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ISSUE 76 - JUNE 2019

www.dairygoldagri.ie
Welcome to the June edition of

MILK MATTERS

DAIRYGOLD’S DAIRY ADVISORY BULLETIN

Dear Milk Matters Reader,

During the month of June its vital that you maintain grass quality by adopting the best grassland management practices. Grass quality will be the main driver of production and fertility in your herd.

Some areas are drying up fast and in need of rain, in this month’s Grass Matters, John Maher looks at how we need to adjust our management practices to match growth. On heavy ground, up to 70% of the annual grass growth will occur across the summer. You need to maximise this and build as much of a silage reserve as you can at this time. With some areas drying up I look how we should adjust our feeding strategies during a growth slump.

June 1st breeding = March the 11th calving. Within Fertility and Breeding Matters, Doreen discusses Oestrous Synchronisation and Fixed timed AI, whilst looking at how you can improve your heat detection with fewer numbers of cows bulling.

Maintaining drinking water quality through proper pesticide application and management is a responsibility of all of us. The chemical MCPA used on rushes is of particular concern. Please read pages 11 and 12 for management advice.

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

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**Grass Growth**

![National Grass Growth Curve](image)

**Milk Protein % (weeks 1-20)**

![Protein % Graph](image)

**Milk production to week 20 (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><strong>YTD</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total annual Milk Yield per cow in Dairygold (kg)</td>
<td>1951</td>
<td>1969</td>
<td>1852</td>
<td>2004</td>
</tr>
<tr>
<td>Total annual Milk Solids per cow (kg)</td>
<td>144</td>
<td>145</td>
<td>138</td>
<td>150</td>
</tr>
<tr>
<td>YTD Average Protein %</td>
<td>3.34</td>
<td>3.37</td>
<td>3.33</td>
<td>3.42</td>
</tr>
<tr>
<td>YTD Average Fat %</td>
<td>4.05</td>
<td>4.10</td>
<td>4.13</td>
<td>4.06</td>
</tr>
<tr>
<td>YTD Average Lactose %</td>
<td>4.96</td>
<td>4.92</td>
<td>4.89</td>
<td>4.86</td>
</tr>
</tbody>
</table>

**Milk Butterfat % (weeks 1-20)**

![Butterfat % Graph](image)

**Milk Lactose % (weeks 1-20)**

![Lactose % Graph](image)
Grass quantity may be hugely dependent on the weather, but grass quality is dependent on how you manage your grass quantity. Excess grass needs to be conserved as round bales. Cows grazing excess grass will lead to a milk protein decline. Cows hungry for grass will also lead to a milk protein decline.

To manage your grass:
1. Walk your grass weekly (more frequently during times of high growth)
2. Create a grass wedge
   A grass wedge looks at how your farm is fixed for grass now and over the coming weeks.

It allows you to react with confidence:
- Is there a deficit or surplus?
- Taking paddocks out for round bales when there’s a surplus.
- Feeding back those round bales or concentrates during times of shortage.

The summer will bring both scenarios.

3. Graze paddocks at 1400-1600kg/ha and down to 4cm
   - Grazing paddocks at the correct pre-grazing covers and to the correct post grazing heights, increases utilisation and maintains grass quality (digestibility).
   The better the grass quality, the higher the grass intakes, milk yields and the milk protein %s.

**GRASS AS A FEEDSTUFF:**
Grass like all other feed stuffs is not a complete feedstuff. It can be too high in protein, it lacks structural fibre, its fatty acid profile tends to depress milk butterfat %, it is low in some essential minerals. Most importantly though, grass is a very high, very cheap source of energy.
FEEDING CONCENTRATES AT GRASS:
Feeding concentrates at grass should never be done at the expense of grassland management. Feeding concentrates at grass will only deliver a response if the cows overall intake increases.

Research has shown responses of between 0.6 - 1 kg of milk per kg of concentrates feed. Higher responses have been shown for high yielding cows who can’t meet their intake requirements from grass alone.

**How much grass are your cows eating:**
High intakes of 17kg Dm of grass are only achievable during ideal grazing conditions.

Grass intakes are limited by:
- High pre-grazing covers (> 1500 kgDM/Ha)
- Low pre-grazing covers, (< 1100-1200 kgDM/Ha)
- Poor grass Dry Matter
- Poor grass digestibility (DMD)

### Concentrates required at Grass:

<table>
<thead>
<tr>
<th>Grass intake (kg DM/day)</th>
<th>Milk Yield (kg/day)</th>
<th>Milk Solids (kg/day)</th>
<th>Concentrates (kg/day)</th>
</tr>
</thead>
<tbody>
<tr>
<td>17</td>
<td>&gt;25</td>
<td>&gt;1.75</td>
<td>1*</td>
</tr>
<tr>
<td>17</td>
<td>28</td>
<td>2</td>
<td>1.5</td>
</tr>
<tr>
<td>17</td>
<td>30</td>
<td>2.1</td>
<td>2.5</td>
</tr>
<tr>
<td>17</td>
<td>32</td>
<td>2.25</td>
<td>3.25</td>
</tr>
<tr>
<td>17</td>
<td>34</td>
<td>2.35</td>
<td>4.25</td>
</tr>
<tr>
<td>17</td>
<td>36</td>
<td>2.5</td>
<td>5</td>
</tr>
<tr>
<td>17</td>
<td>38</td>
<td>2.65</td>
<td>6</td>
</tr>
</tbody>
</table>

Assumes 0 BCS change.

*grass alone does not meet a cow’s daily requirement for calcium, phosphorus, magnesium, zinc, iodine and selenium. Even though a cow’s energy demand might not require concentrates, feeding 1kg of concentrates at grass is the cheapest and most effective method of supplying these minerals.

![Grass as a mineral source](image)

**Dietary deficiencies of copper, selenium and iodine are linked to:**
- poor fertility,
- cystic ovaries,
- anoestrous,
- irregular oder supressed oestrus
- and early embryonic death.

### Grass tetany:
Grass tetany is caused by a lack of magnesium (Mg) absorption. Grass tetany affects muscle function, hence the trembling/twitching/trashing. Death is caused by the heart (a muscle) giving up.

### Factors causing grass tetany:
1. Not feeding magnesium: Magnesium is not stored by the cow. Daily supplementation is required.
2. Anything that affects intake: Bad weather, stress, poor grass covers, cows in heat
3. Decreased rumen function

Magnesium is absorbed by the cow in the rumen. Lush highly digestible grass passes through the rumen quicker than lower digestibility forages. The cow has less chance to absorb the magnesium. Magnesium is stored in the grasses stem. Lush covers have a higher leaf to stem ratio and therefore a lower magnesium content.

