



**AGRICULTURE**

# News

Your NWF Newsletter  
Autumn 2019

Issue No.34



Inside this issue

Practical Impacts of Protected Feeds | What does Transition really cover? | Rationing Ewes



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# Rearing growing cattle – things to watch out for

**With so many variations of system type, animal type, market requirements etc it is impossible to be specific and brief at the same time. However regardless of those factors there are some points that are key to rearing and finishing cattle effectively.**

## Get a good start – early life growth is key to achieving a good early feed conversion efficiency

- Ensure good colostrum intakes of good quality colostrum – use a colostrometer or refractometer to determine a minimum of 50 IgG/litre
- Whether your own or are buying in, check calves have a healthy dry navel, are alert and bright eyed and showing good confirmation
- Achieve pre-weaning growth rates of at least 0.8kg/h/d
- Encourage early concentrate intakes and always offer clean fresh water

## Some key points for 'rearing'

- Rearing growth rates should average greater than 1.1kg/h/d
- Intakes will be higher relative to their weight, approx. 2 – 2.5% liveweight
- Recognise dam and sire breed to determine the potential frame and conformation, e.g. early maturing domestic breeds may require a longer growing period compared to a larger continental breed
- Protein is required during the rearing period for metabolism and frame growth, particularly pre puberty. Typically, 14% – 16% protein is required
- Ensure a good quality mineral is used to help energy metabolism, growth and vitality

## Focus on finishing

- This period typically grows the final 100 – 150kg of weight on a significantly more concentrated diet
- Dietary proteins can drop approx. 12% and starch level must rise to a minimum of 20% but ideally closer to 35%
- Ensure a minimum of 10% structural fibre is added to stabilise rumen function
- To continually offer livestock farmers the most effective solutions, this winter in specific diets NWF Agriculture will offer Actifor Power – a new blend of essential oils specifically formulated to be effective in high starch beef diets.

**This winter ask your local NWF Sales Specialist about Actifor Power and how it can help your cattle grow.**

## ACTIFOR® POWER Phytogenic feed additives for dairy cows and beef cattle to stabilize pH value

- Improves fattening performance
- Enhances carcass yield
- Stabilizes ruminal pH value
- Minimizes energetic losses



## Early thoughts on feeding this winter

### We don't have to look too far back to see how seasonal effects can impact on short term future performance.

The drought of last summer resulted in less forage made and so its no surprise that milk produced from forage dropped to an average of 29% versus 31% from the previous year (*source: Kingshay dairy annual report, 2019*). This was followed by an increase in purchased feed through late summer and autumn and was mirrored by an increase in GB milk sales through the same period by an average of 0.57%. The increase in milk sales over the previous year has maintained and even increased over the winter and now spring (*source: AHDB DairyCo market information July 2019*).

This bodes well for performance through this summer which has so far delivered a strong forage season with both grass silage yields and qualities being reported to be excellent. NWF's own forage laboratory has now received over 940 first cuts for analysis and the results are

showing positive signs. Across all regions, 1st cut silages this season have out performed last years where energy (metabolisable and dynamic) and sugars are higher coupled with lignin and NDF (fibre) both lower than last years which all adds up to a very digestible cut with high milk yield potential. Based on a consistent dry matter intake, this years 1st cuts have an increased milk yield potential of 0.95 litres/h/d for the south region, 0.77 litres/h/d for the central region and 0.8 litres/h/d for the north region. On average and based on a milk price of 28ppl, that equates to an increase in milk sales of 23.5 pence/h/d.

With high qualities also comes some considerations to watch out for. The higher rate of digestibility means the level of 'rapid carbs' has also increased and have come close to 200g/kg this year where the upper limit is 210g/kg. This along with lower fibre has increased the acid load highlighting real concerns with rumen health and butterfats drops.





