NWF AGRICULTURE

Dairy Bulletin

Edition 7

Cover image ©Megan Watson - a winning entry for the 2024 NWF Calendar

Inside this issue

Pre-Weaning Management: Rearing for Success with NWF

By Abbey Firman, NWF Northern Technical Specialist

When beginning to rear calves there are many elements to consider, however, supplying the correct nutrition is arguably one of the most important. This is due to the influence that pre-weaning growth has on heifers as they enter dairy herds. Correct nutrition at a time when the feed conversion ratio is at the highest in her lifetime is critical to long-term success.

The starting point for any successful rearing unit is a high-quality calf milk replacer (CMR), which in the first 10 weeks of life will be the primary source of energy for growing calves. Growth rates at this stage are important as they influence body weight at breeding (55-60% mature weight) and can impact the heifer's age at first calving. This has a huge economic impact on farmers as heifers calving down at 24 months will typically have a payback at second lactation. However, calving at 30 months can delay the return on investment by an entire year! In addition, pre-weaning growth rates influence how much milk is produced in the first lactation and so put simply - getting this growth stage correct is essential to the productivity of a mature cow.

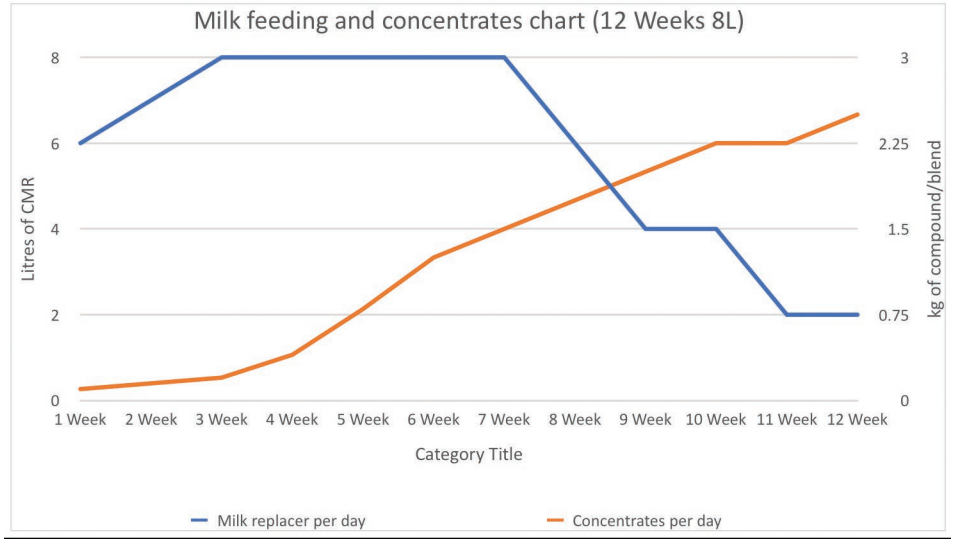
Choosing the correct calf milk replacer for your youngstock enterprise

NWF Agriculture has a comprehensive range of calf milk replacers, formulated to provide outstanding nutrition using precise, high-quality and traceable ingredients, designed to suit all youngstock goals and requirements. Whether whey or skim, 100% dairy protein or LifeStart accredited, we have the perfect product to perform on your farm. In addition to this, all our milk replacers contain Butyrates and Fibosel, which stimulate rumen development and encourage faster immune response in this critical growth stage.

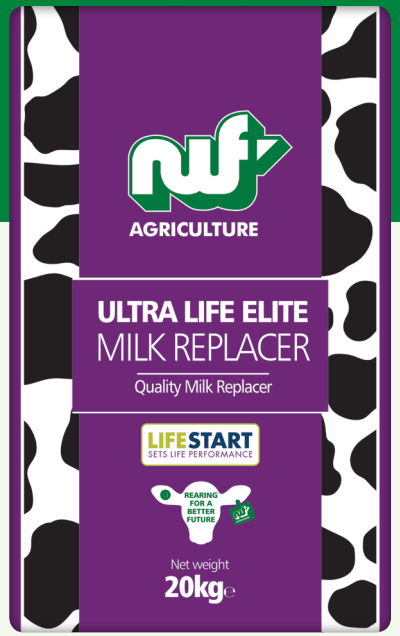
"I have used NWF Ultra Milk Yellow for a few years now and really like the product. It mixes extremely well, and our calves thrive when they are fed on it. I have used alternative products in the past, but I continue to come back to this product as it outperforms every time. We feed this along with NWF Fusion Calf Pellets to fit with our soya-free status and our calves always look healthy and strong." Mr Hastwell, Kirkby Stephen.

Choosing the correct starter feeds for your youngstock enterprise

Alongside CMR, I recommend feeding a highly palatable calf starter feed from day one. The new NWF Calf Fusion starter pellet is a soya-free pellet that utilises NWF's unique protected rapeseed meal to support the requirements of soya-free enterprises. Deciding the right time to wean should ultimately be based upon intake amounts, as opposed to calf size and weight. I recommend that calves consume a minimum of 1.5kg of starter pellets per day before weaning, with an ideal 10 week weaning plan aligned to the below graph.



In addition, water should always be provided to young calves for rehydration and to encourage the proliferation of good rumen bacteria. Calves may drink around 0.75L of water per day in the first few weeks and this helps with starter intakes, showing to improve growth rates by up to 38% (AHDB, 2023).



The NWF calf milk replacer range is formulated to provide options for every calf rearing system and budget.

NWF ULTRA LIFE ELITE
22.5% Protein, 22.5% Oil
A highly digestible LifeStart accredited skim-based milk replacer. Grow healthier more robust calves with this LifeStart approved calf milk replacer. Safe to feed at elevated litres by managing the feed curve on the way to weaning.

NWF ULTRA LIFE - SKIM
24% Protein, 20% Oil
A LifeStart accredited skim-based milk replacer containing the full additive pak. It is suitable for accelerated heifer rearing programmes.