4. High grass potassium decreases magnesium absorption,
5. High grass Nitrogen. High levels of ammonia

**BE-VARY OF OVER ESTIMATING THE VOLUMES OF GRASS YOUR COWS ARE CONSUMING.**

**Mineral Nutrition:**
Grass does not meet your cow’s Phosphorus, Calcium, Selenium, Iodine, Zinc requirements. Cows also need a daily intake of cal mag to prevent grass tetany.
breakdown in the rumen decreases magnesium absorption
6. Low sodium (Na) content decreases magnesium absorption
7. Milk yield. Higher yielding cows need more daily magnesium

MINERAL FEEDING OPTIONS?
When assessing your options, remember you need to supply magnesium, phosphorus and trace elements. If you’re not using a concentrate this can require a combination of products.

Boluses only supply trace elements:
- How much are they supplying daily?

The cost of feeding magnesium through concentrates is dependent on the milk yield response. Yield responses are typically 0.6kg milk per kg of concentrates. Higher yielding cows that struggle to maximise their intakes at grass will deliver a higher response of c.1kg milk per kg concentrates.

<table>
<thead>
<tr>
<th>Mineral feeding costs net of milk yield response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Milk Response</td>
</tr>
<tr>
<td>----------------</td>
</tr>
<tr>
<td>Dusting Cal mag + trace element bolus</td>
</tr>
<tr>
<td>Mag chloride flakes + trace element bolus</td>
</tr>
<tr>
<td>Flow mag + trace element bolus</td>
</tr>
<tr>
<td>Flow mag fertility + trace elements</td>
</tr>
<tr>
<td>Supermag 5.6% @ 1kg/hd/day</td>
</tr>
<tr>
<td>Post Calver gold 14% @2kg/hd/day</td>
</tr>
<tr>
<td>Hi Pro ECO LAC 14% @ 2kg/hd/day</td>
</tr>
</tbody>
</table>

* assumes a milk yield response of 0.6kg milk/kg concentrates and a milk price of 30c/ltr

For more information please contact your local Area Sales Manager or our Inside Sales Team on 022 31644
Providing You With Peace of Mind

Available in 14%, 16%, 18%, 20% protein cubes

High energy feed containing Category 1 ingredients

Contains BIOPLEX® Zinc, Copper and Manganese and SEL-PLEX® organic selenium from Alltech® to support the immune system and improve fertility parameters

Contains high levels of Vitamin E to maximise cow immune status

Contains high levels of Vitamin D to prevent milk fever post calving

Contains YEA-SACC® live yeast to improve digestibility, feed efficiency, increase production, improve fertility performance all while decreasing greenhouse gas emissions

Contain Biotin, a B vitamin that decreases lameness, increases intake and milk yield

For more Information please contact your local Area Sales Manager or our Inside Sales Team on 022 31644
NUTRIENT REQUIREMENTS AND FERTILISER OPTIONS FOR 2ND CUT SILAGE

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

The nutrient requirement of 2nd cut silage is dependent on:
1. The soil P and K index
2. Have you applied the build-up P and K when spreading fertiliser for 1st cut

P and K requirements units per acre for 2nd cut silage

<table>
<thead>
<tr>
<th>Yield potential/acre</th>
<th>Nitrogen (N) Requirement (units/acre)</th>
<th>Phosphorus (P) Requirement (units/acre)</th>
<th>Potassium (K) Requirement (units/acre)</th>
<th>Sulphur (S) Requirement (units/acre)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2nd cut</td>
<td>6</td>
<td>80</td>
<td>8</td>
<td>60</td>
</tr>
</tbody>
</table>

Build-up Requirements (units/acre) for index 1 and 2 soils for P and K.

<table>
<thead>
<tr>
<th>Build-up Requirements</th>
<th>P (Units/Acre)</th>
<th>K (Units/Acre)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Index 1</td>
<td>16</td>
<td>50</td>
</tr>
<tr>
<td>Index 2</td>
<td>8</td>
<td>25</td>
</tr>
</tbody>
</table>

KEY POINT: 2nd cut silage ground in index 2 for P and K that did not get its build up P and K fertiliser when fertilising the 1st cut needs; 16 units of P and 85 units of K.

The Value of Slurry

Approximately 85% of the economic fertiliser value of slurry is due to its P and K, of which the K content is c.70%. The remaining 15% is Nitrogen.

Nitrogen availability from slurry is c.40% lower in the summer than in the spring. 1000 gals per acre of cattle slurry applied using a splash plate in the spring will supply 6 units N per acre. In the summer the N supplied this is reduced to 3.6 units per acre. Using low emission slurry spreading (LESS) equipment increase the N supplied by c. 25-30%.
Average available Nitrogen in 1000 gals of cattle slurry applied to soils with low P and K indexes (1 or 2) in either spring or summer. The time of the year has little effect on P and K availability.

**Fertiliser Plan for 2nd cut silage**

<table>
<thead>
<tr>
<th></th>
<th>No Slurry</th>
<th>With Slurry</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Product</strong></td>
<td><strong>Rate</strong></td>
<td><strong>Nitrogen</strong></td>
</tr>
<tr>
<td>Silage Boost</td>
<td>4 bags/ac</td>
<td>84</td>
</tr>
<tr>
<td>Selenicut</td>
<td>4 bags/ac</td>
<td>80</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Dairygold Sustainable Fertilisers:**

1. **Protected Ureas:**
   Protected Urea products are c.10% cheaper per kg of N when compared to CAN. Teagasc research has shown that they grow the same levels of grass as CAN and Urea throughout the year while:
   • decreasing ammonia emissions by 80% when compared to Urea
   • decreasing greenhouse gas emission by 74% when compared to CAN.

   Green on the environment and green on your pocket.

2. **Avail Phosphorus**
   Avail® Phosphorus is a water-soluble additive for granular phosphorus fertiliser that enables phosphate to remain free in the soil, allowing for greater plant uptake.

3. **Sulphur**
   Sulphur is an essential nutrient for grass growth and is closely associated with Nitrogen uptake and efficiency. Sulphur application has been shown to:
   • Increase grass silage protein content by 22%
   • Increase grass silage sugar content by 20%
   • Increase grass yield by 2t/ha/yr (£500/ha) and silage yields by over 3t/ha/yr (£750/ha).

4. **Sodium**
   Sodium increases the palatability of grazing grass – especially where slurry is being spread. Sweeter grass means tighter grazing and higher % grass utilisation.
Fertiliser Strategy in a new era

Switching from C.A.N. to Urea limits nitrous oxide emissions

Protected Ureas – A more sustainable option

- Decreases the ammonia losses by 84% when compared to urea
- Decreases the nitrous oxide emissions by 73% when compared to C.A.N.

Protected Urea Products Available through Dairygold Agribusiness

- Area Sales Managers
- Co-op Superstores
- Inside Sales Team

www.dairygoldagri.ie

For more Information please contact your local Area Sales Manager or our Inside Sales Team on 022 31644
Introduction
Dairygold will again this year, be running a grassland support program after 2 successful years in 2017 and 2018. Throughout the summer there will be events such as Branch Grassland Workshops where I will be on hand to offer advice and support on reseeding, spraying and grassland management.

The program is a free service to you and is intended to improve grassland productivity on your farm throughout the year.

