

MAXXimise performance

MAXX CALF HEALTH TECHNICAL DETAILER



RUMENCO



WHAT IS MAXX® CALF HEALTH?

A high sugar dehydrated, molassed mineral lick, with tailored nutrition to support the health and productivity of youngstock, to complement your existing feeding system. MAXX® Calf Health's unique formulation contains ...



WHY FEED MAXX® CALF HEALTH?



Helps during the risk period where scouring episodes and respiratory challenges may exist



Support a healthy immune status and a robust respiratory system



Save costs



Aid productivity



Helps where there is a risk of other infectious challenges



Increase DLWG

HOW DOES MAXX® IMPROVE LIVESTOCK PRODUCTIVITY?



NUTRIENT RICH

Provides additional energy, protein, vitamins, minerals and trace elements to support grazing and forage diets.



HIGHLY AVAILABLE SUGARS

Support the rumen bug population providing a good level of readily available energy.



PALATABLE

Unique and patented manufacture process provides a highly palatable nutritional supplement.



INNOVATIVE FORMULATIONS

Innovative formulations specially developed to meet particular requirements of grazing and housed cattle.



INTAKES

The hard physical nature of MAXX® helps encourage little and often feeding whilst allowing stock to consume an effective amount of nutrients.



24 HOUR ACCESS

Livestock make multiple visits to MAXX® buckets in a 24-hour period.



STABLE pH

The consistent intake of nutrients supports a stable rumen pH that does not suffer the dramatic changes that are seen with a concentrate feed.



RESEARCH PROVEN:

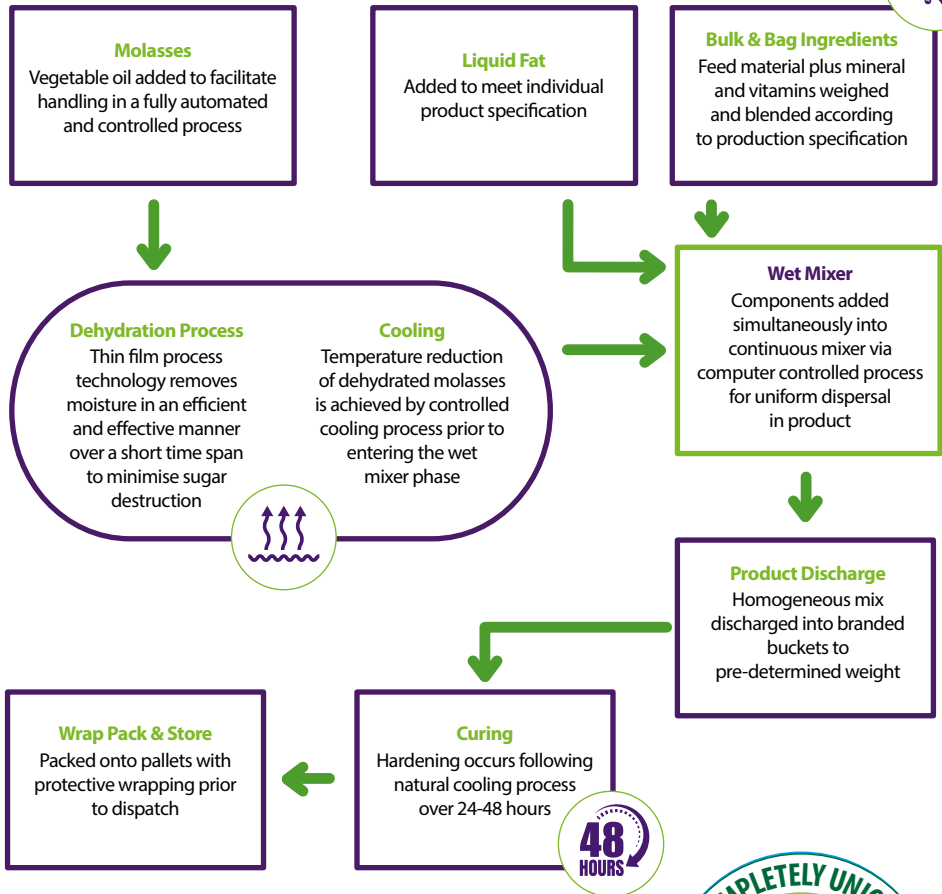
Independent and on farm trials



Whether grazing or eating forage-based diets, livestock have additional requirements for nutrients at different times of the year. MAXX® buckets are manufactured using a unique and patented method.

