INSIDE THIS ISSUE

PAGE 04  Nutrition Matters
PAGE 10  Reseed Management Post Sowing
PAGE 16  Grass Matters
PAGE 26  What Is Antimicrobial Resistance (AMR)?
Welcome to the October edition of

MILK MATTERS
DAIRYGOLD’S DAIRY ADVISORY BULLETIN

Dear Milk Matters Reader,

This month’s Nutrition Matters focuses on late lactation feeding from here to year end. We need to keep grass in our cows’ diet, close the farm up with enough grass to ensure we have grass next spring, manage cow condition score and maintain milk yield and lactose %. Your feeding requirements will change depending on where your herd is versus these priorities.

With milk price under continued pressure Dairygold Quality Feeds has reworked the formulation of our tried and trusted Hi Pro ECOLAC range to maximise the milk yield response you can achieve from feeding concentrates from here to drying off. For information on our Hi Pro ECOLAC Autumn Extend range please see page 6.

This autumn’s grassland management has a massive impact on the quantity and quality of grass available to your cows next spring. This month’s Grass Matters shows us how to set your farm up correctly from October onwards.

Have you reviewed your herd’s 2019 fertility performance? How can you plan to improve without accessing your strengths and weaknesses? In this month’s Fertility and Breeding Matters, Doreen explores how we can use reports to audit our herds and our own performance, and how these results should influence our decisions.

Do you know what antimicrobial resistance (AMR) is? In my opinion its one of the biggest threats facing humanity. If we do not all work collective to prevent this resistance, we will rapidly return to an age where simple medical procedures could lead to life threatening infections. On pages 25 to 27 we explore AMR and what can be done at farm level to prevent AMR.

Yours Sincerely,

Liam Stack

Liam Stack M.Agr.Sc
RUMINANT TECHNICAL MANAGER,
DAIRYGOLD AGRIBUSINESS

To contact the editor of MILK MATTERS
email: lstack@dairygold.ie
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>2016</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>YTD</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total annual Milk Yield per cow in Dairygold (kg)</td>
<td>4438</td>
<td>4600</td>
<td>4455</td>
<td>4726</td>
</tr>
<tr>
<td>Total annual Milk Solids per cow (kg)</td>
<td>333</td>
<td>346</td>
<td>334</td>
<td>358</td>
</tr>
<tr>
<td>YTD Average Protein %</td>
<td>3.44</td>
<td>3.46</td>
<td>3.41</td>
<td>3.50</td>
</tr>
<tr>
<td>YTD Average Fat %</td>
<td>4.07</td>
<td>4.05</td>
<td>4.09</td>
<td>4.07</td>
</tr>
<tr>
<td>YTD Average Lactose %</td>
<td>4.89</td>
<td>4.89</td>
<td>4.79</td>
<td>4.78</td>
</tr>
</tbody>
</table>

Milk Protein % (weeks 1-38)

Milk Lactose % (weeks 1-38)
Prolong the Grazing Season

With correct grassland management you will now have a wedge of grass to eat into across the month of October. Our goal now to ensure that we:

• Budget the grass to last to mid-November
• Close up the farm in a timely manner to ensure that you have grass come spring 2020

Without concentrates your cows will eat 17kg DM of grass per day (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 per day. At a stocking rate of 3 cows per Ha that’s a demand of 51kg DM per day. Every 3 kg of concentrates you feed drops grass demand by 2.5kgDM/day per cow.

Grass on average grows 35kg DM/ha in October. The grass wedge you’ve spent August and September building will make a further 9-10kg of grass available daily. But demands of greater than the mid-forty will require additional feeding to keep grass in your cows’ diets for as long as possible.

<table>
<thead>
<tr>
<th>Feeding plan to balance grass in October:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Growth rate (kg/DM/ha)</td>
<td>35</td>
</tr>
<tr>
<td>Stocking rate (Lu/ha)</td>
<td>2.5</td>
</tr>
<tr>
<td>Target Average farm cover 1st October (kg/Dm/ha)</td>
<td>1000</td>
</tr>
<tr>
<td>Target Average farm cover at housing (kg/Dm/ha)</td>
<td>600</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Feeding plan required to close the farm at the correct cover:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grass (kgDM/day)</td>
</tr>
<tr>
<td>Concentrates (kg Fresh/day)</td>
</tr>
<tr>
<td>Silage (kg DM/day)</td>
</tr>
<tr>
<td>Milk Yield Supported*</td>
</tr>
</tbody>
</table>

* Milk at 4.75% butterfat, increase concentrates by 1kg for every 2 litres of milk above the base, to gain ¼ of a BCS from 1st of October to close add 1.5kg of concentrates over yield requirement.

Magnesium, trace elements and vitamins are 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
Manage BCS
Milking cows gain condition more efficiently than dry cows. Some spend now could save in the long term. **What is your cows BCS now? Do your cows need to gain some condition or are they ok?**

In order to gain 1 Body Condition Score Unit, 200 UFL are required. To gain a ¼ of a condition score between now and drying off (mid-November) your cows need 1.2 UFL per day over their daily milk energy requirement. 1.2 UFL in energy terms is equal to c.2.75 ltrs of milk or 1.3 kg of concentrates.

This energy needs to be allowed for when feeding your cows.

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. With the correct management these figures should be a long way off.

**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 cow’s 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.

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, or feeds 2kg of extra concentrates to his cows he will make up the energy difference. Which option is available to you this year will depend on the overall covers of grass on your farm?

<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>

Milk Yield Response
Autumn grass has a lower energy value (lower sugar content) compared to spring/summer grass even though it can look very leafy and green. Consequently, the response to ration in terms of milk yield is better in the autumn than at any other time of the year; typically, 1 litre of milk per 1Kg concentrate fed.

With the current milk price decline the economically benefits are reduced from the increase in yield but the response is still positive and offers a 15%-25% return on investment.
As we approach the end of the lactation, we have altered the formulation of our tried and trusted Hi Pro ECO LAC range to ensure you get the maximum productivity from the concentrates you feed from now to drying off.

In late lactation the yield response from an additional kg of concentrates is typically 1kg of milk. With milk price under continued pressure it is imperative that we feed a concentrate that maximises milk yield response.

Autumn grass is lower in sugar content than its summer equivalent. Sugars/starch is required in the rumen to convert the protein from autumn grass into milk volume and protein content.

