Arrabawn
Together we grow
APRIL 2023 - Issue 4
NEWSLETTER

Main Points to consider for Breeding 2023

1. Utilize high EBI AI genetics to produce the required number of replacement heifers while enhancing the EBI of your herd. Aim to breed replacements from your highest EBI cows and targeted heifers.

2. To improve the reliability of the sire team, use a well-balanced group of dairy AI sires for breeding replacements. The number of AI bulls required will depend on your herd size, which your Teagasc adviser can assist you in calculating. Ensure that your cows are correctly matched with AI sires. See Figure 1 for Bull selection targets for 2023.

3. Incorporate sexed semen into your AI strategy, especially if using Jersey or Jersey crossbreed genetics.

4. Select appropriate beef AI sires using the Dairy Beef Index (DBI) and use them on your late calving or lowest EBI cows. Once you have achieved enough dairy pregnancies to meet your targeted number of replacements, then consider using beef sires.

5. Avoid using dairy "sweeper" bulls and instead use easy calving, short gestation length beef bulls with a high Dairy Beef Index. Alternatively, consider using vasectomized bulls in combination with beef AI as an alternative to beef stock bulls.

Subindex	Threshold for Individual Bull	Team Average
EBI	>€200	€270
Fertility	>€80	€120
Milk	>€60	€100
Health	>€0	€5

Figure 1. Bull Selection Targets for 202

EBI CHANGES

The Economic Breeding Index (EBI) has been a notable change for dairy farming in Ireland, and it is now widely used to select the best dairy sires. The EBI has been constantly evolving to adapt to latest information, regulations, and economic changes, and the latest revamp was done in November. This revamp included the addition of a carbon sub-index, an updated beef sub-index, and the inclusion of a TB resistance trait in the health sub-index.

The inclusion of a carbon sub-index in the EBI is a significant development as it is the first breeding tool in the world to consider the cost of carbon. Although farmers are not yet taxed on carbon, it is expected that this could become a cost for farms in the future. By including carbon in the breeding index, the industry is being future-proofed. In addition, agriculture must reduce carbon emissions by 25% by 2030, and all farmers will be obliged to assist the sector to reach this goal. The inclusion of the carbon sub-index will speed up genetic progress in reducing the absolute emissions from the dairy herd.

The carbon sub-index considers fertility and maintenance traits, which have a positive impact on carbon emissions. For example, cows with improved fertility require fewer replacements, resulting in a higher portion of their feed coming from grazed grass, which results in lower carbon emissions. Cows with a lower liveweight will also have a lower carbon footprint, as these cows have a lower intake.

The beef sub-index within the EBI was also revised to better reflect the economic cost for beef farmers. Beef coming from the dairy herd is a growing concern due to increasing challenges with exports and long-term profitability on beef farms. The inclusion of an age at slaughter trait and an in-spec carcass trait, as well as an update of the economic values for carcass weight and conformation, will help to better reflect the true value of beef traits in dairy cows.

Growth in the use of sexed semen is expected, which will reduce the number of dairy males coming from the dairy herd. However, it is still important to improve, or at least maintain, genetics for beef traits in dairy cows as they will continue to contribute 50% of their offspring's genes. These updates within the beef sub-index will better reflect the economic cost for beef farmers and will penalize extremely poor beef merit sires more than before, creating greater divergence for dairy sires for the beef sub-index.

NOVAVET ANIMAL HEALTH PRODUCTS

Bactokil 55
Ringworm & Orf Spray

A unique ready to use spray which is effective against orf in sheep and ringworm in cattle.

Usually two or three sprays will see disorder improve.

Available in 500ml & 1 Litre

BACTOKILL ORF PASTE

Orf is a virus effecting mostly young lambs and ewes

Orf is caused by 'Parapox' virus, causing scabs and lesions on the non-wool areas of sheep, typically gums, mouth, eyelids and udders. It can be extremely painful especially if infected with bacteria. The virus is spread by contact with infected scab tissue.

Available in 100ml for use on clinical sign of Orf to aid skin healing.

3 IN 1 SHEEP CARE BLOCK

Mineralised lick for orf prevention, high magnesium and footcare all in the one convenient effective sheep lick.

Available in 12.5Kg

FEET FIRST
Effective Footcare Purple Spray

Treats scald and footrot in sheep, foul& digital dermatitis (Mortellaro) in cattle.

