

## Feed rate

Dairy cows: 25-50 grams/head/day

Beef cattle: 20-40 grams/head/day

Sheep & goats: 10-20 grams/head/day


Biototal SC oxycare should be fed evenly across all the daily feeds.  
e.g. for dairy cows fed twice a day include up to 25 grams per head with each feed.

## The Biototal SC Range

There are four uniquely formulated farm packs in the Biototal SC range, targeting the major ruminant feeding challenges.

 **SCDIGESTAID** to improve digestion

 **SCACIDEASE** to combat acidosis

 **SCTOXISORB** to reinforce detoxification

 **SCOXYCARE** to help manage stress



**When you buy Biototal you get more than just a farm pack**

Biototal's extensively researched, registered and globally proven rumen specific live yeast-based farm packs come with comprehensive technical support services to help you get the most from your forage, including:

- Forage analysis as a basis for effective diet formulation
- Advice on monitoring and managing rumen function
- Selection of the most appropriate farm pack based on your feeding challenges.

Together Biototal's unequalled technical support, targeted farm packs and crop and condition specific inoculants can help you utilise forage to deliver better performance.

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**A unique rumen specific live yeast and anti-oxidant rich farm pack targeting stress.**



Ruminants typically get stressed during changes to management or their environment. The effects of this stress can have a significant effect on their health, well being and performance.

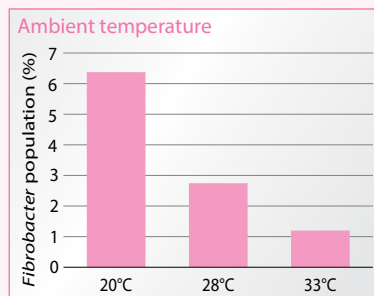
Ruminants experience stress during:

- Handling
- Social change
- Lameness
- Castration
- Oestrus
- Injury
- Vaccination
- Transition/calving
- Climatic changes (e.g. heat/humidity)
- Transportation
- Overcrowding
- Feed transition
- Weaning
- Disease

Stressful events such as these result in excessive production of chemicals called oxidants which are produced naturally in every cell. Usually their activity is balanced by natural anti-oxidant production, however during times of stress total anti-oxidant status can decrease dramatically creating an imbalance which may result in significant oxidative damage to cell structures. Cumulatively, this is known as oxidative stress.

Environmental conditions such as temperature and humidity as well as herd management practices such as over-crowding have also been shown to affect the balance and populations of rumen microflora. The graph shows how the population of fibre digesting bacteria drops with increasing ambient temperature.

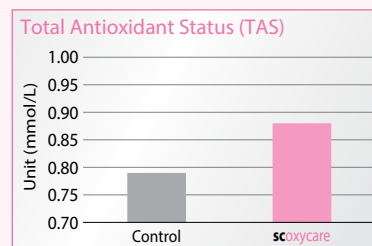
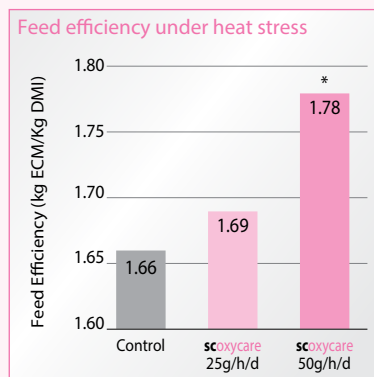
(Tajima *et al.*, 2007)



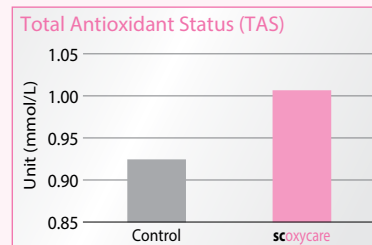
### Biotol SC oxycare improves rumen efficiency

Biotol SC oxycare contains the rumen specific live yeast *Saccharomyces cerevisiae* CNCM I-1077 which is proven to significantly improve fibre digestion and rumen efficiency. A study at the University of Florida, carried out under high heat stress (THI 80) showed that feeding double the rate of *Saccharomyces cerevisiae* CNCM I-1077 (50g SC oxycare) resulted in a 7% improvement in feed efficiency equivalent to an extra 120 grams of energy corrected milk (ECM) per kilo of dry matter intake (DMI).