We have increased the inclusion of wheat/barley and oats within Hi Pro EcoLac Autumn Extend. This will increase the overall starch content of the feed while maintaining rumen function. Increasing the starch level will:

- improve the capture of nitrogen in the rumen
- improve protein supply to the small intestine/mammary gland
- give higher milk yield and milk protein response

**Hi Pro EcoLac Autumn Extend has:**

- a high UFL, maximising milk yield response from every kg of concentrates fed,
- a high inclusion of cereal, maximising rumen friendly starch levels. With autumn grass being low in sugars, a high level of starch is very important for driving on milk yield and milk protein %,
- a good PDI balance to maximise yield response from every kg of concentrates,
- a high inclusion of trace minerals and vitamins included pro-rata with the calmag. Ensuring your cows are dried off in an adequate mineral status and lowering the risk of grass tetany,
- natural rumen modifier, called Agolin. Through the reduction of methane emissions, Agolin delivers c.5% increase on the typical yield response from every kg of concentrates fed.

**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.

If you have any queries on Hi-Pro EcoLac Autumn Extend please contact our Inside Sales Team on 022 31644, your local area sales manager or your branch agri lead.
Dry Cow Minerals

By KARL SKEHAN, B.Agr.Sc,
Area Sales Manager, Mob: 085 8001089

If you're buying your dry cow minerals now be cautious that your minerals are going to meet the requirements of the cow.

Mineral Feeding Pre-Calving
The main objectives of a Dry Cow Management Program are for cows 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.
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 the 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>
Calf Milk Replacer Specialist

By Trisha Hayes, B.Ag.Sc, Calf Milk Replacer Specialist

As of the 1st of October 2019, I will be taking over the role of Calf Milk replacer specialist for Dairygold Agribusiness. As the CMR specialist I will be offering advice on feeding and managing the calf rearing process from birth to weaning. In order to ensure that we are providing the very best service to our customers I will be undertaking extensive training with our milk replacer suppliers and automatic calf feeder manufacturers on; feeder set up and feeding curves, milk replacer manufacturing process, milk replacer formulations and optimum feeding rates and management practices to deliver maximum weight gain from birth to 1st calving.

As part of my role I will be available to offer advice and training through phone calls and farm visits. I will be organising several events throughout the years 2019 and 2020 to allow you to gain as much insight into maximising your calf rearing performance.

Please contact me on 087-9499553 or on email at thayes@dairygold.ie with any queries.

2019 Pre-calver Gold Mineral Offer

Buy 10 and Get 1 Bag Free

Please contact your local Agri Branch Lead, your local Area Sales Manager or Inside Sales on 022-31644 for more details
MEET OUR FARM INSURANCE EXPERT IN YOUR FIELD.

JP Aherne, our dedicated Dairygold local expert in the Munster region, is happy to visit you at your farm to talk about the cover you need - he can even put it in place straight away.

Zurich exclusive farm insurance deal and preferential pricing for dairygold members.

TO REGISTER YOUR INTEREST, CALL JP ON 086 411 3797.
Our main aim with post sowing managements is:
1. Establish the new ley,
2. Encourage tillering,
3. Prevent weed establishment

It can take up to 12 months for the new crop to fully establish. You can start to graze your new ley once the grass roots are strong enough to pass the pull test.

Grazing light covers (800-1000kgDM/ha 7-8cm) frequently encourages tillering as it allows more light to penetrate to the base of the sward.

By encouraging tillering you are creating greater competition for the weeds for light. Greater tillering is an important weapon in our war on new ley weed establishment.

We should try our best to prevent high covers from developing. If the weather turns against us this may prove more difficult with autumn reseeds.

Weed control:
All reseeds should get a herbicide within c. 6-8 weeks after reseeding. This is the easiest and most cost effect time to control docks, thistles and chickweed, etc.

At all times we must be responsible with our use of chemicals:

- Choose the right pesticide product
- Read and follow the product label
- Buy and apply the correct amount
- Not spray if rain or strong winds are forecast in the next 48 hours
- Make sure you are aware of the location of all nearby water courses
- Comply with any buffer zone specified on the product label to protect the aquatic environment. Mark out the specified buffer zone from the edge of the river or lake or other water course
- Never fill a sprayer directly from a water course or carry out mixing, loading or other handling operations beside a water course
- Avoid spills, stay well back from open drains and rinse empty containers 3 times into the sprayer
- Store and dispose of pesticides and their containers properly

<table>
<thead>
<tr>
<th>Product</th>
<th>Clover Safe?</th>
<th>Rate</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mastercrop Undersown/Legumex</td>
<td>Yes</td>
<td>7ltrs/Ha</td>
<td>Not good on chickweed</td>
</tr>
<tr>
<td>DB/DB plus</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mastercrop Undersown/Legumex</td>
<td>Yes</td>
<td>5ltrs/Ha +</td>
<td>Kills chickweed</td>
</tr>
<tr>
<td>DB/DB plus + Triad</td>
<td></td>
<td>0.75 tb/Ha</td>
<td></td>
</tr>
<tr>
<td>Hurler/Reaper</td>
<td>No</td>
<td>0.75ltr/Ha</td>
<td>Kills chickweed</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0.75ltr/Ha</td>
<td></td>
</tr>
</tbody>
</table>

*PastureTrio is not licensed for use on new leys after the 31st of August or on established grassland after the 30th September.
THE HEALTH OF OUR SOILS

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

As an industry we are striving to grow more grass in a sustainable manor. Grass is a cheap, high energy feed stuff. 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.

Since the introduction of Dairygold’s soil sampling and fertiliser program in 2016, our soils health status has shown an improvement. From 2015 until 2018 we have more than doubled the proportion of our soil sampled in the optimum range. However, we are still only at c.40% in the optimum range i.e a pH of greater than 6.3 + a P & K index 3 (for grassland).

We are now using more lime and our overall soil pH levels are reflecting this.

The proportion of soils in index 1 and 2 for P and K has dropped. Of concern here however is the increased proportion of soils index 4 for P. 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.

KEY POINT: 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

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

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

Weeds and grassland

The health of our soils: what does it mean?

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

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

Weeds and grassland

The health of our soils: what does it mean?

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

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

Weeds and grassland

The health of our soils: what does it mean?

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

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.
Soil Sampling Service & Fertiliser Plan

SOIL SAMPLES

Taken from your Farm and Analysed by Dairygold Agri Services Laboratory

€16.50 + VAT* per sample

Targeted Fertiliser Plan included FREE!!!

3 Point Action Plan to Improve your Soil Indexes:

1. TAKE A SOIL SAMPLE
   Soil corers are available from all Dairygold branches.

2. DO A FERTILISER PROGRAMME FOR YOUR FARM
   Dairygold have designed a fertiliser planning tool which formulates a customised farm specific fertiliser plan for your farm based on your stocking rates, your slurry application and your soils indexes.

3. PUT YOUR PROGRAMME INTO ACTION BY USING THE FERTILISERS YOUR PLAN RECOMMENDS

90% of Irish soils have sub-optimal levels of soil pH. With the right soil fertility and pH, an average 35ha grassland dairy farm could generate over €40,000 in additional farm income over a five-year period.