Clean, Dry & Apply Footbath & Paste Available

500ml Spray

WARTS, Angleberry AND Cowpox
pseudo
GENERAL PURPOSE EFFECTIVE SPRAY

- Aids in the treatment of teat warts on dairy cows, & angleberries in drystock.
- Also assists in reducing the bacteria that cause Pseudo Cowpox in Dairy Cows.
- For light stringy warts, which heifer's are prone to, spray lightly & allow to dry.
- Use only once per week as teat skin on heifer's can be delicate.
- With Angleberry growths on drystock, spray to cover area only.

Available in 500ml

WART OINTMENT
WART REMOVAL OINTMENT.

Available in 150ml

- Softens warts and dries up cluster warts. For large warts it deadens the root which makes it easier to remove. Again like any ointment will work faster with teat tape.
- For Succesful Wart Removal Softens warts and dries up cluster warts. For large warts it deadens the root which makes it easier to remove. Again like any ointment will work faster with teat tape as this keeps the ointment working on the affected area.
- Also when active the ointment will sting the teat and the teat tape prevents the animal from licking the ointment off.
- For light string warts on Heifers or warts on drystock(Angleberries) use Novavets W.A.C. spray.

Contains: Salicylic Acid in a silcocks base.

BLACKSPOT & TEAT WOUND CREAM

Great for teat cuts& lesions especially Blackspot disorder. Apply onto cleaned teat and cover with a teat bandage which will keep cream working and the wound clean.

Available in 150ml

NOVAVET'S MIRACLE CREAM
RUB THE WELLNESS BACK IN

Contains: A blend of Peppermint oil, Wintergreen essence, Menthol & Arnica Eucalyptus Oils

Rub 10ml twice daily on to affected areas

For use on stiff muscles, strains & pains. Reduces inflammation by aiding blood flow.

500ml Tube

MASTOMINT COOL-GEL & MASPREP

FOR MASTITIS CONTROL

- These 2 products work more effectively and get better Mastitis clearance when used together.
- Use 2 tubes after milking and at the first signs of cruds or swelling.
- Rub Mastomint Cool Gel vigorously into the infected quarter after tubing.
- Continue to apply Mastomint Cool Gel and 1 Masprep tube after each milking for 3-4 days depending on the quarter.
- The foremilk on the next milkings will be very high in S.C.C. & must be discarded, as it will raise the average S.C.C. of the herd. This is the normal means the udder has of discarding the dead cells from the infection.
- Mastomint helps by drawing the contents of Masprep tube to the infected area which is usually at the top of the quarter. It also helps draw blood to this infected area which helps the white blood cells circulate and fight the infection.
- When Mastitis infections get established it causes the milking producting 'Aveloi' cells to swell and thus prevents the blood flow to this area, hindering the animals natural healing.
- It is difficult to treat infections whilst cow is in high milk production as the milk flow is down and out of the quarter twice daily, making it hard for any treatment to reach the area of infection.
- For cows high in S.C.C. this treatment method, Mastomint & Masprep can be used up to 5 days to clear the latent infections.
- For chronic high S.C.C. cows, the best practise is 3-4 days prior to drying off a course of antibiotics. Use a good dry-off routine and that cow has then been given best chance to clear for the coming lactation.

Arrabawn Co-Op

APRIL SPECIALS

Bimeprine 5litre €269 & 2.5litre €169

JFC Meal bins 10% off

Silage cover and Silage wrap arriving into your local branch

FF group Angle grinder €100

10KG Moss killer Mo bactor 2 for €40

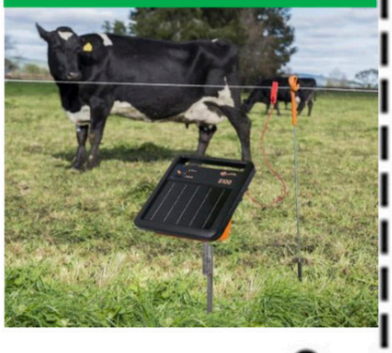
Swampmaster range available online

Ako Fencer Range

Save €5

Gallagher Solar Range

Save €5



www.arrabawnhomevalue.ie

Case Study Conor O'Brien Signpost Farmer

Conor O'Brien is a dairy farmer who runs a farm alongside his parents Vincent and Mary in Tynagh, Co. Galway and is currently involved in the Arrabawn/Teagasc Signpost programme to reduce on farm greenhouse gases. They currently run a herd of 130 cows, coming from 70 cows in 2017. The herd is spring calved and grazed on a platform of 42ha, with a whole farm stocking rate of about 2.4 livestock units/ha.