MILKIVIT ENERGIZED CALF MILK REPLACER
22.5% Protein, 25% Oil
A LifeStart accredited skimmed milk replacer to support optimal development, resilience to disease and longevity of calves.

NWF ULTRA MILK YELLOW
22% Protein, 18% Oil
A top quality, 100% milk protein skimmed milk replacer also containing the full additive pak. It is ideal for many systems, particularly those wanting something special from their youngstock.

NWF ULTRA MILK EMERALD
21.5% Protein, 18% Oil
A skimmed milk-based replacer, containing Greenguard package ensuring that early bloom and healthy calves is promoted.

NWF ULTRA LIFE - WHEY
24% Protein, 20% Oil
A LifeStart accredited whey-based milk replacer suitable for accelerated heifer rearing programmes. This milk replacer contains the full additive pak.

NWF ULTRA HI PRO HEIFER
26% Protein, 17% Oil
This high protein, whey-based milk replacer is suitable for accelerated heifer rearing programmes. This milk replacer contains the full additive pak.

NWF ULTRA MILK BLUE
22% Protein, 19% Oil
NWF's most popular milk replacer. A high specification formulation on a whey powder base. A generally good all-rounder calf milk replacer.

NWF ULTRA MILK RUBY
24% Protein, 20% Oil
A superior quality, whey-based calf milk replacer, with elevated levels of oil and milk protein to promote accelerated growth and development at this critical stage of life. This milk replacer contains the Greenguard package.

NWF ULTRA MILK SAPPHIRE
22.5% Protein, 18% Oil
A high-quality whey-based milk replacer, a good all-rounder replacer which has the addition of Greenguard to support digestive health and performance.

Unlocking genetic potential of calves through feeding more milk

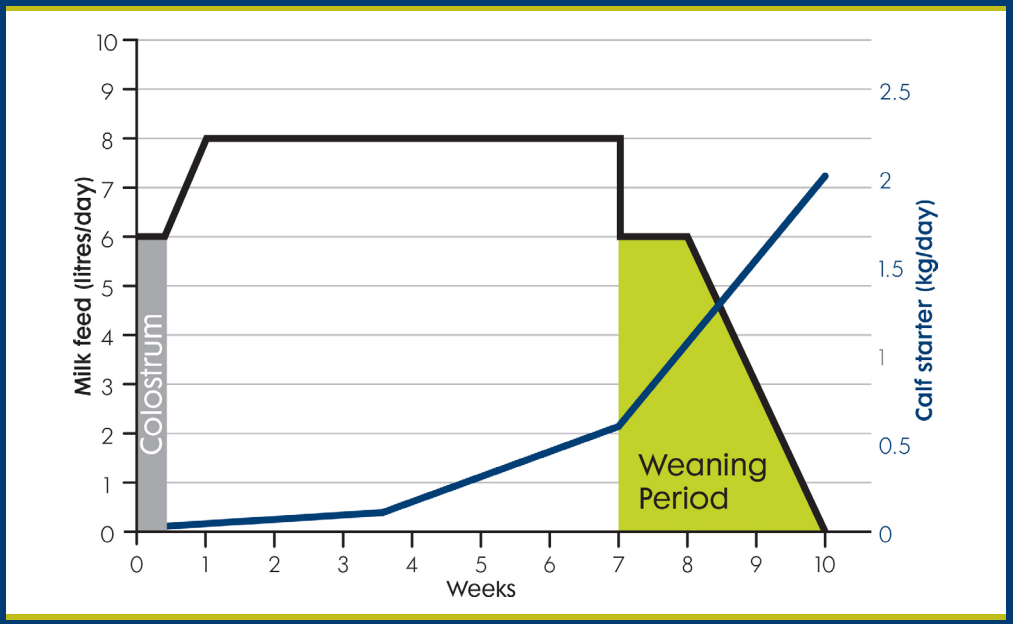
High growth rates in the first few weeks of life have been shown to demonstrate long term benefits on fertility, survivability and lactation performance, providing a clear return on the investment in early life nutrition and the future development of a robust and resilient calf.

trouw nutrition
a Nutreco company

Benefits of feeding more milk
• Improved Calf Health • Improved Calf, Heifer & Cow Performance • Improved Sustainability

Every calf rearing system is different and therefore feed curves should always be designed with specific farm objectives in mind. Moving to higher volumes of milk will be based on some key factors:

- Intakes in early life - offering higher volumes early is a great strategy to improve overall intakes, aim for 8 litres by 7 days of age.
- Elevated Feeding Frequency.
- Feeding Method - consider teat feeding to support natural feeding behaviours.
- Timing of Feeds - consistent timing of feeds is critical to high intakes.
- Portion Size - be flexible to suit the system and feed timings.
- Weaning Strategy - a planned, step down weaning approach is crucial.



Preparation for turnout.
Are you ready?

By Paul Mardell, NWF Technical Development Manager

With cows being turned out across the UK, it is essential to forward plan to maximise grass dry matter intakes. With forage stocks, straw and by-products expensive, along with rising feed markets, more farmers are looking at maximising milk from grass this year.

At turnout milk yields may rise or fall for a few days, this is expected as the cows are changing a substantial proportion of their dry matter intake from conserved forage to fresh forage. A gradual transition to grazing over a short period will minimise fluctuations in milk output. To minimise the effect on milk output, ensure that grass is at its optimum for grazing.

Points to consider before turnout and maintenance work

- Ensure all winter grazing sheep are moved in plenty of time from grazing and silage ground
- Which stock are you turning out? (all cows or just low yielders)
- Grass covers
- Water supply and troughs
- Ground conditions
- Compound feed requirements
- Fertiliser requirements
- Stock fencing
- Gates and gateways
- Electric fencing
- Tracks and roadways

Which fields are to be grazed first?

