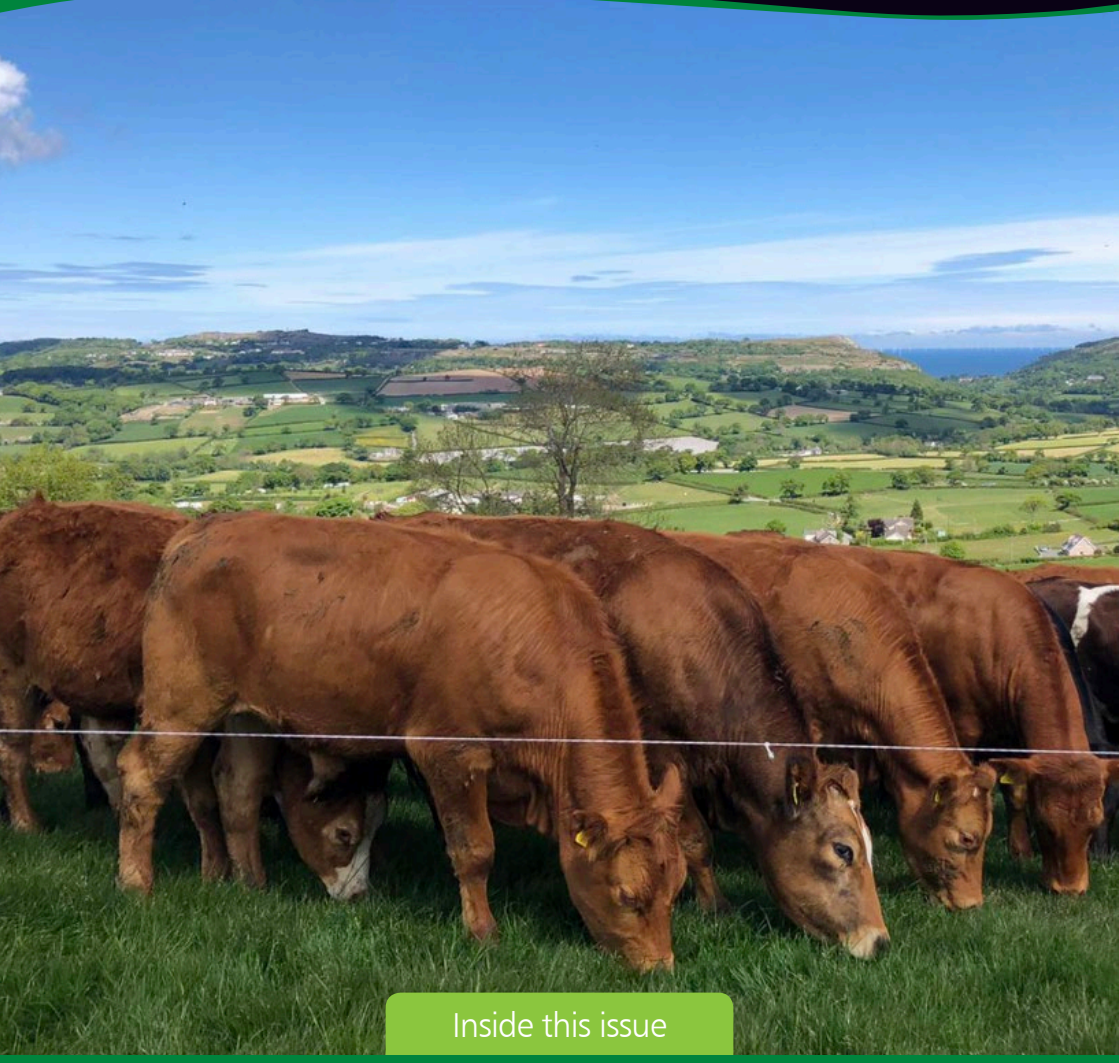
AGRICULTURE

Beef Bulletin

Edition 3



Inside this issue

Let's talk sucklers...

By Beth Howells, NWF Technical Advisor

Nutrition, health and genetics all play an important part in a suckler herd's productivity and profitability, where optimising fertility is critical to the success of any herd.

With any livestock system, it is important to meet animal requirements whilst minimising waste. Ensuring optimal dry matter intakes is important when meeting requirements. Monitoring grass growth in the summer and analysing silage in the winter can help inform decision making as well as providing the building blocks of the diet.

Grass and grazing management are key for suckler herds to ensure cows have sufficient and good quality grass. As the season goes on, considering the growth rates and grass quality is important as it is likely that growth drops as grass becomes more mature, leading to a forage source which has increased fibre and reduced energy levels. Also do not forget about those first-time calvers, they are likely to have greater demands compared to mature suckler cows as they may still be required to gain weight as well as growing a calf.

The hormones associated with fertility and nutrition are closely linked, with dietary energy status being a key factor limiting reproductivity when cows experience severe negative energy balance. Nutrition before calving is as important as nutrition post-calving, particularly when managing metabolic disease. Energy balance post-calving is key to promoting ovulation, where the last 6 weeks of pregnancy through to the first 6 weeks after service is critical to promote oocyte (egg) viability and embryo survival. If excessive weight loss occurs, conception rates and cows holding may be a problem.

