

Just add

FUMzyme[®] Sol

Simply detox your grain processing!

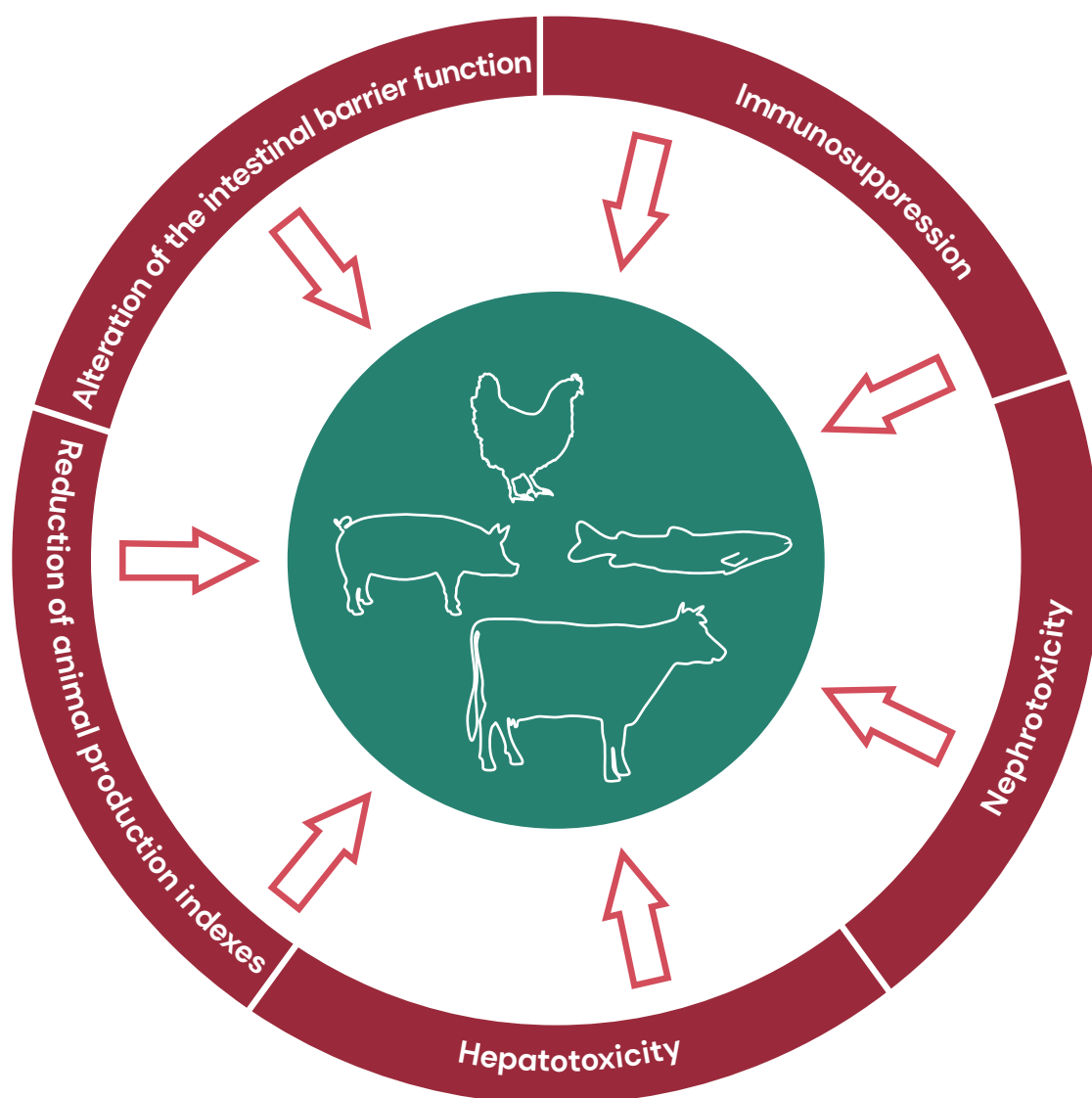
- **Simple, quick and efficient** degradation of fumonisins during grain processing
- **The result** – high quality DDGS purified from fumonisins
- **Easy to use** – no special equipment needed

dsm-firmenich 

Fumonisin

Harmful and widespread

Fumonisin (FUM) are mycotoxins produced by *Fusarium proliferatum* and *F. verticillioides*, present in almost all commodities worldwide. They are not deactivated during grain processing and produce toxic effects in animals and humans when ingested. In addition, fumonisin contamination can lead to higher production costs and lower profits for producers.