## What is the practical impact of protected feeds?

**When nutrients are broken down in the rumen they produce gases which is a necessary, but also inefficient use of valuable nutrients. As an animal's nutrient requirement increases, rumen bacteria alone are unable to cope with the increased requirements, therefore by-passing nutrients into the hind gut offers both additional nutrients but also less gas production and therefore a more efficient use of feed nutrients.**

### So why should I feed protected feeds?

- 1. Improved performance** – UK diets based on grass silages and home grown cereals tend to be higher in rumen degradable nutrients. By-pass energy and protein is then required to supply the nutrients above and beyond what is capable from rumen bacteria. A lack of by-pass nutrients can often be seen in cows not achieving their peak yields.
- 2. Rumen available nutrients** – Grass silages this season have been analysing very well. Oversupplying nutrients to the rumen can create a challenging environment for bacteria, therefore supplying by-pass nutrients is not only more efficient, but essential for rumen health.
- 3. Environmental responsibilities** – Feeding excessive protein can be detrimental to both the cow's health (due to negative energy balance) and the environment due to higher urea nitrogen levels. Feeding by-pass protein can enable farmers to reach metabolizable protein requirements whilst feeding less overall crude protein and therefore reducing waste and cost.

### What are my options?

Most usual protein sources such as rapeseed meal, distillers and soya contain both rumen degradable and by-pass protein. The same can also be said for starch, where cereals also contain both rumen degradable and by-pass starch. The key question is for every kilogram of a raw material that's fed, how many grams of by-pass protein or starch is supplied. This can be expressed as the amount of metabolizable protein from by-pass (MPB) or the amount of by-pass starch (BPS).

### What are the NWF protected feeds and how do they become more by-pass?

NWF Agriculture has been manufacturing unique and high quality protected feeds for over 10 years under the 'Ultra' brand. The three products consist of Ultra Pro R (protected rapeseed meal), Ultra Soy (protected soya) and Ultra Starch W (protected wheat).

Using a protected treatment unique to NWF Agriculture in GB and widely used across Europe and the US and regularly tested to ensure their compliance with health and safety needs are met, the 'Ultra' brand of protected feeds offer a strong and consistent option for maximising performance both physically and financially.

Whilst offering the same amount of energy and starch as wheat, Ultra Starch W allows higher intakes to be achieved with a significantly reduced risk of causing acidosis. This is because more of the starch is protected and passed through to the hind gut. This benefits rumen health and nutrient utilisation. Where 24% of starch from wheat reaches the hind gut and 28% from caustic wheat, 42% of starch from Ultra Starch W passes through, offering a strong competition to maize.

The same principle is applied to Ultra Pro R and Ultra Soy where the approximate amount of

by-pass protein in rapeseed meal is 30% but increases to 76% in Ultra Pro R, and soya at 39% by-pass is increased to 84% in Ultra Soy.

This offers both nutritional and financial benefits. By supplying more by-pass protein through Ultra Pro R and Ultra Soy, lower levels of overall protein can be fed which offers both animal health and environmental benefits.

Equally attractive is the cost benefits, using current market prices, supplying 1 kg of by-pass protein using rape will cost £1.97/kg and soya £1.69/kg where using Ultra Pro R will cost £0.92/kg and Ultra Soy £0.89/kg.

Clearly utilising NWF Agriculture's unique offering of the 'Ultra' range can offer farmers both physical and financial benefits this season. NWF will also be launching a new compound this winter high in our ultra products to support the high yielding herd.



# NWF Dairy winter product range

**High quality starch diets to drive recovery from negative energy balance, fertility, milk proteins and yield**

- Octane
- Goldstar
- Xcelerator
- Performance

## COMING SOON

New for winter 2019, a diet high in bypass elements to support the high yielding herd.

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

- HDF Octane
- Milkline
- Butterline

**High starch diets with good energy levels designed to balance fibrous forages**

- Target
- Gold Standard
- Empire
- Premium Gold

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

- HDF Empire
- Cream Max
- Senator

**Contact your NWF Feed Specialist for more information about our winter range**



What does the **'Transition System'** really cover?