Minerals

Mineral supplementation throughout the production cycle is important to not only support cow health but also for the unborn calf. Copper, selenium, iodine and vitamin E are important for fertility with iodine and selenium essential for calf vitality. Undertaking minerals audits with your NWF Sales Specialist and asking your vet to take bloods from some cows is a sensible way to understand the mineral status of your stock. Balancing mineral status can help to improve efficient herd performance and therefore farm profitability.

At 4-6 weeks before calving, moving to a dry cow mineral can help reduce the incidences of slow-calvings, milk fevers and other metabolic issues seen around this stressful period. Things to look for in a dry cow mineral are high levels of magnesium, at least 12% and low levels of calcium, no more than 5% in a powdered mineral. This will help the mobilisation of calcium post-calving and reduce the incidence of milk fever. On forage-based diets mineral antagonists such as iron and molybdenum can be high, adding some alternative sources of trace elements such as Optimins and Hydroxy minerals can help to increase bioavailability.

In pursuit of the perfect suckler cow

Health challenges and the need for improved vigour within their herd are leading David and Rachel Bushell on a journey of discovery.

For many years David and Rachel Bushell, Llandeilo, have enjoyed success breeding high value beef animals reaching average liveweight gains of up to 1.8kg per day, resulting in slaughter at 12 months old with a killing out percentage of 64% and a final carcase weighing about 400kg.

David explains their aim is to produce a carcase averaging a grade U and the couple has worked closely with their Cogent Genetic Consultant, Martin Ley, to breed the sort of animal capable of reaching their targets.

The Bushells use a Holstein cross British Blue suckler cow as their base, and heifer calves are bought through livestock markets to be reared as replacements. This however has caused some challenges in terms of health status and in recent years they have been faced with a high proportion of Johne's Disease positive cows.

David says: "*Johne's disease is costing me thousands, and unfortunately in the last few batches we have bought from markets, we could almost guarantee a couple of them would go down with Johne's. I want to close the herd; we need to get away from buying in replacements.*"

With this in mind, David and Rachel began their pursuit of the perfect suckler cow – a fertile animal with plenty of milk and good maternal instincts, which calves easily and produces a healthy calf which grows quickly and efficiently.

Initially they had considered using a British Friesian across selected cows they wished to use to provide the next generation of their herd replacements; hoping to benefit from an injection of milk and more maternal capability.

However, taking into consideration David and Rachel's requirements, Martin suggested the Stabiliser.

Cogent has an exclusive partnership with the Stabiliser Cattle Company which gives them the sole right to market Stabiliser semen in the UK, this meant Martin was able to advise the Bushells on what the breed could offer.

Famed for its docile nature and outstanding maternal qualities the popularity of the Stabiliser is growing year on year.

Katie Grantham, of the Stabiliser Cattle Company, says: "*The Stabiliser has a lot to offer and with the ability to select for traits such as birth weight, calving ease and maternal ability which are based on millions of data points, it gives you more control over the genetics you are bringing into your herd.*"

"*Although the focus for David and Rachel is heavily on the final carcase, the Stabiliser is capable of being everything in between. The goal is easy calving, producing a calf that suckles vigorously and a good cow that raises the calf well and converts feed efficiently.*"

She says the early maturing nature of the Stabiliser also means they are the perfect fit for David's aim of further reducing his age at first calving from 26 months old to 24 months old.

David says: "*Most importantly what we want to get out of the Stabiliser is fertility, and I find them so easy to get in calf. The vigour and health of the calves is great too.*"

So far, they have been using Stabiliser semen on their herd since 2018 when they started by serving just three cows to Givendale Black Premier. Next year they will be calving 15 Stabiliser heifers to join the 65-strong herd.

Rachel says: "*From an efficiency perspective we wanted to breed a smaller cow, and we are now experimenting with whether they are capable of producing stock which can achieve similar performance levels to the current herd, but with all the added health benefits which come along with the Stabiliser.*"

Currently the finishing animals are sired by Limousin or British Blue bulls, but David says the next step is to find the best cross onto the Stabiliser cow in order to produce a finished animal which meets the couple's ambitious targets.

www.cogentuk.com

Outlet for Dairy Beef Calves provides an opportunity for R D Livestock

R D Livestock Ltd are a family-owned livestock dealer and calf rearing business currently rearing around 95 calves every 6 weeks, utilising social media to promote their business!

Sisters Danni and Beth are rearing batches of calves to sell through their local auction markets and through private sales which are solely driven by social media platforms. "*Facebook has been a massive outlet for us, it is super easy to use and gives us the ability to showcase what we have to offer*" Danni commented.

The family rent over 200 acres, including the buildings where the youngstock enterprise primarily takes place. Calves are bought from local markets; Market Drayton, Shrewsbury, at around 3-4 weeks old. Calves must have a good health status where a conversation around colostrum management also takes place. "*The calves which perform well are from certain sources where we are confident that the calf has been well managed before they have been to the market, particularly their colostrum intake*" comments Beth.

Calves are around 55-60kg when they come to the unit, and 125-130kg when they leave, meaning that calves require approximately 0.83kg per day of weight gain. "*The last batch we had were gaining 1.2 to 1.6kg daily live weight gain (DLWG) and were a mixture of continental, native and heifers*" comments Beth.

