Arrabawn TIPPERARY
Together we grow

MAY 2025 - Issue 5

NEWSLETTER

Teagasc / Arrabawn Tipperary Signpost Farm Walk at Edwin Thompson's

A Signpost farm walk took place on Edwin Thompson's farm in Golden, Co. Tipperary on Tuesday the 29th of April. Edwin is a Teagasc Arrabawn Tipperary Signpost farmer since 2021 and won an award in the FBD Sustainability Awards in 2024.

Milking 162 cows on 87 hectares, 481kg of milk solids per cow were sold in 2024. The farm grew 11 tonnes dry matter per hectare and had a 6-week calving rate of 89%. The herd has an EBI of €245. The carbon footprint figure is excellent on Edwin's farm currently standing at 0.79/kg of fat and protein corrected milk. Steps taken on the farm to achieve this were profiled on the day. Protected urea use increased from 51% to 100% between 2021 and 2024, while in the same period chemical nitrogen reduced by 35%. Clover incorporation and soil fertility were discussed in detail. 51% of the farm has a high clover content with 26% at a medium clover content and optimum soil fertility improved from 42% to 75% since joining the Signpost programme. These are key measures that have enabled the reduction of chemical nitrogen on the farm.

A fertiliser calibration demonstration took place also, outlining the importance of calibrating the fertiliser spreader for maximum accuracy. Milk quality was discussed in detail which is key in maintaining milk solid production and overall animal health. The measures from the Water EIP were discussed as was the Arrabawn/Tipperary supplier sustainability programme.

Many thanks to everyone who supported the farm walk especially Edwin and his family who have made huge progress in adapting the measures to increase sustainability.

Andrew O Neill (Arrabawn Tipperary), Francis Quigley (Teagasc), Mark Plunkett (Teagasc) & Edwin Thompson.

Donal Mullane (Teagasc), Andrew O Neill (Arrabawn Tipperary), Edwin Thompson, Liam Quinn (Teagasc) & Liam Hennessy (Teaagsc)

NEWS

You grow what you collect

Finola McCoy, CellCheck Programme Manager, Animal Health Ireland

It is not possible to tell which bacteria are responsible for infections just by looking at milk, udders or somatic cell counts - you have to actually grow the bacteria to know for sure. A milk sample can be processed in a microbiology lab so that the bacteria that are present can be identified. However, all bacteria in the sample will be identified, whether they came from the cow's udder, your hands or dirt from a cow's tail!

The lab can also check if the bacteria are resistant or sensitive to a predetermined list of antibiotics (called 'antibiotic susceptibility testing' or AST). However AST only provides a guide, as conditions on a plate in the lab are not always exactly the same as in the cow's udder. Other factors such as duration of infection, lactation number etc. will also influence treatment outcomes. What AST is often used for is to identify the antibiotic not to use, in cases of resistance.

If a sample contains three or more bacterial species, it is generally considered a contaminated sample. However, the sample has to go through the full lab process before it is known to be contaminated, and so you will still end up paying for a result that is essentially useless! You can avoid wasting time, effort and money, by making sure that any milk samples that you collect are done so in a sterile fashion, so the only bacteria present are the ones you want to identify, that came out of the cow's udder.

Remember, hygiene is key!

- Label a sterile sample bottle-do this before sample collection as it can be difficult to write on a wet or milky label.
- Put on disposable gloves.
- Wash and dry the teats.
- Completely disinfect the end of the teats to be sampled, with a cotton ball and alcohol (or teat wipes). This step is critical.
- Remove the cap from the sterile bottle and place it upside down in a place not likely to be contaminated.
- Discard the first 2-3 squirts of milk. Collect the sample in the bottle, holding the bottle at an angle (to avoid anything falling into it) at least 3 - 4 cm from the end of the teat. 2 - 4 mL of milk is sufficient.
- Replace the cap, secure it tightly and refrigerate as soon as possible.

Ideally samples should be kept cool and arrive at the laboratory within 24 hours. If this is not possible, most mastitis bacteria survive freezing, so you can store them in the freezer until delivery. Samples can be stored by freezing for up to four months without any negative effect on most major mastitis pathogens.

