



Agri
CareTrade

YEAST & MICROBIOLOGY FOR RUMEN HEALTH



An S&E Caretrade Company



Welcome & Introduction

Yeast – the key to advanced ruminant nutrition.

We've teamed up with Biocell Agri Limited, the yeast and microbiology specialists, to bring you a range of the very best feed additives for enhanced ruminant nutrition.

Reduce the risk of acidosis and bloat.

Their product range is extensive and has been developed for dairy cows, including all high yielding breeds. It improves utilisation of both high starch feeds and forages, whilst maintaining stable rumen pH and reducing any risk of acidosis and bloat. The products are also highly popular with intensive beef farmers and lamb finishers.

Improved feed conversion.

Total Mixed Rationing (TMR) and the availability of alternative energy and protein sources in addition to grass is delivering significantly improved yields. Pure live yeast is proven to significantly improve feed conversion, enhancing both milk solids and carcass quality.

Specialist Mycotoxin Deactivators.

Research has demonstrated that the full nutritional benefit of stored feed is frequently reduced through the presence of mycotoxins. Controlled preservation, aided by effective inoculation will minimise this risk, and feeding Biocell speciality mycotoxin deactivators safeguards health whilst increasing disease resistance.

Other microbiology products.

See page 10 for further details of our slurry, silage and anaerobic digester additives.

Tim Hughes
Managing Director

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for more products visit:
www.agricaretrade.com



On farm experts in health and hygiene.

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The benefits of feeding Yeast to Ruminants

How does it work?

PURE LIVE YEAST increases the number and activity of specific lactate utilising rumen bacteria to improve fibre digestion and increase the intake of food. This stimulates the production of rumen volatile fatty acids thereby improving energy supply for extra finish and daily live-weight gain.

High starch diets often lead to a build-up of damaging lactic acid in the rumen, resulting in acidosis. Quality yeast based products will remove the lactic acid more rapidly, creating a stable rumen pH and enabling the essential rumen bacteria to complete the effective digestion of fibre and increasing the supply of energy and protein.

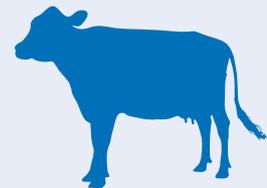
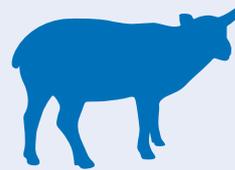
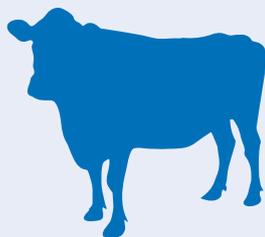
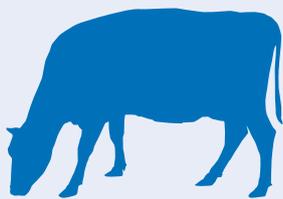
With high fibre diets, yeast improves forage intake, whilst improved rumen activity aids fibre digestion, improving feed conversion.



How Yeast Helps	Impact / Result
Increases number and activity of bacteria	Dry matter intake is increased
Improves use of energy and protein	Enhancing milk yields and quality
Maintains stable rumen pH	Reducing the risk of acidosis
Enhances enzyme activity	Stimulate the digestion of fibre
Efficiency of rumen function increased	Improving feed utilisation
Converts lactic acid in high starch diets	Increasing supply of energy and protein
Reduces methane production	Reducing waste and increasing efficiency

How yeast helps:

 Increased Improvements



DAIRY

Increased milk yield, butter fat and protein.

BEEF

Significant increases to Daily Weight Gain. Improved carcass quality.

LAMBS

Improved Daily Weight Gain. Reduce foot rot.

CALVES

Improvements to gut health, faster rumen development and higher weaning weight.