For more information please contact your Dairygold Area Sales Manager or Inside Sales Team on 022-31644
Soil Sampling Service & Fertiliser Plan

Complete your details below to avail of our soil sampling service and hand it to a Dairygold Representative or Post in to Inside Sales Dairygold Agribusiness, Lombardstown, Co. Cork or Sign up on our website www.dairygoldagri.ie/soil

Name

Address

Account Number

Contact Number

Number of Samples

Samples to be taken by:
Date. __ / __ / __

I authorise Dairygold to update their records using the contact details provided above and forward these details to relevant third parties to complete the sampling process

If YES please tick here

www.dairygoldagri.ie

For more information please contact your Dairygold Area Sales Manager or Inside Sales Team on 022-31644
Contract rearing has advantages for dairy farmers including:
- Freeing-up time and labour to focus on dairying on the home farm
- Reduces the need for buildings and land to rear heifers
- Creates potential for higher overall farm profit by carrying more cows

Weight Targets
Heifers must be regularly weighed to ensure that they reach agreed weight targets. These targets vary depending on the breed of the heifers (Table 1).

<table>
<thead>
<tr>
<th>Age</th>
<th>% mature weight</th>
<th>Holstein Friesian</th>
<th>New Zealand Friesian/British Friesian</th>
<th>Jersey X Holstein Friesian</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 months</td>
<td>30%</td>
<td>155</td>
<td>148</td>
<td>138</td>
</tr>
<tr>
<td>9 months</td>
<td>40%</td>
<td>220</td>
<td>210</td>
<td>196</td>
</tr>
<tr>
<td>14 months</td>
<td>60% (Breeding)</td>
<td>330</td>
<td>315</td>
<td>295</td>
</tr>
<tr>
<td>19 months</td>
<td></td>
<td>450</td>
<td>425</td>
<td>390</td>
</tr>
<tr>
<td>24 months</td>
<td>90% (Pre-calving)</td>
<td>550</td>
<td>525</td>
<td>490</td>
</tr>
</tbody>
</table>

Costings
The cost is usually quoted as a cost per day per heifer and will depend on the duration that the heifers are with the contract rearer and what each party pays for in the agreement. In the majority of cases the heifers go to the contract rearer at 2-4 months of age and return at 18-21 months of age (McCarthy et al., 2019). A typical example is where heifers are moved to the contract rearer on 1st May after weaning and returned to the dairy farmer on 1st December the following year and costs between €1.30-€1.40/heifer/day. In this example the dairy farmer has covered the cost associated with breeding the heifers. Teagasc has developed a calculator that can be used to work out what the appropriate costs should be: https://www.teagasc.ie/rural-economy/farm-management/collaborative-farming/contract-rearing-of-heifers/.

Items to be agreed
If initial contact is positive with a potential contract rearer it’s important to walk the rearers farm and assess grassland management and the stock currently on the farm. It is important to build a good working relationship and strong trust with the rearer. Discuss and agree upon the following:
- Costs and method of payment
- Heifer target weights and frequency of weighing
- Movement dates of heifers
- Breeding programme
- Meal feeding strategy
- Dosing, TB testing, vaccination programme
- What will be done with empty heifers?
- What happens if mortality occurs?
- What is the exit strategy if one party cannot continue with the agreement?

Once agreed these items should be drawn up in a written contract. Example contracts are available from Teagasc.

Contract heifer rearing maybe be an option on many farms. Central to this is a good working relationship with the contract rearer and a well prepared written agreement that benefits both parties.
Tom O’Connell farms with his wife Helen, in Inniscarra, Co Cork. Tom is one of the nine Teagasc/Dairygold monitor farmers and his focus is on labour management. Tom is milking 310 cows on a milking platform of 90 hectares. Tom and Helen employ two full time staff and also employ additional relief labour during the spring and to cover weekend milkings while full time staff are off. The farm has excellent facilities including a 36 unit rapid exit parlour, plenty cubicle space and good calf facilities.

As well as the farm having good facilities, Tom runs a simple spring calving grass based system. In 2018 the herd sold 500kgs milk solids/cow on approximately 1.5 tonnes of feed during a difficult year and by 1st August this year the herd has already sold 300kgs milk solids/cow. This is due to a combination of excellent genetics and management. The herd EBI is €148 and the 6 week calving rate this spring was 87%. Grassland management is also of the highest standard on this farm and this farm had grown just over 13 tonnes grass DM/ha by start of September. A simple farm system which is profitable and with an easy care cow can be attractive place to work. Good communication, however, is also critical. This is evident on this farm with daily communication with staff of what jobs needs to be completed but also with the use of visual aids such as white boards to write key notes which they use throughout the yard, in the office, parlour and calving sheds. Tom also uses a number of other simple and effective tools around his yard to reduce workload and time for example by using an automatic gate release timer at paddock entrances can save half an hour in the mornings for bringing in the herd.

Tom and Helen O’Connell will hold a farm walk on their farm on Wednesday 23rd October at 11am Moorepark research officer Marion Beecher will also speak on dairy farm labour productivity and efficiency. All are welcome. Farm Eircode: P31KX93

Current average performance of monitor farmers: 17th September 2019

| Stocking rate on milking platform: | 3.41 |
| Average Farm Cover kgDM/ha | 991 |
| Grass Demand kgDM/ha | 49 |
| Grass Growth Rate kgDM/ha | 66 |
| Rotation length (days) | 28 |
| Milk litres/cow | 19.5 |
| Fat % | 4.73 |
| Protein % | 4.06 |
| Milk solids/cow/day | 1.76 |
| Meal kg/cow | 3 |
Time to Start the Grazing Season!!!!

The most important task any dairy farmer will undertake over the next 2 months is to ensure that the farm is closed off properly to have an adequate supply of grass early next spring. October is the month to start the final countdown to the grazing year but also the start of the NEW Grazing Year!!

There are two objectives in autumn grazing management of dairy cows.

Firstly, the cows must be adequately fed using the cheapest available feed which is grazed grass. Every day at grass is worth almost €2 cow/day additional profit.

The second objective is set the farm up for spring grass. Many farmers do not realise that the grazing season begins in the autumn and that autumn management of grazed grass is the primary factor influencing the supply of grass available in spring on any farm.

Start of Closing

The last rotation needs to be planned to have grass early in spring. The last rotation should begin in early October (5th to 10th) for most farms. This date will vary a small bit according to grass growth, soil type and to a lesser extent with stocking rate. For farms with a difficult soil type closing up should begin in last days of September.

