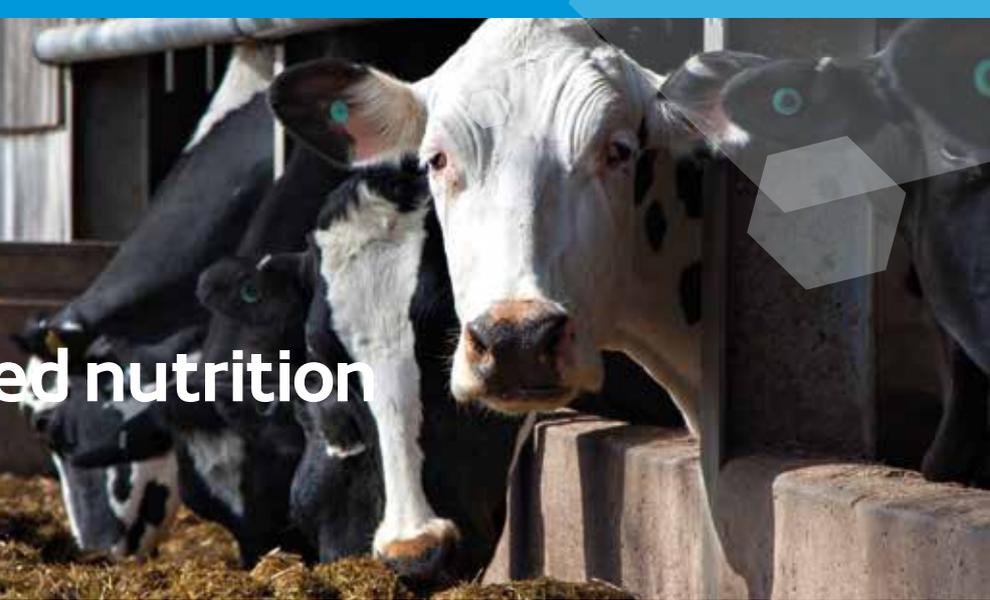




news from advanced nutrition

Spring 2017



Welcoming Spring

I am hoping as you read our newsletter spring has arrived. After the winter months increasing warmth, daylight hours and drier conditions are very much welcomed.

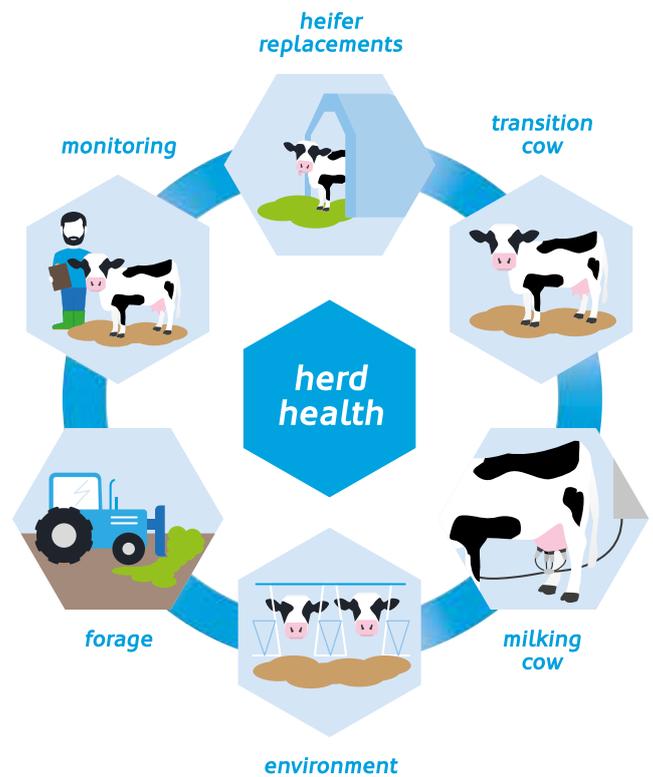
Our latest addition of 360° shows how taking a whole farm approach and monitoring any changes made, can help to improve animal health and ultimately on-farm profitability.