The importance of including Yeast as a separate ingredient

Three key reasons to use yeast separately:

- 1 Yeast added to the meal or dairy nut may not survive the compounding process, which reduces its effectiveness.
- 2 It guarantees the feed rate per animal. Conversely, including yeast in the compound feed or blend does not.
- 3 Other products present in the compound or blend may degrade the yeast, thereby limiting its efficacy.

Achieve the very best results by taking control of the process and ensuring the correct feeding rate for each animal.



Selecting the right product:	Biocell Farm Mix	Mycoaid	Mycocell Combi	β /Se	Biocell - LAC
DAIRY	✓	✓	✓	✓	X
BEEF	✓	✓	✓	✓	X
LAMBS	✓	X	X	✓	✓
CALVES	✓	X	X	X	✓

Biocell Farm Mix

Biocell Farm Mix is a proven stand-alone yeast product that increases butter-milk fat, carcass weight & quality.

- ✓ Actisaf SC47 strain of LIVE YEAST
- ✓ Wheat Bran Carrier
- ✓ Fully EU APPROVED
- ✓ Suitable for Dairy, Beef and Sheep
- ✓ Protected – dried in a rotating drum resulting in low porosity spherical particles

Available in 12.5kg bags

Biocell Farm Mix ORGANIC also available in 12.5kg bags



How does Biocell differ from other yeast products?

	Biocell Farm Mix	Other similar products
Highest concentration of yeast possible	10 ¹⁰ CFU/g	10 ⁸ to 2:10 ¹⁰ CFU/g
Rotating drum drying process coats particles ensuring low porosity	Yes	No
Stable under all atmospheric conditions and humidity levels	Yes	No



How to use Biocell Farm Mix:

- ✓ Introduce at anytime, and for maximum effect add to the transition diet 3 weeks before calving. This will increase dry matter intake and improve rumen function
- ✓ Easily mixed in TMR or Biocell can be top-dressed
- ✓ For best results, feed at the recommended daily rate
 - 25gms Biocell Farm Mix for dairy cows
 - 20gms for followers/growing heifers
 - 10gms calves in creep



Biocell Farm Mix at Work

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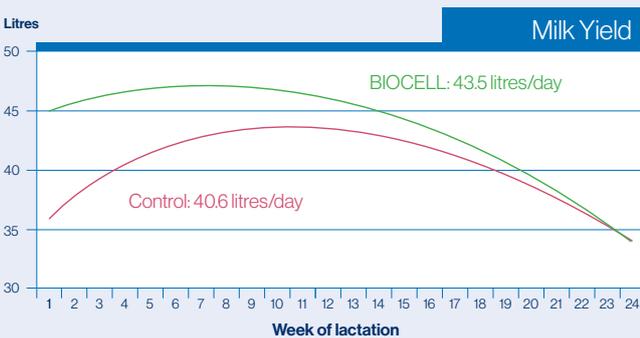
DAIRY Trial – New Farm, Roden, Shropshire.

- ✓ 420 Holstein Friesian cows, milked 3 times a day
- ✓ Average yield prior to the trial was 9,500 litres
- ✓ Total Mixed ration: Maize silage, grass silage, pressed pulp, waste bread, pot ale syrup, soya bean meal, rapeseed meal, nutritionally improved straw, fat, vitamins and minerals
- ✓ Ration analysis

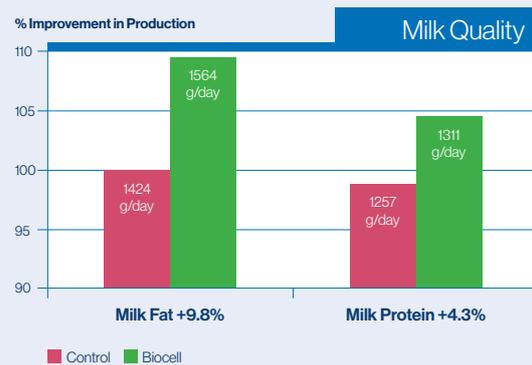
"...in a market full of yeasts which may or may not work, this one worked and continues to work."