Ideally grazing should start on paddocks that have been closed up and left to rest, or when the average grass cover is 1900-2000kg dry matter per hectare.

Ground and weather conditions will have a massive impact on the timing, turning cows out to wet ground will do more harm than good. Cows should be moved to fresh pasture when the field cover has been reduced to 1500kg dry matter per hectare. This will maximise intakes in terms of quality and utilisation. The first field is to be re-grazed once all other paddocks/fields have been grazed, which ideally should be around 21 days later. The trick is for this field to be re-grown to target grass height of around 2.5 T dry matter per hectare in that time.

Water Troughs

Empty and wash out field water troughs, checking for leaks and insufficient water pressure. Water is a major and essential nutrient for all animals. A dairy cow can drink up to 100 litres of water a day with intakes in the region of 4 litres of water to 1 litre of milk. A constant supply of clean water is crucial to achieve consistent milk production and maintaining healthy animals. Cows should walk no further than 250 meters to the nearest trough.

TOP TIPS FOR TURNOUT

- Cows should have an appetite before turnout.
- Initially graze cows for a limited period and increase gradually over time as grazing conditions and grass cover permits.
- To encourage maximum intakes, ensure a young leafy sward.
- Turn cows on to fresh pasture after evening milking, this has the potential to raise daily milk production by 5%.
- To achieve maximum intakes do not graze paddocks for longer than 3 days on the run.
- Ideally, cows should be moved to fresh pasture each day.
- Use back fencing to protect pasture re-growth.
- Productive swards should have a minimum of 65% live leaf content.
- Weekly monitoring of field grass covers will allow surplus or shortfalls in grass to be addressed quickly.
- Target ryegrass content 70% or more.

Maize Sowing 2024

By Kim Stuart, NWF Regional Sales Executive

Maize is a key part of many dairy diets, choosing the right seed is paramount to ensuring the end plant meets the dietary requirements.

The maize harvest from 2023 didn't see the best outcomes despite yielding well. The crop maturity, cob development and starch deposition were poor, likely due to the unusually high rainfall and lack of sun in August. Given this it is important to have maize silages analysed as well as grass silage to ensure diets are suitably balanced.

Nutrient	Units	Average 2023	Average 2022
Dry Matter	%	33.6	33.9
Crude Protein	% DM	7.9	7.9
Starch	% DM	27.8	35.0
Starch Degradability	%	79.7	77.5
Bypass Starch	g/kg DM	55.4	77.6
DyNE	Mj/kg DM	6.50	6.90

(Trouw Nutrition GB, 2023).

Starch isn't as rumen digestible in the silages fed earlier in the season compared to those fed later in the season. This means more starch will pass through the cow coming straight back out in the manure, this is crucial to productivity from the diet as every 1% increase in faecal starch over 3% gives the potential to lose 0.5kg milk. Therefore, an increased level of faecal starch will lead to poor utilisation and have the potential to decrease cow performance.

It is important to choose a maize variety that will have good levels of starch that are well digested, in addition to plating and maturity. When looking to choose a seed variety there are two distinct maize groupings; Flint and Dent.

The maize seed grown in the UK is almost exclusively Flint because of its:

- Early vigour
- Slightly better cold tolerance

In contrast Dent varieties characteristics have:

- Higher yield potential
- Higher rumen starch digestibility
- Softer Kernels
- Better drought tolerance

There is currently only one variety of dent grain hybrid maize available in the UK; P7034 from Pioneer. It is a very early maturity plant bred specially to be grown in cooler climates with a plant that flowers early and produces silage with a very high starch content, which degrades in the rumen at a much faster rate than the typical flint varieties. As a result of this P7034 can be fed quickly out of the clamp, therefore it is worth growing even as 25% of the seed drilled with the P7034 variety should be clamped last and fed first. This will help with the transition from old harvest to new allowing the flint varieties to be left ensiled for longer allowing ruminal starch digestibility to increase. The P7034's endosperm is soft and floury, this means that it is more readily broken down in the rumen than the hard, vitreous endosperm found in flint grain hybrids.

Once the correct seed has been chosen the next challenge is to get it drilled at the optimum time, it is important to check soil temperatures before drilling. Using a soil thermometer placed 5-10 cm into the ground, check at about 9am each day. When the soil temperature is consistently above 8° C it is suitable for drilling. As we move towards spring now is the time to start to consider what seed you want this year.

Feeding For Success with NWF

As we know, grass can be a very cost-effective feed. It is a good source of rumen degradable protein, highly fermentable carbohydrates and sugars, so making the most of it can not only help the bottom line but maintain animal performance.

There are some challenges when cows are at grass. Grass has high levels of oil which can "coat" the fibre in the diet, decrease acetate production and subsequently reduce butterfats. It is also low in structural fibre and high in fermentable sugars, which can result in a drop in rumen pH, increasing the risk of acidosis. Consistency is also another challenge, in both quality and intakes. Moisture, ground conditions and overall grassland management will all influence this. To supplement grazing NWF offer a range of summer dairy diets to suit all systems.

High Fibre Diets

High digestible fibre diets to promote rumen function and drive butterfats:

- HDF Octane (WM, WI)
- Milkline (LT, WM, WI)
- Butterline (LT, WM, WI)

Digestible fibre feeds with good energy levels designed to balance high starch/low fibre rations:

- HDF Empire (WM, WI)
- Lakeland HDF (LT)
- Senator (LT, WM, WI)

Starchy Diets

High quality starch diets to drive recovery from negative energy balance, fertility and yield:

- Octane (WM)
- Goldstar (WM, WI)
- Fusion Pro (LT, WM, WI)
- Dairy Fusion (LT, WM, WI)

High Starch diets with good energy levels designed to balance fibrous forages:

- Gold Standard (LT, WM, WI)
- Gold Stellar (LT, WM)
- Empire (LT, WM, WI)

Youngstock Diets

- Calf Pellets (LT, WM, WI)
- Fusion Rearer 16 and 18 (LT, WM, WI)
- Vital Rearer (WM, WI)
- Deluxe Rearer (WM, WI)
- Bespoke Blends (LT, WM, WI)
- Superstock (LT)

The NWF summer diets are available from the production sites as noted by initials:

WM – Wardle Mill, Cheshire
WI – Wixland Mill, Devon
LT – Longtown Mill, Cumbria

NWF Blends: Driving flexible performance from day one

The use of blends in ruminant systems can offer significant benefits to farmers looking to feed their livestock a nutritionally balanced, cost-effective diet whilst reducing the overall costs of feeding livestock. NWF can formulate specific blends making use of a wide variety of top quality raw materials, sourced from around the world which are then accurately blended together in our fully UFAS approved facilities.