Ruminant Nutritionist, Mark Gorst, highlights how he has worked closely with his clients to ensure they achieve the best possible returns. Some improvements can take time to filter through. Heifers don't initially contribute to the bulk tank but these young animals are the future lifeblood of the herd and shouldn't be forgotten. By optimising dry cow management, producers can help maximise performance in their next lactation. Grass management, whether for grazing or ensiling, can help reduce reliance on bought in feeds.

The Advanced Nutrition team works closely with producers to reduce the gamble of making changes on farm. We firmly believe that changing one piece of the jigsaw is only appropriate if it fits the bigger picture, so we offer all our clients thorough assessments, practical solutions and careful monitoring.

We hope the articles in our newsletter give you food for thought. Don't let 2017 go by without questioning whether your herd is fulfilling its potential. Please get in touch with us to see what we can do for your farm.

Ian Brown, Managing Director



Also in this issue...



Dairy Focus



Improving milk from forage



Rumisaf



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Dairy Focus

Moving North West Farms Forward

Ruminant Nutritionist, Mark Gorst, has consistently delivered cost and management improvements on farms across Cumbria, Lancashire and Cheshire since he joined Advanced Nutrition in 2008. Over a number of years, some clients have seen margin per cow increase by over £500 - achieved through nutritional changes, better management of lameness and fertility, and careful monitoring.



The Advanced 360 dairy programme has been key in helping many of Mark's clients continually move their business forward. The programme consists of a series of protocols. Mark looks to:-

- Improve cow health
- Increase milk from forage
- Manage the dry cow for optimum life-time performance
- Monitor and improve heifer rearing
- Monitor the herd's financial performance

To show the impact of management changes on margin, in real time, rather than retrospectively, Mark standardises each herd's costings to help him and his client evaluate the impact of changes.

This has really benefited client, Andrew Metcalfe. Mark began working with Andrew in September 2014 on his dairy and sheep farm. By standardising the costings - compound feed at £200/t and milk price at 30p/l, over the 2 year period to September 2016, overall margin increased by 9%. Andrew explains why this was important to him,



"Mark understood from the beginning what we wanted to achieve and with his experience and broad knowledge we are on track to achieve our five year plan".

The following case-studies look at the importance of a whole farm approach to herd management and, why an understanding of herd costings is key to progression.



Dry Cow Management

Two herds were having difficulties with calcium deficiency at calving. Following a full assessment, Mark introduced a new dry cow management system and added a feed supplement called DC X-Zel to the TMR diets of grass silage and wheat straw to assist in calcium control in the latter stages of pregnancy. X-Zelit, the main constituent of DC X-Zel is designed to give cows the best start in their future lactation and supports good calf health.

Jerseys are documented to be more susceptible to metabolic disorders at calving than Holsteins. Matthew Pye of the Bayview Jersey Herd tells us how things have improved for his herd,



“We used to treat every cow with calcium before, during and, after calving. Once the cows had calved they were slow to get going and would spend up to a week post calving in the straw pen before being ready to re-join the herd”.

“DC X-Zel has definitely reduced the worry that surrounded calving with only two milk fever cases in over six-hundred calvings. The cows now recover much quicker from calving and are able to return to the main milking group within six hours of calving”.

The table below shows how X-Zelit hasn't been just a milk fever preventative.

The High Farm	March 2012	March 2013	March 2014	March 2015	March 2016
Calving to 1st service days	84	81	79	76	76
Days to conception	112	110	103	105	104
Lactation period	302	289	293	275	272
Calving index	394	385	386	380	382

Robert Morris-Eyton and his team Stuart Benn and Michael Barnes manage in a single group a 200 cow Holstein herd averaging 10,000 litres milk sold per year. Calving issues came to a head in 2011 as Stuart explains,



“Two cows per month suffered from displaced abomasums requiring veterinary intervention and a high proportion of those were culled. At the time we used fire brigade measures and treated every second calver or older with IV calcium. Overall the cows were struggling. They didn't want to milk immediately after calving and we had to wait three weeks to determine their performance”.