Every 1 week delay past the target of October 5th in closing up the farm will reduce grass supply in spring by 100+kgDM/ha (Moorepark Study). Later closing will also reduce the level of autumn and winter grass growth.

Paddock choice is critical in getting the closing strategy right!
To provide grass for grazing in early spring, grass has to be carried over from the autumn period due to low grass growth rates during the winter period. The first closed paddocks will carry most grass over the winter period and ideally should be paddocks that have been cut once or twice during the grazing season (this includes silage ground) as they will be cleaner and easier to graze out. Most of these paddocks will not be grazed until March, when more cows are calved and grass intake is rising. Having a large group of keen cows is way to tackle higher covers of grass in spring.

The most critical paddocks to close up the farm though are the paddocks that are need for the rainy day. These paddocks:

- are the drier paddocks on the farm
- are square in shape
- have the farm roadway on 2 sides
- have lots of access and exit points
- have good access to water
- have a medium cover of grass in them (800-1000 kg DM/ha) next spring
To achieve a medium level of cover on these paddocks, they will need to be closed in late October. *Grazing high cover of grass on a wet day in early spring is a mess! Grazing a paddock with very good infrastructure and is dry with a low cover in early spring makes more sense on wet days.*

**Every farmer should identify about 4-5 of these paddocks to close in late October to have for the rainy day next spring!!!**

The paddocks reseed in 2019 ideally should be closed late (November). This will allow these paddocks do more tillering and thicken the sward. Theses paddocks should also be grazed early in spring (dry days in February if possible) as they will be easier to clean out and have a very high regrowth rate to boost grass supply in early April.

**Date when 65% is closed**
This is a very critical date. For most farms this is early November. This is because most of the grass available in early spring has been grown in October. Very little growth occurs over the winter months so most of the grass available in spring is carried over from the previous autumn/early winter. The target is to have about 65% of the farm closed up by the first week in November. For those farms that have a high feed demand in spring, earlier closing up must be considered. This should be over 70% to 75% of the farm closed for farms with a higher stocking rate (3+cows /ha) on the milking platform. It is important to carry more grass across the winter for farms with higher stocking rates and a high 6 week calving rate.

**Soil Fertility**

A lot of excess grass has been converted into round bale silage this year. Every bale made removes N, P and particularly K from the soil. Every 5 bales made/acre removes about 25 units K/acre. This needs to be replenished!

**Spread K (Potassium)**
Many soils are deficient in K also and this time of year is a good time to tackle K deficiency. Silage ground is particularly known to be deficient in K on many farms.

- Try to spread Muriate of Potash (0-0-50) during a dry spell if you can, during November if your K index is low (Index 1 or 2). 1 bag/acre of 0:0:50 applied will generally result in the soil rising an index. i.e. moving from index 1 to index 2.
In Ireland soil type and climatic conditions have the largest influence on grassland production. Grazing at the back end of the year on farms with heavy land will largely be determined by the ground conditions. Generally there is a large supply of grass on these farms and sometimes there is even too much grass to get through. Currently the heavy soils programme forms have an average farm cover 930kg Dm/ha (360kg/cow) and the average pre grazing yield is 1986kg with 3kg meal.

To ensure a grass good supply and to get started grazing next spring, some of the drier paddocks that have good grazing infrastructure with roadways and plenty of access/exit points need to be closed early. There is often the temptation to graze these paddocks late but every day at grass in spring is worth €1/cow/day more than grass in autumn. With an increased 6 week calving rate there is also an increased demand for early spring grass on farm.

Start of Closing
The last rotation needs to be planned to have grass early in spring. The last rotation for many farms begins in early October. This date will vary a bit according to grass growth, soil type and to a lesser extent with stocking rate. For farms with a difficult soil type and high six week calving rate, closing up should begin in last days of September. So all of October will be spent closing up the farm. To get good clean outs of paddocks a strip wire will be necessary. This is especially true where silage is part of the diet. To help the clean out process, cows should not go out to grass full of silage. Cows with a keen appetite going to grass is important. Restricting silage intake both before and after the morning milking will improve the cows appetite for grass.

Grass Production 2019
There is a large variation in the cost of milk production on dairy farms in Ireland. Some of the variation in cost may be associated with variation in soil type and climatic conditions. Irish dairy grazing systems have developed under the premise that the most profitable option is to maximize the amount of pasture harvested directly by grazing, while at the same time conserving an adequate quantity of silage for the winter housing period.

The year of 2019 has been kind to those farmers on heavy Land. The farms in the heavy soils programme have got a chance to make extra winter feed and have grown lots of grass. The average amount of grass grown on these farms will easily exceed 12 tons of grass DM grown/ha for the first time since the start of the Heavy Soils Programme. Congrats!!!
1. Plan herd for 2020
2. Review fertility season in 2019
3. Maiden & In calf heifers review
4. Prepare for the Dry Off Period

What cows and heifers am I keeping for 2020?
- Need High EBI
- Mature herd greater than 60% 3rd lactation +
- 280+ days in milk

How many reds have you?
Use your milk recording results and fertility results to identify the poor performers and the high persistent high SCC cows.

The COW report is available for milk recording herdowners based on their performance, SCC, genetics and calving date in 2020. If you submit your pregnancy results to ICBF this will be an extremely useful report for selecting which cows to cull.

Remember to test for Johnes- can do in the next milk recording, include those positive cows in the culling group.

Selling Breeding Heifers- Get them Genomically Tested.
If you have heifers to sell, get them genomically tested now. Ensure that you will keep the superior heifers for fertility and production of Kgs of milk solids as your own replacements.

Genomically testing a heifer will give you as much extra information as milking 20 daughters from her.

The cost is €22 per heifer.

You have incurred all the costs of rearing the entire group of heifers, get the benefit of rearing the group for your own herd.

Each heifer will have cost €1,500 to get to the calving stage, it will be in her 2nd lactation before she has paid for herself. She needs to perform efficiently for 5.5 lactations to maximise her profitability.

2019 Fertility Review & Plan herd for 2020
1. Analyse your fertility records for 2019 season
   - What was the 3 week & 6 week submission rate?
   - What was the conception rate in 1st, 2nd and 3rd 3 weeks?
   - What was the performance of those that calved in the 1st vs 2nd 6 weeks?
   - What was the performance of the maiden heifers?

   - With your vet calculate the conception rate of your stock bull.
     - Calculate how many empty females were represented to him after the AI season stopped and then what % he got in calf in 3 weeks and in 6 weeks.
     - He should have got 60% in calf in 3 weeks and 90% in calf in 6 weeks.
     - If he did not hit those targets, the question is why?

If you have not scanned in September scan this month in October.
• Had you enough bull power?

• Was the bull too young?

• Did he get hurt?

• Did he lose a lot of weight early in the dry period?