We have support to offer in the areas of:
• Grassland Sprays
• Full Reseeding Program
• Getting the most out of your soil

Farmer Benefits
1. Lower levels of weed infestation

Increasing grass utilisation by 1.0tn DM/ha/year is worth €180/Ha to dairy farmers.

Controlling a field with 20% docks can grow 2t/Ha extra grass worth €360/Ha.

2. Reseeding
Now is the time to assess your paddocks and to make a reseeding plan for the coming year. There are many benefits to reseeding poorly performing fields including:
• Provides more grass in the shoulder months
• A 25% increase in response to nitrogen
• A higher feeding quality
• Quicker re-growth
• Allows higher stocking rates for improved efficiency

KEY POINT: An extra 3-5tn DM can be produced from reseeding pastures.

For more information on any of the above topics relating to your own farm please call me on 086 7938408 or call our Inside Sales Department on 022-31644.
CONTROL OF RAGWORT AND RUSHES

By JAMES BOURKE, B.Agr.Sc.,
Dairygold Grassland Specialist and Technical Sales Advisor  Mobile: 086 793 8408

RAGWORT IN GRASSLAND

Ragwort is poisonous when consumed by cattle and has been responsible for many animal fatalities. An animal must consume up to 12% of the animal’s body weight in the weed to cause severe problems.

While live ragwort is unpalatable and cattle don't generally eat it unless grass availability is extremely restricted.

After spraying ragwort becomes more palatable. Cattle must be kept out of fields and silage should not be cut until the dying plant has rotted away. Ragwort eaten in hay or silage is also poisonous.

Spray Control

Ragwort is biannual meaning it goes to the rosette stage in year 1 and will flower in year 2. To successfully control it you need to stop the weed going to seed over a 2 year period. At smaller infestation levels, pulling of ragwort before flowering can be a successful control option. For larger infestations, sprays such as Lupo and Forefront T provide good control.

The key points in chemical Ragwort control include:
- The best time to spray ragwort is at the rosette stage, roughly around half the size of a rugby ball
- The larger the ragwort the longer it takes for the carcass to rot down and not be cut in silage or grazed
- Avoid spraying once the plant becomes stemmy
- Ensure the plant is actively growing

Spray

<table>
<thead>
<tr>
<th>Spray</th>
<th>Rate L/ha (l/ac)</th>
<th>Water L/ha (l/ac)</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forefront T</td>
<td>2.0L/ha (0.8 l/ac)</td>
<td>300L/ha (120 l/ac)</td>
<td>To be sprayed on grazing ground only</td>
</tr>
<tr>
<td>Lupo</td>
<td>4.0L/ha (1.6 l/ac)</td>
<td>200L/ha (80 l/ac)</td>
<td>best control</td>
</tr>
</tbody>
</table>

Rushes:

Grassland Management:
Rushes can produce up to 8,500 seeds per fertile shoot every year. Maintaining a fertile, dense, leafy, highly productive grass sward is the best method to prevent rushes establishing and spreading. Maintaining soil fertility at optimum levels for pH, phosphorus and potassium is critical to this, as is applying sufficient levels of nitrogen. Avoid any poaching, overgrazing or damage to grass swards.

Spray in the Spring (February to Mid-March) or late Autumn (September to Mid-November)
- Ensure that the plant is fully decayed into the soil before grazing again (usually 5 to 6 weeks).

The best spray options are in the table below, note no spray control option is clover safe. Forefront T can only be used on grazing ground.

<table>
<thead>
<tr>
<th>Product</th>
<th>Rate (Ltrs/ha)</th>
<th>Water Volume (ltrs/ha)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MCPA</td>
<td>2.7</td>
<td>250-400</td>
</tr>
<tr>
<td>+ Torpedo</td>
<td>0.2 ltrs/ha</td>
<td></td>
</tr>
</tbody>
</table>

Control:
This needs to be a combination of:
- improving drainage
- grazing management
- fertiliser application
- topping
- chemical control

Chemical Control:
1. Top or mow existing rushes
Whether you are licking or spraying the rushes, top/mow the mature rushes 3 weeks prior to spray application. Remove any mown rushes before spraying.

2. Products:
Apply MCPA in June or July when growth conditions are good. A wetting agent, such as Torpedo, will help the spray stick to the slender rush ‘target’.
Surface waters such as rivers and lakes, account for 80% of drinking water supplies in Ireland. Low level detections of grassland herbicides have been found in drinking water supplies in the last number of years. Exceedance level: 1 part in 10 billion. The equivalent of one drop in an Olympic-sized swimming pool or 1 second in 317 years.

Thankfully 2018 saw a significant drop nationally in the number of exceedances, in treated water, of the pesticides in drinking water quality standard, according to the Department of Agriculture, Food and the Marine. This decrease has been particularly marked in the priority catchment areas, which were monitored more regularly under the industry-led product stewardship scheme.

The four catchment areas are: 1. Longford Central (Lough Forbes); 2. Troyswood, Co. Kilkenny (River Nore); 3. Abbeyfeale Co. Limerick (River Feale) 4. Newcastlewest, Co. Limerick (River Deel)

As an industry we have already implemented some changes to reduce the levels found in drinking water. But it is important that we continue to improve our pesticide spraying management so we can safeguard MCPA as a vital weapon in our chemical armoury.

Actions already taken to reduce levels:
- Rates of all “straight” herbicides based on MCPA were reduced from 3.3 ltrs per ha to 2.7 ltrs per ha
- A 5m buffer strip along all water courses was made mandatory
- It was made illegal to apply a “straight” MCPA based product between the months of October and February
- Use of MCPA in a knapsack sprayer or weed-wiper was also made illegal
- Good Plant Protection Practice guidelines were also amended to make it illegal to fill sprayers directly from water courses
- The Sustainable Use of pesticides Directive was introduced.

At all times we must be responsible with our use of chemicals:
We must:
- Choose the right pesticide product
- Read and follow the product label
- Buy and apply the correct amount
- Not spraying 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.
LEAN FARM TRAINING

LeanFarm Training will recommence in June. Leanfarm training workshops are open to all Dairygold milk suppliers (including family members). Training involves demonstrations on the tools and techniques of Lean by Dairygold’s Continuous Improvement team and our Milk Advisors followed by a farm walk to see the principles of LeanFarm in action.

SCHEDULE FOR LEANFARM TRAINING DATES IN JUNE

<table>
<thead>
<tr>
<th>Date</th>
<th>Dairygold Region</th>
<th>Venue</th>
</tr>
</thead>
<tbody>
<tr>
<td>17th June</td>
<td>Mid Cork</td>
<td>Riverside Hotel Macroom</td>
</tr>
<tr>
<td>19th June</td>
<td>Limerick</td>
<td>Hayes Cappamore</td>
</tr>
<tr>
<td>21st June</td>
<td>Mallow</td>
<td>Springfort Hall Mallow</td>
</tr>
<tr>
<td>24th June</td>
<td>Mid Cork</td>
<td>Oriel House Ballincollig</td>
</tr>
<tr>
<td>26th June</td>
<td>Mitchelstown</td>
<td>Firgrove Hotel</td>
</tr>
<tr>
<td>28th June</td>
<td>East Cork</td>
<td>Garryvoe Hotel</td>
</tr>
</tbody>
</table>

A letter will be posted to all milk suppliers outlining the dates that have been planned in each region. If you wish to attend a training session, please contact your Milk Advisor or the Dairygold Milk Advisory Helpdesk on 1890 200 840.