“Since using DC X-Zel, we've abandoned routine IV calcium treatment. Calving assistance has fallen from 50% to 10% and nowadays we tend to leave them to calve themselves unless the calf is malpresented. DC X-Zel has removed the headache of calving and other issues to enable straight forward cow management for the whole team”.

Simplifying the dry cow regime along with closer monitoring in early lactation has resulted in improved calving to conception and has reduced the calving index.

Beckside Farm	2011	2012	2013	2014	2015	2016
Calving to 1st service days	106	94	92	84	85	88
Days to conception	142	142	142	133	130	140
Lactation period	330	321	318	284	286	296
Calving index		412	415	421	405	407

For both herds, the introduction of the supplement DC X-Zel has ensured cows enter the milking herd quickly and safely with little veterinary intervention or reactive remediation. By looking at overall margin rather than the direct cost of supplementation, Mark's clients are benefiting from their cows reaching their potential and remaining productive members of the herd.

Heifer Rearing

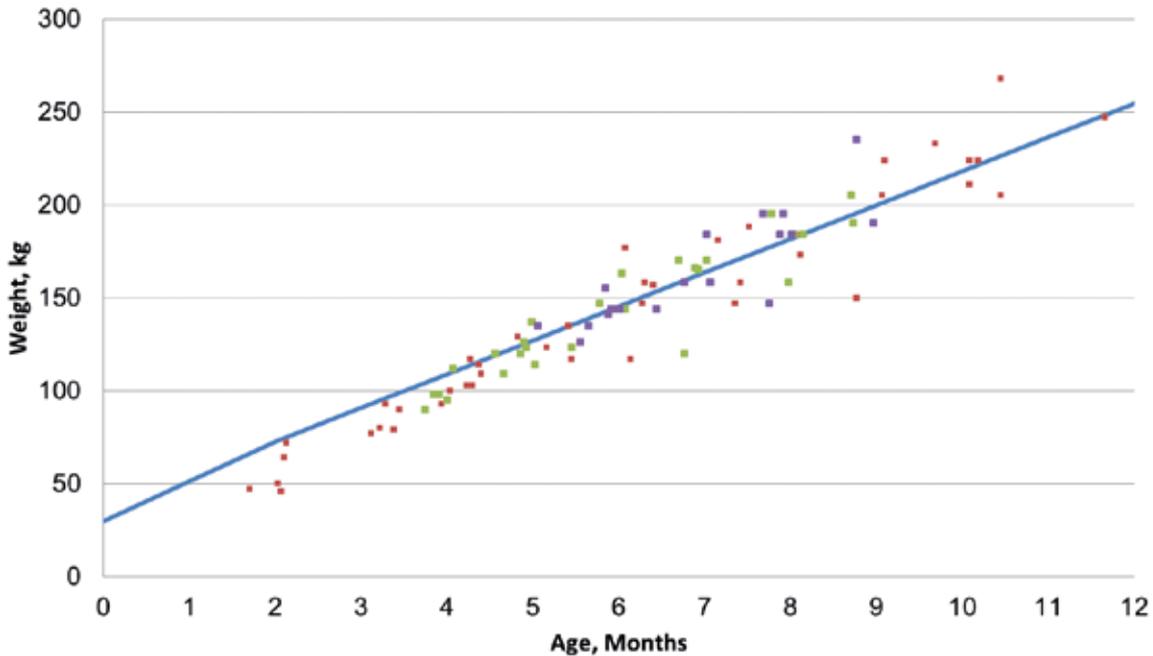
Mark successfully introduced the Advanced Heifer Rearing Program at The High Farm. Mark tailors the Advanced Heifer Rearing Program to each calf rearing unit he works with so that the calves' environment and breed are taken into account.

The heifers are weighed on a regular basis up to 12 months old. The aim of this carefully monitored system is to ensure the heifers grow adequately at 0.70kg a day and hit set targets calving in at 24 months weighing 400kg.