Sean Sowray

Bowes Farm
Bishop Thornton
North Yorkshire



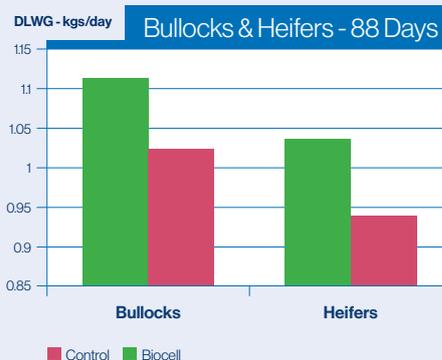
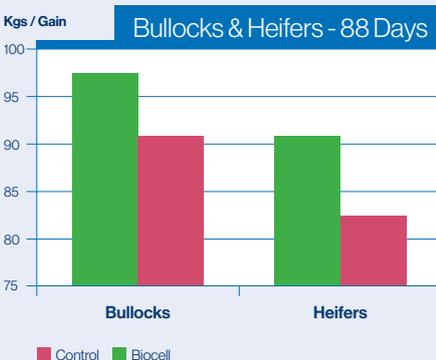
Significantly higher milk yield (+7%) especially during the first weeks of lactation



Biocell Farm Mix – pure live yeast for Growing & Finishing Cattle

BEEF Trial – Bullocks and Heifers, Robert Parker, Drumdow, Stranraer.

- ✓ A 3-month trial between Jan and April
- ✓ Involved two groups of Bullocks (22+22) and two groups of Heifers (22+22)
- ✓ Mainly Charolais X and Aberdeen Angus X – matched for weight and breed
- ✓ Average weaned weight of 290kgs and 325kgs at the start of the trial
- ✓ Bullocks 8% & Heifers 10% live weight gain, even when not pushed for max DLWG



Value of extra weight gain:
8kgs @ £3.50 deadweight
= £28.00

Cost of Biocell farm mix:
6p @ 88 days
= £5.28

Extra margin per head:
£28.00 less £5.28
= £22.72

Farmer Lesley Botterill buys over 600 strong steers and heifers annually, to finish and sell deadweight.

"£3.00 per head investment in BIOCELL is turning into £20.00/head quickly"!

Lesley says "since adding Biocell to the finishing barley ration, our cattle have broken all records. The DLWG has increased on average by 0.2kgs to 1.5kgs/day/head. That's over 100 days, and the best cattle are gaining 1.8kg/day. The feed consumption is the same as before, so BIOCELL yeast is improving feed conversion."

Mycotoxins



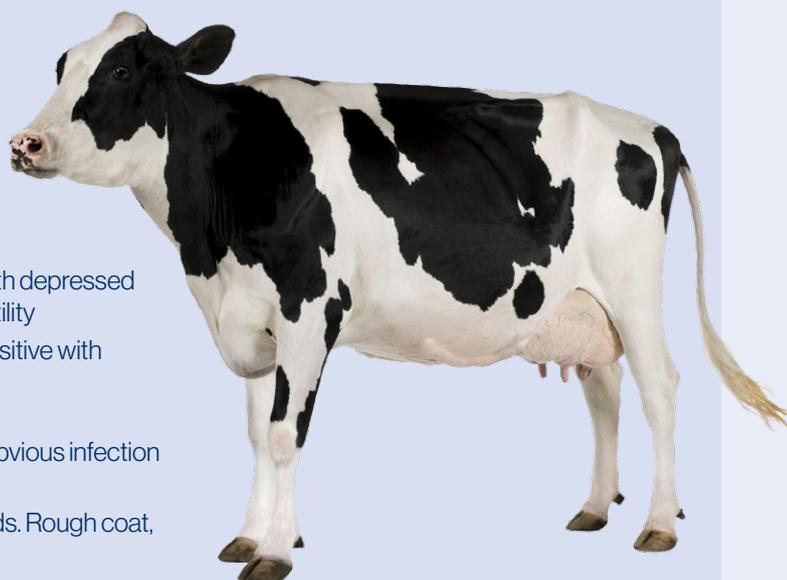
What are Mycotoxins?