• If you had a number of bulls running with the cows you may need to wait for them to calve to sort out the bull factor.

• Genomically testing the calves to verify the sires will sort out the bull fertility issues and the bulls that are having difficult calving’s.

• Finally, is he a sub fertile bull?

• If he is a sub fertile bull and there is no other reason for this, there is no point in keeping him for 2020.

• However, if the bull has hit the targets of 60% in calf in 3 weeks and 90% in calf in 6 weeks, he is a valuable animal to have on the farm for 2020. Too many herds are relying on yearling bulls to be released after 6 weeks AI to get the remainder of the cows in calf.

3. Assess your DIY competence.

• If you are a DIY operator now is an appropriate time to calculate your conception rate in both cows and heifers separately. If your conception is lower than 50% in the cows and 70% in the heifers depending on the numbers done, it may be worthwhile to investigate and do a refresher prior to 2020.

• Herd owners are increasingly opting for the AI technician service to improve their fertility performance. Do the € figures it may be more profitable to concentrate on the heat detection and get a professional technician.

4. Vasectomised Bull - Sort one or two for the 2020 season

• As herd size is increasing and quality labour getting more difficult to source it is becoming more apparent that vasectomised bulls and AI are the most profitable and efficient way to breed the dairy herd. The majority of farms would benefit greatly from one or two vasectomised bulls. If you have any February or March born bulls on the farm that are well grown, they are ideal candidates for the 2020 season. Otherwise keep a later calf or if nonavailable keep two of your earliest born bull calves from 2020 for the following season.

• Herds with vasectomised bulls have over 70% of their repeat intervals between 18-24 days and very few 6 week repeat intervals.

• Vasectomised bulls work very well with maiden heifers and after 3-6 weeks of AI in cows, when it is getting difficult to heat detect. Also, vasectomised bulls work well in inclement weather conditions.

2020 born heifers - Weigh, Segregate & Feed

October is the month that we can lose ground with the younger weanling heifers. This loss in weight among the younger lighter heifers happens even if concentrates are being fed, it often goes unnoticed as they also begin to grow big coats of hair.

If you have not got a scales ICBF will provide a scales and an operator call 1850 600 900

The cost is €60 call out and the weighing of up to 15 animals, the next 16-30 animals @€2.50 per head, and the next 31-100 @ €1.25 per head.

70 heifers weighed for approx. €100, do the 2019 born and the in-calf heifers.

Arrange a date now and it will happen otherwise it will just go on the long finger!
In calf Heifers - Weigh, Segregate & Feed

90 days left to reach 550kgs at calving.

On most farms in calf heifers are up to target size and weight and are doing well, however on others they need to be addressed immediately. A good starting point is to weigh them, this can be done at the same time as weighing the weanling heifers. Any of them that have not reached target size or weight can be segregated out on the day and fed.

We are now four months from the 1st February calving. In calf heifers will gain little or no bodyweight in the month of January except for the pregnancy weight.

Essentially, we have 3 months October/November/December which is 90 days to achieve the target weight of 550Kgs + at calving.

Take dung samples this month from the maiden and in calf heifers.

Vaccines

When you are purchasing vaccines the following needs to be borne in mind

1. Maintain the cold chain - Most vaccines need to be maintained between 2 - 8°C. Collect them from your vet or supplier and put them in the fridge immediately. Ensure they are maintained between 2 - 8°C in the fridge and that they do not freeze in the fridge- the fridge door is the safest.

2. Pack size. When vaccinating cattle either with the primary (first shot) or booster (second shot or annual booster) avoid using part used vials of vaccines that were previously opened. To achieve this, calculate the number of animals to be vaccinated and order different pack sizes to fit the required number. For example, if you had 120 cattle to vaccinate purchase 2x50 pack sizes and 2x10 packs.

3. Hygienic and Dry. Always be hygienic around vaccination time clean hands, wear gloves and vaccinate on a dry day when the cow skin is dry and clean.

4. Timing. Follow manufactures instructions in relation to vaccination timing of the primary and booster. The estimate is that we have just 50% compliance with timing.

5. Leave 2 weeks between each vaccine except those licensed to be done together.

Salmonella Vaccination - Do it now if not done already.

Vaccines need to be timed to be administered to cattle prior to periods of challenge. Salmonella abortion occurs predominantly at dry off and shortly afterwards. The ideal time to vaccinate is September which is 2 months prior to dry off in November. If you did not complete this in September- complete in October as early as possible.

SCC and Dry Off

If you are not milk recording, you can sign up for 5 tests, do one in autumn of 2019 and the remaining 4 in 2020 and pay in the Autumn 2020. By the time you come to paying for it you will have more than recovered the cost of it. Contact milk recording at 022 43228 to do your 1 late lactation test now.

20th January calving is the 20th of October dry off – 1st Calvers, High SCC and low BCS cows.

When do I dry off? What cows do I dry off earlier to allow every cow 60 + days dry?

- Give each cow at least 60 days to maximise production in 2020.
- Work out the calving date and dry off accordingly.
- 1st calvers always benefit from 8 - 11 weeks dry.
- 20th January calving 20th October dry off.
• Cows with high SCC that you wish to keep and treat, that were not high in 2018 and the udder is normal. The longer the dry period the greater the cure.

• Cows in a low BCS. One option to increase BCS prior to calving is a long dry period, the other option is to feed concentrates over the level of production to increase BCS.

• Cows with low lactose need to be dried off if the lactose is dropping in the bulk tank and those cows milking less than 8-9 litres. React early to a dropping lactose and feed concentrates as once it beginning to drop it is difficult to maintain.

Performance of Milk Recording Herds in Dairygold Dry Period

<table>
<thead>
<tr>
<th>COWS</th>
<th>HEIFERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cure Rate in Dry Period</td>
<td>New infections during dry period</td>
</tr>
<tr>
<td>Top 25%</td>
<td>83-100%</td>
</tr>
<tr>
<td>26 to 50%</td>
<td>73-83%</td>
</tr>
<tr>
<td>51 to 75%</td>
<td>63-73%</td>
</tr>
<tr>
<td>76 to 100%</td>
<td>18-63%</td>
</tr>
</tbody>
</table>

CURE RATE
The above table shows the cure rate in Dairygold herds last winter. Get out your cell check report from your milk recording sheet and check what was your cure rate.

Why are cure rates low in herds?
A milk recording prior to dry off is the key to getting a good cure over the dry period.

1. Are we trying to cure cows that are impossible to cure?
Cows in their 3 - 4+ lactation that were high in SCC in 2018 and also high in 2019 are extremely difficult to cure and need to be culled.