Amino-Mixes

Amino-Mixes are a range of blends that have been designed with carefully balanced protein levels to aid rumen function and maximise forage utilisation. The amino-mix range can be used to complement maize and whole-crop diets or where the farmer is feeding his own cereals.

Equa-Mixes

The Equa-Mix range is designed to be used in situations where energy and protein levels need to be maintained. The range is particularly well suited to complement grass silage based diets. The blends also promote an optimal environment for rumen bugs resulting in healthy cows and maximum milk yield.

Gluco-Mixes

Gluco-Mixes are a range of high energy blends designed specially to help close the energy gap in early lactation and maintain performance in high yielding herds. Containing high levels of starch they complement grass silage diets. The wide range of energy sources ensures an even release of energy, promoting efficiency forage utilisation.

Keto-Mixes

Keto-Mixes are formulated with carefully selected raw materials designed to promote rumen health and improve fibre digestion. The Keto-Mix range is specially designed to be used in situations where butterfats need to be improved or maintained. Containing a large proportion of highly digestible fibre the keto-mixes ensure the efficient utilisation of grass and can be used to balance high starch feeds or acidic forage.

NEW Robot Ultra 17

Robot Ultra 17 is specifically designed for high-yielding cows being milked through a robot system. It has been formulated to be highly palatable and robust to encourage cows to visit the robots.

It's a high-energy compound combining a range of starch and protein sources including Maize, Wheat, HiPro Soya and NWF's unique protected feeds Ultra Soy (Protected Soya), Ultra Pro-R (Protected Rape) and Ultra Starch-W (Protected Wheat). Robot Ultra contains generous levels of sugar beet and soya hulls giving digestible fibre for rumen function and to aid butterfat production. Robot Ultra 17 is non-mineralised which enables precision mineral nutrition which can be targeted down the feed barrier.

Robot Ultra 17

- Specifically designed to be fed through automated milking systems.
- Non-mineralised to allow more accurate mineral nutrition down the trough.
- Highly palatable and robust nuts.
- High levels of by-pass protein (MPB) from HiPro Soya and from our unique protected feed range, Ultra Pro-R and Ultra Soy.
- Very high energy and high glucogenic levels.
- Starch from multiple sources to provide safe digestion including Ultra Starch-W (Protected Wheat), Maize and Wheat.
- High levels of digestible fibre from sugar beet and soya hulls for rumen function and health.

Technical services to support your dairy business

NWF Agriculture provide a comprehensive portfolio of services for your dairy farm.

Rationing and Diet Formulation

Through precise rationing using modern formulation models, NWF can fine-tune feeding strategies with greater accuracy whilst keeping animal health and rumen stability in mind. Using NutriOpt, NWF can formulate nutritionally balanced, bespoke blends and utilising a wide range of compounds to complement home grown forages.

Forage & Feed Analysis

The NWF accredited laboratory analyses over 8,000 silage samples each year operating a two day turnaround to help ensure diets are balanced accurately. In addition, raw materials and finished products are regularly analysed to ensure the highest level of quality control is achieved.

Costings and Milk Production Forecasting

Farm costings can play an important role in profitability, enabling attention and actions to be focused on the areas in most need. NWF works with Kingshay Dairy Manager to ensure accurate data is collated and reported.

Dung & Diet Sieving

Rumen health is closely linked to fibre and feed utilisation, both of which are key to ensuring optimum milk yield from forage is achieved. The NWF sales team are fully trained in using dung sieves to help determine fibre utilisation and Penn State Separators which can show how physical diet composition can affect rumen dynamics.

Other Services

- Youngstock Tools and Training
- Interherd Plus
- Body Condition Scoring
- Mobility Scoring
- Cow and Calf Signals
- Mineral Analysis
- Soil Testing
- On Farm NIR

Supplementary Feeding & Buffer Feeds at Grass

By Paul Mardell, NWF Technical Development Manager

When high-quality grass is readily available, research has shown supplementary or buffer feeding will directly substitute grazing, therefore reducing grass intake. In general, forage has a high substitution rate, resulting in poor milk yield response if high-quality grass is replaced. The reduction in grass intake when silage is offered has shown to be almost 0.9kg DM for every 1.0kg DM fed. Although concentrates will also displace grazed grass, they do at a lesser rate. When a compound is fed, an increase of around 30-50% in daily DM intake can be observed. Concentrate supplements can improve milk protein content and give a yield response in higher-yielding cows.

Table to show substitution rates when grazing is plentiful

	Substitution rate Kg grass DM replaced per Kg supplement DM
Grass silage	0.89
Hay	0.77
18% Protein compound	0.50-0.60

Source: Mayne and Leaver 1997.

Although low volumes of forage are normally consumed in spring, which have little effect on increasing milk yields, adding a forage buffer can often help maintain yields and milk butterfat levels when grass covers are low or grass quality is poor. As grazing becomes limited or weather becomes unfavourable and grass covers fall below target levels, a buffer forage should be offered to early lactation cows. You should target the best quality forage to lactation cows, ensuring good ME levels.