On arrival, the calves are fed 5 litres per day of NWF Agriculture's Ultra Milk Blue milk replacer, a 22% protein, 19% oil whey-based milk replacer. "*Ultra Milk Blue is one of our bestselling, tried and tested milk replacers which has seen multiple benefits to beef units*" comments Elysha Chell, NWF Youngstock Specialist.

Calves are fed milk replacer until they are around 6 weeks old when they are abruptly weaned. This is done so carefully when calves are hitting 90kg liveweight and eating enough solid feed (2.5kg + of blend). Beth and Danni weigh the calves every 2 weeks and carefully monitor intakes around this time to promote rumen development and mitigate any growth checks during this transition.

R D Livestock is supplied by NWF with a bespoke 18% protein blend, formulated with palatability in mind to promote intake and contains a range of protein sources and cereals to optimise performance, "*Calves are thriving, not only by weight but their shape which is the essential market specification*" Danni comments.

Mitigating Risk and Weighing

As calves are purchased from multiple sources, there is always a risk of bringing disease onto the unit. "*We acknowledge that there is always going to be a risk but collaborating with suppliers and our vet, we can mitigate this to the best of our ability*" add Danni and Beth. R D Livestock is currently trialling medicated NWF Calf Pellets in order to mitigate coccidiosis. "*We were using a drench which has its pros, but we found that it wasn't quite working for us. We have heard good things about medicated feed so thought it was an option to explore*".

Weighing calves is another tool which we use to identify and resolve any issues. "*So far the issues we have had are fairly acute, and we have found that weighing every 2 weeks enables us to make more informed management decisions, highlighting individuals which can then be dealt with on an individual basis*", Danni comments. Weighing also supports any pre-empting decisions and targeted treatment. A good example is when calves are disbudded; the vet comes and sedates all the calves, and the procedure is done quickly and quietly which helps reduce the stress on the calves. Some calves which "bunt" the feeder knock the bud site which sometimes gets infected. "*We can't see this initially, but once we have weighed and they have had a slight dip in DLWG, we investigate and find the bud is infected and impacting performance*" Beth comments. "*Another example was a calf which had infected throat glands - you could not see anything so weighing highlighted that there was an issue*" Danni adds.

Marketing

Beth and Danni put all the calves through private sales and live auctions. They have considered contract rearing and although for some units this is the route to go down, R D Livestock like the flexibility the markets provide and the relationships it helps to grow.

With the use of social media, calves are sold across the UK and give them the ability to showcase what they have got easily and transparently. "*We want repeat customers and by using platforms like Facebook enables easy communication and the ability to keep in touch*" Danni comments. The Facebook page currently has over 11,000 followers, Danni comments that "*there is no way you could communicate what we do, reaching that many people, from just advertising in the local paper*".

For the future, R D Livestock wants to increase the capacity to rear calves and grow their repeat customer base. NWF Agriculture would like to thank Danni and Beth for giving us a refreshing and enthusiastic insight to their business!

Follow on Facebook:
RD Livestock Limited

Creating a stress free, healthy environment to promote performance!

By Erin Wray, NWF Technical Co-Ordinator

The environment and the stress animals are exposed to can make a big difference on animal health and performance. Optimising conditions and minimising stressors can not only mean a quicker turnaround of animals, but reduces the waste of resources (time, money and labour).

Feed

Beef animals, depending on what phase of growth, can eat between 2-2.5% of their body weight in dry matter, so making sure that there is enough feed space is key to promoting dry matter intakes and therefore growth.

The quality of feed and ensuring requirements are met in conjunction with feeding for rumen health is important in promoting performance. If the rumen is in poor condition, animals will take longer to grow and finish which can ultimately add cost.

Water

Often the forgotten nutrient, water is essential for health and productivity. Water should be fresh and access should be available 24/7 without the risk of bullying to ensure optimal intakes are achieved. Cattle require up to 75L per day (depending on growth phase, the ration fed and temperature) so ensuring the trough space and water flow meet requirements is key. Lactating cows require significantly more water due to the requirement for milk production.

It is also sensible to test water every now and again, particularly if it is from a borehole to mitigate any antagonists or highlight any potential issues which could limit performance.

Ensuring troughs are in good condition will also help from a hygiene point of view. Leaking troughs and fittings can lead to unwanted water build up in the pens, which can contribute to poor underfoot conditions which can lead to hoof health issues such as digital dermatitis. Not to mention the unnecessary cost of "wasted" water.

Air

Air flow and ventilation is a common discussion point, with pneumonia and respiratory health being key associated diseases. According to MSD Animal Health, cost estimates of pneumonia vary between £43 per dairy calf and £82 per affected suckler calf. These costs rise significantly when re-treatments are required, not to mention the associated costs of poorer carcass quality and delayed finishing times.

Correct and adequate ventilation is one of the most important features to ensure efficient production and minimise health disorders.

If the shed design and location allow it, ventilation by the wind (of speeds more than 1m/s) will drive the air through gaps in the sidewalls, meaning stale air leaves the building on the opposite side. However, some sheds may require an outlet to promote a "stack effect". Where the main determinants are stocking density per metre square and the slope of the roof. A steep pitch roof will always work better than a low pitch.

