

Ruminant



UltraSorb R3.0 Product Range:

UltraSorb R 3.0 is available in a wide range of formulations for all ruminant species, including for on farm and for pre-mixers and compounders:

- **UltraSorb R 3.0**
- **UltraSorb R 3.0** Farm Pack
- **UltraSorb R 3.0** Extra - recommended for feed with a high risk of *Fusarium sp.* (Fumonisin, T2, DON, HT2, ZON) contamination. Damp & cool conditions.
- **UltraSorb R 3.0** Plus - recommended for feed with a high risk of *Aspergillus sp.* (Aflatoxins) contamination. Warm & dry conditions.
- **UltraSorb R 3.0** Core Compounders & pre-mixers. To be mixed with a binder.

Available in 25kg bags and 1 tonne tote bags. Other volumes subject to discussion.

Ingredients:

UltraSorb R 3.0 is a mineral feed for use in ruminant nutrition. It contains feed materials, zootechnical and technological additives.



Storage:

Store in original sealed packaging in a cool dry place. Keep bag closed when not in use. Best before 24 months after date of manufacture.

ABOUT VOLAC

Volac is dedicated to developing cutting-edge product-based agricultural solutions and species-specific programs designed to improve animal health and performance.

MYCOCHECK - The Mycotoxin Analysis Service, available from Volac. For more information go to volac.com/feed-additives



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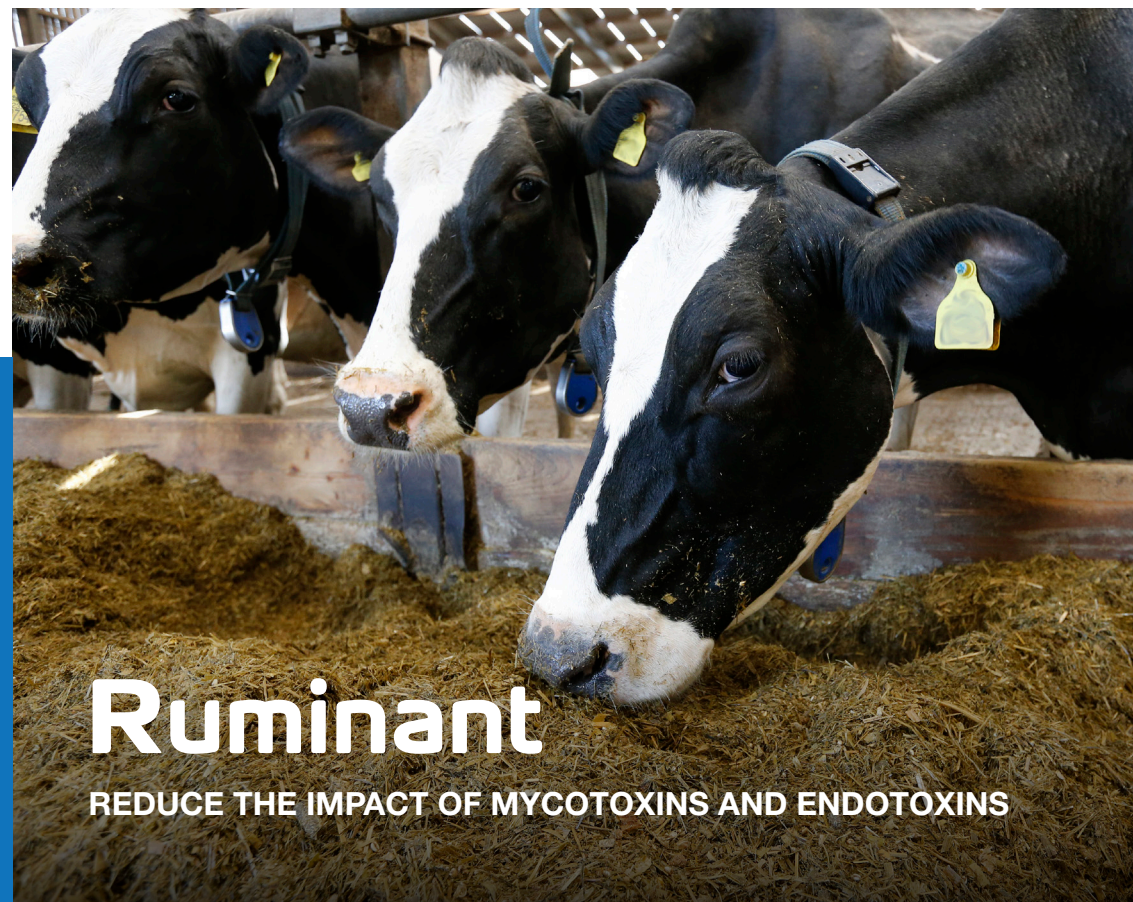
UFAS Approval No.: 246

volac



UltraSorb R 3.0

MYCOTOXIN REMEDIATOR AND ENDOTOXIN BINDER



Ruminant

REDUCE THE IMPACT OF MYCOTOXINS AND ENDOTOXINS

UltraSorb R 3.0

MYCOTOXIN REMEDIATOR AND ENDOTOXIN BINDER

UltraSorb R 3.0 represents the next generation product to not only bind, transform and degrade key mycotoxins but now with increased endotoxin binding capabilities. Ruminants can be frequently exposed to mycotoxins through feed and bedding especially those produced by *Fusarium* and *Aspergillus* species. Endotoxins are released in the rumen by the death or metabolic activity of gram-negative bacteria which can lead to inflammation and reduced animal production.