Concentrate/Blend

Supplementary feeding with concentrate or a blend is likely to be required if daily milk yields are in excess of 20 litres. Concentrate must be high quality with ME levels of at least 12ME (MJ/Kg DM) and protein in the region of 14 to 16%, along with good levels of DUP/By-Pass protein. It should have digestible fibre, fermentable carbohydrates, and fermentable energy to balance grazed grass's ERDP, and sufficient NDF to support butterfat and rumen health.

TMR

A mixture of blend and forage fed as a supplement to grazed grass can help maximise DM intakes and help balance total requirements. Targeting early lactation and higher-yielding cows will tend to give the best response. Offering twice daily for an hour has been shown to produce most milk from the lowest TMR intakes. TMR feeding is beneficial when grass is scarce and regrowth slow, reducing grass dependency.

When and how you feed

Parlour	Check compound – It needs to be the right product for the system. Hold off reducing crude protein levels if supplementary forage is offered. Maintain energy levels, look to increase fibre and NDF levels help maintain butterfat's. Increase the compound amount and spread evenly over milking's. Target early lactations and higher yielders.
NWF Forage Extender Blend	Contains high levels of NDF and digestible fibre to help reduce reliance on grazing and maintain NDF levels. Good levels of energy and low protein to reduce the energy gap.
Forage	Forage supplementation if grazing becomes limited. Needs to be of good quality. Can help maintain milk butterfat levels. Feeding in the field is likely to reduce grass intake.
TMR	Feed down the trough with limited access twice daily for 1 hour preferably after each milking. Do not overfeed and do not leave for more than 24 hours. Must have access to water. If possible, no access to cubicles. Remember mineral supplementation.
Buffer Feed Overnight	Feeding overnight has shown higher intakes of buffer feed along with less time grazing. Cows tend to graze more efficiently after evening milking. A 15% increase in grass intake and up to 5% more milk.
Grouping Cows	Do you have the facilities and means to split cows? This will enable you to target early lactation cows with supplementation. House early lactation cows to allow grass covers to recover.

Combating Heat Stress this Summer

By Adam Clay, Head of Technical

Did you know that we as humans experience temperatures very differently from cows? Humans do not really feel the impact of heat until temperatures reach 31°C, yet at the typical UK relative humidity of 60%, cows start to become physically uncomfortable from temperatures as low as 20°C.

With summer just around the corner, the combination of warmer temperatures and our naturally humid climate leaves cows vulnerable to thermal stress. This causes many changes in both cow behaviour and biological responses, which in turn leads to reduced fertility and production. Signs of thermal stress can occur if the temperature-humidity index (THI) crosses any of the thresholds in figure 1, even for just 1-2 hours a day.

Bulling activity is impacted once daily 24-hour average temperatures exceed as little as 14°C (THI 57) and conception rates from 20°C (THI 65). These problems are often recognised on farm, with it being almost an accepted occurrence that fertility is not as good in the summer months as it is from October to April.

What can we do to keep cows comfortable during hot spells?

Being proactive with adapting management and feeding to prepare cows to cope with the heat is key. Waiting until you see milk production drop is too late, as by then fertility will have already been affected, with far reaching consequences for your herd. Ensure sheds have shaded areas so cows can escape the sun's heat and consider fitting fans, with the collecting yard your first area of focus as this can become extremely hot and humid as cows crowd waiting for milking. Over beds is another crucial area as cows are less likely to lie and chew their cud if they are hot.

Tweaking feeding to make smaller mixes more often or feeding out earlier and later in the day can also help encourage intakes, keeping feed fresher and allowing cows to eat fresh feed during the cooler times of the day.

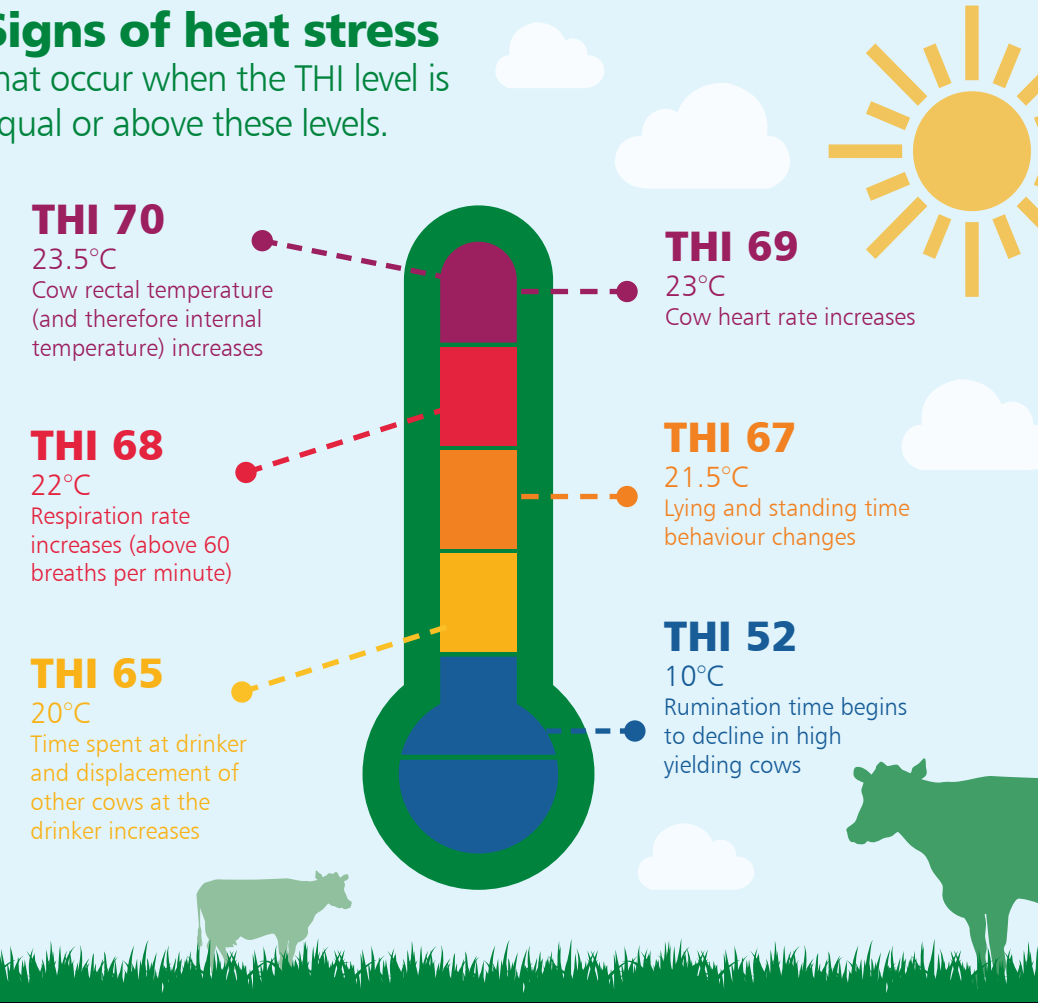
A good quality rumen buffer or rumen health pack should be included in the ration to help maintain digestion, whilst a cooling feed additive can lower body temperature and keep cows hydrated.