Look for cobwebs in buildings and condensation as these are signs of poor ventilation. Using smoke bombs can also be a useful tool in identifying air flow and ventilation improvements.

Competent ventilation and drainage are key to good air hygiene. Hygiene in general supports health and welfare, from cleaning and disinfecting surfaces which help remove biofilms (where pathogen survive), to ensuring dust is kept to a minimal to support respiratory health and air quality. It is important to remember that focal points for disease transmission are feeders and troughs, highlighting the importance in keeping these clean and maintained.

Light

Lighting is another forgotten aspect which often goes unmentioned. Ensuring sufficient lighting that is evenly distributed (to avoid creating shadows) is important for efficient and safe working.

Day lengths of 16–18 hours of light at +170 lux, interspersed with 6-8 hours of darkness (less than 30 lux essential to maintain hormone balance), have been shown to increase liveweight gain, advance onset of puberty in heifers, and increase milk yield in cows.

Rest

Beef animals are ruminants and must be able to have "rest" to ruminate, ensuring lying areas are dry is key. Floor slope, surface and linkage to drains are all relevant cow comfort in addition to management of moisture within the building.

Space

As previously mentioned, space is key for feeding, growing and lying which are all key aspects of animal health and performance. Below are typical Red Tractor Assurance Standards (V5, Nov 2021) for suckler cows and growing/finishing cattle and youngstock.

	Space Allowance (m2 per head)		
	Liveweight (kg)	**Solid Floors***	**Fully Slatted Floors**
Suckler cows	400	4.9	N/A. Non-slatted lying areas much be provided.
	500	5.85	
Calves	50-84	1.5	
	85-140	1.8	
	141-200	2.4	
Growing/Finishing Cattle/Youngstock	201-299	3.0	1.1
	300-399	3.95	1.5
	400-499	4.9	1.8
	500-599	5.85	2.1
	600-699	6.8	3.2

**Total (inc bedding, feeding/loafing).*

***Source: Adapted from AHDB Better Returns Programme (Better Cattle Housing Design), 2018, and Andrews, 2000 (Cattle Practice Vol 8 Part 2; MSD Animal Health).*

NWF Ultra Milk Calf Replacers

The range of calf milk replacers from NWF Agriculture are formulated to provide outstanding nutrition using high quality, traceable ingredients. They enable fast cost effective growth and development at this critical stage in life.

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

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 LIFE - WHEY
24% Protein, 20% Oil
LIFESTART SETS LIFE PERFORMANCE
This is a LifeStart accredited whey-based milk replacer. It is suitable for accelerated heifer rearing programmes. This 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 replacer contains the full additive pak.

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

ULTRA MILK GOLD
22% Protein 19% Oil
A superior quality, highly digestible skim milk replacer which has high levels of milk proteins. This replacer contains the Greenguard package.

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.

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 replacer contains the Greenguard package.

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.

Weaning ▶ Growing ▶ Finishing

By Abbigail England, NWF Technical Manager

With margins on beef systems under pressure, efficiencies of production are as important as ever, where specific points of growth can have significant impacts on farm profit.

Weaning

From suckler herds to beef from dairy systems, the UK has a versatile and adaptable beef industry where when to wean and what to feed will differ from farm to farm.

Sucklers Herd

For suckler units, time of weaning is a decision based on feed supply and cow condition and can typically differ from 6 to 10 months of age.

By 200 days old (6 and half months) the majority of nutrient inputs will be from solid feeds rather than milk. Feeding the calf directly will be more efficient than feeding the cow to produce decreasing litres of milk.

Weaning can be a useful way of manipulating cow body condition. For over conditioned cows, delayed weaning can be a way to help reduce body condition and conversely, if cows are thin; calves should be weaned sooner rather than later.

After weaning and depending on forage availability and quality, calves could benefit from a compound feed or blend. Introducing this carefully is key, not only to maximise intakes and drive growth but to do so without risking a transition shock.

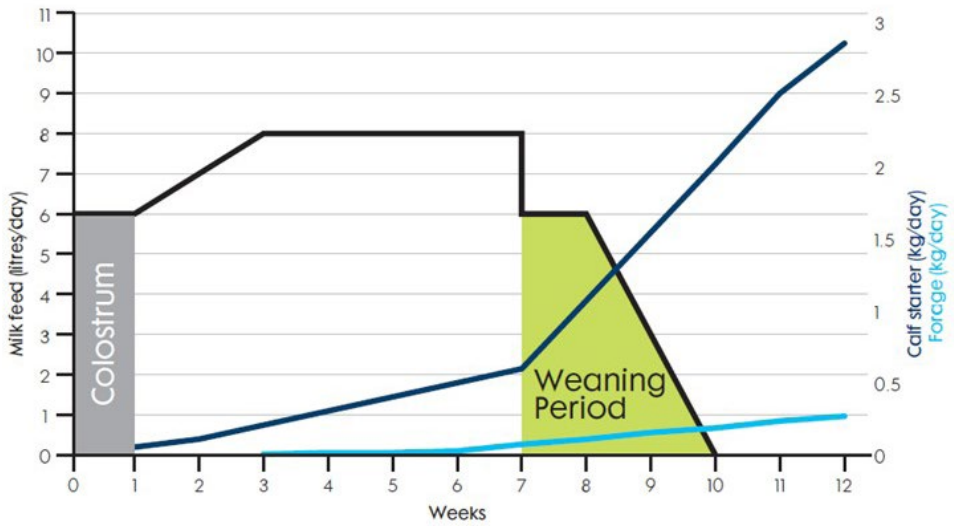
**Weaning is a stressful period, changing one thing at a time is recommended to manage this and reduce growth checks.*

