

Arrabaun JUNE 2023 - Issue 6 NEWSLETTER



Board Updates

Board seats have recently been vacated by two long-serving Board members. Michael Flaherty from Tuam retired from the Board after 40 years, representing Mid-West Coop until 2002 and Arrabawn until May 2023. Matt Cleary retired from the Board after completing 16 years. We thank both Michael and Matt for their invaluable contributions to the Coop over the years and we wish them well for the future.

Following these retirements, Liam Grady from Gurteen, Ballinasloe has been elected to the Board in District 2 and Eamonn Cleary from Ardcroney in Nenagh has been appointed in District 1. We wish Liam and Eamonn all the best in their new roles.

The following seats have also been filled following recent elections:

Together we grow

Chairman Vice-Chairman Third Sub-Committee Member

Edward Carr was re-elected. Padraig Coughlan from Fardrum in Athlone was elected for the first time. Eoin Doorley from Carrig in Birr was elected for the first time.

Congratulations to Edward, Padraig and Eoin.

Arrahawn Visits Asian Markets

Arrabawn's Commercial Manager Dan McMahon recently completed a trip to key and potential customers in the markets of Singapore, Malaysia, Taiwan, and China. This journey is significant to our company as it provided us with insights into the evolving market dynamics, allowed us to engage directly with customers across the regions and explore the challenges and opportunities for Arrabawn in the area.

The focus during this trip was on engaging with our Casein and Caseinate customers, as these products have become increasingly important to Arrabawn since the commissioning of new casein capacity in 2020. It was an important occasion for the Co-op as we had the opportunity to visit our customer base in China for the first time in a number of years as COVID-19 restrictions have been eventually lifted. This is a market that has been central for our growth. The South East and East Asian markets, like the rest of the world, have grappled with the challenges posed by raw material price increases and inflation. These factors have led to a tempered demand in the market which has in turn led to raw material price erosion as



Customer with Arrabawn Stock in Taiwan.

supply and demand economics take place. However, despite these obstacles, our Arrabawn products have been received exceptionally well by consumers. We are proud to report that major users in the region now recognize Arrabawn as a quality and consistent brand of Casein and Caseinate.

One of the highlights of the trip was the opportunity to participate in a ministerial-led trade mission to China. This trade mission was a significant advantage for Arrabawn as it allowed us to present our products to a diverse range of buyers in Beijing. The chance to engage with key stakeholders and decision-makers in the industry was invaluable, and it showcased the quality and reliability of our offerings. Additionally,



Dan McMahon addresses dairy buyers at the Bord Bia Dairy Seminar in Beijing.

it provided an opportunity to visit customers in the Beijing and Shanghai areas, further solidifying our relationships and gaining a deeper understanding of their unique requirements.

While the market has experienced some challenges, we also identified numerous opportunities for growth and expansion. The Asian market, with its everincreasing population and rising disposable incomes, presents immense potential for products using Arrabawn caseinates. As we continue to establish ourselves as a trusted brand in the region, we are optimistic about our ability to capture a larger market share and develop long-term partnerships



Super Sunday information

Super Sunday held in Athenry had over 3.000 customers on site during the event. We had fantastic offers on the day along with some great memories created with the local community and customers who travelled to enjoy the day out. Joe McCarthy would like the to thank all the regional team and Agri trading team that contributed to the setup and support on the day, without them it wouldn't have been possible to host such a successful event.



THERMODURICS: TOP TIPS TO MINIMIZE THERMODURIC BACTERIA IN BULK TANK MILK

Thermoduric bacteria survive pasteurisation and adversely affect the shelf life of milk. These bacteria are found in soil, bedding and faces of dairy cows and can get into the milking plant and bulk milk tank. Thermoduric bacteria can be controlled at farm level by making sure that good hygiene practices are in place, especially during milking. The presence of thermoduric bacteria is indicative of ineffective cleaning somewhere in the milk production process (cow hygiene or milking equipment hygiene).