**In NWF Agriculture's previous newsletter, we discussed the principles and best practice of dry cow management, an important topic which defines the following lactation.**

'Transition' is defined as the change of one state to another so we term transition as the change from none lactating to lactating, however we can miss some key points within the detail of those 2 days from calving into lactation

- Energy requirements change of 120 MJ to approx. 205 MJ
- Protein requirements change from 13% protein to over 16% protein
- Calcium requirements lift from 25 g/h/d to 140 g/h/d
- Magnesium requirements lift from 36 g/h/d to over 50 g/h/d
- Concentrate feed rates increase from 2 – 3 kg/h/d to over 6 kg/h/d
- Starch and sugar levels increase from approx. 8% to over 15%
- Water intake from 50 litres/h/d to 130 litres/h/d
- Dry matter intake from 12kg DM/h/d to 15kg + DM/h/d

*Continued overleaf...*



What does the **‘Transition System’** really cover?... *Continued from page 7*

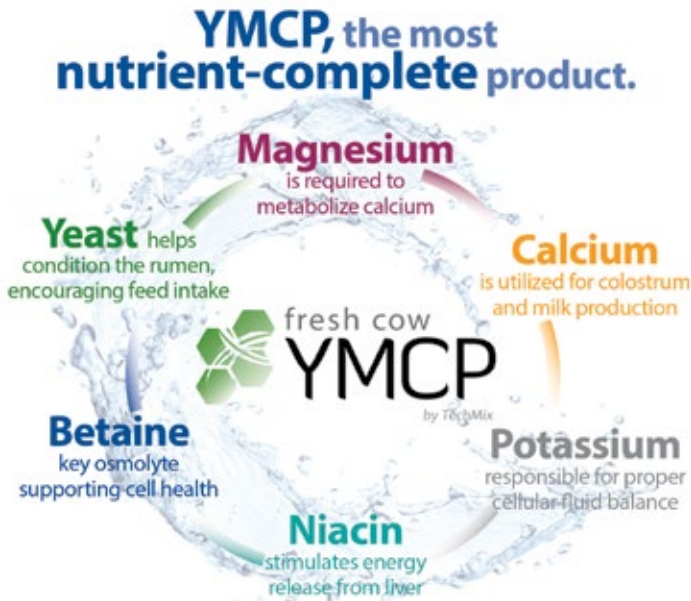
If we miss manage any of these increases, metabolic disease will follow and the costs as detailed below can be significant.

Disease	Cost per cow affected (£)	Typical incidence (%)	Cost (£/100 cows)
Milk Fever	302	7	2,113
Hypomagnesaemia	589	2	1,179
Ketosis	178	4	710
Displaced Abomasum	480	1	480
Retained Placenta	382	4	1,529

Reference: Esslemont RJ and Kossaibati M (2002) The costs of poor fertility and disease in UK dairy herds. DAISY Research Report No 5. Intervet, Milton Keynes. Ryan EG and O’Grady LE (2004) The economics of infectious and production diseases in dairy herds. In: Herd Health Planning, pp3-50. Veterinary Ireland Publishers.

**Attention to detail**

Standard operating procedures can help to bring consistency to any system. One particular standard routine should be offering a fortified re-hydration drink to every cow immediately after calving. NWF are exclusive suppliers of the global Techmix brand, offering the superior post calving re-hydration drink YMCP. When YMCP is offered either in a drink form mixed into approx. 25 litres immediately post calving, or given through a drench, the post calved cow receives a boost of calcium, magnesium, potassium, niacin, energy including propylene glycol and a double dose of live yeast to support optimal rumen function. A critical area through this transition period is rumen health.



Achieving high water and dry matter intakes as soon as possible post calving is a key target, however this can only be achieved with good rumen health.

It is often observed when cows move from a very fibrous dry cow diet to an energy dense concentrated lactating diet, dung turns very loose and dry matter intakes drop increasing the risk of metabolic disease such as ketosis. When this happens Sub Acute Ruminant Acidosis (SARA) has occurred as the ‘transition’ between diets is too rapid. Things to look out for in newly calved cows are:

- Loose or bubbly dung
- Reduced cudding rates
- Empty cows (thin on the left side)
- Waiting cows (not either eating, drinking or lying)
- Depressed cows with sunken eyes

**How can we manage this**

Slowly rise the concentrated feed rate post calving, start at 2kg/h/d and increase at 0.3kg/h/d until target is reached

- Create a separate ‘fresh cow group’ supplying additional structural fibre
- Supply rumen buffers such a acid buff and/or live yeast
- As soon as loose dung is observed, use Techmix Rumen Yeast Cap bolus to supply a high dose of live yeast. Use 1x per day for 3 days

System infrastructure will determine how freshly calved cows are managed, however regardless of system, rumen and nutrient management through those few days post calving are a clear risk area which require close attention.

