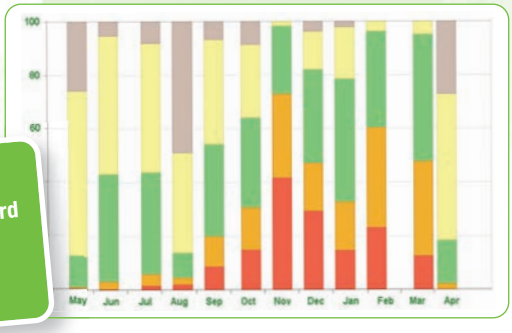
Understanding Energy Balance

Traditionally, energy balance has been monitored using body condition scoring and blood metabolite analysis. But it is often too late to remedy any issues by the time you see the impacts of energy balance e.g. body condition loss after 30-40 days and PD negatives. By identifying groups of cows that are suffering from lack of energy, before any detrimental effects occur, remedial actions can be taken to help minimise production losses, disease and poor fertility.

Monitor herd performance

Get a quick insight into the nutritional performance of the herd, what the trends are for the last 12 months and identify times of risk.



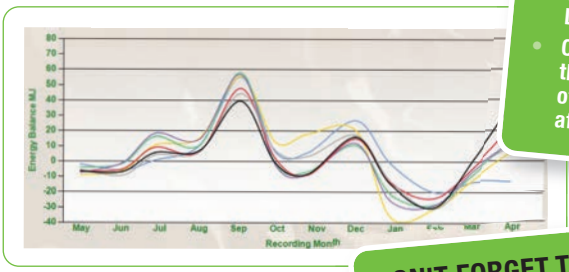
THINGS TO CONSIDER:

- Calving pattern/cows in herd
- Grazing months
- Diet changes
- Grouping strategy

These will all have an effect on how the proportion of your herd in negative/positive energy balance. But remember that cows like consistency so a level and smooth profile is what you're aiming for. Always discuss any dietary changes with your nutritionist.

Check if energy is affecting fertility

Fertility can be effected by poor energy either at the time of service or because of previous energy issues 60 to 80 days ago. Check to see what your cow's energy status is based on their latest fertility status.



GROUPS OF INTEREST:

- Calved cows (less than 40DIM) – how deep in negative energy are the calved cows each month?
- Ready cows (over 40DIM waiting for their 1st service) – could energy status be delaying the return to oestrus? Check the DIM of these cows.
- Open cows (PD negative cows) – are these cows not holding to service because of historic energy issues that could have affected egg quality?

DON'T FORGET TO…

…input your PD negative results to get the most out of this graph!

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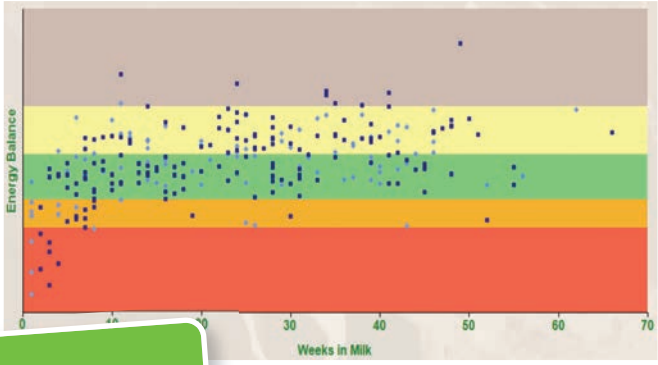
Find herd outliers

It's not just the average energy balance for the herd that is important; the range shows the spread of the herd. Management can be made more efficient by reducing the range in performance and reducing outliers will help achieve this.



WATCH OUT FOR:

- Cows that fall away from the rest of the herd in either direction – cows in positive energy may be there because they are not yielding a lot!
- The point at which cows reach the green band after calving
- Late lactation animals in negative energy

Identify these animals and look at their history to see if this explains why they're struggling e.g. had a difficult calving, high or low milk yield, or any health conditions. This in itself might show a pattern emerging month by month. In conjunction with your vet, it may also be worth examining the cow.

REMEMBER…

The energy bandings are based on the theoretical amount of energy (in mega joules) a cow requires either to put on weight or the amount of energy produced from 'milking off their backs'. The results are reported this way to make interpretation easier, rather than using a mega joule value, to help quantify a cows energy status.

A cow that stays in the red band for 60 days (2 milk recordings) could potentially have lost a whole condition score (10% of a cow's bodyweight is roughly equal to one body condition score).

Find individual cows

The table of data shows the last 3 milk recordings, along with current fertility status and milk yield. Find individual cows or sort by DIM, fertility status or milk yield to check those groups of cows most at risk.

Look up the outliers identified in the scatter plot graph using this table.

LOOK OUT FOR:

- Cows with consecutive negative or positive recordings
- Cows with 'Ready' fertility status that are high DIM – have these been served?

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For more information on understanding and using the Energy Balance service for your herd, speak to your nutritionist or call NMR Customer Services on 03330 043043