(Marsola *et al.*, 2010) \*P<0.05



(Beef cattle, Hungary, 2014)



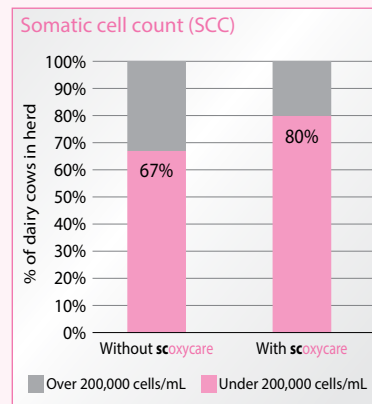
(Dairy cows, Switzerland, 2013)

### Biotol SC oxycare increases Total Anti-oxidant Status (TAS)

Biotol SC oxycare contains a unique anti-oxidant rich melon extract and highly bioavailable selenium enriched yeast. Selenium is an important trace element and has long been recognised for it's anti-oxidant properties.

Together these two ingredients form a powerful anti-oxidant combination boosting defences against the negative impacts of oxidative stress.

On farm studies in both beef cattle and dairy cows have shown that feeding SC oxycare increases the ruminant's ability to manage oxidative stress as measured by Total Anti-oxidant Status (TAS).



(Dairy cows, Switzerland, 2013)

### Biotol SC oxycare can be continuously fed

The relationship between oxidative stress, disease and metabolic disorders has been demonstrated by lower anti-oxidant status during mastitis, metritis, retained placenta, ketosis, infertility and milk fever. In a 2013 Swiss farm study, continuous feeding of Biotol SC oxycare to dairy cows and the resulting increase in TAS corresponded to a 40% reduction in the number of cows with somatic cell counts in excess of 200,000.

*High SCC can be a multi-factorial problem so inclusion of Biotol SC oxycare in the diet does not guarantee a reduction.*

### About Biotol SC oxycare

Containing rumen specific live yeast *Saccharomyces cerevisiae* CNCM I-1077, highly bioavailable selenium yeast *Saccharomyces cerevisiae* NCYC R397 and a unique melon extract rich in anti-oxidant, Biotol SC oxycare includes a cereal flour carrier to ensure even distribution. It is supplied as a 20kg farm pack.



## Targeted Yeast Farm Packs

Specific problems need targeted solutions which is why Biotal has developed a range of yeast farm packs to help you tackle your feeding challenges cost effectively for optimum results. The Biotal SC range includes four individual products with carefully chosen ingredients to address the main areas that can disrupt ruminant performance including rumen function, wider digestive health and total anti-oxidant status.

**BIOTAL SC digestaid** to improve digestion

**BIOTAL SC acidease** to combat acidosis

**BIOTAL SC toxisorb** to reinforce detoxification

**BIOTAL SC oxycare** to help manage stress

All Biotal SC farm packs are supplied in 20kg bags.

	<b>When you buy Biotal you get more than just a farm pack</b>
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Biotal's extensively researched, registered and globally proven rumen specific live yeast-based farm packs come with comprehensive technical support services to help you get the most from your forage, including:

- Forage analysis as a basis for effective diet formulation
- Advice on monitoring and managing rumen function
- Selection of the most appropriate farm pack based on your feeding challenges.

Together Biotal's unequalled technical support, targeted farm packs and crop and condition specific inoculants can help you utilise forage to deliver better performance.

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# Biotal SC Yeast Farm Packs

Your feeding challenges need a targeted approach

**BIOTAL SC digestaid**

**BIOTAL SC acidease**

**BIOTAL SC toxisorb**

**BIOTAL SC oxycare**



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*Unleashing the value of your forage*

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## Biotal Yeast Farm Packs

The foundation of profitable ruminant production is a healthy and efficient rumen.

Anything that disrupts the rumen will negatively impact performance and ultimately profitability.

All Biotal yeast farm packs include an extensively researched and globally proven rumen specific live yeast with added ingredients carefully chosen to tackle the main ruminant feeding challenges.

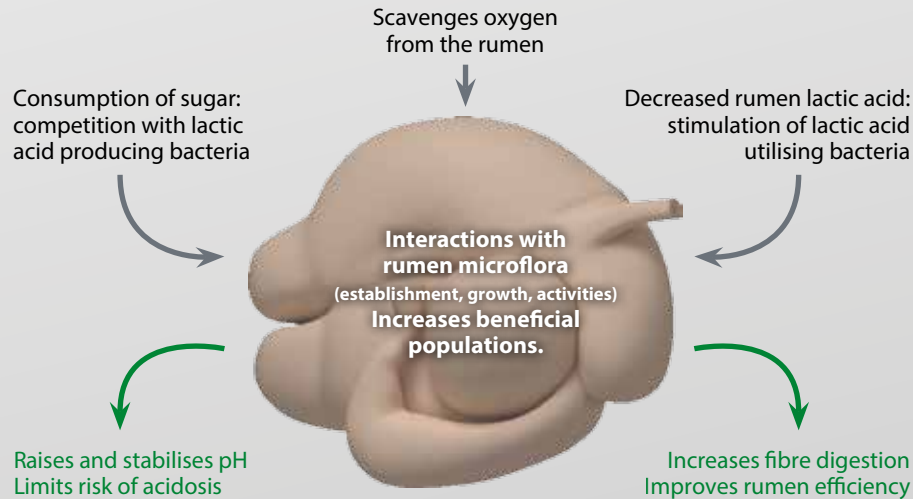
### Biotal SC: Rumen specific live yeast