**Fresh Cow YMCP**



YMCA supplied by NWF as 20 x 500g sachets in a 10kg bucket

**Rumen Yeast Caps**



Rumen Yeast Caps supplied by NWF as 25 bolus per pot

# Innovation Never Stops

**Lely are the farming innovators. Lely started in 1948 with the introduction of the finger wheel rake to make life easier for farmers. Since then a whole range of products have followed. A constant review and improvement of products is ongoing to improve quality, reliability and performance.**



August 1992 Lely launched the first commercial automatic milking system. At that stage, the industry was skeptical about automatic milking. Now, 27 years later, many herds have converted to automatic milking. Currently around 1600 Lely Astronauts are milking in the UK achieving 31 kg of milk average on a daily basis. Best performing UK herd in 2018 achieved 45.6 kg of milk every single day with all the cows being milked by two Lely Astronauts. A phenomenal performance ranked number 5, in Lely, worldwide.

The best performing robots can achieve between 2500-3000 kg of milk a day. Daily checks, free cow traffic, efficient cows, fine-tuning of the milk access, feeding good quality forages, a balanced diet and a quality concentrate are necessary to achieve these results on a daily basis. Your Lely Centre together with your NWF Sales Specialists to review your current system and identify areas where the performance of your system can be improved and optimised.

Availability and accessibility of feed at the feed fence is one of the key to improve dry matter intakes and cow performance. Introducing the Lely Juno silage pusher has seen yields increase on average between 1 to 1.5 kg of milk per cow. Even on farms where feed was pushed on a regular basis, increases have been found. Besides the increased intakes, savings on labour and diesel are significant. The latest

Lely Juno is more flexible, pushing both ways, steeper incline, opening doors. All these innovations and alterations are added thanks to the feedback from the field.

In 2012, the Lely Vector automatic feeding system was launched. Not only will it push in the feed, it measures how much is left at the feed fence and will mix more feed when needed. This approach of fresh, flexible, feeding will ensure that there is always a good quality mix available at all times for any animal and more important loaded and mixed in the same order every time. The Lely Vector uses around £5 a day in electricity and have seen savings of 5000 litres of diesel. Filling the feed kitchen every 2 to 3 days will give more flexibility as the Lely Vector will do the rest. Consistency is key to have cow's performing to their full potential.

One of the latest innovations is the Discovery 120 Collector barn scraper. After the huge success of the Discovery barn scraper on (partly) slatted floors the field kept asking what about my solid floors. Over the last 2 years, limited numbers of the Discovery Collector have been released in the UK with a great success on solid floors. The slurry is hoovered up and being disposed of at the dump point. Spraying the floors with water avoids slippery floors for the cows. Production of the Discovery 120 Collector is being increased for 2020, which will allow more units to be available for the UK.

On farm milk, processing is getting more popular. Lely launched the Orbiter last year where milk produced by the robot is processed and bottled automatically. The farmer has a choice to have milk separated in different groups, cow families, breed, time of day etc. The milk will be traceable, as the bottles are identified by the system. Adding value to the

milk by on farm processing can make farms more sustainable.

**Innovation never stops. Lely is constantly looking at challenges faced by the farming industry and how they can be resolved or automated. What is next...? Time will tell.**



## NEW NWF Training Academy

As a strategic development for the business, NWF Agriculture recognises that having the highest quality personnel delivering the highest quality advice on farm is essential to its growth and is a key factor in the success of its customers.

NWF have developed an academy providing thorough technical and sales training to its graduates enabling them to succeed as a professional, effective, on-farm advisor. The completion of the academy will not only help to develop an individual professionally but ensure that an enjoyable and fulfilled career in the agricultural industry is achieved.