The chart shows the last three months weight against target for heifers.



Customised Heifer Growth Chart
Based on Mature BW and Goal for Age at First Calving



Since we introduced the programme in April 2016, the diet has been simplified and cost removed whilst growth rates have increased.

The average daily saving per animal is approximately 14p. Over the full rearing period this equates to £100 per head.

Heifer Details

Age	4 Months	8 Months	12 Months	14 Months
Weight	100	180	250	285
Growth rate	0.7	0.7	0.6	0.6

Financial Details

COPF (pence/kg LWG)	67	67	40	41
COAF (pence/kg LWG)	87	104	111	116
Diet Cost (£/d)	0.61	0.73	0.78	0.81

Improving Milk from Forage

Improving the quantity of milk produced from home grown forages, in the majority of cases leads to an increase in herd margin. If a herd has an acceptable level of high quality forage within the diet there is a reduced need to purchase surplus concentrates.

To produce 500 litres of milk you require around 2600MJ of energy. Grass silage is costed at 0.93p/MJ/kgDM therefore the cost is £24.18. If the forage was not available brewers grains could be used instead, the cost of brewers grains is 1.96p/MJ/kgDM. Using the same calculation is £50.96. The “saving” by producing the milk from forage is £26.78.

Working with a Cheshire dairy unit, Mark looked at the re-seeding program alongside the grazing requirements and created a simple system to ensure maximum grazed and conserved forages. The results of which can be seen in the table below. The herd’s annual milk yield increased by 10% over the same period.



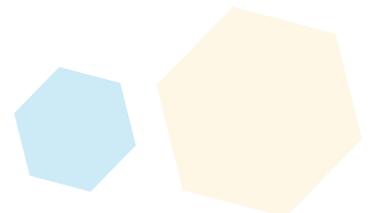
Milk From Forage Results On A Cheshire Dairy Unit

	Dec 2012	Dec 2013	Dec 2014	Dec 2015	Dec 2016
Milk yield from forage (%)	17%	20%	15%	24%	25%



One farm in Lancashire took part in a trial in conjunction with DLF Seeds & Science over a two year period, to help maximise their return from the field.

The farm runs 160 cows through three robots. The herd is housed all year round and averages 10,500 litres. The cows are fed a TMR composing of grass and wholecrop silages, blend, molasses and minerals. Grass silage makes up the majority of the diet, therefore the quality and quantity produced is important to maintain the performance of the cows.



Improving Milk from Forage cont.

Mark worked with the business and identified a grass mixture ideally suited to intensive silage production.

First and second cuts were manually weighed and analysed for DM, ME, NDF and nitrogen content to ensure the sward was ready for cutting in 2014.

The same sampling process was repeated on exactly the same day 12 months later, the only difference being the weather.

The results show a difference of 3,540MJ less clamped in 2014. See Table 1. (Source DLF)



Table 1

Output comparisons

for 2014 and 2015 swards

	2014		2015	
	1st Cut	2nd Cut	1st Cut	2nd Cut
Fresh weight (tonne/acre)	14.57	8.10	12.95	6.48
DM %	14.8	16.7	18.5	16.4
Total kg/DM	2,160	1,350	2,396	1,063
ME MJ/kg DM	10.4	10.5	11.8	11.2
NDF	49.9	53.7	38.2	44.2
Total energy (MJ/acre)	22,464	14,175	28,273	11,906
Total energy produced in two cuts (MJ/acres)	36,639MJ		40,179MJ	

The Future

The saying of, **“you can’t manage what you don’t measure”**, is very true as the article highlights the importance of monitoring as part of a whole farm approach.

Looking forward as we exit what has been a rollercoaster for the dairy industry, we must continue to look at moving our farm businesses forward by continuing to monitor performance including heifers and dry cows due to enter the milking herd.

We must remember that costs are important but margin more so. If the cost remains but, performance improves, the return will ultimately be greater.

If there is something in this article that sparks an interest please don’t hesitate to get in touch.