Cow and milking Hygiene:

- Ensure that teats are clean and dry before milking. If the milk sock is soiled after milking, then teat preparation is inadequate. If you wash teats, they should be dried
- Keep cows in a clean environment if the udders and teats look dirty, then there is a problem. Keep collecting yards and approach roads regularly scraped
- Keep tails trimmed and clip the udder
- Keep hands/gloves clean throughout milking
- Keep milking clusters clean during milking and if they fall on the floor flush out completely
- Do not wash down clusters while still attached to a cow
- Do not wash down the platform while cows are present
- Cover meal bins in the parlour (some feed ingredients are high in thermoduric bacteria)

Milking plant hygiene:

- Sufficient volume of water to ensure all surfaces are in contact with detergent (9 litres/ unit)
- Measure the wash trough to determine how much water/detergent you should be using
- Adequate turbulence (air injection for large plants) and vacuum level maintained during the wash cycle
- Hot water usage is critical (75/80°C)-lower chemical usage with hot water
- Milk stone remover should be used at a minimum once weekly and more often if water hardness is in issue or install a water softener

- After the wash cycle disinfect the milking plant twice daily with Peracetic acid in an additional rinse
- Thermoduric bacteria survive in cracked and perished rubber-ware, replace regularly
- Build-up of debris in plate cooler-use clean filter sock during washing and get milking machine technician to clean plates
- The vacuum line should be washed out at least once yearly and/or if the milk receiver over flowed or if broken milk liners

Bulk milk tank hygiene:

- Disinfect the bulk milk tank outlet regularly
- Avoid having the milk supply pipe immersed in milk during milk transfer
- Keep the bulk milk let closed at all times, especially during milking
- Insufficient volume of water will result in poor surface contact with
- detergent and increase the likelihood of chemical residue
 Blocked suck-up detergent tubes will result in insufficient detergent
- usage, replace these tubes yearly
 Spray balls clogged or spinners not moving freely or missing will
- Spray balls clogged or spinners not moving freely or missing will impact on the cleaning of stainless-steel surfaces
- Cool milk to 3/4 °C within 30 min of the completion of milking with the aid of a plate cooler

Thermoduric bacteria-things you may not know:

- Higher than normal levels of Thermoduric bacteria can be present in milk during periods of very dry or wet weather
- High thermoduric counts do not mean you will have a high total bacterial count
- It's extremely difficulty to eliminate Thermoduric bacteria at the processing site- easier to minimize levels on farm

Please contact your Milk Quality Advisor should you have any issues with Milk Quality

The importance of changing your milk liners

Milk liners are made from complex rubber or silicone material and have a limited useful life. The majority of rubber liners are expected to last for 2,000 milkings or six months, whichever comes first. Milk liners lose elasticity over time and this change makes them less effective at fully milking out the cow, resulting in lower milk yield and leaving the cow more vulnerable to infection. Our recommendation is that liners should be changed when they have completed 2,000 milkings. The milk liner is the only part of the milking machine that comes in direct contact with the cow so their condition is critical for mastitis control and an efficient milking process. Over time liners lose tension, absorb fat and hold bacteria. Rubber naturally deteriorates over time anyway, and this deterioration is enhanced with exposure to the cleaning products used for machine disinfection. This deterioration is sufficient to reduce the speed and completeness of milking while increasing teat end damage and the spread of mastitis bacteria. The interior of the liner can also become rough, making it more difficult to clean and disinfect allowing it to harbour bacteria, increasing the potential of mastitis and cross-contamination between cows. The industry recommendation is to change liners after 2,000 milkings or 6 months, whichever comes first. Herds that have increased in size, with parlour size staying the same, sometimes forget that each cluster is milking more cows now than it might have a few years ago meaning that liners may need to be changed every 3 or 4 months. To work out exactly when you should change your liners, simply complete the following calculation. For more information, see our short video on the Animal Health Ireland website - When Should I Change My Liners?

Number of days in between liner changes

2000 x Number of milking units

Herd size x Number of milkings per day



JUNE SPECIALS



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CCN (Cerebrocortico necrosis) in calves

CCN is a condition affecting growing cattle (up to 18 months typically), tending to occur in outbreaks and is associated with high concentrate rations, low roughage diets, including lush grass which is high in sugars but low in structural fibre which is associated with Sub-Acute Ruminal Acidosis and Acute Acidosis. The condition has been associated with well-nourished calves that have been left hungry or find themselves on a poorer plane of nutrition suddenly.