**Live:** a natural live yeast (*Saccharomyces cerevisiae* CNCM I-1077), metabolically active to enhance rumen function.

**Rumen specific:** selected among thousands of strains for its capacity to enhance rumen function; its effectiveness has been validated in extensive trials at leading research institutes.

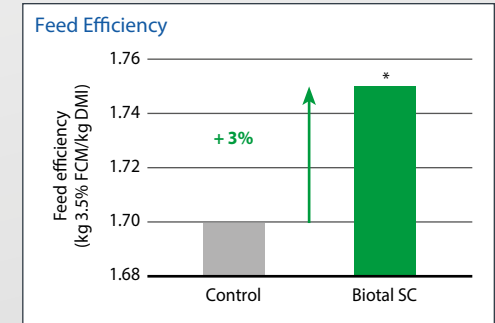
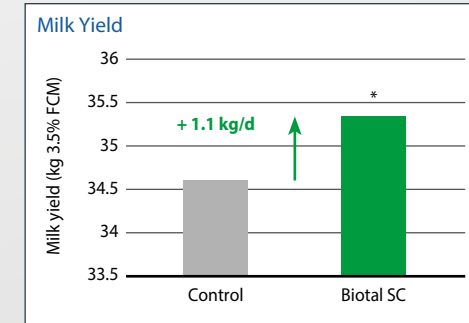
**EU registered:** for dairy cows, beef cattle, sheep, goats and horses.

### Biotal SC: How it works



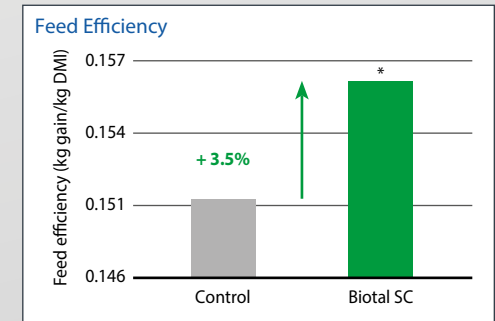
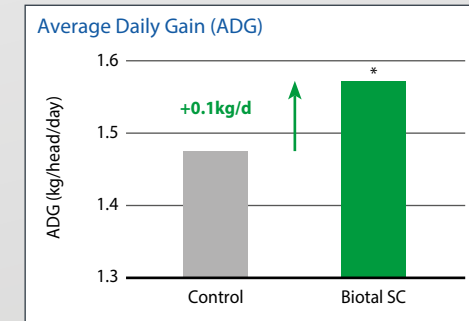
## Biotal SC: Extensively researched and globally proven

### Dairy cows



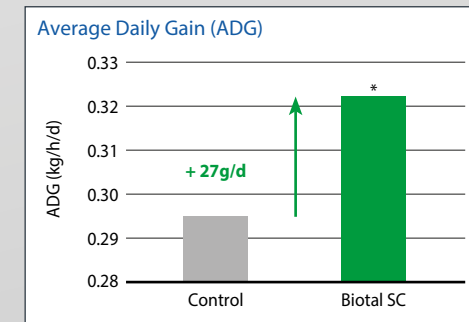
(de Ondarza et al, 2010: Meta-analysis - 14 trials, 1615 cows) \*P<0.05

### Beef cattle

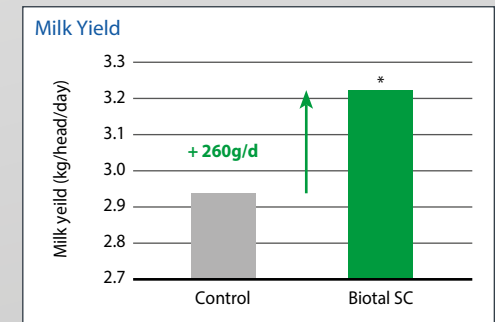


(Erasmus et al, 2009: Meta-analysis - 15 trials, 1875 cattle) \*P<0.05

### Sheep and Goats



(Average of 5 trials, 1092 lambs) \*P<0.05



(Average of 10 trials, 1099 goats) \*P<0.05