Beef from Dairy

From a couple of days old, calves should be offered a compound whilst on milk or milk replacer to help rumen development and to entice the calves to "nibble", ready for when they are weaned. A key thing to remember for these type of calves is that they will be weaned significantly earlier than their suckler counterparts.

Calves should be eating a minimum of 1.5kg for 3 consecutive days before starting to be weaned, then over a two-week period calves should be fully weaned and eating 2.5-3kg of compound or blend. Below is a typical feed graph, highlighting the increase in solid feed during the weaning process.

Feeding and weaning schedule



Source: Trouw Nutrition GB

Growing

Up until approximately 400kg liveweight or 9 – 10 months of age (depending on system, breed and sex), animals require a specific diet focused on developing frame and depth. The growing diet should have structural fibre to ensure good rumen health and avoid excessive levels of starch at this stage. If a grower ration is high in starch it can lead to unwanted fat deposition which can attract deductions at killing out and make it unlikely to hit desired specification at market. Once hitting weights of approximately 400kg or 90 days before market, it is time to move to a "finishing" diet!

Growing diet nutrient requirements	
Nutrient in total ration	**Guideline**
Dry matter intakes (DMI)	2.3% of liveweight
Target DLWG (kgs)	0.8-1.2
Energy (MJ ME/kg DM)	10.5-11.5
Protein (%)	15-17
Starch and sugar (%)	Under 20
600-699	6.8

**REMEMBER FIBRE- (NDF) should be over 40% of the total ration.*

Genetics, health status and the environment the animal is in will also influence overall performance. It is important to liaise with your vet to ensure a herd health plan is fit for purpose as well as the housing and infrastructure which the animals are exposed to.

Finishing

Although the way we finish beef animals can vary, feeding finishing cattle within a short period of time for maximum liveweight gain to meet market specification remains the same aim for most producers. A well balanced and consistent diet can help finish animals quicker which can ultimately save money (from feed, time and labour)!

Typical finisher guidelines are:

- Reduce the protein level from a growing diet to 12-15% crude protein.
- Increase the starch levels to promote fast weight gain and effective feed conversion. (especially in animals which are hard to flesh). Target starch and sugars of 35 – 45% using a blend of sources such as Ultra Starch-W to manage rumen health.
- Fibre is important (they are ruminants!) A minimum of 10% of their dry matter intake should be from straw/forage. If forage is used other than straw, ensure its dry to provide physical structure in the rumen.

Bull beef	Finishing heifers
Bulls are incredibly efficient and can achieve fast rates of growth, however a market must be identified and handling of bulls can be dangerous if not managed appropriately. **Top bull management tips are:** • Small group sizes (no more than 20 animals) • Mixing groups can lead to fighting and ridings, keep groups the same through-out the period. • Bulls should be kept away from other stock, particularly breeding stock.	When finishing cattle, splitting by sex of animal can increase efficiencies whilst meeting desired specifications, which is particularly important when heifers are involved. Heifers tend to put fat on more easily compared to their male counterparts, highlighting the importance of feeding to grow sufficient frame size before they are moved to finishing diet. A similar diet (typical guidelines above) which is fed to steers can be fed to heifers whilst needing a shorter feeding period to achieve the target fat cover (to avoid getting over fat).

NWF Beef Feed Range

Profitable beef production depends on maximising growth rates and feed efficiencies to ensure the animal is fit for the desired market.

NWF Agriculture supplies a comprehensive range of beef compounds and blends designed to suit all farming systems. Manufactured using only high-quality raw materials, the beef feed range promotes optimal health, growth, performance, and fertility. UFAS approved production sites are located in Cheshire, Cumbria and Devon with feeds delivered direct to farm or available for collection.

NWF STARTER FEEDS

The preweaning phase is the most efficient period of an animal's life where their feed to growth conversion is at its highest. Getting calves off to the best possible start is fundamental to promote a healthy and productive beef animal.

NWF Calf Pellets	• A high quality starter pellet which is suitable from birth until weaning. • A high energy, palatable feed formulated to promote early intakes and rumen development. • Contain NWF Progress Plus, a comprehensive mineral and additive package.

NWF REARER, GROWER AND FINISHER FEEDS

Whatever the production system and the forages and straights fed, NWF have a wide range of feed and nutritional solutions to help maximise animal performance.