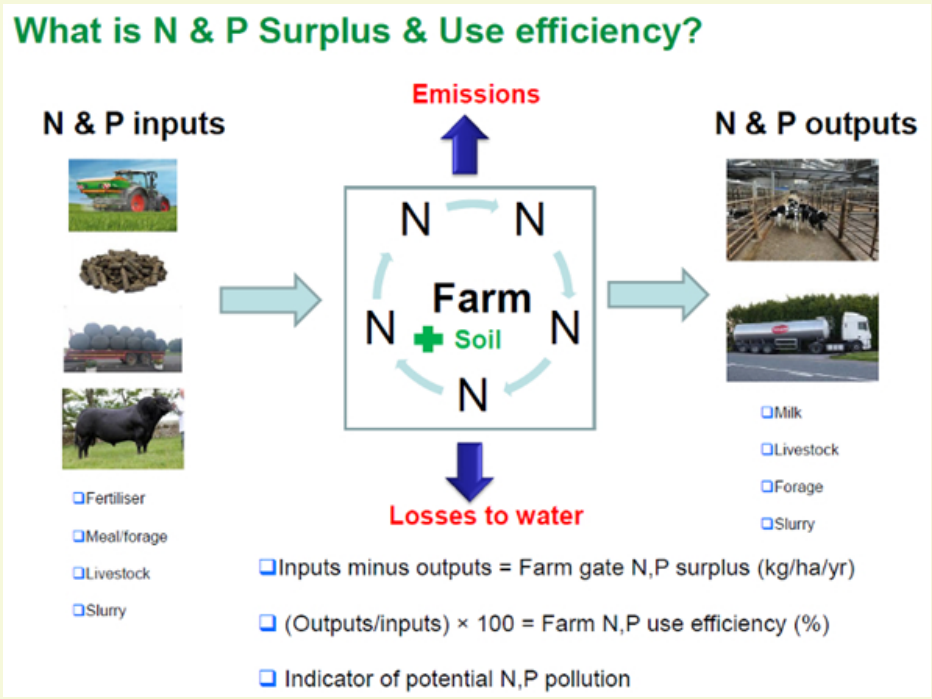
Nitrogen Balance – How is Nitrogen used on your farm

Nitrogen balance based on a per-hectare farmed area indicates the potential extent of nitrogen surplus, highlighting the risk of nutrient losses to water bodies, assuming all other factors remain constant. It is calculated by subtracting nitrogen outputs from nitrogen inputs per-hectare basis at the farm gate level.

Farm imports comprise of fertiliser applied, livestock and feed purchased, and imported organic manure. Farm exports would include milk, crops, chemical and organic manure exported and livestock sold or slaughtered.

The information to generate the N-balance figure comes from the AgNav platform, where the farmers who participate in the Bord Bia Sustainability Program can avail of targeted advice to improve the suitability and profitability of their farm.

Completing a Nitrogen Balance (Surplus) assessment facilitates discussions between advisors and farmers about the best strategies to reduce excess nitrogen in the farming system. This involves implementing measures to decrease nitrogen inputs and enhance the utilisation of existing nitrogen resources. Soil fertility is a crucial factor in maximising nutrient uptake by plants. The application of sulphur is vital for grassland production and is closely linked to nitrogen uptake and efficiency. Currently, the Nitrogen Balance (Surplus) assessment does not account for clover levels in grassland swards, but there are plans to integrate this aspect over time.



Reducing Your N-Balance

The most significant impact on reducing N-Balance on the farm comes from utilising the grass grown on the farm. This is achieved by ensuring optimal soil health on the farm. Having a nutrient management plan in place and following the recommendations for soil health, such as improving the P & K Index and soil pH, is essential.

The utilisation of grass can increase with improved soil health, which in turn can reduce the reliance on higher concentrate feed. Improved soil health also reduces fertiliser requirements, especially when clover is established in the sward.