DAIRYGOLD TEAGASC JOINT PROGRAMME LEANFARM EVENT

We plan to hold a LeanFarm Event on the farm of Sean Moher, Croughmore, Mitchelstown on Wednesday June 12th at 11 am.

All are welcome to attend.

LEANFARM IDEA €200 PRIZE ON OFFER

We are now accepting entries for the Dairygold Lean Farm Competition. The prize on offer is €200.

For assistance in entering the completion please contact your Milk Advisor. Alternatively

(1) Email your idea to leanfarmcomp@dairygold.ie

OR

(2) Send by post to Lean Farm Competition, Dairygold Cooperative Society Limited, Clonmel, Mitchelstown, Co. Cork

TREVOR CROWLEY WINNER OF BORD BIA ORIGIN GREEN AWARD 2018

The Sustainability Open Day was recently held at Trevor Crowleys farm in Lissarda Co. Cork. Trevor won the Origin Green Bord Bia Sustainability Awards 2018 for the Most Reduced Carbon Footprint Category.

Trevor compiled a list of improvements at the LeanFarm training which he planned to complete at home to save time, effort and money. At the LeanFarm Waste Walk Trevor picked up a number of useful tips to implement improvements on his farm. The following are examples of some improvements that were to be seen on the Crowley Farm which has helped to make his farming operation more sustainable.

- Fast fill dairy wash trough tap
- Calves are moved quickly and safely on this farm
- Silage scrape to speed up feeding
- Point of use - easy access for frequently used items
INTRODUCING BIOBOS L, LEPTOSPIROSIS VACCINE

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

With supply of traditional Leptospirosis vaccines limited this year, Dairygold Agri in partnership with co-op animal health (CAHL) have sourced and licensed a new Leptospirosis vaccine, namely BioBos L.

The Department of Agriculture has verified that the ‘Biobos L’ product meets the same quality, efficacy and safety standards as the other two Leptospirosis vaccines and will meet the same requirements for animal protection as the other vaccines.

BioBos L has been licensed and used in other EU countries for many years but has never been used in Ireland. Bioveta, the manufacturer of the BioBos L product, is a highly regarded pharmaceutical company based in the Czech Republic.

A summer vaccination for lepto is not the norm but there is no issue with it. If you missed your usual lepto vaccination earlier in the year, due to the unavailability of the traditional vaccines you should vaccination immediately to protect the pregnant cow across the summer. Delaying lepto vaccination until later in the year will leave more pregnancies at risk of leptospirosis infection. This will increase the risk of early embryo loss or abortions during the summer. Un-vaccinated cows will also leave farmers and farm staff at an increased risk of contracting the disease from infected cow’s urine, especially in the milking parlour.

KEY POINTS

- The BioBos L product can be used in the same way, and will provide the same disease protection as the other two vaccines on the market

- A single shot of the BioBos L vaccine will be sufficient to boost the immunity of animals that have previously been vaccinated.

- BioBos L can be given to animals during the breeding season so that pregnancies are protected and animal/human health is also safeguarded for the rest of the season

- As with the other lepto vaccines, heifers will need two doses, four weeks apart for their primary course, which should be carried out asap to protect their pregnancies also

BioBos L Product information

BioBosL Dosage: 2ml
BioBosL Vial size: 5 dose
BioBosL Administration: Subcutaneous injection (preferably in the neck)

BioBosL Vaccination programme:

Basic Vaccination: 2 doses of vaccine separated by a 4 to 6 week interval. Basic vaccination for calves can be started from 4 weeks of age

Revaccination scheme: A single 2 ml dose on an annual basis

Legal category: LM
Withdrawal: Zero days
**ANTHELMINTIC RESISTANCE**

*By DENNIS HOWARD, Veterinary Surgeon, Munster Bovine*

**What is Anthelmintic Resistance.**

Anthelmintic resistance is the heritable (and therefore genetic) ability of the parasite to survive a dose of anthelmintic which would normally be effective.

Anthelmintic resistance is becoming more common on Irish farms. This is evident from research carried out by Teagasc in 2017 where widespread resistance was found to the benzimidazoles (white wormers) and the macrocyclic lactones (clear wormers) on dairy calf to beef systems around the country. Anecdotally resistance is being reported from farmers and vets on the ground where poor response to treatment is being observed and diagnosed from follow up testing.

**Reasons why parasite control is becoming more challenging on Irish dairy farms.**

- High stocking rates- up to 4 LU/Ha on milking platforms during the summer months.
- Short rotations- 17/18 days during peak growth.
- Target of 10 grazings per year and a grazing season of 300 days.
- Lower residuals and better clean out of paddocks mean grazing closer to the ground.
- Shorter housing period means diminished opportunity to treat while there is no risk of infection.
- Mid-January spreading of slurry in the Dairygold area means parasite eggs can still be infective to pasture as they can survive for up to 2 months in slurry.
- Dairy farmers are limited in what products they can use both from a licencing and withdrawal perspective.
All these factors work in favour of parasites meaning pastures become more contaminated and cattle are exposed to more parasites more frequently.

**Main reasons for the build up of anthelmintic resistance on farms.**

- Underdosing/underestimating liveweight.
- Dosing when no treatment is required.
- Dosing too frequently.
- Overuse of the one product/not rotating doses either during the season or from season to season.
- Movement of livestock - Bought in cattle or heifers returning from contract rearing can carry worms and fluke that have developed resistance onto the farm.
- This is also true for liver fluke that have become resistant to Triclabendazole in a sheep population. Triclabendazole is particularly important for treating Liver Fluke in dairy cattle.
- Pastures are rarely without livestock for more than 6 months which is the time required for parasite burdens to decrease significantly.
- Minimal cultivation is becoming more popular than ploughing as a means of reseeding which means parasite are not being buried by the plough.

**Combating Anthelmintic Resistance.**

The best way to combat anthelmintic resistance on farm is to engage in more monitoring during the grazing season which will lead to more informed decisions being made regarding the timing of treatment and the product being used.