The rapid dehydration of molasses creates an extremely palatable supplement high in readily available sugars. Being nutrient rich, it provides little and often feeding, improving rumen efficiency and maximising livestock productivity.

THE MAXX[®] PRODUCTION PROCESS



WHAT DOES ALL OF THIS MEAN?

- ✓ **MAXX[®]** buckets support livestock at grass and on forage diets, helping to support rumen health and function and ensure a diet formulated to maximise productivity.
- ✓ The hard physical nature of the **MAXX[®]** range allows stock to consume a nutritionally significant quantity whilst ensuring your pocket stays healthy too.
- ✓ The **MAXX[®]** square bucket allows stock easy access to product in bucket corners.



TRIAL TESTED – RESEARCH PROVEN

A trial taken place on a dairy unit in Staffordshire with Holstein Friesian heifers showed significant results against the control group.

Heifers were supplemented **MAXX[®] Calf Health** from 14 days up to 4 months and both groups fed ad lib chopped straw, concentrates and high concentration milk replacer at 7 litres per head per day.

The results showed the supplemented group had an increase DLWG of 60g/head/day and reached **125kg 10 days earlier** than the control batch. In today's climate that's a saving of over £20 plus per calf after the cost of supplementing is deducted.



*trial data provided on request – Rumenco In house trial - EJH 10/0120

WHY MAXX[®] CALF HEALTH IS CRITICAL FOR YOUR SYSTEM

Supplemental vitamins are vital for growing calves and youngstock.

Calves are born with virtually no vitamin E and alongside vitamin C, it is essential in a calves diet, as both are critical to immune response and development.

KPI	Target
DLWG to weaning	>0.7kg/day
Weaning weight	>2xbirthweight
DLWG post weaning	>1kg/day
Calf mortality	<2%
Incidence of pneumonia	<15%
Incidence of scours	<10%

Young calves are also unable to produce their own B vitamins until their rumen is fully developed, making it essential that B vitamins are provided via the diet for efficient conversion of feed for growth.

Target growth rates of at least 0.7kg per head per day in order to reach 55% of mature bodyweight at bulling.



WHAT IS CELMANAX™?

INNOVATION IN BIO TECHNOLOGY

CELMANAX™ is a fermented yeast culture, consisting of biologically active RFC (refined functional carbohydrates). Through the bio functionality process **CELMANAX™** provides a whole host of benefits when fed.

- ✓ Stabilises the rumen environment
- ✓ Increased feed intake (stress situations, eg. heat stress)
- ✓ Increased rumen efficiency
- ✓ Dry matter digestion
- ✓ Protein digestion
- ✓ Volatile Fatty Acids production
- ✓ Improved animal production
- ✓ Milk production, component yield, animal growth



Specific RFC Benefits

- ✓ **MOS** supports growth of beneficial bacteria like Lactobacillus and Bifidobacterium. Supports growth of good bacteria, binding live bacteria & improves gut health
- ✓ **Mannose** binds pathogenic bacteria like E. Coli and Salmonella
- ✓ **Beta glucans** support the immune system and protects against mycotoxins
- ✓ **Other RFCs** prevent certain protozoa like Eimeria and Cryptosporidium from attaching to the intestinal wall and causing disease

SO HOW DOES CELMANAX™ DIRECTLY BENEFIT THE CALF?