**Interested in being part of the NWF Team?  
Call 0800 756 2787 for information.**





# Rationing ewes for a successful lambing

## Ewe management pre-tupping

Ewes should be assessed shortly after weaning (at least 10-12 weeks before tupping) and split into groups of under-condition, on target, and over-condition ewes (table 1 shows target Body Condition Score (BCS)). Those ewes which are under-conditioned should utilise good quality pasture, whilst over-conditioned ewes should be turned out on poorer quality pasture until they reach the target BCS. Aim for at least 90% of the flock meeting target BCS well before tupping to help optimise reproductive performance. It can take 3-5 weeks for ewes to achieve +0.5 of condition score on good quality pasture so preparation is key. Care must be taken to avoid excessive gain as over conditioned ewes can have reduced fertility and over conditioned rams can experience reduced libido.

Table 1 Ewe body condition score targets throughout the production cycle

	Lowland	Upland	Hill
Weaning	2.5	2.0	2.0
Tupping	3.5	3.0	2.5
Mid-Pregnancy	3.0	2.5	2.0
Lambing	3.0	2.5	2.0

## Post Tupping

The first few weeks after the tupping period are critical for a number of reasons. Embryo implantation occurs two weeks post tupping so it is important that ewes are maintained on the same plane of nutrition with minimal dietary changes. Stress from handling or inadequate nutrition must be avoided to reduce embryo mortality. If forage availability is low during the tupping period then supplementing ewes with a concentrate or feed buckets may be required to maintain condition.

## Lambing

Lambing is one of the busiest times of the production cycle for sheep farmers, promoting ewe health and lamb survival is key to the productivity and profitability of a sheep enterprise. In the 6 weeks prior to lambing 75% of foetal growth occurs during late pregnancy, this corresponds with the increase in the ewe's requirement for energy and protein. The biggest challenge in meeting this energy increase is the lamb growth causes the ewes Dry Matter Intake (DMI) to drop up to 30% resulting in a DMI as low as 1.4 Kg. Feeding high energy ewe feed such as NWF's Ewetriton Rolls or Champion Ewe Nuts help to meet the nutrition requirements of ewes.

When ewes have a deficit in energy, they mobilise back fat which is metabolised in the liver. If excess back fat is mobilised the liver can become overworked and appetite declines further. This can lead to pregnancy toxemia, hypocalcaemia, lower milk yield and increased lamb mortality. Most mammary gland development also occurs in the last month of pregnancy, under-nutrition can reduce colostrum quantity, and delays onset of lactation. Colostrum is essential for immunity. Lambs require 50ml/kg (of birth weight) of colostrum within the first 6 hours of life as the ability of the gut to absorb immunoglobulins into the bloodstream reduces after this time. Within 24hours, lambs should receive 200ml per kg (of birthweight), As a guide an optimum birthweight for twins is 4-5kg per lamb (feeding the ewe, 2017).

## Improving performance though mineral premix

Micronutrients are often overlooked in sheep rationing, ensuring requirements are met is as important as meeting the protein and energy supply. Key vitamins and minerals include; Vitamin E, essential for lamb vigour and immune function. Selenium is essential to be fed to the ewe in order to build up lamb reserves for immunity, Optimin Selenium optimises absorption. Zinc helps with hoof and skin health. Cobalt and B12 can support the lamb's vigour, encouraging lambs to stand and suckle quickly. 1kg/h/d of any NWF Ewe compound or 15-30g/h/d of NWF Ultramin Super Ewe has been formulated to meet ewe requirements during pregnancy.

## PRACTICAL FEEDING TIPS FOR EWES

1. **Group ewes** according to live weight, number of lambs, body condition and age
2. **Good quality forage** available at all times- Know your analyses- Maximum 0.5 kg high quality concentrate per feed
3. **Adequate trough space** - All ewes can eat concentrate at the same time - Clean troughs
4. **Regular feeding time** no sudden changes in feed type or quality
5. **Clean water** available at all times



# Giving your calves a healthy start



**Heifer rearing is the second highest cost of dairy farming. NWF have found great success implementing the LifeStart programme alongside the 5 critical controls points (5C'S).**

## Colostrum

Only good quality colostrum should be fed, containing at least 50g of IgG per litre. 10% of calf bodyweight which equates to around 4 litres of colostrum for the average Holstein Friesian calf should be fed as soon as possible after birth, at the latest within 6 hours. Continuing to feed colostrum for the first 3-4 days before moving to Calf Milk Replacer (CMR) or whole milk offers additional benefits.