- Regular weighting of stock in particular calves is an excellent method for monitoring performance. Average daily liveweight gain (<0.7kg/day DLWG) is indicative that a parasitic burden is affecting performance.
- Pooled Faecal egg counts (FECs) is an easy and cost-effective way of monitoring parasites in a management group. This can be done once a month for calves and less frequently for older animal groups.
- Pooled FECs will give valuable information on which parasites are involved (coccidia, stomach worms, lungworm, liver fluke, rumen fluke) and how heavy the infection is.
- Visual observation - There is no replacement for good stockmanship. This is particularly important for lungworm with coughing being the main sign. Lungworm is difficult to pick up in dung samples as it is larvae that are being looked for and not eggs. Infection can happen very quickly and needs to be addressed immediately.
- Assessing treatment success - This can be done by sampling animals immediately before treatment and 1 to 2 weeks after treatment depending on the dose used. A faecal egg count reduction test is performed in the lab which will determine how effective the treatment was and if anthelmintic resistance was evident.

**Summary**

Anthelmintic resistance is a reality on our farms and the problem will get worse unless we change our approach to dosing. We can plan our winter dosing based on bulk milk results, pooled FECs, farm history etc but we must engage in more monitoring during the grazing season. Pooled FECs can play an important role in this strategy, allowing a more targeted approach to dosing. More information on the parasites involved and their relative burden in the animals allows better more informed decision to be made regarding the product to use and when you need to use it.
Sean Moher who lives near Kilbeheny, Co Cork is the Lean focus monitor farmer in the Dairygold/Teagasc Joint Programme. Last year Sean milked 85 cows on a 28ha milking platform which is split by the Cork Tipperary border. In 2018 475kg milk solids/cow was sold to the co-op and 1.4 tonnes meal fed/cow. Meal fed increased by 40% on the year previous as grass grown on the farm reduced to 10.6tonnes grass DM/ha. The herd current EBI is €148.

Once you visit Sean Mohers farm and speak to him about his daily routines and approach to farming; you can understand why Sean was selected as a Lean focus monitor farmer. Sean has a very organised and efficient yard and farming method. He has put time and thought into how to run his farm in such as manner as to reduce wastage, in any format, such as money or time. I was particularly impressed this spring to see the ‘calf station’ – an area where Sean keeps all utensils for calving cows and calf rearing in an organized and clean manner so he does not waste time looking for items at a time when he is under work and time constraints. What also works well in Seans farm is to have standardised procedures – which effectively means to have a standard plan of how to complete a task on a farm e.g. moving calves from calf house to outside farm for grazing.

Come hear more of how Sean uses Lean on his farm and how it works for him at an

OPEN DAY ON HIS FARM
ON WEDNESDAY 12TH JUNE 11AM
AS PART OF THE TEAGASC/DAIRYGOLD
JOINT PROGRAMME.
EIRCODE FOR THE FARM P67FP93

Current average Performance of Monitor Farmers: 20th May 2019

| Stocking rate on milking platform: | 4.02 |
| Average Farm Cover kgDM/ha | 665 |
| Grass Demand kgDM/ha | 62 |
| Grass growth rate kgDM/ha | 79 |
| Milk litres/cow | 28.3 |
| Fat % | 4.00 |
| Protein % | 3.62 |
| Milk solids/cow/day | 2.21 |
| Meal kg/cow | 4.3 |

FARM EVENT
Future Proofing Irish Dairy Farm Systems

AGENDA
- Nutrient Management Planning
- Nitrates and Water Quality
- Biodiversity

Farmer | Location | Date and Time |
-------|----------|---------------|
Kevin Downing | Farranastig, Co. Cork, T34X336 | 14th of June 11am to 1pm |
Tom Horan | Price’s lot, Cashel, Co. Tipperary, E25FH48 | 21st of June 11am to 1pm |
Silage effluent or water!

Silage effluent with a pH of c.4.5 burns through concrete. Tap water has a pH of 6.5 to 7 (neutral). On many occasions I see soil sample with a pH of 5.5, a pH closer to silage effluent than water.

Teagasc research has found huge benefits of correcting soil pH to the target of 6.3 to 6.5 pH by applying lime;

- Increased grass growth (extra 1 tonne dry matter/ha)
- Extra N released from the soil (Up to 2.5 bags of CAN/acre/year)
- Extra P and K unlocked from the soil
- Better grass growth response to recently applied N, P and K.

Getting lime on early and rules of thumb

1. Which fields need lime: Check out your soil sample results to see if any of your paddocks need lime.
2. Spread lime now (do not wait until autumn);
   a. On bear paddocks that have been either cut for 1st cut silage or surplus bales
   b. On paddocks that will be reseeded.
   c. By using a little and often approached during the grazing rotation

Aim to apply the lime when the grass is dry, to avoid the lime sticking to the leaf, and when rain showers are forecast over the next few days to wash the lime in.

| Table 1: Rules of thumb around lime spreading |
|------------------|----------------------------------|
| Decisions        | Actions                          |
| Grazing          | Apply lime after grazing. Aim to have lime washed off grass leaves before next grazing |
| 2nd cut silage   | Do not apply lime on ground intended for 2nd cut silage. Apply the lime after 2nd cut instead |
| Slurry           | Apply slurry first and then lime 7 days later |
| Urea and protected urea fertiliser | Do not apply urea and protected urea fertiliser for three months after lime application |
| CAN and N.P.K compounds | CAN and N.P.K compounds are the best N fertiliser to use after spreading lime for the first three months. No gap is required after lime application |
| Lime application rate | Check your soil sample results. Where recommended rates are higher than 3t lime/ac apply 50% now and the reminder in 2 years |

KEY POINT: We are asking far too much of our grass to grow and perform in soil that is closer to the acidity of silage effluent than water.

KEY POINT: The dry ground conditions, bear paddocks that have been either cut for 1st cut silage or surplus bales and reseeding presents ideal opportunities to get lime spread now.

TAKE YOUR OPPORTUNITIES TO GET LIME ON

By WILLIAM BURCHILL, Teagasc Joint Programme
KEEPING GRASS SUPPLY ON TRACK

Recent figures from PastureBase Ireland (www.pbi.ie) demonstrate huge variation in grass supply across the Dairygold co-op region. The effect of weather conditions and grazing management on grass growth is very variable across the region (farmers with low levels of grass to farms with surplus grass).

The key is to try to match the growth of grass with the demand of the herd to help maintain grass supply on the farm. A proactive approach must be adopted to tackle the prevailing and anticipated drought conditions on some farms. Remember growth rates are available daily on www.pbi.ie.

Keeping the “RIGHT” grass in front of the cows by keeping to a 20 day rotation is critical to keep the performance of the herd high. For those who measure grass this is 1400 KgDM/Ha of leafy grass.

Soil Moisture Deficit:
Soil moisture deficits (SMD) of over 25 mm (1 inch) exist in certain parts of the co-op region (Met Eireann). This includes parts of Cork, parts of Tipperary, parts of Limerick & Clare. The rate of grass growth starts to decline where there is a deficit of 25mm or more. Growth rate is significantly reduced at 50mm (2 inches) or more.

For Example: If growth is 50 kg DM/ha/day (about 75% of normal) then the herd demand must match this. e.g. A herd stocked at 3.5 cows/ha on the milking platform has a feed demand of 60 kgDM/ha/day

or 3.5 x 17 kg DM intake/cow = 59.5.