The cause of CCN is not fully understood but there is a very strong link to deficiency of vitamin B1 (thiamine). Thiamine is critical for the brain at a cellular level and also for water and electrolyte balance of the animal and a deficiency can lead to lactate accumulation in the muscle tissues. The bacteria in the rumen normally create this vitamin, so cattle do not normally need it in feed. Young and growing animals do not always have a fully functioning rumen and so cannot properly synthesise B vitamins leaving a requirement for supplementary B Vitamins in the diet. Alongside

actual deficiency, if there are thiaminases in the rumen, then the animal can become deficient. Thiaminases actively break down Vitamin B1 and certain enzymes actually inhibit Vitamin B1 from being absorbed from the bloodstream. These enzymes can come from the food, some species of fern and bracken also contain the thiaminase enzyme as a natural insect repellent, but more commonly they are produced by rumen bacteria. These bacteria are normally present in the rumen at low levels, but in some situations, especially where the pH in the rumen is lowered (SARA / Acidosis) they multiply greatly and produce enough thiaminase to cause deficiency of B1. The presence of excessive levels of Sulphur in the diet can have an inhibitory effect so care must be paid to water sources which contain high Sulphur levels and also the spreading of certain fertilisers which are high in Sulphur

Identifying suspected cases

Affected animals are dull and may isolate themselves from others in the group. There is high head carriage and affected cattle may stagger. There is blindness but animals react abnormally to sudden touch and loud noises. As the disease progresses, animals often head press into corners and there are frequent teeth grinding. Seizure activity is common during the later stages if untreated. Ultimately this condition, if left untreated, will lead to death.

Dan O'Connor Feeds Sucklermate Creep Pencils have Vitamin B1 included and make for the ideal supplementary feed for growing calves. For more information on Sucklermate contact your local branch or area sales manager.







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Low Milk Urea Levels in Milk

Milk Urea shows up as U in your test messages with milk quality results.

Milk urea can be used to monitor protein-energy balance at rumen level. For high-input systems (e.g. < 60% of the diet is pasture), bulk milk MU levels can help decide when to check the diet for an excess or deficiency of protein.

Milk Urea Level from Bulk Milk Samples



Indicating Energy & Protein balance in the cow's diet

If protein is in excess of recommended levels, this can allow expensive protein supplements to be removed from the diet. However, in pasturebased systems, MU levels are usually higher than during the indoor period/systems due to the greater amount of good quality pasture high crude protein (20-25 %) in the diet. Thus, manipulating MU is very limited.

In the last few weeks, some milk suppliers have experienced low milk urea levels below the optimum level indicative of low protein intake. A milk urea level between 15 and 20 indicates that the diet is marginally sufficient in protein. Below 15 may impact on milk performance if prolonged. This is due to slow growth rates seen on those farms resulting in low nitrogen uptake of the plants, thus lower crude protein in grass. Usually, high urea levels are a concern particularly around breeding. However, high MU concentrations are not consistently proven to be detrimental to cow fertility. Cows can adapt to continuous high dietary protein without any decrease in reproductive performance but sudden increases and levels above 35 have been shown in some research to be linked with embryonic death and the calving to conception interval. With milder weather over a last few weeks a growth burst is on the cards, MU will rise significantly due to an increase in grass growth rates and nitrogen up take by the plant. If growth is low on farm and currently feeding high level of concentrates or buffer feeding slowly reduce the feeding level as growth picks up to cushion the surge in nitrogen uptake. Ensuring sufficient energy is available in the diet to deal with the excess dietary protein digestion will be important to improve nitrogen utilisation and prevent the cow using her body reserves as an energy source during this critical breeding period. Excessive dietary protein digestion creates an energy cost. The protein broken down in the rumen results on ammonia. Part of this ammonia is used directly in the rumen for microbial protein synthesis and the excess diffuses out of the rumen and is detoxified in the liver in urea. The detoxification process uses up a lot of energy and so draws energy away from milk solid production and cow fertility improvement.

Key messages for managing mastitis during lactation

During lactation, cows can become infected from both environmental and contagious mastitis organisms.

Here are some key tips to help prevent both during the lactation.

- Evaluate the cow's environment- collecting yards, roadways, around water troughs, and sheds if feeding inside. Block off access to cubicles if they're not being used.
- If housing was an issue on your farm last winter and unless you plan on reducing cow numbers, begin planning now to increase cow accommodation. Having at least 11 cubicles per 10 cows during the housing period is vital to allow for normal cow behaviour, maximizing hygiene and minimizing the risk of mastitis.
- Clipping tails to keep cows udders and teats clean.
- Assess the milking routine- wearing gloves, having a consistent routine, ensuring the teats are clean and dry, forestripping, post milking teat disinfection and being calm in the parlour will all help reduce the risk of mastitis.
- Carry out milk recording to identify problem cows and use a California Mastitis Test (CMT) to identify problem quarter(s). Collect a sterile sample and send to the lab to identify the bacteria causing the mastitis and the best treatment to use. Don't forget to record any treatments given.
- Milk problem cows last or disinfect the cluster after milking a cow with a high SCC, either manually with diluted peracetic acid or automatically using a cluster flush system. Each cluster that milks one infected cow has the potential to infect the next 5-7 cows it milks if

not disinfected!