Fumonisin

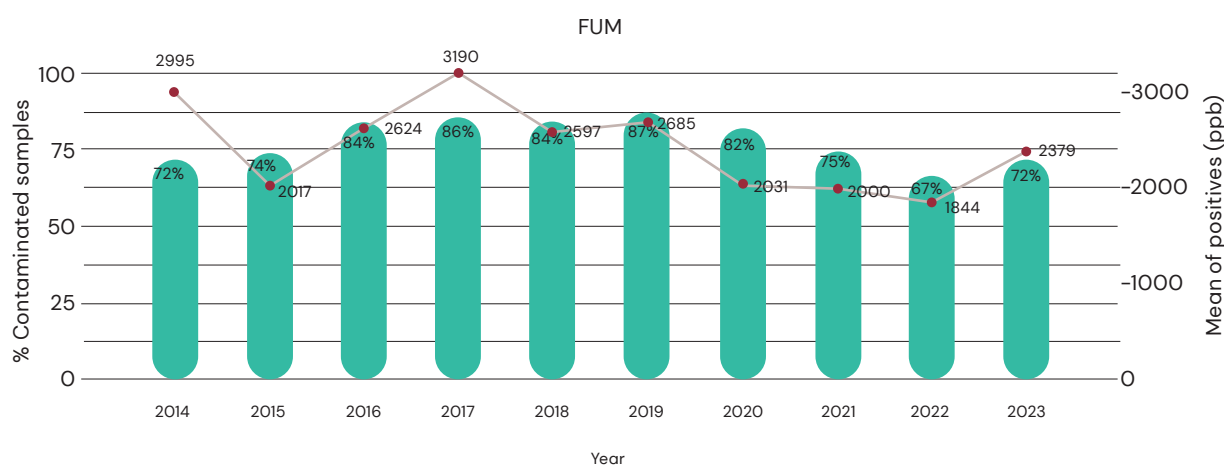
are a constant risk in corn and its by-products!



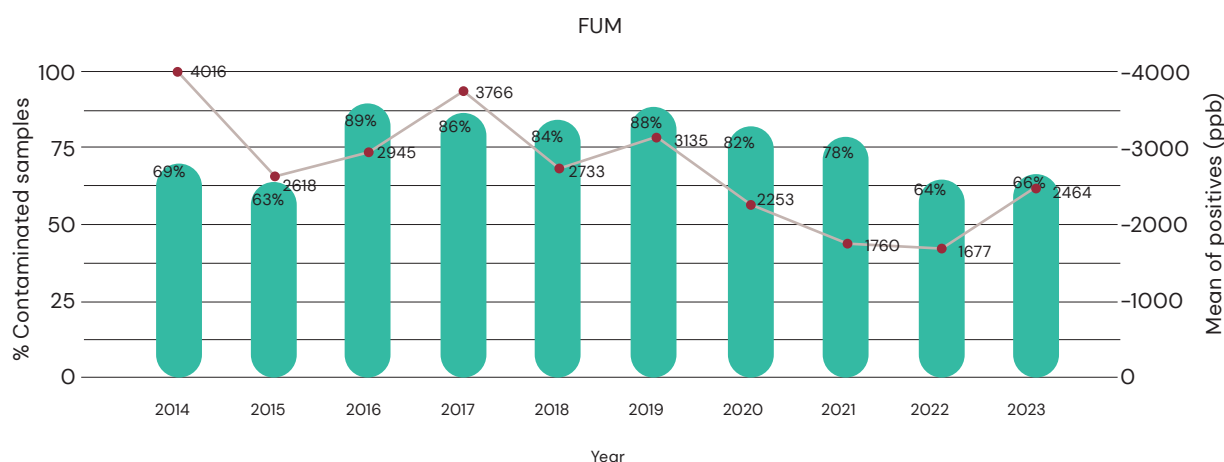
More than
80%
of the corn kernels
are contaminated
by FUM.

High contamination levels and prevalences of fumonisins in corn have been recorded over the years.

Worldwide trends in occurrence (%) and mean of positives (ppb) of FUM in corn kernels:



