

### Construct your own digital library on poultry health

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## Fumonisin

One of the more recently discovered group of mycotoxins (produced by *Fusarium verticillioides* and *F. proliferatum*) is the fumonisins, of which the most toxic is fumonisin B1.

Fumonisin are found in all regions of the world and are often co-contaminants with other mycotoxins.

## Conditions

Fumonisin damage the liver resulting in increased ratio of sphinganine:sphingosine which, in the early days, was regarded as a biomarker of fumonisin activity. Toxic feed syndrome (spiking mortality) has been attributed to fumonisin toxicity. Affected birds show paralysis, extended legs and neck as well as a wobbly gait and mortality.

Toxic effects in broilers include poor performance and hepatic necrosis, whereas in turkey poult similar signs are seen except the hepatic necrosis is a hepatocellular hyperplasia.

In the field relatively low levels of fumonisins (20mg per kg) are associated with broilers refusing to eat their feed.

Fumonisin also results in poor responses to Newcastle disease vaccination.

## Fumonisin residues

Due to the rapid excretion following poor absorption and metabolism, fumonisin residues are not considered to be a human health issue.

## Fusaric acid

Fusaric acid is primarily produced by *F. verticillioides* and is widely found in the field and is thought to interact with trichothenes.

It has been suggested that fusaric acid in broiler feed might cause an increased redness of broiler breast meat. This is probably due to a hypotensive action.