## Calories

Rearing objectives must be set in order to decide which liquid feed solution will be the most cost effective and easiest to manage whilst meeting the calf's full nutritional needs for optimal growth. NWF have both Whey based and Skimmed milk based LifeStart accredited CMR available. LifeStart aims to deliver an optimised first lactation milk yield due to enhanced mammary development which is essential for the future productivity of the cow. The amount of CMR required will depend on calf bodyweight, desired daily live weight gain, environmental temperature and nutritional composition.

## Comfort, Cleanliness and Consistency

It is essential that their environment is kept comfortable with adequate lying space, air space and ventilation. Structured and consistent hygiene protocols will allow farms to maximise calf health. Consistency is an important but often overlooked aspect of calf rearing which may help improve calf performance for little or no added cost. In simple terms, calf management should be as consistent as possible, calves thrive on routine; so implement simple and clear protocols that ensure calves are treated consistently on a day to day basis, even when different people are left in charge of calf management.

*"Only the correct combination of appropriate management and quality nutrition will optimise calf performance. Therefore, all aspects of calf rearing must be considered, with consistency and feeding to a schedule being a key component of the programme"* concludes Abbi England, NWF Technical Manager.

# Measure it to manage it

**Using monthly farm costings is a key element in making the right decisions for your business, and NWF Agriculture sales specialists are trained in their use and application on farm. To ensure the newest of product and service tool innovation is offered to dairy customers, NWF has started working with Kingshay Dairy Manager to offer an innovative solution to farm costings advice.**

Kingshay Dairy Manager is the UK's leading dairy costings service brought to you by independent dairy specialists Kingshay. The service enables NWF customers to track dairy herd's monthly performance and benchmark against other progressive producers.

The Kingshay costings will be offered free of charge to all NWF Agriculture's dairy account holders as a service to help the team of NWF Sales Specialist offer joint and well informed advice for dairy business growth and sustainability.

By signing a consent form, NWF dairy customers in partnership with their NWF Sales Specialist will be able to log monthly feed usage, milk sales and cows calved/left the herd. A report can be provided which details both efficiencies and deficiencies which can be managed accordingly. This system can also be used to benchmark your business anonymously with other similar systems to determine areas where your business is either succeeding or requires specific attention.

**If you wish to sign up to NWF Agriculture's Kingshay dairy manager costings service or would like to know more, speak to your NWF Sales Specialist or call 0800 756 2787.**





# Fleet Investment



NWF Agriculture's fleet of lorries is a common sight across the UK, delivering over 500,000 tonnes of high quality ruminant animal feed to 4,500 farmers, whilst clocking up over 2 million miles per year in the process.

To ensure continued cost – effective timely deliveries to all its valued customers, NWF has made further investment in the fleet. New Scania cab, Scania 8 wheeler blowers, Mercedes 8 wheeler blowers, Non-Tip trailers, curtain siders and Newton Plank trailers join the fleet.

## New Starters

NWF welcomes two new members to the team to support future strategic growth.

- **Antony Slinger** joins as Northern Commodities Manager to support the sales team to help grow the sales of third party products.
- **Derek Merrylees** joins as Regional Business Manager working in the Northern team to support and grow retail dairy compound and blend sales.
- **Richard Colley** joins as National Training Manager who will work across the UK wide sales regions to grow, develop, train and mentor sales personnel and help launch the new training academy.

## OUT AND ABOUT



Visit the NWF trade stand & meet the team at the forthcoming shows for information on the comprehensive range of compounds, blends & associated products.

- UK Dairy Day on Wednesday 11th September at Telford
- Westmorland Show on Thursday 12th September at Kendal
- Cheshire Ploughing Match on Wednesday 25th September at Nantwich
- Dairy Show on Wednesday 2nd October at Shepton Mallet
- Brailsford Ploughing Match on Wednesday 2nd October at Derby
- Borderway Agri Expo on Friday 1st November at Carlisle
- AgriScot on Wednesday 20th November at Edinburgh

Enquiries: **0800 756 2787** | Orders: **0800 262397**

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**www.nwfagriculture.co.uk**