. So act now if you are behind on grass supply.

**If too much?**

Having too much grass can also be a challenge. Building up very large volumes of grass on the farm particularly in the latter half of September will leave a “white butt” after grazing. Large volumes of grass are hard to graze out and often grass is wasted or walked into the ground particularly if grazing conditions are poor. Often land is damaged or poached where cows are forced to graze in small areas due the volume of grass being grazed being too high. The vigour of the sward entering into winter is also reduced. So try to avoid rotation lengths greater than 40 days.

The target farm cover figure is about 350-400 kgDM/cow (see table) by mid-September for those who measure grass.

Giving cows access to grass is very good at keeping costs low and boosting milk composition.

**P (Phosphorus) & Nitrogen (N)**

Phosphorus (P) is essential for early spring growth. However, it needs to be available to the plant. P levels in the soil rise slowly compared to Potassium (K). That is why it is better to apply P now and be “ready” for the plant to use early next year. However, if spreading fertiliser containing Phosphorus (P) it needs to be applied before mid-September (regulation closing date).

Nitrogen (N) fertiliser must also be spread within the first 2 weeks of September.

The decision to spread fertiliser nitrogen (N) on particular fields/paddocks over the next 2 weeks should be based on (1) getting a good return on the application and (2) where grass supply is currently at.

The economic response of fertiliser nitrogen application starts to decline rapidly during September. The best economic response will be achieved on:

- silage ground
- reseeded land
- drier paddocks
- heavily stocked farms with low grass supply.

Finally, soiled water from the collecting yard etc. can be used as a source of nitrogen to be applied to grassland after mid-September.

Straight potassium (K) (muriate of Potash has 50 units of K per 50kg bag) can be spread during September and October as the grazing rotation is getting longer.
levels will be similar to July. So grazing has been challenging.

However grass supply on the farm has been good with the farm running to target (713 kg/ha on August 20th). Some of the wettest paddocks could not be grazed and when the weather picks up (hopefully soon) these paddocks will be cut out as surplus grass and made into baled silage. The aim is to have over 800 kg/ha of an average farm cover on September 1st. The supply of grass on the farm is expected to peak around 1000/100kg/ha in late September. However generating enough and having an adequate supply of grass on the farm is rarely problem on heavy farms. The ground conditions are always the limiting factor. Pushing the average farm cover to 1000 kg/ha is about the limit in terms of grass supply. This is equivalent to about 40 day rotation and grazing cover of grass with a cover of about 2000 kg/ha. Grazing grass with higher covers is very challenging on a heavy farm during September and October when ground conditions are soft.

Paudie considers any grazing in November to be a bonus. He has managed to do some grazing in early November for the last few years. The target is to have an average farm cover of 600kg/ha on the farm on December 1st. This is important as there needs to be a good supply of grass available next spring. Almost 100% of the herd will calve in 4 weeks and calving starts on February 10th.

Currently there are over 700 bales of silage made on the farm. This winter the farm will carry about 90 LU. Therefore there is about 8 bales/LU made so far. However, 9 bales/LU would be preferred and
this equivalent to about 6 months feed supply. It is anticipated that 8.5 bales/LU will be made before winter.

The farm is on target to grow about 14 tons of grass DM/ha assuming a reasonable autumn comes. There was 9.5 tons DM/ha grown by mid-August. Cows are currently producing 19 litres of milk at 4.5% fat and 3.7% protein on 3 kg meal.

Paudie Farms with his wife Pauline and their 2 children near Killarney, Co. Kerry. Recently Paudie was awarded the Grassland Farmer of the Year award for the Heavy Land category in this competition.

The farm grows about 14 tons DM/ha on average with over 15 tons grown/ha in 2019.

FUTURE FARMING SYSTEMS
DAIRYGOLD/TEAGASC DEMO FARMERS ONLINE FARM WALK

AGENDA
- Labour & People Management
- Nitrogen use efficiency
- Future sward types

Thursday 17th September at 10.30am

www.dairygoldagri.ie

For more information contact your local Area Sales Manager, call Inside Sales 022 31644 or Lombardstown Mill on 022 47275
Pregnancy diagnosis
Fertility performance is a key driver of production and profitability on all dairy farms, particularly spring calving, grass-based systems. There are two types of culling – voluntary and involuntary. Empty cows fall into the involuntary category and it is critical to keep this figure under 10% to give scope for some voluntary culling. Days in milk and herd maturity are two key drivers of production in a spring-based system making excellent fertility with a high 6 week calving rate (>80%) critical to days in milk and a low replacement (18 – 20%) critical to herd maturity in a stable herd.