2. Is the dry period long enough?
Cows with low SCC <150,000 need a minimum of 60 days for the udder to regenerate. High SCC cows need a minimum of 70-90 days dry

3. On the high SCC cows did we use a long acting dry cow tube?
High SCC cows need a long acting dry cow tube minimum of 40 days.

4. Are we using the most appropriate antibiotic?
Now is an opportune time to do a sensitivity and culture. Select out 5-10 cows depending on herd size that had low SCC in 2018 and are high in 2019.
5. Are we maximising the cow’s own Immunity?
To maximize the cow’s own immunity, cows need access to 1 cubicle per cow minimum and 24” of barrier space. Cows need to dry off and calve down in a BCS of 3-3.25. Cows need to have three critical elements in their diet; protein, energy and fibre at the correct levels. Dry cow minerals need to be fed for a minimum of 6-8 weeks pre calving.

6. Dry off procedure needs to be executed properly.

Why are we getting New infections in the dry period?
New infections occur at drying off and up to 2 weeks and again prior to calving.

Drying off cows
1. Plan the dry off in advance - 1st lact, SCC, BCS, < 9l/day etc.
2. Do sensitivity to ensure correct antibiotic used
3. Reduce concentrates 2-3 days prior to dry off.
4. Max 20 cows per day /person
5. Hygiene Hygiene Hygiene - glove changes
6. Clean parlour, clean yard - use one side for dry off
7. Plenty of light - daylight am or head torch - glasses if required
8. Routine of teat disinfectant and tube application for each teat
9. Avoid teat sealers in water
10. Record and mark all cows treated and product used
11. Clean dry paddock after dry off
**DRY COW PRODUCTS - Active Ingredients and Withdrawal Times**

Essentially, we have 3 groups: b-Lactams, cephalosporins & combination products. Avoid the use of 4th generation cephalosporins as they are critically controlled antibiotics and should only be used as a last resort. This is to ensure we can preserve the efficacy of antibiotics for our families.

<table>
<thead>
<tr>
<th>Animal Remedy</th>
<th>Withdrawals</th>
<th>Active ingredients</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Meat</td>
<td>Milk</td>
</tr>
<tr>
<td><strong>B-lactams:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bovaclox DC Extra</td>
<td>28 days</td>
<td>Ampicillin Trihydrate (300mg) Cloxacin (600mg)</td>
</tr>
<tr>
<td></td>
<td>49 days +156hrs</td>
<td></td>
</tr>
<tr>
<td>Bovaclox Dry Cow</td>
<td>28 days</td>
<td>Ampicillin Trihydrate (250mg) Cloxacin Benzathine 500mg</td>
</tr>
<tr>
<td></td>
<td>45 days + 120hrs</td>
<td></td>
</tr>
<tr>
<td>Bovimast</td>
<td>28 days</td>
<td>Cloxacin benzathine 500mg</td>
</tr>
<tr>
<td></td>
<td>28 days +120hrs</td>
<td></td>
</tr>
<tr>
<td>Noroclox DC Intramammary</td>
<td>28 days</td>
<td>Cloxacin benzathine 500mg</td>
</tr>
<tr>
<td>Suspension</td>
<td>28 days + 96hrs</td>
<td></td>
</tr>
<tr>
<td>Noroclox DC Xtra</td>
<td>28 days</td>
<td>Cloxacin Benzathine 600mg</td>
</tr>
<tr>
<td></td>
<td>42 days + 96hrs</td>
<td></td>
</tr>
<tr>
<td>Orbenin DC 500mg</td>
<td>28 days</td>
<td>Cloxacin benzathine 500mg</td>
</tr>
<tr>
<td></td>
<td>35 days + 96hrs</td>
<td></td>
</tr>
<tr>
<td>Orbenin Extra Dry Cow 600mg</td>
<td>28 days</td>
<td>Cloxacin benzathine 600mg</td>
</tr>
<tr>
<td></td>
<td>42 days + 96hrs</td>
<td></td>
</tr>
<tr>
<td><strong>Cephalosporins:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cepravin DC Intramammary</td>
<td>21 days</td>
<td>Cefalonium 250mg</td>
</tr>
<tr>
<td></td>
<td>54 days + 96hrs</td>
<td>1st gen Cephalosporins</td>
</tr>
<tr>
<td>Cephaguard DC 150mg</td>
<td>2 days</td>
<td>Cefquinome 150mg</td>
</tr>
<tr>
<td></td>
<td>35 days + 24hrs</td>
<td>4th gen Cephalosporins</td>
</tr>
<tr>
<td>Cefimam DC</td>
<td>2 days</td>
<td>Cefquinome 150mg</td>
</tr>
<tr>
<td></td>
<td>35 days + 24hrs</td>
<td>4th gen Cephalosporins</td>
</tr>
<tr>
<td><strong>Combination Products:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kefamast DC</td>
<td>28 days</td>
<td>Cefalexin 500mg Dihydrostreptomycin Sulphate - 500 mg 1st gen Cephalosporins</td>
</tr>
<tr>
<td></td>
<td>40 days + 60hrs</td>
<td></td>
</tr>
<tr>
<td>Multimast DC</td>
<td>28 days</td>
<td>Neomycin sulphate 100 mg Penethamate hydriodide 100 mg</td>
</tr>
<tr>
<td></td>
<td>50 days + 96hrs</td>
<td>Procaine benzylpenicillin 400mg</td>
</tr>
<tr>
<td>Nafpenzal DC</td>
<td>14 days</td>
<td>Neomycin Sulphate 100mg Penethamate hydriodide 100 mg</td>
</tr>
<tr>
<td></td>
<td>46 days + 48hrs</td>
<td>Procaine benzylpenicillin 300mg Dihydrostreptomycin as sulphate 100mg Nafcillin 100mg</td>
</tr>
<tr>
<td>Multishield DC</td>
<td>28 days</td>
<td>Neomycin Sulphate 100mg Penethamate hydriodide 100 mg</td>
</tr>
<tr>
<td></td>
<td>50 days +96hrs</td>
<td>Procaine benzylpenicillin 400mg</td>
</tr>
<tr>
<td>Ubro Red DC</td>
<td>28 days</td>
<td>Penethamate hydriodide 100mg Procaine Benzylpenicillin 300mg</td>
</tr>
<tr>
<td></td>
<td>28 days + 84hrs</td>
<td>Framycetin sulphate 100mg</td>
</tr>
<tr>
<td>Ubrostar DC</td>
<td>10 days</td>
<td>Penethamate hydriodide 100mg Benethamine penicillin 280mg</td>
</tr>
<tr>
<td></td>
<td>35 days + 36hrs</td>
<td>Framycetin sulphate 100mg</td>
</tr>
</tbody>
</table>
Milk Recording is the only accurate way of measuring how your herd is performing. It plays a critical role in ensuring the long-term sustainability of the Dairy Farm into the future. Dairygold’s new Milk Supplier Sustainability Bonus is designed to assist farmers in maintaining a healthy herd with the most productive cows.