NWF Vital Rearer Nuts	A cost-effective rearing nut to compliment a straw or silage-based diet. Available in a variety of protein percentages.
NWF Super Rearer Nuts	A specialist 18% or 16% rearer diet to maintain a high growth rate post weaning. The diet will compliment a straw or silage-based diet.
Super Grower	A balanced 15% protein diet suitable for both growing and finishing, especially in early maturing breeds where a higher protein and slightly lower starch is needed for finishing.
Pedigree Beef	An intensive beef finisher diet, high in barley that helps promote growth.
Intensive Beef	An intensive beef finisher diet, high in barley that helps promote growth. Intensive Beef is available with and without yeast.
Goldstar Beef Plus	A 14% protein, high energy maize based finisher diet containing yeast.
Beef Concentrate	A urea-based concentrate designed to be mixed with cereal on farm at 3:1 or 4:1 to meet the desired protein for animals over 3 months of age. Contains triple minerals and yeast.

NWF BEEF BLENDS

In addition to our range of standards beef blends, NWF can supply a bespoke blend to suit your system.

NWF Standard Blends	• Cattle Rearer • Beef Grower B2 • Beef Finisher B1 • Amino Mix 34

Fusion

Sustainability for a better future

The NWF Fusion feed range is formulated with provenance of raw materials in mind, in addition to not containing soya, soya hull or palm kernel. The inclusion of NWF's protected feeds (Ultra Pro-R and Ultra Starch-W) ensure that the nutritional make up is not compromised.

Available for beef herds is Fusion Rearer 16 and 18.

Why Use Molasses?

There are numerous reasons to to use a molasses blend, NWF Agriculture asked ED&F Man Commercial Manager Danielle Goatley to explain why.

ED&F MAN EST. 1783 Liquid Products

- **Improve Forage/Fibre Digestion:** Forage is the major component of ruminant rations and key to effective rations. It is well known that adding a molasses blend to livestock rations improves fibre digestion.
- **Help Manage Silage Stocks:** Livestock farmers have had to deal with a shortage of forage this winter. Many have also seen how using a molasses blend can allow the effective use of straw to make up the forage shortfall while maintaining performance and being a cost-effective option.
- **Improve Rumen Fermentation:** Effective rumen fermentation is vital to maximise livestock performance. Adding a high sugar molasses blend stimulates rumen function and leads to more extensive digestion and better nutrient utilisation.
- **Product Range:** ED&F Man, in partnership with NWF Agriculture, can offer a wide range of molasses blends to suit all livestock and to fit in with different dietary needs. From high sugar Standard Molasses and Stockmol 20 to high protein options such as Regumaize 44 & Regupro 50 as well as ration balancers such as Molale.

Molasses	Dry Matter** (%)	Total Sugars (%)	ME (MJ/kg)	Crude Protein (%)
Standard Molasses	74	64	12.7	6.5
Economol	71	64	12.7	6.5
Stockmol 20	70	56	12.5	10
Regumaize 44	69	55	11.8	44
Millspec 20	68	55	12.1	8*
Regumix 27	67	53	13.1	27
Regumaize 65	67	50	11.4	65
Molale	60	42	13.2	16
Potblack	60	44	12.3	23.5
Regupro 38	60	30	12.5	38
Regupro 50	60	42	12.6	50
Sticky Energy	50	28	12.7	26

**Dependant on raw material availability. **Dry matter basis.*

- **Flexible Feeding Options:** Molasses blends can be fed in a number of ways including part of a TMR, top dressed over feed or through one of ED&F Man lick feeders. ED&F Man molasses blends are typically available in delivery sizes from 1mt to 29mt. Storage options are available including the tank finance scheme which avoids any upfront costs.

Bull Beef Finishing System provides success for Welsh Young Farmer

Plas Hafod Y Maidd, in North Wales is home to the Ellis Family, a herd of 40 sucklers, 550 cheviot ewes and an exciting bull beef unit finishing Aberdeen Angus bull beef.

This relatively new venture started when 10 bull beef calves were bought as a trial to see if rearing, growing, and finishing bull beef would be viable. Since then, the farm has erected a purpose-built beef shed which houses 150 bulls. The shed is split into 6 pens of 25, which coincides with an all in, all out system. "*We buy 25, 4-6 week old calves every month, and they stay in these batches throughout, helping with bull management,*" Tomos comments. The farm has also noticed that some calves from specific sources perform better than others, highlighting the significance that the first few weeks in life can have on lifetime performance.

Using the hoppers which hold approx. 2.5T of blend enables them to offer an adlib feeding system allowing them to push the animals to get them to a required target of 600kg, within a relatively short turnaround (12-13 months). "*We aim for the animals to have 12 months on farm and to reach 600kg liveweight*" Tomos mentions. "*Which they are doing well!*" adds their NWF Regional Sales Manager, Huw Lloyd Roberts.

From 4-6 weeks old the calves are fed milk replacer, pellets and straw and weaned around 8-10 weeks. Then they are transitioned gradually to a youngstock blend at around 12 weeks of age. At around 7 months old, these are then moved to the new shed and fed a bespoke, NWF Bull Beef blend.

The beef bulls are put through the crush regularly, where they are weighed and health checked whilst the pen is cleaned and bedded. This helps with workflow and easy management. "*We enjoy what we do and making things as easily as possible whilst promoting growth and performance is always a positive*" Tomos mentions. "*The last shed average daily gain (ADG) was 1.9kg, this takes into account the 7-month-old animals up to the 12–13 month animals*" Huw added!