Most herds will have finished a 12-week breeding season in the second half of July meaning all cows and heifers will be at least 30 days since their last serve from late August. Scanning your cows from this time has many advantages:

- All animals are at least 30 days since their last serve and can be confirmed empty or in calf
- Most pregnancies are less than 120 days old making them easier to measure and age accurately.
- Identification of twin pregnancies is possible and more accurate.
- Sexing is also possible from 55-60 days.

Knowing your empty cows and having accurate calving dates will allow you to plan your dry off better and also reveal what scope there is for voluntary culling, for reasons like high SCC, lameness, disease, temperament, and production.

Pregnancy testing through the milk recording
Pregnancy testing through the milk recording is also an option, particularly if serves are recorded. ICBF will use the last recorded serve to generate a predicted calving date. The big advantage of this method is that cows do not have to be handled or put through the crush.

SCC – Looking ahead to dry off
September is the month to start looking ahead to dry off. Before looking forward, it is always wise to look back. In this case a good place to start is with the Mastitis control: Dry period/calving in the Cellcheck report.

Mastitis control: Dry period/calving in the Cellcheck report.
This report compares a cow’s SCC at the last milk recording before drying off, to her the first milk recording after calving, provided it happened within 60 days of calving. If the first milk recording is too late, it will reduce the number of cows and heifers in the report making it less useful. In the report shown, the new infection rate in cows was 2% and heifers 6% which is well below the target of 10% and 15% respectively.

What causes a high new infection rate in cows?
Research has demonstrated that the majority of new infection detected after calving are picked up during the dry period, particularly in the two weeks after drying off and the two weeks before calving. Possible reasons include:

- Poor hygiene and dry off technique – bacteria are introduced during the dry off process.
- Cows lying down too soon after being tubed – teat canal not fully closed.
- Cows leaking milk – increased pressure lying in a cubicle or cows milking too much at time of drying.
- Inadequate housing and hygiene during the dry period, particularly the 2 weeks after drying off and before calving.
What causes a high new infection rate in heifers?
Many herds are experiencing high new infection rates in heifers. Considering the investment required to have a heifer calved and milking in the parlour, it is particularly disappointing and costly to fall at the last hurdle. Factors contributing to new infections in heifers after calving include:

- Cross sucking as calves – damage to teat ends and teat canal.
- Warts or other teat lesions – allow bacteria to build at the teat end.
- Flies/summer mastitis – Heifers calving down with a blind quarter.
- Hygiene in the weeks prior to calving – Heifer is springing, and teat ends are starting to open.

Now is the time to review last year performance and put plans in place to maintain that performance or think of improvements that can be made to rectify areas that need attention.

What causes a poor cure rate over the dry period?
Cow that don’t cure had a high SCC at the last milk recording before dry off, and are still high at the first milk recording after dry off. There are a number of possible reasons for this:

- Incorrect treatment – the antibiotic in the dry cow tube was not effective against the bacteria involved or was too short acting.
- Dry period too short – not enough time for the mammary tissue to heal or for the antibiotic to work.
- Cow not curable – the cow was chronically infected, had a bad history and was impossible to cure.

Improving your cure rate

- Culture and sensitivity – select 4-6 high SCC cow that became infected in 2020 – CMT and sample these cows for culture and sensitivity. This will identify the bacteria involved and the most appropriate antibiotic to use.
- Persistently infected cows – these cows should receive a long dry period (80 days) and long acting tube to maximise their chance of cure.
- Cows that have a very poor chance of cure, ideally should be lined up for culling.

Herd criteria for Selective dry cow therapy (SDCT)
One of the most important herd criteria for SDCT is achieving a below target rate for new infections over the dry period. If targets cannot be met with antibiotics, it is likely that the situation will disimprove without antibiotics. Other herd criteria include:

- Bulk SCC less than 200000 for the entire lactation.
- A minimum of 5 milk recordings in current lactation.
- Culture negative for Strep. Agalactia.
- Housing and hygiene - One cubicle space per cow
- Optimal housing during dry period and around calving.
Herds that are using SDCT successfully are picking suitable cows, but crucially are meeting these herd criteria.