With summers getting warmer in the UK, monitoring your cows, and making appropriate management changes can help keep your cows comfortable and performing their best through whatever the weather throws at them.

Contact your local NWF sales specialist for more information or to order a free temperature and humidity index monitor for your shed.

Signs of heat stress

that occur when the THI level is equal or above these levels.



Schmallenberg Update

By Ben Hughes of Sandstone Vets

As vets, many infectious diseases remain consistently on our radar; however, recent months have seen a resurgence in the prevalence of a viral disease which had, for some time, been of minimal significance to British dairy farmers.

Schmallenberg virus (SBV) was first identified in Germany in 2011, before causing significant outbreaks in the United Kingdom in 2012 and 2016. It is thought that the virus was most likely introduced to the southeast of England through windblown midges from Europe. A similar explanation is considered likely for the introduction of the Bluetongue virus which is also of major concern to British farmers at the moment.

SBV is often thought of as a condition of sheep, however, the dairy industry has suffered considerable economic loss from the virus in the past. The disease can have financial implications for dairy farmers due to reduced milk production and reproductive performance in affected animals. Additionally, the birth of malformed calves can result in significant losses.

While much research has been conducted on the virus, it is important to note that the disease is relatively new and as such, not yet fully understood. It is considered highly unlikely that the virus can spread directly from cow to cow but relies on transmission through the bites of infected midges. Once bitten by an infected midge, cows may develop viraemia, and if pregnant during this time, the virus can cross the placenta and infect the developing fetus. It is thought that the fetus is most likely to be impacted if infection occurs between days 62 to 180 of pregnancy. Infection during early pregnancy has been associated with embryonic loss and return to cyclicity, resulting in an increased number of inseminations per cow.

In adult cows the symptoms of SBV are often mild or absent, however, acutely affected cows can suffer from fever, reduced fertility, diarrhoea and milk drop. The most common symptoms associated with the disease are seen in newborn animals and consist of congenital malformations ranging from skeletal and brain abnormalities to stillbirths. Some calves may be born with neurological deficits such as blindness, seizures or an inability to suckle in the absence of physical malformations.

Cows giving birth to calves with fused joints will often require significant assistance at calving as the limbs may not extend naturally into the birth canal. It is worth bearing this in mind when assisting with deliveries this spring as inappropriate traction in these cases may lead to considerable damage to the birth canal. Calves born with pronounced malformations may need to be delivered by caesarean section. Malformed calves born alive will need to be humanely euthanised.

There is no specific treatment for Schmallenberg disease. Efforts can be made to control midge bites using pour-on insecticides. This can, however, be extremely challenging, particularly in years where weather conditions lead to large midge populations in late summer and autumn. As long-lasting immunity is developed from exposure to the virus younger animals and those who were not exposed during previous outbreaks are at greater risk of infection. It appears likely that the virus will continue to follow a cycle of large outbreaks every 3 to 5 years.

While the birth of congenitally malformed calves is certainly a strong indication that SBV may be present on farm, it is important to note that other diseases such as Bovine Viral Diarrhea have been implicated in the birth of calves with similar symptoms. It is worth contacting your veterinary surgeon as post-mortem examination of the fetus may be necessary to confirm the diagnosis. It is also possible to run blood tests on adult animals to check if exposure to the virus has occurred. From a practical point of view, the use of bulk tank samples is often the simplest way of ascertaining the significance of the virus within a given herd.

SANDSTONE
VET GROUP

Supporting Arla Customers with Soya-Free Sustainability

By Ed Drake, NWF Sales Specialist

Fourth generation farmer, Jeff Harris & family run Nymphayes Farm in the rolling hills of Mid-Devon. Designed and operated on a 'Low-Input' style system, the 135 British Holstein/Friesian cross herd are milked twice a day in a 12/24 Herringbone Parlour, averaging 7,500 litres across a 12-month pattern. The herd is rotationally grazed from mid-Spring to late Autumn across the 280 acre farm, predominately sown with NWF's Champion with clover grass ley, chosen for its proven long-term dual purpose; offering high-quality forage production whether cut or grazed.

The year-round calving operation allows for consistency in labour, with no peaks in the Spring and Autumn to allow Jeff and the family to maintain a consistent work routine year-round. The 80 calves are reared on NWF Ultra Milk Emerald, a skim-based milk replacer with NWF's Greenguard ingredient profile to support digestive health and performance. The calves are then weaned onto NWF Calf Starter pellets until 10-12 weeks of age. Since the addition of NWF's Ultra Milk Emerald and Calf Starter Pellet, Nymphayes Farm has seen an increase in average DLWG and overall 'calf contentment.' Jeff has also added barley into his calf's diet to support fibre intake and rumen development.

