We are one of the major global suppliers of bentonite based products: manufacturing and distribution of special clays is our core business. We have developed several applications for these minerals as prime material for industry and mass market end products. Our products, together with applicative consultancy of our technicians and our services, are sold in more than 80 countries in the world to more than 1,500 customers, engaged in many different fields of application. Our special clays are used, other than in feedstuff applications, in paper production processes, in coatings and detergency formulations, in civil engineering, in environmental applications, in casting and others: in all these our products contribute to find solutions of high added value.

The company’s strength lies in people constant attention to innovation, growth and value creation. Quality of our processes is certified by the international standard ISO 9001:2008.
Mycotoxins are small and quite stable molecules that are extremely difficult to remove and enter the food chain while maintaining their toxic properties.

One of the strategies for reducing the exposure to mycotoxins consists in decreasing the bioavailability by including various mycotoxin adsorbing agents in the compound feed, which leads to a reduction of mycotoxin uptake as well as distribution to the blood and target organs.

Montmorillonite based products are well known mycotoxin detoxifying agents: they adsorb organic substances either on their external surfaces or within their interlaminar spaces.

Very low particle size montmorillonite grades provide:
- higher surface area
- higher porosity
- stronger cation exchange activities along with more active sites.

As a result their adsorption efficacy is greatly enhanced.

Globalfeed® range are selected bentonites that adsorb the most important polar mycotoxines. Globalfeed® are used in feed for cattle, swine, poultry, equines and fishes.

Bentonite and Aflatoxin adsorption

Aflatoxins are relatively hydrophilic aromatic planar molecules, with a very strong tendency to be adsorbed on planar surfaces. Furthermore their beta-dicarbonyl system allows for the formation of coordination bonds with metallic cations (Al³⁺) present in bentonite.

As a consequence Aflatoxins exhibit very high affinities for planar clays as bentonite is. On the contrary Aflatoxins show very low affinities with zeolites (clinoptilolite), which are clays with cage-like structures rather than plane surfaces.

To be noted that Aflatoxin is the world most regulated mycotoxin in feed.

Globalfeed® T1 is a selected bentonite that complies with EU 1060/2013 authorization as "substance for reduction of the contamination of feed by Aflatoxin B1". Globalfeed® range are selected bentonites for binder and anticaking applications. Globalfeed® are used in feed for cattle, swine, poultry, equines and fishes.

Advantages:
- High agglomerating capacity for easier manufacturing process
- Improved fluidity
- Anticaking and sedimentation properties
- Improved durability of pellets
- No influence on colour of the meat (low iron content)
- Low nutrients and active principles adsorption

Globalfeed® binders and anticking

Globalfeed® range are selected bentonites for binder and anticaking applications. Globalfeed® are used in feed for cattle, swine, poultry, equines and fishes.

Advantages:
- Very high mycotoxins adsorption capacity
- No influence on colour of the meat
- Low nutrients and active principles adsorption

Globalithix® Rheological Additive

Globalithix® is a selected bentonite that can be used in liquid feeding to prevent sedimentation and increase flowability.

Advantages:
- High agglomerating capacity for easier manufacturing process
- Improved fluidity
- Anticaking and sedimentation properties
- Improved durability of pellets
- No influence on colour of the meat (low iron content)
- Low nutrients and active principles adsorption

Aflatoxin B1 adsorption efficiency

<table>
<thead>
<tr>
<th>Product</th>
<th>AFB1 maximum adsorption capacity at pH 7 * (μg/mg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Globalfeed® BR</td>
<td>87</td>
</tr>
<tr>
<td>Globalfeed® AP</td>
<td>85</td>
</tr>
<tr>
<td>Globalfeed® AC 10</td>
<td>124</td>
</tr>
<tr>
<td>Globalfeed® T1</td>
<td>124</td>
</tr>
</tbody>
</table>

*Binding capacity measured according to the in vitro isotherm method (the EFSA recognised method to measure the efficacy of bentonite as feed additive for ruminants -EFSA Journal 2011)