MAY SPECIALS

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NEWS

Arrabawn Tipperary Co Op Milk Supplier Sustainability Programme for 2025

The Arrabawn Tipperary Milk Supplier Sustainability Programme for 2025 is updated to include two new measures from the 2024 sustainability programme edition. The payment for completing all measures in 2025 will be 0.75 CPL per month. However, one of the new measures is now a mandatory requirement to be part of the programme. Each member of the programme must allow a water quality farm assessment to take place on their farm in 2025. Suppliers who opt into this programme in 2025, have the potential to receive a bonus payment of 0.75 cent per litre (CPL) on a monthly payment in exchange for meeting four of the five sustainability criteria below with the water quality action being mandatory:

1. **Water Quality**
2. **Protected Fertiliser**
3. **EBI Improvement**
4. **Milk recording**
5. **Ag Nav & Training**

Example payment for an average Arrabawn Tipperary supplier supplying 500,000L completing four of the five measures in 2025 is €3750.
Actions Required in 2025 for the Arrabawn Tipperary Milk Supplier Sustainability Programme

You must complete any four out of five measures, with water quality being MANDATORY.

1. **Water Quality**
   - Agree to Water Quality Farm Visit and development of a Water Quality Plan
   - **Mandatory Action**
2. **Protected Urea**
   - Purchase 2T of Protected Fertiliser per 100,000L of milk supplied in 2024.
   - All fertilisers ***must*** have a protected N source.
   - All fertilisers (min 2T per 100,000L) must be purchased through Arrabawn Tipperary Co Op.
3. **Milk Recording**
   - Participate in Milk Recording in 2025
   - A min. of 4 milk recordings is required in 2025.
4. **EBI Improvement**
   a) Herd in top 50% within Arrabawn Tipperary catchment for EBI qualify automatically,
   b) Herd in the top 50% within Arrabawn Tipperary catchment for EBI gain annually qualify automatically,
   c) If less than 25% of your cows have an EBI or if you fail to meet part (a) or part (b) above, you can genotype 25% of your dairy female stock and this will be a qualifying criterion (max 2 years)
5. **Ag Nav & Training**
   - Participate in 1:1 Ag Nav training with the local Teagasc Signpost Advisor and develop your GHG Emissions farm plan. Obtain your nitrogen surplus number. You do not have to be a Teagasc client to partake.

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 faeces 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 (75/800C)-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 impact on the cleaning of stainless-steel surfaces
- Cool milk to 3/4 OC 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?

$$\text{Number of days between liner changes} = \frac{2000 \times \text{Number of milking units}}{\text{Herd size} \times \text{Number of milkings per day}}$$

Photo: Silage rows / silage in hand

Five ideas to help boost silage in 2025

1. Recognise the value of your silage

It's not enough to grow quality grass. You need to minimise losses in its nutrients when turning it into silage.

Typically, dry matter (DM) losses in grass silage are about 10%, but they can be 25% or higher. So follow best practice silage production and fermentation methods. Cutting grass younger improves digestibility and protein content, while conserving with a proven additive can halve DM losses and preserve more energy and protein. If unsure how well your silage normally ferments, check previous silage analyses. You want a ratio of lactic acid to undesirable volatile fatty acids (VFAs) of at least 3:1.

2. Adapt to the weather

Last year's unexpectedly cold and wet April, which delayed grass growth and then harvest, underlined the importance of being flexible with silage cutting dates.

Cutting early not only allows a silage cut to be 'banked', it also encourages fresh regrowth.

3. Mitigate slurry risks

Applying extra slurry to replace some bagged N, or cutting silage at shorter intervals, increases the risk of poorer fermentation and DM losses due to enterobacteria in the silage, making it important to manage this risk.

Apply slurry as soon as possible after harvesting to allow it more time to dissipate. Also, consider dilution to encourage it to wash into soil quicker, and apply by trailing shoe or injection to keep it off leaves. To improve fermentation, rapid wilting becomes more important. As too does wilting to at least 30% DM and using an additive.

4. Wilt efficiently

Rapid wilting to the correct 30%DM is important to reduce the breakdown of sugars and proteins and improve fermentation.

5. Keep contractors informed

Cutting grass before heading is vital for top silage quality, so keep your contractor informed in advance of when you will need them, and especially if planning to cut earlier or more often this year.