Reduced crypto shedding,
length & severity of infections



Improved dry matter
intake & DLWG



Improved fecal &
dehydration scores



Resilient to immune
challenges



Reduced salmonella &
rotavirus shedding



The healthy start leads
to increased weight gain
by up to 3.5kg while
improving feed efficiency



Reduced incidence of BRD
infections

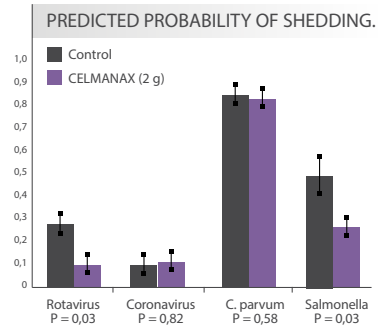
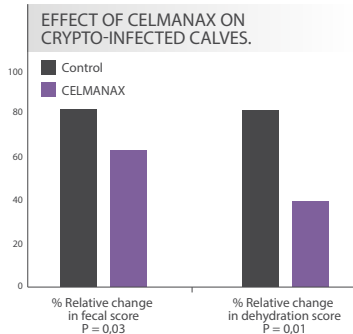


SCOURS

Did you know that 8 days of scours during the first 28 days of a calf's life can lead to a loss of 6.3kg reduced calf body weight by 77 days of age, potentially affecting long term growth and productivity?³

There are many causes of scours in youngstock, for those that are caused by an infectious agent the power of the yeast cell has been proven to reduce infections.

One study found when calves were supplemented with **CELMANAX™** they experienced a reduction in incidence⁵ severity⁴ and duration of cryptosporidiosis⁵.





MAXX® Calf Health contains **Zinpro Availa® Zinc**, this is a protected form of zinc, the zinc molecule is bound to an amino acid in a stable structure, this makes it highly available due to improved absorption through the amino acid transporter pathways.

Good levels of zinc in the diet will support the gut lining and animals fed **Availa® Zinc** in particular have been shown to have an increased gut integrity and therefore reduced gut leakage during stress times.

Due to zinc's role in the immune system, animals offered **Availa® Zinc** have also



Stress situations



Normal Gut

been found to have a more developed immune system so are more able to cope with any infection, less likely to get ill or die.

Furthermore, when vaccinated, animals on **Availa® Zinc** produce more antibodies, this is particularly important for calves that will be vaccinated at various points through their lives.



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2. Cho Y, Yoon K. An overview of calf diarrhea - infectious etiology, diagnosis and intervention. J of Vet Sci 2014;15(1):1-17.
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4. Jalukar S, Nocek JE. Evaluation of enzymatically hydrolyzed yeast in vitro and in vivo for control of Cryptosporidium parvum infections in dairy calves. J Anim Sci 2009; Vol.87, E-Suppl. 2/J Dairy Sci Vol. 92, E-Suppl. 1. Research Bulletin D-61.
5. Santos JEP. Prophylactic Feeding of Yeast Culture Enriched with Oligosaccharides from Cell Wall Extract in Calves Experimentally Challenged with Cryptosporidium parvum. University of Florida, 2008; report on file.
6. Research Bulletin D-71: CELMANAX SCP in dairy calf milk replacers.
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PHYTOTEC & RESPIRATORY PACK

Phytotec is a unique all natural blend of plant extracts, essential oils and fermentation products. The ingredients in this blend have specifically chosen to support feed conversion, fibre digestion, rumen health and production and therefore play an important role in **MAXX[®] Calf Health**.

Finally, our last key ingredient in **MAXX[®] Calf Health** is a respiratory pack which includes menthol, eucalyptus and mint. This helps to support clear airways and relieve congested airways, this is particularly useful at housing

Aniseed has also been included as a preferred flavouring for calves so this pack will help encourage intakes from early on and support animals at housing when respiratory issues may occur.