Routine machine maintenance between services:

» Examine the machine regularly, including air admission holes and the vacuum gauge. Listen to the pulsator, watch milk entering the receiving jar and check vacuum shut off buttons are working properly. Check regulators and listen to and check air filters. Check the drain valves on pulsator airlines, vacuum pump-oil level and oil drop rate.

» Check liner condition and alignment. Change the liners after every 2000 milkings. This works out at approx:

- every 125 days (4 months) in a 12 unit parlour that milks 96 cows, or
- every 125 days (4months) in a 16 unit parlour that milks 128 cows, or
- every 200 days (6 1/2 months) in a 20 unit parlour that milks 200 cows
- » Teat scoring- check teat ends when the cluster comes off, as teat end damage may indicate a problem with the machine.

Knowing how your herd is performing is the first step to getting mastitis under control. To monitor performance you need records. At a minimum, in order to 'Keep your finger on the pulse' of your herd's performance, you need two types of records: Somatic cell count (SCC) records and Clinical case/treatment records.Herd level SCC will give you a good overview of the udder health on your farm as infected cows will increase the overall herd SCC. Monitoring the clinical case rate during lactation will measure the effectiveness of mastitis control throughout the year. If you milk record, the CellCheck Farm Summary report that you receive after each milk recording allows you to identify patterns of infection in cows e.g. those that have been recently infected. You can also assess the proportion of the herd persistently infected i.e. cows with a high SCC for the last two recordings. Use the Cost Check calculator to show how much a high bulk tank SCC is truly costing you.If high SCC or mastitis is a problem on your farm register for a free CellCount Solutions consult now. This will help you take the first step in getting it under control.

What are the most common conditions causing lameness on Irish dairy farms?

Lameness may result from both infectious and non-infectious causes Non-infectious lesions causing lameness

White line disease

The white line is a cemented junction on the sole of the foot where the horn of the sole is joined to the horn of the hoof wall. As a cemented junction, it is the weakest part of the sole and the part that is most vulnerable to being breached. White line damage due to physical trauma and shearing forces (occurring when turning on a hard surface) can result in loose stones and grit penetrating the white line. Such penetration leads to entry of infection, inflammation, and resultant lameness. Treatment involves careful examination to identify the lesion. Using the 5 step Dutch method of hoof trimming, the damaged wall/sole is removed. A shoe or block may be applied to the sound claw.

Sole bruising

This is due to damage to the germinal layer of cells ('quick') that are responsible for producing sole horn. Factors that contribute to this include excessive standing on concrete, excessive body condition loss and worn claws due to excessive walking. Treatment for sole bruising involving resting the cow and keeping her on a soft surface until she recovers. If only one claw affected, a block can be applied to the unaffected claw.

Sole ulcer

A sole ulcer is essentially a much more severe case of a sole haemorrhage. The 'quick' is so severely damaged that some cells no longer produce horn. A complete hole in the sole results allowing the sensitive 'quick' to protrude. This leads to a very painful lameness condition. Treatment for sole ulcers requires the removal of sole overgrowth using the 5 step Dutch method and the trimming of underrun horn and sharp edges. To relieve pressure and facilitate healing, a block can be applied to the sound claw

Infectious diseases causing lameness

Foul of the foot

This is an infection affecting the tissue between the digits causing severe pain and swelling. Consult your vet regarding treatment as this involves antibiotic injections. Early detection and prompt treatment give the best results.

Mortellaro disease (also known as digital dermatitis; DD)

This is an infectious disease that results in extremely painful lesions in the skin close to the hoof. It is contagious and can spread rapidly through a herd. Indoor housing, overcrowding and dirty conditions are a major risk factors that increase the spread of this condition. Treatment involves cleaning and drying of the lesion, applying antibacterial products to the affected area for 3-4 days. A regular foot bathing programme to prevent the spread of the diseases is very important.











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