Tomos and his family are highly conscious about animal comfort, investing in self-activated water drinkers to ensure the water is fresh, and recently installed fans to support animal health during hot spells. It has been suggested that losses can exceed 5% when under heat stress circumstances. "*We also put full straw bales in the pen as some enrichments*" adds Glyn, Tomos' father.

The cattle are fed a quality NWF bespoke 14% protein, 45% DM starch and sugars blend containing Yea-Sacc®; a live yeast to support and maintain rumen function which subsequently helps health and therefore performance. Previously a 12% protein blend was used and since increasing the protein, the animals are getting better confirmation scores from the abattoir as well and gaining weight quicker. This just goes to show how breed and genetics supported by a healthy environment play a key roll in animal performance, in addition to correct nutrition. "*If we had the likes of Black and White Friesian bulls, the 12% would have been enough*" Tomos comment.

The plans at Plas Hafod Y Maidd for the near future is to double what they are doing now, putting up another, similar, shed which can hold a further 150 animals. "*This will allow us to have increased economies of scale with similar amounts of work*" Tomos added.

NWF Agriculture would like to thank Tomos and the Ellis Family for giving us an insight into their beef enterprise.

Maximising grassland productivity

By Roger Bacon, Barenbrug Agricultural Key Accounts Manager

Regardless of beef breed or location, all UK beef farmers have one thing in common: the need to provide their animals with grass to eat – whether grazed or silaged. In beef production, where margins can be tight, high-quality grass can be the key to profitability, and keeping a constant supply in front of livestock makes sound financial sense.

Essential to the production of meat, grass is a cost-effective form of feed that can be utilised all year round – in spring and summer by grazing livestock; and in winter as silage. Well-managed grassland can supply almost all of the energy and protein requirements of a beef herd.

This year a number of other factors have added to the list of challenges beef farmers face including increased fertiliser costs.

With record N prices, failing to apply nitrogen to a grass sward is a false economy. Grass needs nitrogen to grow! It is a major nutrient required by the plant and is key to achieving high dry matter yields and good protein levels.

If you spend £650 per tonne on fertiliser, you want to make sure you use every kilo you apply efficiently. Old swards containing 50% weed grasses will only use 30-40% of any N applied which means 60-70% is being lost and wasted.

Silage and grazing fields should be inspected regularly to assess their condition. Inspect each field using the Barenbrug Good Grass Guide. Look for the percentage sward content of productive ryegrasses and score the sward from one to five where one is the worst with <25% sown species and five is the best with >80% sown species, an even sward with very few weeds.

Swards scoring five might just need some nitrogen fertiliser and minor weed control whereas those scoring one would benefit from a reseed. For swards scoring at three or four, over-seeding can improve productivity by up to 50% for 4-5 years.

A complete reseed costs an average of £900 per hectare (£360/acre) and the seed accounts for around £150 of this cost. The return on this investment will more than pay for the cost of the reseed in the first year in extra dry matter yield.

Attention to detail is key to successful grassland management and paying particular attention to soil health and fertility is crucial for nutrient cycling and grass productivity. Always start by soil sampling poor-performing fields and look for compaction. Plan to correct any imbalances and problems before reseeding.

The introduction of clovers into a sward is one way of mitigating the high fertiliser price. A 30-40% cover of white clover is required to see the real benefits of nitrogen fixation in grazing swards. Red clover performs better when seeded into a new seed bed, between May and August and can fix up to 250kg of nitrogen/ha, it is more suited to cutting.

White clover is more resilient and can be broadcast or direct drilled into an existing sward but it is important to graze it down first to reduce competition to the clover seedlings while they establish. White clover will take around six months to establish fully and then can fix up to 150kg of nitrogen/ha/ year depending on temperatures.

Preparing your heifer for service

By Rebecca Cavill BVetMed CertAVP (Cattle) PgCert MRCVS

What are our heifer breeding goals?

- Be well-grown
- Get in calf at the start of the breeding season
- Be structurally large enough to calve with minimum difficulty

What can we do to reach these goals?

Targets for heifers at service tend to be defined in terms of age and body weight as both of these are important factors affecting cyclicity. Whilst we cannot impact age and most heifers will reach puberty at 12-14 months we can affect body weight and should be aiming for heifers to be at 65% of their mature body weight at service. If serving at 15 months, this sets the average daily live weight gain at around 0.85kg from birth so careful management is essential. Regular weighing should be performed to allow you to ascertain if heifers are on track or not and make alterations if required.

Heifers should be getting in calf at the start of the breeding season to allow them to calf at the start of the calving block. This will allow the heifer extra time to recover before the start of the next mating season and return to cyclicity. It gives the option to manage heifers as a separate group which can help limit social stress as well as meaning this group can be monitored closely around calving in case of any difficulties. By removing heifers not in calf at the start of the breeding season we are also retaining the most fertile animals for the herd.

Pre-breeding examinations of heifers can be a useful tool to ensure heifers calve at the start of the block. A pre-breeding exam allows heifers to be checked to ensure that no free-martins have made it through to service, that there are no 'surprise' in calf heifers and that they are cycling. A pre-breeding exam should involve reproductive tract scoring and can be an opportunity to synchronise heifers too.