If you’d like to see if Mark could help maximise your herd’s potential. You can contact him:
m: 07880 794 004 / e: mark@arn-ltd.com

Rumisaf

Helping maintain a healthy rumen, critical in delivering milk yield and overall cow performance.

Rumisaf is a live yeast product exclusive to Advanced Nutrition. Containing the proven live yeast, Actisaf SC 47, its clever structure ensures the maximum number of live yeast cells get to the digestive tract of the animal.



The digestion of spring grass in the rumen

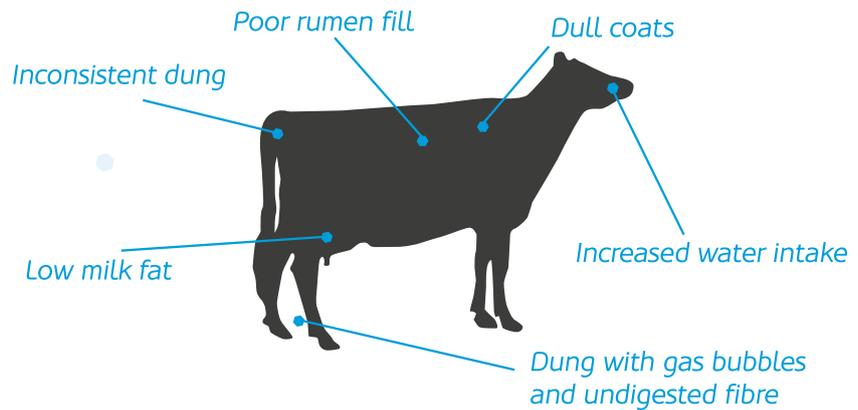
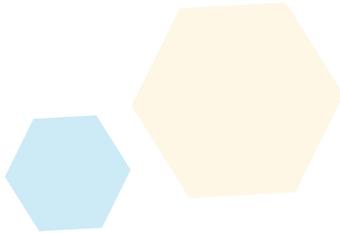
The dry matter and nutrient analysis of grass is highly unpredictable and can fluctuate from morning to evening, let alone over the course of a week.

Grass high in sugars is rapidly fermented by the rumen microbes, which can contribute to a sharp decrease in rumen pH. Sub optimal rumen pH leads to the development of acidosis.

Sub-acute rumen acidosis is a common occurrence at grass where rumen pH dips below pH 6.0 for a prolonged period of time after the ingestion of leafy grass, thereby killing fibre and starch digesting bacteria, which has the knock on effect of reducing feed digestion and energy output from the rumen.

Rumisaf should be introduced around three weeks prior to your planned turnout date. This gives the yeast time to optimise the rumen microbes required to digest the grass efficiently.

Recognise any of these symptoms?



How does Rumisaf work?

The live yeast contained within Rumisaf uses up oxygen in the rumen and enhances the rumen environment. This results in the growth of fibre-digesting bacteria and lactate-utilising bacteria, increasing feed digestion and stabilising rumen pH.

Benefits

Improved:

- Milk yield - up to 3 litres/cow/day
- Milk protein and butterfat
- Dry matter intake
- Fertility