**Additional Benefits of Milk Recording**

- Cows with high SCC may have no visible signs of mastitis, but they will spread infection within your herd and raise your bulk-tank SCC. Milk recording will give you an accurate breakdown of your herd.
- Helps to distinguish between best and worst producers, acting as a beneficial culling tool.
- Allows for identification of top performing cows to breed replacements from.
- In-calf heifers and dairy heifer calves from milk recorded herds with a high EBI can command a premium when sold.
- Milk recording is the tool which compliments an increased awareness and focus on reducing antibiotic usage which will lead to restrictions in blanket applications going forward.

**The Bonus Breakdown**

New Bonus payments will be made to those milk suppliers who participate in dedicated Milk Recording and Herd Health programmes with Munster Bovine. This bonus will be in addition to the existing Balanced scorecard quality payments.

**AUTUMN PROMOTION 2019 - TIME TO GET STARTED**

To help you, Milk suppliers who complete one Milk Recording this Autumn in September or October, and four recordings in 2020 won’t be charged for the five recordings until 2020.

**HOW TO SIGN UP:** In order to complete an Autumn milk recording and be eligible for the Milk Recording Sustainability Bonus payment, milk suppliers must complete and return the Dairygold Sustainability Bonus application form by placing a tick on their desired choice of testing programme.

Contact your Dairygold Milk Advisor or Munster Bovine, Ballyvorisheen, Mallow, Co, Cork on (022) 43228.
WHAT IS ANTIMICROBIAL RESISTANCE (AMR)?

Source: https://www.teagasc.ie/animals/amr/

What are antimicrobials?
Antimicrobials are drugs used to treat infections in humans and animals. Antimicrobials work by killing micro-organisms (bacteria, fungi, viruses, etc.) or stopping the growth of micro-organisms that cause infections. Antimicrobials include medicines such as antibiotics, antifungals and antivirals which are essential in protecting human and animal health, as well as animal welfare.

What is antimicrobial resistance (AMR)?
Antimicrobial resistance (AMR) occurs when micro-organisms that cause infections adapt and prevent an antimicrobial from working against it. As a result the antimicrobials used to treat infections are no longer effective, limiting the treatment options available and therefore making the most common infections more difficult to treat.

The terms antimicrobials and antibiotics are used interchangeably but generally when talking about AMR we are referring to bacterial resistance to antibiotics.

The term antibiotic residue should not be confused with AMR. Antibiotic residue in food means that there are traces of antibiotics remaining in meat and milk derived from animals that have been treated with antibiotics. If a farmer adheres to the required withdrawal period for an antibiotic then no antibiotic residues will exist in these products. However, adhering to the withdrawal period does not prevent the development of antimicrobial resistance. The use of antibiotics over time will inevitably lead to bacteria becoming resistant and antibiotics becoming less effective. However, the misuse and overuse of antimicrobials is accelerating this process.

Why is antimicrobial resistance (AMR) an issue?
It is unlikely that there will be any new classes of antibiotics available for many years. This poses a serious threat to disease control throughout the world. This is not only a global public health concern but it will also have consequences for animal health, food security and the environment.

The discovery of antibiotics has revolutionised health care and prolonged life expectancy across the globe. Antibiotics have substantially reduced mortality from infectious diseases and have provided protection against infectious complications for many modern medical practices including surgery, neonatal care and cancer treatment.

Antibiotics are also widely used in animal health. The availability and use of antibiotics is of vital importance in protecting animal health and welfare, productivity and facilitating the production of safe, nutritious food. If antibiotics lose their efficacy there will be a lack of suitable medicines that farmers can avail of to protect animal health and welfare. This will impact on farm productivity and profitability.
How does antimicrobial resistance (AMR) develop and spread?

The development of resistance is a natural phenomenon that will inevitably occur when antibiotics are used to treat infection. Every time antibiotics are used, bacteria are offered the opportunity to develop resistance.

Resistant bacteria can be transmitted between animals, humans and the environment so AMR is a problem for both animals and, more importantly, humans.

In farming, animals treated with antibiotics can become potential sources of AMR. Resistant bacteria and antibiotic residues can be transmitted from these animals through animal manure spread across the land as fertiliser. This animal manure can be absorbed by food crops, thereby spreading resistant bacteria and antibiotic residues to humans through food. Large quantities of bacteria and antibiotic residues can also enter soil and groundwater from excreted animal urine and manure. Resistant bacteria can also be spread to humans through direct contact with animals.

What factors increase the development and spread of AMR?

The problem at present is that the continued use, particularly the inappropriate use of antibiotics in humans, animals and in other situations is leading to significant increases in the development and spread of AMR.

The misuse of antibiotics may lead to the development and spread of AMR, for example:

- Overuse of antibiotics
- Under-dosing with antibiotics
- Not finishing the treatment course
- Incorrect disposal of antibiotics
- Use of last resort antibiotics as first line therapy
- Blanket use of antibiotics in an untargeted manner
- Treatment of bacteria that are not susceptible to the particular antibiotic
- Treatment of diseases caused by viruses or other germs not susceptible to antibiotics

What can be done at farm level to prevent AMR?

When it comes to animal health, prevention is better than cure. The first step farmers can take to prevent the development of AMR is to improve the overall health status of the animals on the farm. This will not only reduce antibiotic use on farm but it will also maximise farm productivity. This can be achieved through disease prevention strategies such as good biosecurity measures, adequate housing, optimal stocking densities, vaccination and parasite control. Under no circumstances should antibiotics be used to compensate for poor farm management practices.

Antibiotics should be used to maintain animal health and welfare where necessary, in other words they should be used prudently. To use antibiotics prudently is to use them correctly. The six R’s should be followed when using antibiotics:

1. Right Veterinary Diagnosis
2. Right Animal
3. Right Antibiotic
4. Right Dose
5. Right Duration
6. Right Storage and Duration
SureSeal®
2.6g INTRAMAMMARY SUSPENSION FOR CATTLE

Proven Protection at Drying Off

- **Barrier** against intramammary infections during the **dry period**
- **60%** of new infections are picked up during the **dry period**
- **Mimics** the cow’s natural keratin **teat barrier**

Please read the product data sheet and seek advice before use. The dosing programme should be established with your licensed merchant.

Manufactured in NI by: Norbrook Laboratories Ltd, Station Works, Newry, Co. Down, BT35 6JP.
Distributed in ROI by: Norbrook Laboratories (Ireland) Ltd, Rossmore Industrial Estate, Monaghan, County Monaghan.