Reproductive tract scoring indicates how well an animal is cycling. It involves palpating the heifer reproductive tract (uterine horns and ovarian structures) and assigning a score depending on the tone of the uterus and what structures are present. Scores range from 1 to 5 with lower-scoring heifers less likely to be cycling and less likely to become pregnant. Non-cycling heifers can either be removed or reassessed but may require intervention in terms of nutrition or fertility products.

Synchronisation is another tool that can be used to ensure heifers calve early in the calving block. This involves manipulating the heifer's normal cycle to get them bulling. There are a number of synchronisation protocols available that will differ in terms of cost and handling points. They are likely to involve a combination of prostaglandin, progesterone and

Gonadotrophin Releasing Hormone (GnRH). Some of these protocols allow for fixed-time service and others will bring the heifer bulling over a particular time frame. Synchronisation will usually be used alongside artificial insemination, which brings its benefits - allowing access to bulls of high genetic merit and estimated breeding value (EBV) data, less bull power needed and less concern about potential inbreeding! It also allows more control over the calving block so focuses the need for labour into a smaller period.

Unsurprisingly, one of the most common problems associated with calving is foetal-maternal disproportion where either the dam is too small or the calf is too large (or both!).

Whilst we will all be aware that bull selection is important in terms of targeting a smaller calf, there are also criteria we can apply to heifers to ensure that pelvic size will be adequate at first calving.

Pelvimetry allows us to measure the internal pelvic size of the heifer using a measuring device called a Rice's Pelvimeter. Once the internal height and width have been taken,

they are multiplied to calculate an overall area. There are then tables associated with the animals' age and breed which allow an animal to be assigned a pass, borderline or fail.

Pelvimetry should be performed in bulling heifers between 13-24 months as the pelvis is growing consistently at that time. Any heifers with small pelvises can then be removed prior to service.

www.torchfarmandequine.co.uk

Redefining Hydration and Gut Health

At NWF we know the importance of Hydration and Gut Health and offer a range of four TechMix products designed to meet the needs of the cow and calf. TechMix is an innovative, family-owned company, grown from its small-town Minnesota roots to compete in the global marketplace. The business is now a global supplier and industry acknowledged leader in hydration & stress event solutions for production animals. NWF Agriculture is the sole UK distributor of TechMix products which are manufactured in Ireland.

For the cow:

Fresh Cow YMCP

A fresh cow supplement featuring yeast, magnesium, calcium, potassium and niacin for the transition into lactation. 20 x 500g sachets in a 10kg bucket.

Rumen Yeast Caps

A source of yeast and vitamins for beef cattle. 25 boluses per pot.

For the Calf:

Calf Renova

A source of yeast products and essential oils to support digestive health. 12 boluses per pot, 2 pots per pack.

BlueLite® Replenish™

A scientifically formulated electrolyte to provide hydration for pre-weaned calves. 2 x 1.1 litre bottles per box.

Beef Industry Outlook

By Bradley Thompson, North West Auctions

The beef sector has seen uncertainty in the previous couple of years with Brexit and Covid-19. However, the red meat industry has ridden the storm quite well, with producers now getting realistic prices for our finished product.

The beef industry faces a number of challenges in upcoming years with input costs seeing a record high of spiraling feed, fertiliser, fuel, support payments falling away and the public perception that livestock farming is the villain when it comes to climate change.

Fortunately the demand for store cattle through the spring has driven higher values to offset some of the increased input costs and this looks likely to continue through the autumn season. Prices for this type of cattle are £50-£100 up on the year. Driving this trade is the growth in local butcher demand. The pandemic has seen an increased interest from the general public in buying quality locally sourced produce and it is great to see smaller local retailers thriving.

Only really young rearing calves have seen a reduction in trade due to the higher associated cost of milk powder and high protein feeds required to feed youngstock.

J36 Rural Auction Centre has seen some good sales and is looking forward to the growth of sales in the upcoming months attracting cattle from throughout the Lake District, Forest of Bowland and Yorkshire Dales.

We rear some of the best quality products to feed a fast-growing population, at the highest of welfare standards with many farmers trying to do it as environmentally friendly as possible, keeping this wonderful landscape we all enjoy spending time in.

nwa AUCTIONS

www.nwauctions.co.uk

Technical Services to support your beef herd

Forage & Feed Analysis

The NWF accredited laboratory analyses over 8,000 silage samples each year operating a two day turnaround to help livestock 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.

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 or utilise a wide range of compounds to complement home grown forages.

Other Services

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

Meet the NWF team at:

North Devon Show
on Wednesday 3rd August
Dumfries Show
on Saturday 6th August
Holsworthy Show
on Thursday 25th August
Westmorland Show
on Wednesday 7th &
Thursday 8th September
UK Dairy Day
on Wednesday 14th September
Cheshire Ploughing Match
on Wednesday 28th September
The Dairy Show
on Wednesday 5th October
Brailsford Ploughing Match
on Wednesday 5th October
AgriScot
on Wednesday 16th November

Enquiries: **0800 756 2787** | Orders: **0800 262397**
E Mail: **nbteam@nwfagriculture.co.uk**

www.nwfagriculture.co.uk

SUPPORTING BRITISH FARMERS SINCE 1871