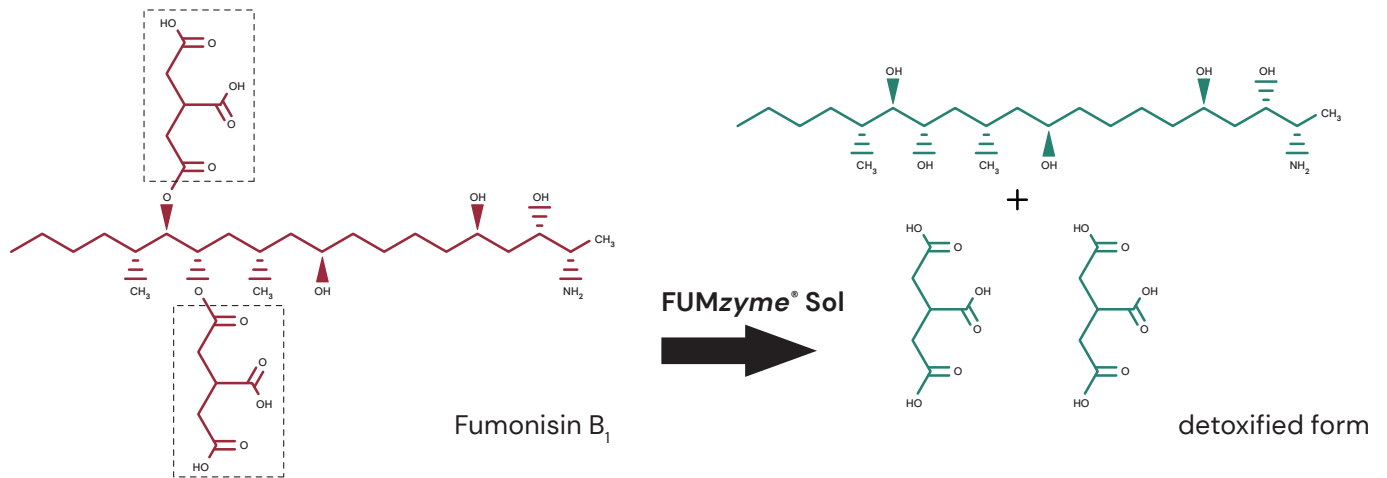
Trends in occurrence (%) and mean of positives (ppb) of FUM in North and South American corn kernels:



The contamination levels increase in corn by-products. Fumonisin accumulates in DDGS by 130% to 190% and in corn gluten by 150% when compared to corn kernels.