Salmonella vaccination due this month.

Vaccination against Salmonella to prevent abortion should be completed by mid-September. It is often the stress associated with drying cows that causes carrier animals to start shedding. The drop in immunity also causes naïve animals to be more susceptible. Vaccination now will ensure animals have maximum immunity when this risk period comes around.

There are two strains of Salmonella of importance. Salmonella Dublin is responsible for abortions and Salmonella typhimurium is responsible for septicaemia and scour in calves and adults. Bovivac S is the only vaccine licenced in Ireland against Salmonella and it is active against both strains. If Salmonella typhimurium is causing calf health issues during the spring, it may be necessary to boost the cows and incalf heifers precalving, much like other scour vaccines to ensure antibodies are present in the colostrum and transition milk for the calf. Talk to you vet about this.

Liver Fluke

Judging from bulk results so far this year, Liver fluke seems to be more prevalent. 2020 for the most part has been wetter than previous years. Herds that were negative for a number of years are starting to show positive. Salmonella abortions and liver fluke infection often go hand in hand. While a liver fluke burden weakens the immune system in general, it seems to specifically weaken an animal's immunity to Salmonella. Herds with a history of liver fluke should be particularly wary of salmonella.

Dosage

The dose in adult animals is 5ml and is given under the skin. The primary course is two shots 3 weeks apart with an annual booster given not greater than 12 months apart. It is essential to complete the primary course correctly to ensure maximum protection and to ensure the vaccine works effectively going forward. All in calf heifers and cows should be vaccinated. It will mean they are protected for the full pregnancy as heifers and only require a booster the following year.

**Preventing lameness this Autumn**

Autumn is a time when the incidence of lameness can increase in dairy herds. The surface quality of roadways can decrease with inclement weather and cows can end walking longer distances as more ground is brough back into the grazing platform. Lameness is one of the biggest challenges facing dairy herds. An Irish study suggested that a single case of lameness can cost in the region of €300, with most of this attributed to loss of production and poor fertility performance. Lameness is also a painful condition that herdowners want to minimise from both a production and welfare perspective.

Lameness in cattle can be categorised as physical or infectious. Most lameness in a grass-based system tend to be physical. The three main conditions seen here are

- Sole bruising
- Sole ulcers
- White line disease (drops)

The two main infectious types seen are digital dermatitis (Mortellaro) and fouls. Mortellaro is contagious and can cause severe lameness with high numbers effected if introduced into a herd.

**Making a diagnosis and keeping records**

When hoof trimming is being carried out on the farm it very beneficial to keep records of the cause of the lameness and treatment applied. Good records here are hugely beneficial in identifying area to work on to prevent lame cows in the future. For example, if the main cause is infectious lameness like Mortellaro, the main focus would be on reducing the infection pressure by improving the environment and implementing a good foot bathing regime.

**Mobility Scoring**

Mobility scoring is often spoke about but rarely carried out. It involves watching cows walking slowly either before or after milking and scoring them based a 0-4 scale. It is a great tool for benchmarking the herd and monitoring progress over time.
Early effective treatment.

Similar to any disease, lameness, whether the cause is physical or infectious will respond better to early treatment. Mobility scoring is a great way of detecting lame cows early before production is impacted, while also improving any treatment outcomes. While the hoof wall is a hard structure and a healthy sole should also be hard, the anatomy inside contains soft sensitive structures. Any insult, injury or inflammation will be extremely painful and if it becomes chronic, can be very difficult to reverse. Early effective treatment is essential and the value of using anti-inflammatory can not be underestimated.
Give cows time and space
Cows are slow moving and an animal of prey. The position of the eyes on a cow’s head are designed to scan her surroundings for predators. However, for a cow to walk carefully and pick her step, she must move slowly and look down at the ground in front of her. In this way she will pick a spot for her front legs and her back legs will follow the exact same spot. Also, cows have a social order and hierarchy, which sets the order and pace when cows are moving both on roadways and in the collecting yard.