Legal Category: LM.

Each 4g SureSeal® 2.6g Intramammary Suspension for Cattle syringe contains: Bismuth subnitrate, heavy 2.6 g.
Introduction

Considering the growing awareness of sustainable farm practices, this month we will look at the significance of completing the Sustainability Survey as part of the SDAS audit. There is also a recognition that animal welfare is an important topic in the context of the overall sustainability of dairy production systems and this article will focus on some of the key areas examined during the audit. The article will also look at the areas that are being reviewed from an environmental perspective at farm level.

Sustainability Survey (Q & A)

Question: What is the purpose of the Sustainability Survey?
Answer: The purpose of the Bord Bia Sustainability Survey is to gather information relating to the sustainability performance of its members. This information can be used in conjunction with the Carbon Navigator to set targets to increased efficiencies on farms. The survey also allows a carbon footprint to be generated for each participating farm. The survey must be completed to gain SDAS certification.

Question: How can I complete the Sustainability Survey?
Answer: The sustainability survey can be completed in any one of the following ways:
1. Online through the Bord Bia Producer Homepage at https://farm.bordbia.ie
2. Completing the survey booklet which is sent out by Bord Bia before the audit and giving it to the auditor on the day of audit.
3. On the day of the audit with the auditor.

Question: What are the benefits of completing the Sustainability Survey for the farmer?
Answer: The following are benefits to the farmer of accurately completing the Sustainability Survey with as much detail as possible:
• The data gathered the two latest audits completed on every farm will now be used to generate a new individual Farmer Feedback Report which includes a summary of farm performance under the following headings; General Farm Performance, Carbon Footprint, Greenhouse Gases, Nutrient Management, Grassland Management and Farm Health and Safety.
• The farmer feedback report will allow the farmer to evaluate areas for improvement which can increase profitability and reduce carbon emissions.
• Sustainability involves minimising the amount of resources (e.g. energy, feed, water etc.) used by the enterprises involved, as well as implementing measures that enhance the environmental performance of those enterprises. These sustainability measures also typically deliver economic benefits through lower costs of production.

Question: What are the benefits of completing the Sustainability Survey for the Irish Dairy Industry?
Answer: • With growing concern about carbon emissions within the agricultural sector, there is a an even greater scrutiny on the dairy industry to establish its sustainability credentials. With SDAS certification, farmers can provide can demonstrate their sustainable farming practices to producers, purchasers, customers, regulators or any other stakeholders.
• Increased access to markets that demand on farm certification.
• Capability to benchmark Irish milk production internationally.
• Ability to demonstrate the commitment of Irish dairy farms of their “green” farming practices.

The Sustainability Survey can be completed online by logging on to the Bord Bia Producer Homepage, https://farm.bordbia.ie. You will need your herd number and PIN to log in. Contact the Bord Bia Helpdesk at 01 5240410 if you have lost your PIN.

Animal Welfare

The following is a brief checklist of areas that are covered under the umbrella of animal welfare as part of the SDAS audit.

Animal Welfare Checklist

- Castration must be completed before 6 months with minimal pain to the animal.
- Disbudding of calves without veterinary intervention must be carried out before two weeks of age and must be carried out in a manner that minimises pain.
- Tail docking of cows and calves is prohibited.
- Sick animals must be treated promptly and segregated where required.
- Calving facilities must be in place that permit cows to be restrained promptly and safely as required.

Ensure the milk collection area is maintained in a tidy condition.

Ensure that all farm plastic is gathered in a secure area pending collection.

Note the date that the nearest plastic collection will take place and always keep a receipt of the plastic collection. For more information on this go to the IFFPG website at https://www.farmplastics.ie/

Need Assistance with SDAS?

For any queries in relation to the SDAS contact the Dairygold Milk Advisory Helpdesk on 1890 20 08 40 or alternatively contact your local Milk Advisor. We can also recommend a number of third-party agents who are providing professional help with preparation of bookwork for the SDAS Audit.

Photo 1 Shows cow handling facilities for calving which Bord Bia auditors will inspect during the SDAS audit.

Farmyard and the environment

During an SDAS audit an auditor must be satisfied that there is no risk to the environment from any farm substance. The following areas need to be closely managed from a farm environmental perspective:

- Dung, slurry and effluent storage facilities should be in place:
  - Any dirty or soiled water should be collected.
  - Ensure collection channels are kept clear.
  - Clean silage aprons to reduce effluent storage requirements.

Ensure the milk collection area is maintained in a tidy condition.

Ensure that all farm plastic is gathered in a secure area pending collection.

Note the date that the nearest plastic collection will take place and always keep a receipt of the plastic collection. For more information on this go to the IFFPG website at https://www.farmplastics.ie/

Photo 2 Shows collection yard and slurry storage area maintained in clean condition. Farm roadway off collection area is also clean.
2020 LACTATION STARTS NOW!

While many farmers may consider the dry period as a time for winding down and a break (and rightly so!), it is also the time to get the next lactation off to a great start. What you do now when you dry off your herd can make or break 2020, in terms of udder health and mastitis control.

The dry period is an opportunity to cure persistently infected cows. However, drying off and the dry period can also be a period of risk. While the teat canal is still open in the early dry period, bacteria can gain access to the quarter from the environment. Bacteria can also be inadvertently introduced when giving dry cow therapy. Hygiene and technique at drying off is crucial to avoid this—mistakes made now cannot be fixed later, and will have a negative impact on the udder health of your cows next year. Be prepared, be really fussy about your hygiene, don’t rush it and make sure you’re not hungry!

- Mark cows before treating
- Wear clean gloves
- Disinfect teat ends well, starting with those furthest away
- Starting with the teats nearest you, gently infuse dry cow antibiotic, and massage into the quarter
- With teat sealant, pinch the base of the teat, and DON’T massage!
- Teat spray thoroughly afterwards
- KEEP GOOD RECORDS!!

Disinfect teat ends with cotton wool or teat wipes

For more information and practical tips on Dry Cow Treatment, see CellCheck Farm Guidelines for Mastitis Control-Guidelines 16 – 18 & Management Notes C - F
Millstreet, Co. Cork
Saturday 19th October
#NATIONALDAIRYSHOW

With over 100 Trade Stands
Handling & Cattle Displays
Tractor & Loader Demo
Bale Slicing Demo
Farm Safety
Dairy Innovation Award
Rural Crime Prevention
Live Hoof Care Demo
Sheepdogs and Ducks Demonstrations
Food Tastings
Extended Trade Stand Area
Bespoke Seminar Area
and much, much more!

Don’t miss this great Farming Family Day with something for everyone

Find Out More on www.nationaldairyshow.com and check out updates on Facebook, Twitter, and Instagram.