So if grass growth rate is 50 Kg DM/ha/day then grass intake should be about 14 kg of DM/cow/day

or 3.5 x 14 kg DM intake of grass/day = 49.

So 3 to 4 kg of meal/cow/ day (or meal with some high
quality silage) is required to “fill the feed gap”.

During drought conditions farmers must maintain a minimum of a 20 day rotation (preferably 25 days) to keep some level of grass in the diet despite the reduced level of grass growth. This is NOT calculated by looking back but by the proportion of the farm grazed each day i.e. grazing 4 to 5 acres per day on a 100 acre milking platform.

Keeping to a 20 to 25 day rotation (by the proportion of the farm grazed each day) will tell the farmer how much additional feed the farmer will need for the herd each day to fill the gap and will also indicate how much grass is on the farm.

Grazing additional land or silage ground will help maintain grass supply on the farm. Strip grazing some silage ground (if available) after the evening milking may be an option. This makes more sense than feeding silage bales etc.

Sale of surplus stock may also need to be considered.

There are some farms carrying surplus stock (e.g. cull cows etc.) these animals are eating valuable feed on the farm and are low profit animals. Therefore they should be removed.

Where drought conditions are (or are likely to become) a problem, Toping/Mowing paddocks should cease. This is wasting feed and enhancing the drying conditions further.

Fertiliser N application should continue in a “green drought” until 25 days has passed without rain.

Water intake of animals will double where grass is dry and silage and meal are being fed.

**Sulphur: Not too late!!!**

Sulphur deficiency arises mainly during the summer months but you need the “money in the bank” before the summer arrives. Every paddock needs about 15-20 units/acre of Sulphur applied to it by the end of June. Applying ASN (26%N & 14%S per 50kg bag) now at 1.5 bags/acre will meet the Sulphur requirement for the year. Silage ground also requires 10 units/ac of sulphur.

Taking Advantage of Grass Growth

Approximately 65-70% of the grass produced for the year on a heavy farm grows between mid – April to mid-August. Responses to fertiliser are highest during this period. Every effort then must made to grow more grass and spread fertiliser to do so during the next 3 months. Now is the time to “make hay” and grow as much grass as possible so we can make more silage.

The top priority for the farms in the Heavy Soils Programme is to make enough silage for next winter and try and put a silage reserve in place also.

3 bales/cow are required as a silage reserve for those who dairy farm on heavy land.

**Fertiliser**

Making efficient use of slurry and fertiliser is a good starting point to increase both grass and silage production. Grazing ground requires fertiliser N, P & K and sulphur (S) application.

P & K applications are required for heavy land as clay soils are hungrier. So nitrogen compounds (N, P & K, S
products) such as 18-6-12+S should be applied. There is also a much greater response to Sulphur (S) application than before. So 15-20 units/acre of sulphur are required by July on grazing ground and about half of this for silage ground.

Spreading extra fertiliser will enable more grass to grow so more silage can be made. This is particularly true of the out farms. For example, every extra 50 bales will easily carry 6-7 cows for the winter.

Slurry should be applied to the ground cut for silage in late May/early June. Too much slurry is being spread late into the year. This “fertiliser” is not being used efficiently as grass/silage production is lower later in the season. It is also much more difficult to spread slurry at the end of the grazing year. Getting suitable ground conditions for machinery work is always a challenge in the autumn on heavy land.

**Spread Lime & Fix the P&K Deficiency**

From a recent survey on lime application, farmers identified weather as the main barrier to lime application. This makes sense if you are trying to apply lime during the off-season months. However, applying lime during the drier six months of the year is possible on cleaned off swards. For liming advice please see William Burchills article on page 19.

Remember that applying lime to soils to raise the pH above 6 will increase the availability of Phosphorus (P) and to a lesser extent Potassium (K). Compound fertilisers are not cheap (especially P) so lime application releases the P from the soil and will lower fertiliser costs!!!
FILLING A GROWTH SLUMP

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

It is not uncommon for grass growth to slow from year to year. On dry farms a dry summer brings the slump, on wet farms a wet summer brings its problems. While opposites work well for both types. At present as noted by John Maher in his grass matters section moisture levels on farm at under pressure in some areas while others are not feeling the pinch. Irrespective of the reasons when grass growth slows, we must react to lower our demand.

If you have plenty grass and growth rates are not being affected by moisture levels, then feed the concentrates suggested on page 5. However, if your grass growth levels are being negatively affected by a soil moisture deficit you need to up concentrate levels or feed an alternative forage source to reduce grass demand.

How much addition concentrates or forage is needed is dependant on your cows’ demand vs your grass growth rates? Please contact to your ASM for feeding advise if needed.

In general, there should be no issue with replacing 50% of the cow’s daily grass intake with a concentrate alternative. All this concentrate can be fed in the parlour or can be split into 3 feeds (2 in the parlour and 1 mid-day). A 3-way feeding programme will be easier on the cows’ rumen and should have a smaller impact on rumen pH and milk butterfat % than an “all in the parlour” system.

If available, you can use round bales to fill the growth deficit or Dairygold Agri also has a limited quantity of alfalfa.

Alfalfa has proven itself to be positive in terms of milk volume and butterfat % at farm.

<table>
<thead>
<tr>
<th>Filling a Growth Slump by lowering grass demand:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Stocking rate</strong></td>
</tr>
<tr>
<td>Kg DM/ cow/day</td>
</tr>
<tr>
<td>Silage</td>
</tr>
<tr>
<td>Alfalfa</td>
</tr>
<tr>
<td>Concentrates</td>
</tr>
</tbody>
</table>

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FERTILITY & BREEDING

By DOREEN CORRIDAN, MVB MRCVS PhD, Munster Cattle Breeding

Need 82% of the current milking cows in calf and calving in 2020. We have 50% of the cows in calf now.

June is key to maximise March calving.

100 cow herd having completed 3 weeks breeding with 50% incalf

<table>
<thead>
<tr>
<th>Monday 3rd June</th>
<th>AM</th>
<th>Day 0</th>
<th>Insert PRID or CIDR and inject GnRH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monday 10th June</td>
<td>AM</td>
<td>Day 7</td>
<td>Inject PG &amp; remove PRID/CIDR</td>
</tr>
<tr>
<td>Wednesday 12th June</td>
<td>PM</td>
<td>Day 9</td>
<td>Inject GnRH (56 hours post PG)</td>
</tr>
<tr>
<td>Thursday 13th June</td>
<td>AM to NOON</td>
<td>Day 10</td>
<td>AI all cows 16-20 hours post GnRH</td>
</tr>
</tbody>
</table>

1. Re-evaluate the heat detection method

- Heat activity is halved.
- Change colour in the tail paint and work with new colour. If cows had being painted blue and it was now on in layers ignore it and paint the cows a different colour eg Pink. If the Pink is gone the cow is on heat.
- Scratch cards are excellent this time of year

<table>
<thead>
<tr>
<th>Weeks Breeding</th>
<th>100 Cow Herd</th>
<th>200 Cow Herd</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Cows in heat per day</td>
<td>Mounts per Cow per day</td>
</tr>
<tr>
<td>1st 3 weeks</td>
<td>5</td>
<td>50</td>
</tr>
<tr>
<td>2nd 3 weeks</td>
<td>3</td>
<td>27</td>
</tr>
<tr>
<td>3rd 3 weeks</td>
<td>1 to 2</td>
<td>11</td>
</tr>
<tr>
<td>4th 3 weeks</td>
<td>1</td>
<td>10</td>
</tr>
</tbody>
</table>

NOTE:
June 1st breeding is 10th March calving
Scratch Cards
Superb product for heifers at grass. Also superb for cows.
Only apply cards to dry heifers or cows on a dry day. Watch the forecast.

