Specially developed for beef cattle

Dosage

- Although the dose can be farm specific, the following inclusion rate is advised:
- calves: 6 8 kg/Mton in starter feed
- growing and finishing period: 5 6 g/100 kg BW

• Packaging 25 kg bags.

Storage

Store cool and dry.

Claims associated with products may be different based on government requirements. Certain statements may also not be applicable in all regions.

The starting point for rearing healthy, productive animals is **safe nutrition**

Active in over 80 countries worldwide, we produce premixes, concentrates, nutritional concepts and functional feed ingredients for the animal feed industry.

We strive to constantly innovate, and at the heart of our unique ingredients are our ongoing research, development and testing programmes. We are widely acknowledged as the industry's benchmark for increasing yields and reducing disease naturally.

Through our worldwide reach, constant innovation, thorough testing and proven results, we are proud to say that, today and tomorrow, Nuscience will remain your knowledge partner in nutrition and health.

Visit us at www.nusciencegroup.com

Booiebos 5

B-9031 Ghent (Drongen) T +32 (0)9 280 29 00 F +32 (0)9 282 34 27

E info@nusciencegroup.com

Protonweg 10 3542 AJ Utrecht, The Netherlands T +31 (0)30 248 20 60 F +31 (0)30 241 02 34 www.nusciencegroup.com



health4U nutrition4U

by nuscience



aromabiotic[®] cattle **MCFA the original**

natural ingredients.





KNOWLEDGE PARTNER IN NUTRITION AND HEALTH

Beef cattle has to produce high quality meat at the lowest possible cost. This creates pressure on the animal and requires effort to maintain the same standard. Instead of relying on medicines Nuscience offers alternative solutions based on



Aromabiotic[®] Cattle



Optimizing production efficiency of beef cattle can be complicated because many production variables influence the herd efficiency. Two important factors contributing to beef cattle efficiency are feed conversion and medication cost. Feed is the largest variable expense in beef production. By converting feed more efficiently into meat the production cost is decreased significantly. The latter is also influenced to a large extent by the herd's health status. A healthy animal not only requires little medication and labor but also produces more efficiently.

Supplementation with **Aromabiotic Cattle**, being a carefully balanced mixture of Medium Chain Fatty Acids (MCFA), supports beef cattle by improving the rumen fermentation and the immune status.

Aromabiotic[®] Cattle supporting the rumen

In-vitro and *in-vivo* tests with fistulated cows show that **Aromabiotic Cattle** influence the rumen microflora whereby protozoa and methanogens seem to be most susceptible favouring the beneficial bacterial population. As a result the rumen fermentation is influenced in a positive way.

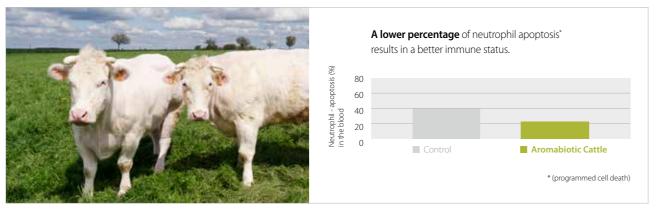


(Source: Ghent University, 2005 & ILVO, Melle, 2006)

Aromabiotic® Cattle improving immunity

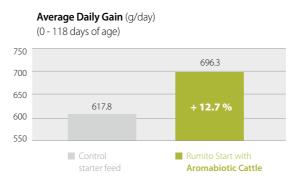
Neutrophilic leukocytes (neutrophils) are short living white blood cells present in blood and tissues, forming an essential part of the primary immune response.

Supplementation of **Aromabiotic Cattle** increases the viability (= 'strength') of these neutrophils. This was investigated by determining the percentage of apoptotic neutrophils the blood (apoptosis = programmed cell death). A lower level of apoptosis results in a higher overall viability of the neutrophils which in its turn means an improved immune status.



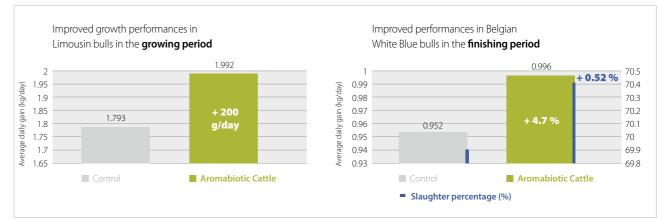
Source: Ghent University, 2010

Improved calf performances and health



Next to an improved average daily gain the Belgian White Blue calves started ruminating earlier. Besides a good intake of Rumito Start also the intake of hay was improved.

Improved performances in the growing and finishing period



Aromabiotic Cattle results in improved growth performances of different breeds of beef cattle, both in the growing period and the finishing period. Together with an improved slaughter yield a better economic result is obtained.

Additional features

- better general health status
- reduced use of antibiotics/lower veterinary costs
- lower risk on rumen acidosis due to a higher ruminal pH

Improved health status

	Animals treated (total animals)	Treatment needed against
Control starter feed	6 (13) = 46 %	Diarrhea (6) (Cryptosporidiosis and/or Coccidiosis) Respiratory diseases (2)
Rumito Start with Aromabiotic Cattle	1 (9) = 11 %	Only respiratory diseases (1)

The trial farm had a history of Cryptosporidiosis problems. **Aromabiotic Cattle** resulted in less and shorter treatments.

- lower methane emission
- improved TMR conservation