The herd is housed in mid-October and fed a mix of homegrown grass and maize silage, with NWF's Dairy Fusion 20 fed in the parlour to keep yields high. To reduce labour intensiveness and machinery usage, Jeff opted to self-feed silage directly from the clamp, with an electric fence wire moved daily. It also provides a great loafing area for the herd. Since switching to NWF Dairy Fusion 20, Jeff has been successful in removing soya, without compromising yields, constituents or cow health.

"We've been working with NWF Agriculture for the last 5 years, initially taking a rearer compound for our 50-head Angus herd, on the introduction of the NWF Fusion Range, we have been working closely with our sales specialist, Ed Drake on improving milk yields, fertility and addressing any health issues. With milk supplied to Arla, our business is scored on its sustainability credentials and I am proud to say that we are far higher than the average Arla supplier, which results in an additional 1.5ppl on all milk sold, making a huge difference to our bottom line and farm operations," says Jeff.

"The technical support and services from Ed Drake and NWF Agriculture have been extremely helpful in both improving milk yields and understanding the Arla scheme and point accumulation. Ed has been key in supporting our farm with rationing and diet services, along with feed conversion efficiency charts.", adds Jeff.

Where do you see the Nymphayes farm and the industry in years to come?

"We purchased an additional 65 acres in 2020 to expand both the dairy herd and our grazing acreage and would love to expand further. With farm labour shortages across the UK, our low-input style works for our lifestyle. We recently invested in a Lely Discovery to reduce hours scraping sheds and collecting slurry. I can only see more milk buyers moving towards a more 'sustainable ration' in the future, I'm glad we have taken the leap already and we can get ahead of the curve and continue to focus on our farm efficiencies", concludes Jeff.

The NWF Agriculture Fusion Pro dairy compound is a high-performing ration, containing high levels of NWF's protected feed range, Ultra Pro-R and Ultra Starch-W. This ensures that high levels of bypass protein and starch are available to support production, fertility and the health of your herd. The NWF Fusion Range is free from HiPro Soya, soya hulls & palm kernel, resulting in less than half the Co2 equivalent (GFLI number) of other compound feeds.

NWF Agriculture would like to thank Jeff Harris & family for their continued support and business.

For further information on the NWF Fusion range or for advice on improving farm sustainability credentials, please speak to your local NWF Sales Specialist or call **0800 756 2787**.

Grassland Management

By Roger Bacon, Barenbrug Agricultural Key Accounts Manager

The high rainfall throughout the Summer and Autumn of 2023, continued over the winter months, resulting in large acreages of grassland and crops sitting under water throughout the country, with soils being left waterlogged. Cattle were brought in earlier than normal putting high demand on forage stock. Whilst everyone is hoping for a kind spring and an early turnout to relieve some of the work and feeding pressures, grazing and silage fields may need some attention to manage them back to their full potential. While the condition of some fields may look disastrous, they may not be as bad as they seem, and many could be turned around into being highly productive.

Start by assessing each field. The Barenbrug Grass Management guide indexing system gives a straightforward practical approach on how to do this. Based on a 1 – 5 index with an INDEX 1 field being the worst, it will have less than 25% sown species remaining and unlikely to be very productive and in need of a complete reseed. An INDEX 5 field being in the best shape it will have over 80% sown species with clover making up 30-40% of the plant population if sown. There will be minimal weed content or gaps requiring practical management techniques to get the most from an index 5 ley.

Just because a field looks green doesn't mean it will have productive grasses present. Weed grasses typically yield between 7-9 t DM/Ha, they are also inefficient in their use of nitrogen and will only utilise between 17-30% of any nitrogen applied. Making it all the more important to regularly assess fields to improve grass yield, quality and fertiliser use efficiency.

Don't overlook the soil

The effects of long periods of rain and standing water can be huge on soil structure. 25mm of standing water over one hectare is around 250,000 litres of water and equates to 250-tonnes in weight sitting on the field! The compaction this causes reduces grass growth, inhibits rooting and the plants ability to absorb nutrients, as well as reducing the soils nutrient cycling. Compacted soils are generally colder and take longer to warm up in spring which in turn reduces grazing days or gives a later start to cutting. Studies have shown how soil compaction reduces grass growth – and yield –by between 10 and 20%. The best way to identify compacted areas is by digging holes, ideally in two parts of a field – a good area as well as the suspect area – to compare the differences. Look closely at the colour, friability, root growth, the presence or absence of worms, and how it smells.

This is also the ideal time to address soil fertility issues. If you haven't taken a recent soil sample take one now to identify fields of low pH (grass crops require pH of 6.5) and any limiting nutrient issues that may affect plant health and grass growth. Speak to your local NWF Sales Specialist about our soil analysis kits.

Address Winter Growth

This winter growth has been generally weak, of poor quality, producing dead material at the base of swards which will be unpalatable to dairy cattle when turned out in spring resulting in poor utilisation and intake. The winter growth really needs removing to reset the growth cycle of the grass sward, so it produces good quality, palatable leafy grass when spring growth kicks in. In an ideal world, the best option would be to graze with sheep, or even youngstock in drying fields that will carry them. Be careful to avoid poaching though.

Keep an eye on soil temperatures in readiness for fertiliser applications. Making sure the grass crop is fed to its requirements. Don't forget to use sulphur with nitrogen and replace any P & K removed by cutting and grazing.

Revolutionising Farm Innovation: NIR Forage Analysis Scanner

By Jake Manning, NWF Sales Specialist

With advancements in technology ten a penny, the development of forage analysis scanning devices offers a pivotal innovational change to revolutionise the way farmers and sales specialists assess and analyse forage and ration diets live.