Pushing cows upsets this order and leads to heads being raised. When this happens cows can no longer pick their spot effectively making the chance of standing on stones or sharp objects more likely. Pressure in the collecting yard leads to more pressure and forces on the foot.

Regular foot bathing
If infectious lameness is causing problems, foot bathing can form an important part of a control strategy. There are products available commercially as well as ingredients like copper sulphate and zinc sulphate that can be used to make up your own. However the design of the foot bath and the cow flow through it are just as important as the product and ingredients that go into it.

Taking action
While parlour size, roadway design, collecting yard design contribute to lameness, they are not quick fixes and require significant investment. However, roadway maintenance should be on going and bad stretches repaired as soon as possible particularly where traffic is high. All of the points above require no large investment and can be implemented quickly and can make a big difference.
HARVEST IS ONE-SHOT OPPORTUNITY TO LOCK ‘GOODNESS’ INTO MAIZE SILAGE

By JOHN VALLENCE, B.Ag.Sc,
Dairy Area Sales Manager

KEY POINT: There is enough energy in a hectare of fresh forage maize to support about 30,000 litres of milk production in dairy cows.

But decisions at harvest can have a huge impact on how much of this energy is actually preserved in the silage. Typical 15% of maize silage dry matter that is ensiled is lost but this can be much higher. The most obvious loss occurs when maize silage heats up, caused by yeasts and moulds ‘feeding on’ the silage in the presence of air.

The starting point for good preservation is to harvest maize at the correct time and in the correct way. You should harvest when the whole plant is at 30-33% dry matter and chop it to 1.5 - 2cm lengths. Higher dry matters and longer chop lengths make it more difficult to squeeze the air out of the crop in the clamp, this encourages heating. Late harvested crops will be of higher dry matter, making them more difficult to consolidate.

Should I consider an additive
It is easy to omit one, but it leaves the risk of dry matter losses higher. With an additive you should look for a dual-purpose additive: one that not only controls heating but also improves fermentation.

Ecocool applies two strains of beneficial bacteria – one shown to produce a rapid fermentation, and one that inhibits yeasts and moulds. It has been shown to reduce dry matter losses and also significantly delay heating of maize silage.

The greener the maize the more help it needs with fermentation, while in more mature maize, yeast and mould levels increase.

Take time rolling the clamp:
Take time to consolidate the crop thoroughly and seal it fully – not only to starve spoilage organisms of oxygen but also to aid the fermentation.

To squeeze air out, you need to consolidate to a density of 700 kg of fresh maize per cubic metre. To achieve this, fill in horizontal layers a maximum of 15 cm deep. A second machine consolidating the clamp is vital to achieve this consistently.

Cover adequately:
After all this good work of excluding air from the clamp, don’t let it back in again. As well as a top sheet to cover the whole clamp, good quality side sheets all the way to the floor and coming up to give a 1-2 metre overlap on top of a cling film-type sheet on top of the silage are essential for success.

For more information on maize silage harvesting, preservation and feeding please contact our inside sales team on 022-31644 or your local Area Sales Manager.

For more information on maize silage harvesting, preservation and feeding please contact our inside sales team on 022-31644 or your local Area Sales Manager.
We continue our series of herd profiles this month as we visit the Coppenrua herd of Noel and Annette Crowley. Noel’s interview on his farm, is available to watch on YouTube, on the club’s new YouTube channel, ‘Cork Holstein Friesian Club’ and on Facebook and Twitter, ‘Cork Holstein Friesian Club’

The Coppenrua herd of Noel and Annette Crowley.

Name / Herd Name
Noel and Annette Crowley. We farm under the Coppenrua prefix just outside the village of Coppeen in West Cork. We have three children, Sarah, studying Physiotherapy in UL, Emma, studying Pharmacy in UCC and Adrian, Leaving Certificate, Hamilton High School Bandon. We also have one full time employee, Victor Anderson.

Herd Size and Output
We milk a herd of 126 spring calving holstein friesian cows on 146 owned acres and 21 acres rented close by. We aim to supply just over 1 million litres to Dairygold co-op at 4.10%bf and 3.48%pr. (630kg ms/cow).