MAXX[®] CALF HEALTH AND DISEASE RISK REDUCTION THROUGH NUTRITION



Antibodies absorbed from colostrum will protect the calf for around six weeks. However, it takes up to eight months for the immune system to fully mature meaning good nutrition, including a focus on minerals and vitamins, is key to encouraging immune development during this period. This is why **MAXX[®] Calf Health** is specifically formulated to help support the immune system with research proven ingredients.

E-Suppl. 1/J Dairy Sci Vol. 94, E-Suppl. 1. Research Bulletin D-72.8. Research Bulletin D-51: CELMANAX Liquid in dairy calf milk replacers. 9. Research Bulletin D-53: CELMANAX Liquid in dairy calf milk replacers. 10. Rabbis et al. The effect of Celmanax SCP on fecal pathogen shedding, health, and performance of preweaned Holstein dairy calves. AABP Conference, 2017. 11 Lucey et al. JDS Vol. 104 No. 4, 2021. ONLY CELMANAX GIVES YOU THE FLEXIBILITY AND CONSISTENCY. CELMANAX gives you the flexibility to include it in diets in the way that best fits your needs. USA 16 USA 27 Mexico 18 Mexico 29 27,0 18,0 13,5 4,5 22,5 9,0 0 CELMANAX INCREASED WEIGHT GAIN IN CALVES. 6-11 Wt. gain, kg Control CELMANAX 31,5 36,0 40,5 UW commercial 10 UCD commercial 11. In one study, calves receiving CELMANAX supplementation in the milk replacer had reduced pathogenic E. coli shedding (P

MAXX® CALF HEALTH PRODUCT DETAILS



Tailored nutrition to support the health and productivity of beef and dairy calves and youngstock, in a unique molassed feed and mineral lick, to complement your existing feeding system.

Features & benefits:

Contains **CELMANAX™**, proven to show consistent beneficial effects on daily liveweight gain, feed conversion efficiency, ruminal and intestinal development and also support stock through respiratory disease and scouring episodes.

- ✓ Includes Zinpro Availa® Zinc proven to help optimise immune function and gut integrity during times of stress, as well as improved lifetime performance.
- ✓ Contains natural decongestants from plant extracts and essential oils to help support a healthy respiratory system during periods of stress.
- ✓ Contains Phytotec to support robust digestive health, daily gain and improved feed conversion efficiency.

IDEAL FOR:

- All dairy and beef calves and youngstock from 2 weeks of age onwards fed alongside starter/rearer
- Calves and youngstock at risk of disease challenges during periods of physical (e.g. weaning) and environmental (e.g. housing) stress

USER GUIDE:

- Offer free-access at a ratio of one 7.5kg bucket per 5 calves or youngstock, or one 22.5kg bucket per 15 calves or youngstock
- Ensure ad-lib forage is always available. Do not feed to sheep (contains copper)

Crude protein %	8	Cobalt mg/kg	-
Crude fat %	6	Iodine mg/kg	10
Crude ash %	23	Manganese mg/kg	700
Energy (MJ ME/kg DM)	14	Zinc** mg/kg	1,000
Typical sugars (as sucrose) %	36	Copper mg/kg	50
Calcium %	3	Vitamin A iu/kg	25,000
Phosphorus %	1.5	Vitamin D ₃ iu/kg	5,000
Magnesium %	0.3	Vitamin E iu/kg	3,000
Sodium %	2	Vitamin B ₁₂ mcg/kg	1,000
Selenium* mg/kg	5	Vitamin C mg/kg	3,000



TYPICAL INTAKES:

- Calves to 12 weeks up to 80g/head/day[#]
- Weaned calves and youngstock up to 300g/head/day[#]

* Includes selenised yeast, ** Includes Availa® Zinc

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WORK SMARTER NOT HARDER



with
MAXX[®]
CALF HEALTH

NOW INCLUDES

CELMANAX[™]



MAXX Calf Health's unique formulation provides vital nutrition to give your calves the MAXX power to:

- Support a healthy immune status and a robust respiratory system
- Develop an optimal ruminal flora and strong gut

RUMENCO



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