1. Apply scratch cards to dry hair on a dry day otherwise the glue will not adhere. Watch the forecast. Cost of a roll of 100 cards is €55 and a can of glue €20. 75c per card applied. Wear gloves to avoid glue on hands.

2. Do not clip, glue needs hair for adherence, just comb or brush, to remove loose hair and dirt. Loose hair is shed easily in the spring and will take the scratch card with it when shed.

3. Layout the number of cards corresponding to the number of heifers in the crush in a clean dry non-windy and dust free area and spray with glue. Dust sticking to the card reduces the adhesiveness of the glue. Ensure to cover the entire card to the edges of the cards.

4. Spray cleaned brushed rump area in an east to west direction where the card is to be applied, across the back bone.

5. Patience required now until the first card gets tacky. Wait .... When tacky the card will stick to your glove and not fall to the ground.

6. Apply the card to the sprayed area- East to West

7. Secure in place by applying gentle pressure especially at the edges 7a. Card properly applied

8. Heifer in heat, grey rubbed off and red exposed. Can also get green and yellow cards.

9. Lot of mounting, grey and red rubbed off, white exposed and edges curled from mounting.

10. As heifers are A I’d cut the tails. Long tails are those yet to be inseminated

11. Get heifers into the yard each day and check scratch cards

12. As heifers are being A I’d, cut the hair off the tails. Long tails are those yet to be inseminated.
Late Calvers - The Forgotten Ladies Programme - 5 Point Plan

The forgotten ladies! Ensure a calving date after St Patricks Day does not define the life span of cows in a herd. Ensure these cows go in calf and it is possible to gain a month with them.

Give them an opportunity of 2-3 serves in 2019, to maximise their chances of remaining in the herd in 2020 and perhaps gain 3-4 weeks.

We need cows to last for an average of 5.5 lactations in the herd to maximise profitability.

1. Nutrition. Late calvers need an extra 3-5Kgs of concentrated more per day than the early calving cows for the 1st 6 weeks of lactation. Secondly putting these cows on once a day milking and feed them extra twice a day will allow them to commence cycling earlier. Ensure these cows are gaining or maintaining weight, avoid any further loss of weight.

Cows do not reach their peak intakes of grass until they are calved 6 weeks. Therefore, late calving cows will be consuming between 10 and 12Kgs of grass DM in early lactation as opposed to 16-18Kgs for the February calving cows.

2. Metricheck. Metricheck at 28 days calved to ensure no endometritis present. If present insert a Metricure- zero milk withdrawal. A cow calved early February has had over 80 days and possibly 2-3 cycles to repair and cleanse her uterus – in late calvers we are continually aiming to gain time.

Late calvers not yet bred should be metrichecked immediately.

3. Synchronisation. Synchronisation at 35 days calved and check to ensure any uterine infection is cleared prior to synchronisation. The following programme works well for late calvers and cows calved 35 days not bred.

<table>
<thead>
<tr>
<th>Day of the Week</th>
<th>Time</th>
<th>Day</th>
<th>Procedure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monday 3rd June</td>
<td>AM</td>
<td>0</td>
<td>Insert PRID or CIDR and inject GnRH</td>
</tr>
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<td>7</td>
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<td>10</td>
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</tr>
</tbody>
</table>

4. Inseminate. Inseminate the late calving cows with easy calving short gestation bulls. These bulls will gain you 7-10 days next year.

5. Scan. Scan once 30 days has passed and cow has not repeated. These late calvers are repeating at a time when activity is decreased, and it can be more difficult to detect them.

Top Tips
1. 5 Point Plan for late calvers- OAD milking, Metricheck/Metricure, Synchronisation, Insemination & Scanning.
2. €50 cost to keep these cows in the herd, reduce replacement rate and keep mature herd to maximise production. 6 days milk production covers the cost of the programme.

Maiden Heifers Breeding

Ensure heifers are on a rising plane of nutrition and are gaining weight. Avoid any reduction in intakes at this time, avoid keeping them in a bare paddock as it near the crush. This will reduce heat activity and conception rates.

Heifers 50Kg or less under target weight.

Breed these heifers in the 1st 3 weeks of the breeding season avoid delaying them by 3 weeks, as delaying by 3 weeks will result in March & April calvers and an early exit from the herd.
When grass quality begins to decrease in July start feeding these heifers not up to target weight to ensure that at housing, they are at target weight. Avoid delaying the supplementation of these heifers until November.

**Heat Detection**

Decide which method or combination of heat detection you are going to use. Ideally for heifers use two methods as they can be difficult to detect accurately. Vasectomised bulls, scratch cards or paint sticks are superior to tail paint in heifers, heifers are not heavy enough to rub off the paint unlike cows.

<table>
<thead>
<tr>
<th>Vasectomised Bull &amp; Scratch Cards or Paint sticks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scratch Cards &amp; Paint sticks</td>
</tr>
</tbody>
</table>

**Scanning**

This is an extremely worthwhile exercise in heifers. Scan the heifers 30 days after the majority have been served and place scratch cards on the empty heifers and watch them carefully for repeats.

**Monitor stock bull when released**

In maiden heifers it is crucial to monitor the stock bull throughout the season either with a chinball or scratch cards on the heifers. Repeats are not as evident in maidens; they are usually checked mid-day and activity is greatest early in the morning after daybreak or very late in the evening.

Following synchronisation, the stock bull can be left in the following day. However, AI’ing the repeats ensures that the bulls are not overworked, fertility is maximised, and it avoids bulls getting injured ensuring we will have them when we need them. AI each day when more than 1 repeat is presented to a young bull or 2 to a mature bull. Periods of low conception rate can occur when an increased number of repeats are presented to the bull.

**STOCK BULLS**

Every 3 weeks of AI halves the number of bulls required.

This table outlines the number of bulls required for cows only.