Feeding System
The main feed that’s fed is grazed grass. Cows are buffer fed with maize during the grazing season. Although grazed grass is a super feed, I feel that adding maize keeps stability in the diet. Cows are diet fed in the winter. We buy in contract grown maize and fodder beet.

Breeding Policy
We use mostly sexed semen on heifers. We select proven bulls that produce strong cows, with an emphasis on milk, solids and type.

Reasons For Pedigree
Registration / Classification
I find having a pedigree herd and also classifying to be a tremendous breeding tool to breed functional cows that will milk well and produce solids with good type. This has been proven with durable cows that will last in the herd. All of our cows are home bred and being pedigree registered highlights the good cow families that form the backbone of our herd. Notable lines include, the Blackberry, the Orla and the Bertha families, and especially the Angeleen family.

A view of the Coppenrua herd featured in this months video.

Other interesting information about your farm.
Over the last five years, we have planted 1,000 metres of hedging which has included over 700 native trees.

Be sure to check out Noel’s full interview on YouTube under, ‘Coppenrua Herd - Noel Crowley’, on the club’s new YouTube channel, Cork Holstein Friesian Club.
Post-milking teat disinfection: Product choice and operator technique.

Prevention and control of mastitis is based on multiple principles that have been known for a long time. There is no silver bullet in mastitis control as mastitis is a complex, multifactorial disease. Pathogens, cows, and farmers all play a role in mastitis control. Routine post-milking teat disinfection is an integral part of every mastitis control programmes and its importance is often overlooked. It has been shown that effective post-milking teat disinfection lowers new infection rates by 50% or more but it only works if it is done thoroughly and throughout the entire lactation.

Milk from infected quarters contains bacteria that may contaminate the skin of many other teats during milking. Certain bacteria (Staph aureus and Strep agalactiae) in milk from an infected cow may be found on the liners and transferred to the teat skin of the next 5 to 6 cows that are milked with that unit. Once on the teat skin, they multiply (especially at sites of teat lesions) and so increase the risk of infection of the quarter via the teat canal. If the whole teat is disinfected after milking it reduces the bacterial load, and thus the risk of infection. Post-milking teat disinfection also helps keep teat skin healthy and heal teat lesions, and these actions have an important contribution to mastitis control.

When choosing a disinfectant beware of unregistered products. Using unregistered products risk applying ineffective treatments, having chemical residues in milk or meat, and causing harm to the environment, human health, or animal health. If the product is registered it will have either a PCS or a HPRA (previously IMB) number on the drum label. Teat disinfectants making a medicinal claim (e.g. aid in the prevention of mastitis) are subject to registration and regulation by the Health Products Regulatory Authority (www.hpra.ie/homepage/veterinary/veterinary-medicines-information/find_a_medicine). If no medicinal claim is made, teat disinfectants are classed as biocides, and these are subject to registration and regulation by the Department of Agriculture, Food and the Marine (https://www.pcs-agriculture.gov.ie/registers/biocidalproductregisters/). A list of teat disinfectant products on the market can also be viewed on the Teagasc website (https://www.teagasc.ie/media/webiste/animals/dairy/research-farms/Teat-disinfectant-products-sold-in-Ireland201905.pdf).

Effective application of teat disinfection is essential as the benefits of teat disinfection are lost if the teat disinfectant does not cover all the teat skin. Spraying is preferred as it is considered quicker and easier—however, it is important that shortcuts are not taken, for it to be as effective as teat dipping.

It is essential that the entire teat (everywhere the liner has touched) is disinfected and not just the teat end. Ready to use (RTU) products are recommended as best practice, particularly for farms experiencing difficulties sourcing water of adequate quality or mixing solutions consistently.

To cover the teats correctly, at least 15ml of teat disinfectant per cow/per milking is needed. Knowing this allows you to do a quick calculation for your herd to see if enough product is being used. However, adequate volume alone does not ensure teats are being covered correctly. To assess if all sides of the teat are being covered, wrap a piece of paper towel around the barrel of the teat, then carefully remove and examine the wet or stained area. If using a teat dip cup keep the cup clean and do not allow organic material to accumulate in the cup. Clean out immediately if dirt or manure drops into the cup and wash out the dip cup at least once a day.
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Number of Samples
Samples to be taken by:
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