Mycotoxins are a group of naturally occurring chemicals produced by certain moulds. They typically grow on a wide variety of crops and foodstuffs under warm and humid conditions.

Mycotoxins can elicit a wide range of toxic responses including acute and chronic systemic effects in humans and animals. The impact can be extensive and in the worst cases can result in death.

How to spot the presence of Mycotoxins in animals

- ✓ Reduced feed intake
- ✓ A high incidence of digestive upsets
- ✓ High levels of mucous in the manure
- ✓ Increased incidence of diseases associated with depressed immune function, such as pneumonia and infertility
- ✓ Presence of tissue oedema. Cows are very sensitive with swelling in the brisket, udder and hock. (Typically the Fusarium type of mycotoxin)
- ✓ A high rate of abortion or foetal death without obvious infection or disease
- ✓ An unthrifty appearance with reduced milk yields. Rough coat, arched back and "sad" appearance



MycoCell/MycoCell Combi (with added yeast)

This product is used where mycotoxins are already present. It has been developed to protect animal health by effectively deactivating mycotoxins from contaminated feed. MycoCell combines absorption and biological degradation:

- ✓ **Absorption** – Mycotoxins such as aflatoxins, ochratoxins and fumonisins are absorbed by the blend of minerals.
- ✓ **Biological Degradation** – Less or non-absorbable mycotoxins (such as fusarium toxins – trichothecenes and zearalenone) are degraded by specific enzymes in the product.

Available in 12.5kg bags

MycoAid

[How does the Biocell Myco range of products work?](#)
The products deactivate mycotoxins in two ways by a combined action of absorption and degradation.

MycoAid - Even the smallest quantity of mycotoxin can have a disproportionately large impact on the immune system and metabolism. There is no such thing as a safe level of mycotoxin so the threat to animal and human health is ever-present. To reduce this risk, MycoAid should be used **preventatively**, particularly when feeding sick, vulnerable or young animals. The live microbes found in MycoAid actively prevent pathogenic bacteria from establishing in the intestinal tract of animals. They grow even in the absence of mycotoxins, stimulating beneficial intestinal flora to improve the immune system.

Available in 12.5kg bags

These benefits are not provided by simple clay mycotoxin binders. For best results, feed at the recommended daily rate: **25gms/day MycoAid** and **50gms/day MycoCell/MycoCell Combi**

Try Biocell Farm Mix with added β C/Se for improved herd health and performance

Beta Carotene helps to **increase** levels of vitamin A at key points during the year:

Before and after calving when levels of vitamin A can be depleted by calves in colostrum.

A 2 year survey confirmed the positive influence of **Biocell BetaC on rates of conception**.

Ovarian Cysts - Beta Carotene plays a key role in corpus lutea function and the reduced incidence of cysts.

Reduced vitamin A, particularly after calving, dramatically increases the risk of disease. Biocell Beta Carotene can **reduce the incidence of Mastitis**, the majority of which occur at this time.

Selenium is a trace mineral that plays a key role in muscle function, cell metabolism and thyroid function. Whilst the benefits of supplements are advocated by most nutritionists and scientists; most soils and forages are increasingly selenium deficient. The challenge is, will each individual animal receive the correct dosage and fully utilise it?

We use an **Organic Selenium** which is more bioavailable than it's mineral counterpart. It is more easily absorbed with significant benefits for reproduction, general health and reduced somatic cell count and risk of mastitis.

Biocell Selenium Yeast is a cost effective way of providing the necessary selenium supplements. When the selenium is attached to a yeast protein, the digestive tract treats it as a protein, making it easier to absorb. This results in improved uptake and utilisation by the animal.