Consistency is an often under-looked aspect of running an efficient, productive herd, within which sampling forage on a regular basis allows for a ration that suits both your herds requirements whilst optimising a consistent rumen environment. Most silages are typically checked one or twice a season, yet research shows that many key parameters can differ greatly across cuts and position in the clamp, i.e top vs bottom vs middle vs sides.

Work by AB Vista found that as much as 10% difference in Dry Matter across the clamp face when comparing the top to the bottom. When taking into considering dry matter differences across the entire clamp, even a small reduction of 2.5% dry matter from one day to another could be enough to alter yields by up to 2 litres/cow. *(Source: Ronald Annett, AB Vista, 2016)*

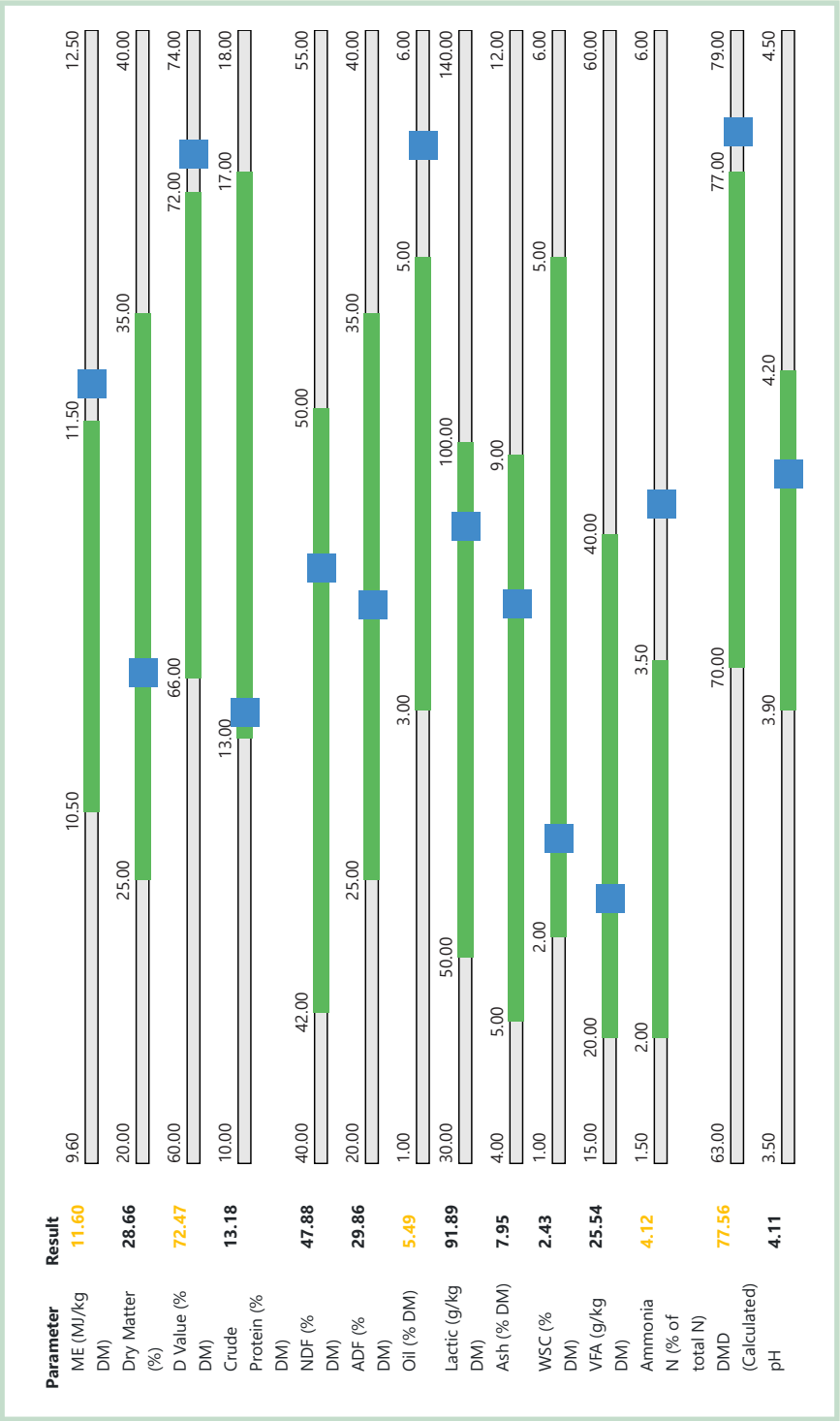
NWF Agriculture is currently trialling the use of an on-farm NIR analysis scanner to offer live forage results, without the need for samples to be sent to the NWF laboratory. The handheld device can measure all key components in grass, maize and wholecrop silage within minutes, with results delivered live. "It has been ideal in supporting farmers when deciding which clamp to open and we can formulate a ration to suit the analysis there and then.

Analysing silage every few weeks allows farmers to become more savvy with their feed usage, if quality has improved we can tailor the amount of concentrate fed, or vice versus if the quality has deteriorated. The NWF sales team can work alongside farmers to alter the ration to keep yields high and cows performing.

With herds turning out across the country, the NIR scanner has really stepped up the game when it comes to grassland and grazing management. With the ability to analyse fresh grass samples in minutes, NWF are able to further advise farmers on which fields to turnout to and subsequent grazing patterns throughout the Spring and Summer.

The NIR machine covers ME, DM, D Value, protein, Lactic Acid, NDF & ADF and oil %. In comparisons against the NWF in-house state-of-the-art laboratory, we've found the NIR results mirror those against the same sample within the lab, allowing accurate rations to be formulated on the day with the farmer.

Forage Analysis Report



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North Devon Show
Wednesday 7th August 2024

Ashover Show
Wednesday 14th August 2024

Westmorland County Show
Wednesday 11th & Thursday 12th September 2024

UK Dairy Day
Wednesday 11th September 2024

Brailsford Ploughing Match
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