The herd has an Economic Breeding Index (EBI) of €228, an increase from €126 on 70 cows in 2017 and supplied Arrabawn with just over 420kg milk solids per cow in 2022. The 2023-born calves have an average EBI of €291. Pre-breeding has already commenced, with cows being tail painted to check for heats to identify cows not cycling, with an intended mating start date of the 1st of May. The team of bulls used for breeding has an average EBI of €365, with a protein score of +0.17, butterfat +0.27, and fertility of +€118.

Every €10 increase in EBI equates to a 1% reduce in carbon emissions, so since 2017 the improvement in EBI has seen an approximate reduction of 10% in emissions by just improving genetic merit of the herd. The new carbon index score of the herd is €6 which according to the ICBF is the average of herds in the country but by continuing to improve the herd EBI with a focus on fertility and maintenance figures this will increase and further reduce the herds carbon footprint.

Conor plans to achieve a replacement rate of around 20% in 2024, and intends to use 45 sexed straws this year, after achieving a 60% conception rate using 25 sexed straws last year. Additionally, Conor uses beef semen from three bulls with high Dairy Beef Indexes (DBIs) to ensure he can get the best price for his beef calves.

	Conor O Brien	Conor Camon	Ned Kelly	Average
March	Galway	Offaly	Tipperary	
Milk kg/day	26.78	26.7	29.05	27.51
Fat %	4.52%	4.36%	4.37%	4.42%
Protein %	3.40%	3.29%	3.12%	3.27%
SCC	59	233	155	149
Milk Solids/Day kg	2.12	2.04	2.17	2.11
Meal kg cow/day	6	5.5	4.5	5.3
Pre Grazing Yield	2200	1100	1250	1516
Demand (kg/cow/day)	30	43	40	37
Growth (kg/day)	25	18	35	26
% Calved	93%	96%	90%	93%
Calving start date	28/01/2023	31/01/2023	20/01/2023	26/01/2023
% Grazed	98%	75%	95%	89%
Grazing start date	09/02/2023	02/02/2023	20/01/2023	31/01/2023
% farm with slurry	100%	45%	90%	78%
Rate per acre	2500gls	3000gls	2000gls	2500gls
% farm with Chem N	100%	100%	100%	100%
Rate per acre	23 units	35 units	23 units	27 units

Cluster flush a big factor in keeping SCC under control

By Ronan Moran, Farm Relations advisor

Michael Quinn is milking a herd of 126 cows with an average SCC of 96,000 in Ballinwear just outside Nenagh, County Tipperary.

In 2018, after having issues with his SCC, Michael decided to install a cluster flush system and he credits this as one of the main factors for keeping his SCC under control along with milk recording 4 times a year. Michael uses the milk recording results to choose which cows to cull from his herd. His selection is based on high SCC readings and poor performance in terms of fat and protein percentage. Michael also uses the information from the milk recording to choose which cows to breed his replacement stock. Using the cluster flush system and milk recording results, Michael has not used any mastitis tube yet this year and has significantly lowered his use of antibiotic tubes during the milking period. Michael intends to use non antibiotic tubes to treat mastitis cases should the situation arise.

When it comes to milking and teat prep, Michael is dry wiping the cow's teat before milking unless the cow's teat is extremely dirty, which he will then wash and dry with paper towel. Michael applies post teat sprays all year with either Deosan teatfoam or Synoshield products used. Time spent in the parlour on an average day from turning the machine on to the machine going off is an hour and forty-five minutes in the morning and an hour and a half in the evening which isn't a long time, and it means cows are not standing around for longer than is needed.

When it comes to drying cows for the winter, Michael is still blanket tubing cows with antibiotics but intends to use the milk recording results this year to adopt selective dry cow therapy especially on the low SCC cows (cows with SCC <100,000) and he believes that getting cows out for at least two days on a sacrifice paddock after being dried off is a huge help. Michael dries off no more than one row of cows (14) a day and starts drying off his early calving cows from the middle of November and will have all the cows dried off by the middle of December.