NEWS

Week ending 6-5-2025

Farmer	County	Litres/ Cow	Fat %	Pro %	SCC	Kg/MS/Cow	Meal Kg	Average Farm Cover	Cover/ Cow	Growth	Demand	Mating Start Date
Conor Camon	Offaly	32	4	3.66	101	2.45	4	696	206	103	51	02/05/2025
Ned Kelly	Tipperary											
Edwin Thompson	Tipperary	30	3.79	3.52	168	2.26	4	800	240	77	48	05/05/2025
Conor O'Brien	Galway	25	4.16	3.6	38	2	2.5	850	260	70	55	01/05/2025
Gurteen Ag. College	Tipperary	30.5	4.3	3.56	81	2.47	4	717	190	45	52	24/04/2025
John, Martina and Cora Lonergan	Tipperary	30.7	3.97	3.42	88	2.33	4	767	214	75	52	18/04/2025
Michael & Odhran Murphy	Tipperary	32.6	4.32	3.57	64	2.64	2	611	242	68	43	12/04/2025
Solohead Research Farm	Tipperary	25.0	4.46	3.55	91	2.06	3	790	192	89	62	25/04/2025
Average		29.40	4.14	3.55	90.14	2.32	3.36	747.29	220.57	75.29	51.86	

Update: With breeding started, or about to start on Signpost farms all focus is now on heat detection. A missed heat can cost almost €150 so it is important that every effort is made to identify cows in heat and inseminate them at the correct time. A variety of detection aids are being used on the Signpost farms including tail paint, scratch cards and collars. Remember to aim for a 90% 6 week calving rate, 365 day calving interval, and an empty rate of less than 8% after 12 weeks of breeding. Good heat detection is important in achieving these. Grass growth has really taken off in the last week which has resulted in surplus paddocks being baled on the majority of farms. It is important to act quickly in removing surplus paddocks especially where there is high demand. Growths of 60-80 kg/DM are predicted this week so there may be opertunites to reseed poor performing paddocks.

Photo: Michael O'Dwyer Arrabawn Tipperary sustainability advisor outlineing the Water EIP at Edwin Thompson's Signpost farm walk 29-4-2025.

The main reasons for PICA in the dairy herd?

Salt (Sodium)

Low sodium is certainly a factor for this behaviour. With high potassium (slurry, fertilizer) creating a risk also by locking up sodium. Low sodium can also be a factor where we see cows drinking urine or licking walls. Pasture in the early summer can have lower sodium so we need to have this high up our list of differentials. Salt (Sodium) is a very interesting mineral in the ruminant. They self-regulate and will only generally consume it if they need it. So, the first course of action would be to give them salt licks in a barrel to see what their reaction is.

Low fibre

We all know how important fibre is as it is the building block for good rumen health and function. As grass growth peaks in early summer, leafy grass is usually low in fibre. Other issues with this are butter fats dropping and cows getting very loose dungs. They will often appear bubbly in nature. The next logical step where this is suspected would give cows access to some fibre. Provide a ring feeder with straw/hay and watch the cows, they will only eat the straw if they feel deficient in fibre. This can be enhanced by chopping the straw and maybe mixing some molasses through it to help palatability. A simple tool could also be a little bit of buffering after milking with silage in the morning. Another sign of low fibre in the diet is a dropping butter fat %. This can be easily monitored on text message reports from the Co-Op .

Low phosphorous

This is the last of the three underlying factors or potential causes with this condition. Blood tests are useful for this where the salt didn't make a difference or fibre wasn't thought to be an issue. P can be low in the grass on some farms at this time of year. It can be difficult to supplement but one word of warning is that it takes time to lift P in blood. Usually will take 10-14 days before you see a response to supplementation. If you're going to blood test, go after the animals you have seen displaying the symptoms for testing.

Why are we seeing more of this?

It is a condition we see in lush grass that is low in fibre. On some farms, this grass can be lower in P and also sodium. Where we have higher levels of K (potassium) we also will get sodium locked up. So in very simple terms it can be a grazing issue very much seen during peak growth periods on some farms.

The solutions

1. Supplement with salt lick blocks
2. Provide extra fibre, straw bales or silage.
3. Blood animals for mineral profiles- only way to identity low Phosphorus.
4. Send grass samples from grazing paddock, mineral analysis will show if any minerals are deficient or possibly tied up by another.

These behaviours are not normal and must be investigated!

When the correct materials (salt/ straw/minerals) are provided the cow will tell you fairly quickly.