The Pure Live Yeast in Biocell β Carotene improves fibre digestion and feed intake.



A wide range of Yeast Buckets is also available

- ✓ Biocell Agri have an extensive range of yeast buckets for cows, dry cows and grazing cattle; organic and inorganic.
- ✓ The range is also available for sheep and ewes.

Available in quantities of 20kg and 100kg



The complete health package for calves

Biocell Lac - Improve Calf Health and Vigour

A live yeast designed to enhance calf health, vigour and vitality.

Fully EU Approved, Biocell Lac is blended into a dextrose base for improved palatability and easy mixing. The solution encourages early rumen development, allowing higher levels of concentrate to be introduced into the diet, both prior to and during weaning.

- ✓ Calf course mix can be increased by up to 25%
- ✓ Increases beneficial bacteria
- ✓ The yeast does not degrade in the stomach
- ✓ Unaffected by antibiotics
- ✓ Stimulates natural immunity to prevent scours and bloats in bottle-fed lambs

Feeding Rate:

Calves – 5gms per day (1 heaped scoop – 5 calves)

Lambs – 3gms per day (1 flat scoop – 6 lambs)

One bucket is sufficient for 24 calves for six weeks.

Available in 5kgs bucket



Rotaboost – to stimulate disease resistance at birth

A single syringe of Rotaboost, provides high levels of vitamins, chelated trace elements and probiotics for a healthy gut.

Contains oligosaccharides.

Administered orally on the back of the tongue within the first 12 hours of life.

Available in 12 x 30g syringes



Platinum Calf Drench – at weaning

Multi vitamins and chelated trace elements for increased growth, health and disease resistance. Drench 45mls at weaning or as required for a boost to immunity and growth.

Pack sizes:

2.5 litres/55 calves and 5.0 litres/110 calves



"For details of the very best Calf Pen Hygiene range from CidLines call +44(0)28 9446 2266"

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Slurry Cell – Bacteriological Slurry Treatment

- ✓ Breaks crusts
- ✓ Reduces nitrogen loss
- ✓ Improves soil breakdown
- ✓ Reduced need for stirring
- ✓ Easier and quicker to pump out
- ✓ Fewer umbilical blockages
- ✓ Low odour
- ✓ Lower ammonia levels in buildings

Available in 6 x 1kg quantities



First Choice The Silage Inoculator

Proven to reduce spoilage, waste and losses, by increasing the speed of fermentation.

The lactic acid producing bacteria in First Choice are:

Pediococcus acidilactici, Lactobacillus plantarum, Lactobacillus fermentum and Lactobacillus brevis

- ✓ Reduce aerobic spoilage in high dry matter grass whole crop and maize silage
- ✓ Reduces heating
- ✓ Minimises the effect of spoilage organisms
- ✓ This minimises clamp losses
- ✓ Available for liquid application – one tub per 50 tonnes of silage
- ✓ Also available for granular application – 20kg bag treats 50 tonnes of silage

Firstchoice silage inoculant is packed in 1 litre pots which are used to pre-mix the live bacteria, ensuring purity and making mixing easier.

Biocell AD

The bacteria in Biocell AD effect a preliminary breakdown of the organic material.

The process is one by which the bacteria produce enzymes, releasing increased nutrients in the process. This enables the naturally occurring methanogens to work more effectively, with the resulting increase in methane production.

Active ingredients:

Bacillus subtilis, Bacillus licheniformis, Bacillus megaterium, Bacillus pumilus & Bacillus amyloliquefaciens

Designed for use in anaerobic digesters to increase efficiency of gas production.

- ✓ Add daily
- ✓ Packed in soluble sachets for easy control and application
- ✓ The rate of inoculation is dependent upon the capacity of the AD Plant
- ✓ Ideal temperature range for best results is 30 to 37 (degrees C)





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