While the cows are in the shed during the dry period, Michael keeps the cubicles scraped and limed every day. Once the cows start calving, the cubicles are scraped and limed twice a day. Currently there are 115 cubicles on the farm, but the cows also have access to a loose straw bedded area which is freshly bedded every day during the winter and then this area turns to the holding pen for cows as they come near calving. The calving pens are freshly bedded for every cow and are cleaned out fully every week which eliminates bacteria. All these steps help him to eliminate any issues with cows getting mastitis after calving or picking up any infection.

All in all, between Michael's overall hygiene in the parlour, the use of a cluster flush and milk recording results, it is easy see why Michael's SCC results are low in his herd and why his antibiotic use has been reduced so substantially in the last number of years.

The Role EBI can play in reducing Greenhouse Gas emissions

THE ROLE EBI CAN PLAY IN REDUCING GREENHOUSE GAS EMISSIONS.

While the primary purpose of EBI is to improve farm profitability, it can also have a positive impact on reducing greenhouse gas (GHG) emissions in Ireland's agricultural sector. At this point, we are all aware of the challenges we face across the globe regarding climate change and Greenhouse Gas emissions (GHG's). In Ireland, we have set ourselves goals to reduce carbon emissions by 2030 and again further by 2050. Ireland must reduce greenhouse gas emissions by 50% by the year 2030. Of this 50% decrease, Agriculture has been tasked with reducing greenhouse gases from the sector by 25%. Of the 5.75 Mt of CO2e that agriculture must reduce in emissions, genetics specifically has been tasked with a reduction of 1.2Mt CO2e and the dairy herd accounting to 60% of this reduction. With recent developments on the EBI structure a new Carbon Sub Index will help enable the further reduction of Greenhouse Gas Emissions.

WHAT IS THE ECONOMIC BREEDING INDEXES (EBI'S) ROLE ON GHG'S?

The economic breeding index (EBI) is a tool used in dairy and beef farming to help farmers select breeding animals with better genetic potential for production and efficiency. While the primary purpose of EBI is to improve farm profitability, it can also have a positive impact on reducing greenhouse gas (GHG) emissions in Ireland's agricultural sector.

FACTORS THAT CAN HELP REDUCE GHG BY USING EBI EFFECTIVELY.

1. Improved herd fertility: Improving fertility reduces calving interval and replacement rate, thus reducing enteric methane emissions per unit of product.

2. Increased milk yield: Cows with higher EBI tend to produce more milk, which means fewer cows are needed to meet the same production target. This reduces the overall number of animals on the farm, and therefore reduces GHG emissions from enteric fermentation.

3. Improved feed efficiency: Cows with higher EBI tend to be more efficient, meaning they produce more milk for the same amount of feed. This reduces the amount of feed needed to produce a given amount of milk, and therefore reduces GHG emissions associated with feed production and transport.

4. Reduced herd replacement rates: EBI can help farmers select animals with better health and longevity, reducing the need for frequent replacement of animals in the herd. This reduces GHG emissions associated with animal production and transportation.

5. Selecting animals with lower carbon footprints: As part of the EBI calculation, environmental factors such as methane production are considered. This means that animals with lower methane emissions are favoured in the selection process, leading to a reduced carbon footprint for the herd. Overall, the use of EBI in dairy and beef farming can help to reduce GHG emissions in Ireland's agricultural sector by improving the efficiency of production and reducing the overall herd size.

WHAT IS THE NEW CARBON SUB-INDEX (CSI)?

Another way that EBI can help reduce greenhouse gas emissions is through the new Carbon Sub-Index (CSI) that has been added to the EBI. The CSI measures the carbon efficiency of individual cows, considering factors such as feed intake, milk production, and methane emissions. By selecting cows with a higher CSI, farmers can breed more efficient animals that produce less greenhouse gas emissions per unit of milk produced. The use of EBI and the new CSI in Irish dairy farming is part of a broader effort to improve the sustainability of the industry and reduce its impact on the environment.