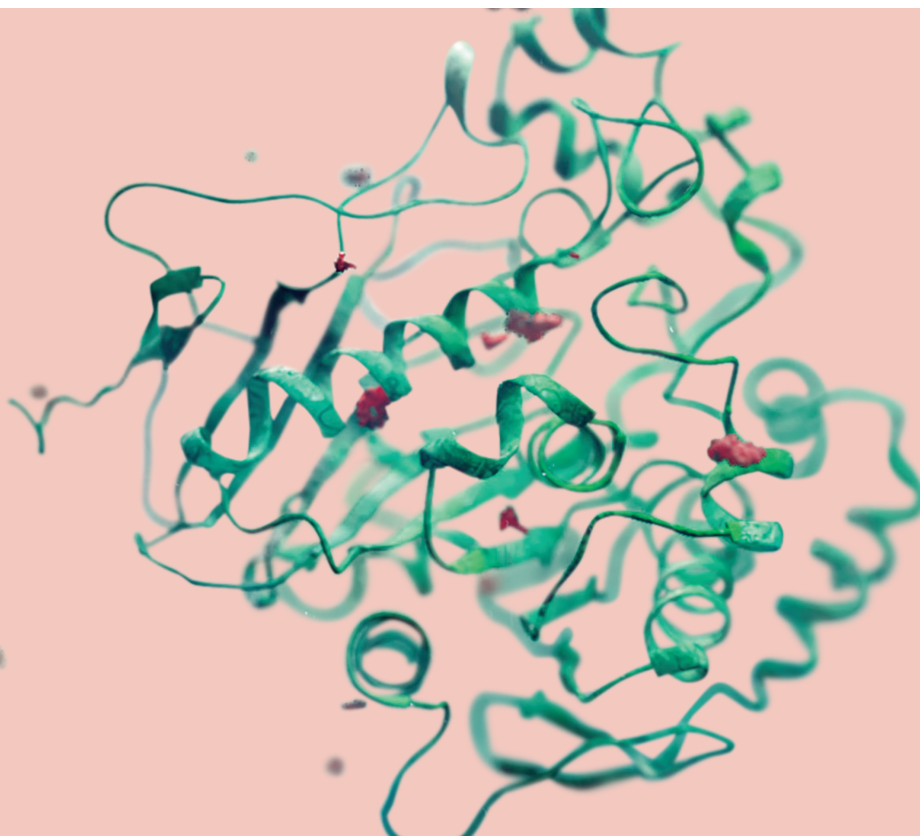
Mode of action

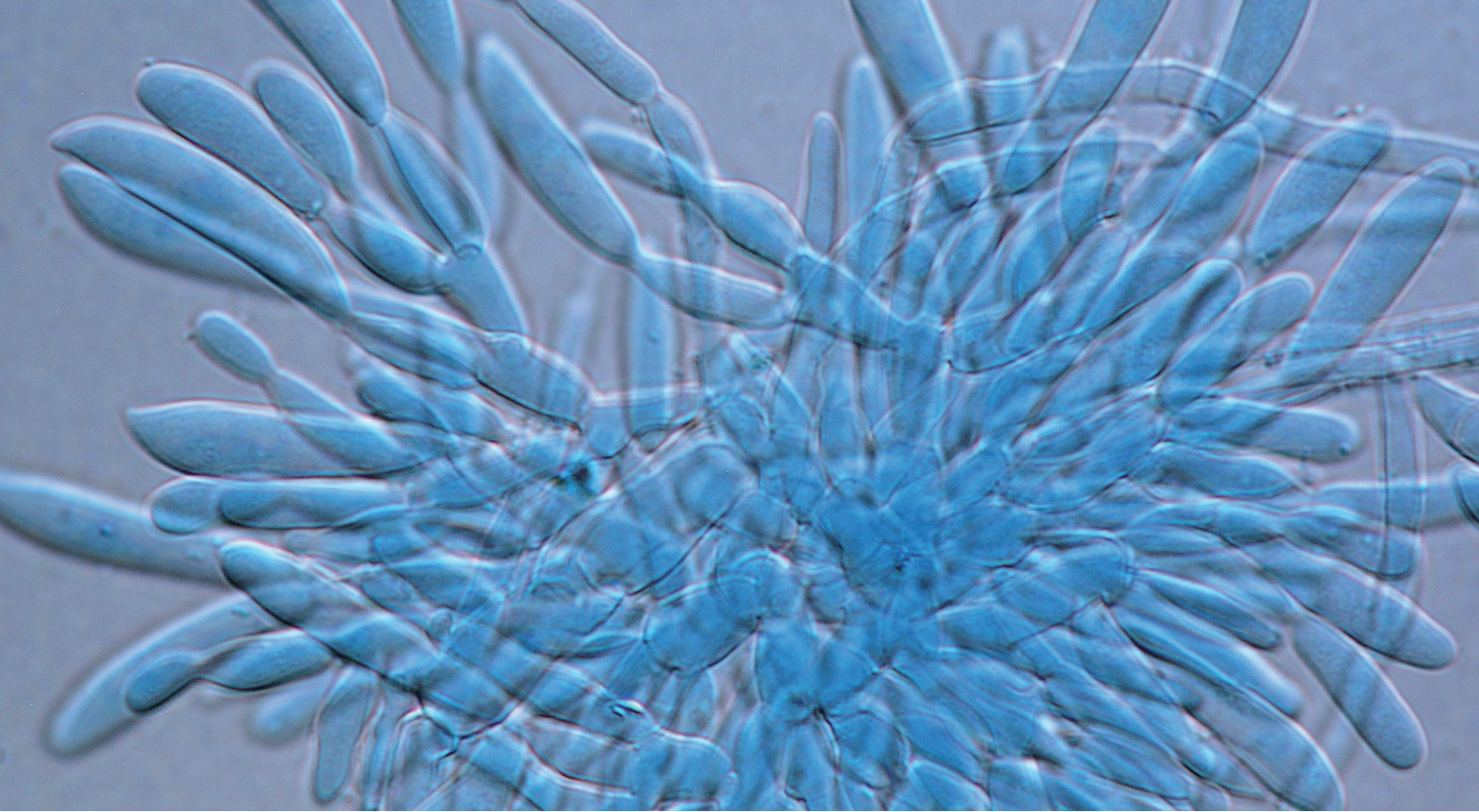
FUMzyme® Sol is the first-ever purified enzyme that specifically degrades fumonisins by biotransformation: The side chains of fumonisins are cleaved, resulting in a detoxified form.



Turning science into sustainable solutions

1. Using FUMzyme® Sol has no negative effects on the grain processing and does not lead to a decrease in yield (of main products and by-products).
2. The enzyme does not affect the quality of your final products.
3. FUMzyme® Sol makes the resulting products (DDGS, corn gluten) better suitable for animal consumption with regard to FUM.





Benefits

FUMzyme® Sol offers significant advantages for grain processors, ensuring cost efficiency, market expansion and improved product quality.

Reduction of operating costs

By using FUMzyme® Sol, less dilution and segregation are required.

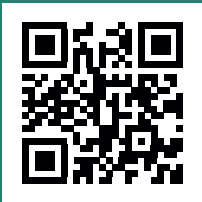
Elimination of grain discounting

By using FUMzyme® Sol, there is no need for discounting grains during years of high mycotoxin contamination.

Increased utilization of by-products

FUMzyme® Sol enhances the marketability of DDGS and corn gluten by-products. It expands access to markets with strict mycotoxin legal limits and guidance values. By using FUMzyme® Sol, by-products achieve higher quality and less toxicity, as fumonisins are reduced during processing.

We bring progress to life



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