**Minimum Number of Bulls required at different herd sizes after 3 weeks insemination assuming 90% submission in the 3 weeks.**

<table>
<thead>
<tr>
<th>HERD SIZE</th>
<th>80 COWS</th>
<th>120 COWS</th>
<th>150 COWS</th>
<th>200 COWS</th>
<th>250 COWS</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 weeks Al</td>
<td>3 weeks Al 90% submission rate. Number of empty cows.</td>
<td>40 empty cows</td>
<td>61 empty cows</td>
<td>76 empty cows</td>
<td>101 empty cows</td>
</tr>
<tr>
<td>Number of bulls required with 3 weeks Al</td>
<td>1 Mature &amp; 1 Young bull</td>
<td>2 Mature bulls</td>
<td>2 Mature &amp; 1 Young bull</td>
<td>3 Mature &amp; 1 Young bull</td>
<td>4 Mature &amp; 1 Young bull</td>
</tr>
</tbody>
</table>

**Johnes Testing**

- Get your herd tested for Johnes free of charge and hassle free this year.
- If you are milk recording the same sample can be used to test for Johnes.
- Any positives will be retested free of charge also.
- Know your herd status, what cows to retain for 2020 and what cows to breed your replacements from.

*Call the milk recording office 022 43228 to sign up.*
<table>
<thead>
<tr>
<th>HERD SIZE</th>
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</tr>
</thead>
<tbody>
<tr>
<td>3 weeks AI</td>
<td>6 weeks AI 90% submission rate. Number of empty cows.</td>
<td>20 empty cows</td>
<td>31 empty cows</td>
<td>38 empty cows</td>
<td>51 empty cows</td>
</tr>
<tr>
<td>Number of bulls required with 6 weeks AI</td>
<td>1 Young bull</td>
<td>1 Mature or 2 Young bulls</td>
<td>1 Mature &amp; 1 Young bull</td>
<td>2 Mature bulls</td>
<td>2 Mature &amp; 1 Young bull</td>
</tr>
</tbody>
</table>
Stock Bull Management

1. Bull Power
Adequate bull power is required for compact calving. One young bull to 10 empty females and one mature bull to 20-30 empty females. Every 3 weeks AI reduces bull power by half. Maximise bull power by 24 hours on and 24 hours resting and feeding.

\[ \times 1 = \begin{array}{c} \text{bull} \\ \times 20-30 \end{array} \]

2. Calving Difficulty
Easy calving is crucial for maiden heifers and dairy cows calving later in the season with higher BCS. In AI we find that for maidens calving difficulty needs to be <2.4% with high reliability >90%, cows need to be <4.5%. Stock sires have lower reliability - more care required.

3. Purchase in advance
Purchase 2 months in advance of when required to allow for acclimatization, disease testing and vaccination. Vaccinate and dose him with whatever the herd is being vaccinated and dosed with.

4. Nutritional & Relocation Stress
Young bulls are very susceptible to stress of relocation and nutritional stress if losing weight. Young bulls need extra energy as they are still growing, need energy to do their work and they expend more energy than older bulls as they do more courting. Bulls that rapidly lose weight >50Kg go infertile.

5. Footbathe Bull on arrival
Footbathe all bulls on arrival to avoid the introduction of Mortellaro. Pair him with another animal of similar or smaller size for company initially. The bull will be more relaxed and easier to handle.

6. Fertility Tested
Getting your bull fertility tested by your vet. Ensure a young bull can mate prior to leaving him run with females. Train him in a small paddock by introducing a small female fully on heat.

7. Lame and injured bulls
Lame and injured bulls need to be rested and treated. Some may not recover for the season. If the bull runs a high temperature or goes lame retest his fertility before he resumes mating as depending on the result it can take a full 6-12 weeks to recover.

8. Monitor
Need to monitor bull throughout the season, either with a chinball on him or scratch cards and tail paint on the females. Monitor repeats from synchronization and it may be prudent to AI for the 2-4 days. Watch for low conception rates whereby an increased number of repeats are presented to the bull.
Don’t think of regular milk recording as a cost that you can cut out of your production system. Milk recording is in fact a way of making savings on your farm and increasing your profitability. Milk recording is the best tool you have to establish which cows are the most productive in terms of fat, protein and milk yields and ‘paying their way’, but even more importantly it identifies cows with high SCC, indicating subclinical mastitis. These cows are costing you money.

- Measure to manage – measuring an individual cow’s performance means you can make informed decisions. This is critical as herds expand.
- Identifying and managing high SCC cows helps stop the spread of infection between cows
- Cows which are likely to benefit from treatment can be identified quickly
- Tracking when outbreaks of mastitis happen can help identify times you should target e.g. at calving, or in mid-lactation?

The CellCheck Farm Summary report provides a clear overview of how your herd is performing in the area of mastitis control and udder health and if your herd is on, above, or below target. The report uses a star-rating system to highlight areas of excellence, or areas of mastitis control that would benefit from investigation and corrective action. This report also looks specifically at mastitis control during the dry period and at calving, but it can only do this for cows that have a milk recording within 60 days of calving. So to get maximum value from your milk recording, if you haven’t started milk recording this season, get started now!

Milk recording is also essential for herds that are considering using selective dry cow therapy-get started now, to have sufficient information to allow you to do this at the end of the year. Regular milk recording will give much better information than ad hoc individual cow testing, and doing it monthly gives you even more bang for your buck. Most performance measures and targets are based on monthly milk recording results. Like any disease entity, mastitis is dynamic and having regular, timely information will allow for earlier and more effective intervention, when required. Much change can happen unbeknownst to us, both positive and negative, when we leave long periods between milk recordings!

✔ Top Tip:
Considering using electronic ID tags now to make milk recording of these animals in the future easier

For a more detailed explanation of the CellCheck Farm Summary Report, and the graphs presented, see the CellCheck Farm Summary Report information page.
This year the IHFA National Holstein Friesian open day is coming to Cork. The event, on Thursday June 27th, will be hosted by the Radney Holstein Friesian herd. The herd, which was established in 1987, is managed by Henry and Marie O’Keeffe and their youngest son, Liam, near the village of Freemount. The day represents a unique occasion to view the tremendous breeding and efficient performance of the Radney Herd, Eircode- P56 FC61.

Some herd highlights include:
- 82 out of a total milking herd of 90, classified VG or EX.
- Average 8,874 kgs milk
- 4.12% Fat
- 3.74% Protein
- 697 kgs milk solids
- SCC 65

“We breed for functional cows with good production and longevity, cows with good udders and feet & legs, that develop into excellent cows and provide a calf every year. Good fertility is very important” comments Henry.

The Radney Herd has won numerous prizes in recognition of its performance including, the RDS Champion of Champions Award, Cork club herds competitions, and IHFA national herds competitions.

The day itself will include inter-club, macra and open stock judging competitions. Also, a choice offering from the herds top breeding lines will be offered for sale in a unique Radney celebratory sale.

Up coming club field evenings.
Friday 7th June at Roovesmore Herd of Donal Murphy, Coachford. Eircode: P12CH72.
Friday 14th June at Glenrea Herd of Martin & Michael Kennedy, Glenville. Eircode: T56C962.
Field evenings start at 8pm, all welcome.
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.

- 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