Symptoms of Exposure

- Reduced milk production
- Impaired rumen function
- Poor growth and reduced body weight
- Reduced fertility, abortions
- Immune suppression
- Immune stimulation
- Faecal mucous tags
- Impaired udder health
- Increased somatic cell counts
- Milk contamination from Aflatoxin (carcinogen)



Major Benefits

- Protection against multiple mycotoxins
- Binding, transforming and degrading
- Improved endotoxin binding capabilities
- Maintains and contributes to growth rates
- Supports natural immunity
- Supports good fertility
- Supports overall performance
- Suitable for all ruminants

Role of UltraSorb R 3.0

Our unique ruminant-specific formulation has three modes of action: highly adsorbent minerals to **bind** a wide range of mycotoxins and their derivatives to make them harmless; biologically active yeast derivatives to **transform** and **degrade** the molecular structure of mycotoxins to improve binding efficacy and increased endotoxin binding capabilities.

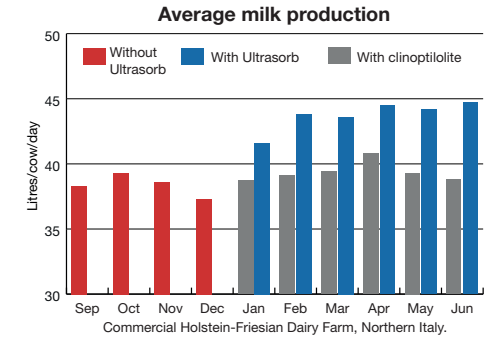
Mycotoxin Sources

Compound feeds and TMR's containing a mixture of grains, especially maize can harbour mycotoxins. Common toxins include: Aflatoxins, Fumonisin, T2, HT2, DON, ZON, Ochratoxins, Ergots and Patulin. Analysis by Volac International Ltd. has also shown that straw can be a significant source of mycotoxins. 80.3% of straw samples showed mycotoxin contamination (ref. Survey of Straw across the UK, 2019).

Trialled and Tested

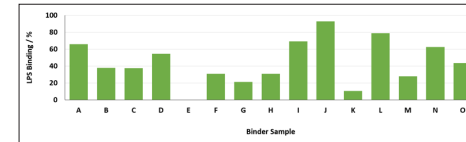
The **UltraSorb R 3.0** range has been trialled on working farms. Results from our trials have shown that cows supplemented showed a continuous increase in milk production, ranging from 2 to 4 litres of extra milk per cow per day. (figure 1).

Figure 1



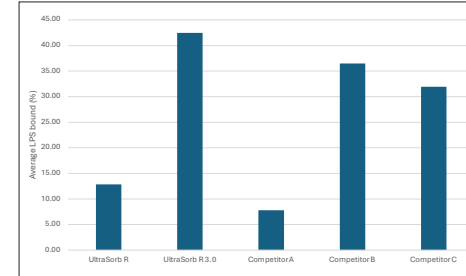
In vitro binding efficacy of LPS for different materials at pH7 at 37°C

Figure 2



LPS binding: UltraSorb 3.0 versus competitors

Figure 3



Volac have also improved the endotoxin binding capability of **UltraSorb R 3.0**. Endotoxins can cause low productivity in stressed/unhealthy animals, especially in combination with certain mycotoxins such as ZON or T2. Similar to mycotoxins, not all binders will bind endotoxins efficiently, see figures 2 and 3. Thus, Volac screens all binders to select the best combination of binders for mycotoxins and endotoxin binding in **UltraSorb R 3.0**.

Figure 4

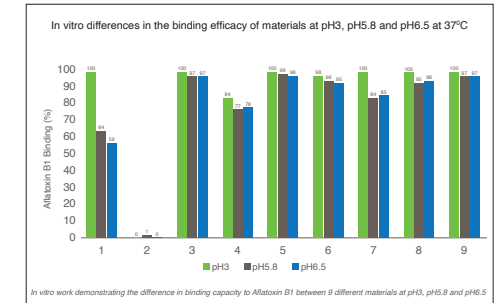
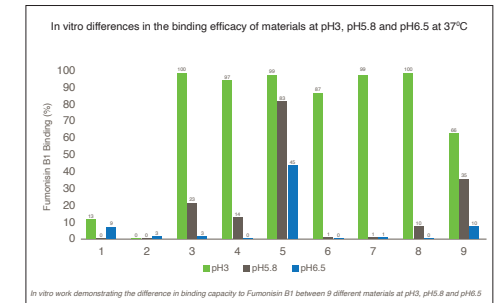


Figure 5



Volac's binding assay screens binders at pH3, pH5.8 and pH6.5 to ensure the best binding quality in our **UltraSorb R 3.0** range. Binding capacities tend to drop as the pH increases, as can be demonstrated by the aflatoxin B1 (figure 4) and fumonisin B1 (figure 5) screening graphs. Not all binders are effective across all pHs, thus it is important to screen to find the optimal combination of binders.