NEWS

Farmer Focus – Colm O'Reilly

By Deirdre Divilly Farm Relations Advisor

Colm O'Reilly is a 3rd generation dairy farmer in Rosemount Co. Westmeath. He farms in partnership with his parents Michael & Marion, and his wife Katie plays an important role on the farm also. They have been milking cows for the past 65 years. Farming 166 acres and milking 96 Holstein Friesian cows through a 16-unit Westfalia parlour, Colm strives to achieve good working conditions for both farmer and cow. In 2022 Colm and Michael achieved 579 kg solids/cow, an average SCC of 98, an average TBC of 10, a calving interval of 386 days and 81% of heifers calved between 22-26 months.

A new parlour was installed on the farm in 2019 and the aim when installing the parlor was comfort for the operator particularly as Colm makes use of relief milkers at the weekends and he now has a parlour that relief milkers like to milk in. Relief milkers are important to Colm as they allow him to spend more time with his two children Jessica and William. The parlour comprises of extras including automatic entry gates, dump line, and feed to yield as well as 3-way drafting which is useful with their heat detection collars. The new parlour was installed in 2019 and there was an increase in milk yield from 6481l/cow in 2018 to 7051l/cow in 2019 that Colm attributes to decreased milking time from 3 ½ hours to 1 ½ hours and the feed to yield system feeding cows more accurately.

Milk quality is particularly important to Colm as he feels that when you keep TBC and SCC low there is room to maneuver if something does go wrong. He achieves his low TBC's by doing 7 hotwashes per week at 75 degrees in the evenings heated by an electric water heater and cold washes in the mornings. All hot and cold water is softened which he believes has been vital since switching to chlorine free products. He also descales every Monday, Wednesday, and Friday. If Colm notices TBC creeping up, he starts looking for the issue.

According to Colm's father Michael 'somatic cell count is something you are working on everyday'. Cows are milk recorded 6-7 times per year and this information is used to treat problem cows. Problem cows are sensitivity tested through Colm's vet and a lab in Athlone to decide on a treatment that will work. Chronic problem cows are culled on a case-by-case basis if they are persistently bad in one lactation or if they carry a problem from one lactation to the next. Cows are dry wiped pre milking or washed and dried if necessary. After having a high number of E. coli mastitis cases in 2021 Colm began using valiant versatile D teat dip post milking and he also began spraying clusters with peracetic acid

as a disinfectant between each cow to stop the spread of any contagious bacteria. One extra accessory Colm regrets not adding to the parlour is cluster flush as he believes it would be very beneficial for mastitis control and labour saving for him. Colm places a huge emphasis on herd health to maintain his SCC results low. He vaccinates for IBR, Lepto and just this year began vaccinating for rotavirus. His milk is tested by Munster Bovine through Arrabawn in the Herd Health programme which screens for various diseases such as IBR, BVD, Lepto, Neospora, Liver fluke, Salmonella, stomach worms etc. and allows him to monitor and maximise herd performance. Colm also uses boluses that he believes work well with the information from the milk recordings and once cows are in good condition, not stressed and herd health is high. Both Colm and Katie have recently completed a hoof trimming course to keep on top of lameness and any hoof issues that may occur, and Katie has also recently completed an AI course to help with the breeding season.

'Going forward nitrates being lowered will be very challenging for most dairy farms' says Colm. His aim going forward is to keep building his health EBI while also increasing milk solids and fertility but not yield.

Garda Message

HOME SECURITY

• Whether at home or going out, turn on some lights, use timer switches.

• Lock all doors and windows, almost 1 in 4 Summertime burglaries involve entry through an unsecured access point.

• Use your house alarm.

• Store keys safely; away from windows and letterboxes.

• Record details of valuables and don't keep large cash amounts at home.

VACANT HOUSES

If your home is going to be vacant during the summer period.

• Ask a trusted neighbour or family member to conduct frequent checks of the property at different times of the day to note any signs of trespassing or interference.

• Ensure the house alarm is set.

• Check all doors and windows are secure. (Use deadbolt locks if property is to be vacant for long periods).

• Install timers on internal lights and motion detectors on external lights to make the house appear occupied and offer natural surveillance of the property.

• Ensure that the building doesn't look neglected. Cut the grass, trim hedges etc.

• Ask a neighbour to collect post or if you are going to be away for longer periods arrange a 'mail minder' service with An Post to retain post for collection and place a 'No Junk Mail' sign on letterbox.

• Inform the local Garda station about the premises being vacant to afford passing attention on patrols.