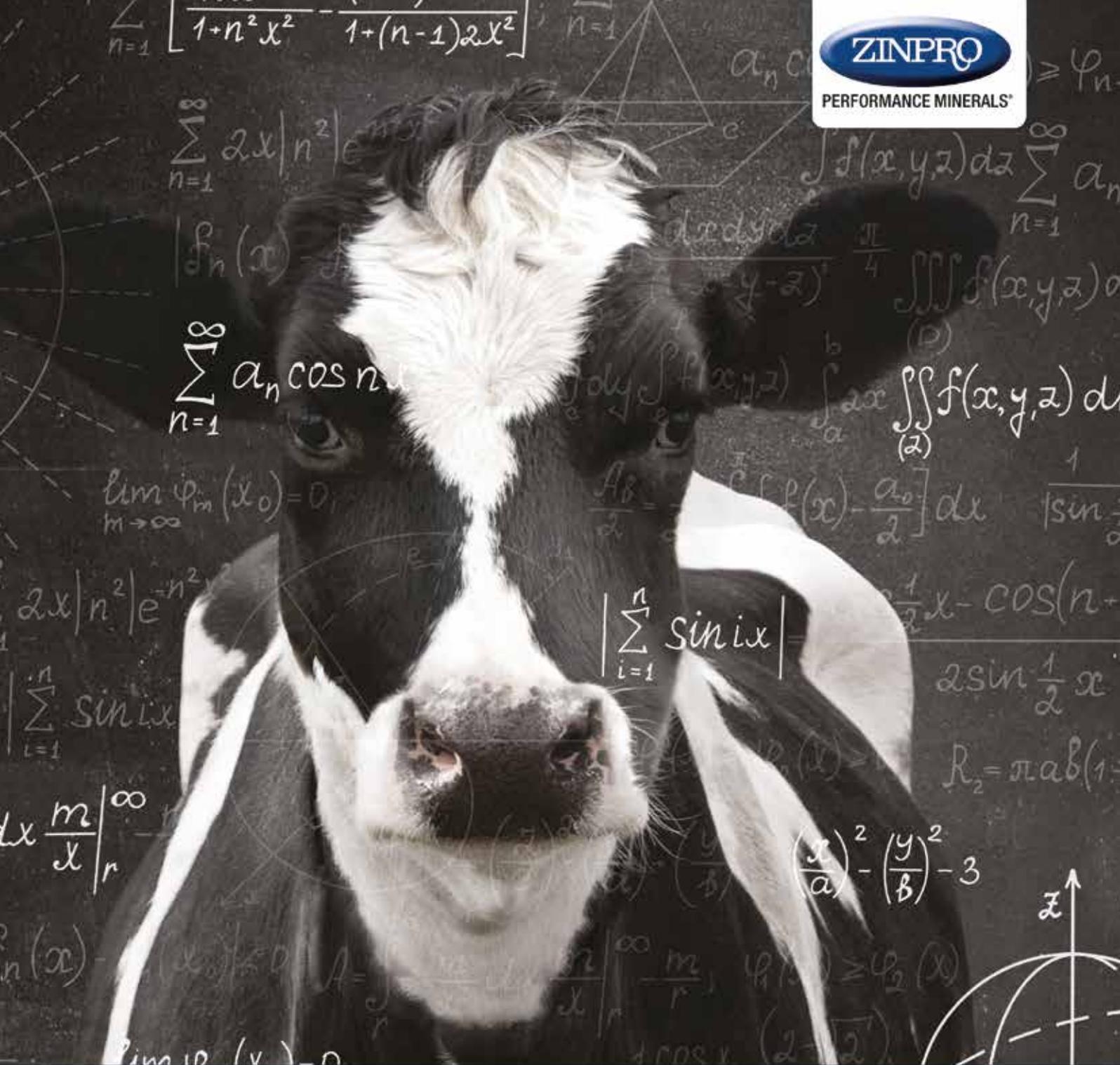
Reduced:

- Incidence of acidosis and cud balls
- Laminitis
- Mastitis

Rumisaf Farm Pack

Designed to be incorporated into on-farm rations and is fed at 50g/head/day to dairy and beef cattle. This will provide 75 billion CFU's per day.

For more information please contact your Ruminant Specialist or contact the office on 015242 63139.



WE'VE DEVELOPED A FORMULA TO HELP MANAGE DIGITAL DERMATITIS IN DAIRY REPLACEMENTS. IT STARTS WITH SCIENCE.

Digital dermatitis is an infectious hoof disease that can lead to lameness and a decrease in milk production and fertility. To fight it, you need a management strategy grounded in science. At Zinpro Corporation, we're leading the way with our research-proven nutritional solution to help manage lameness and digital dermatitis*. To learn more, talk to your Advanced Nutrition Ruminant Specialist or call 015242 63139.

*When fed according to specific recommendations. See your Ruminant Specialist for details.

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