# New Book Published on Mycotoxins in Pig Production

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**GLOBAL - A new book entitled 'Mycotoxins in Swine Production' has been published, edited by Ines Rodrigues and Maximilian Schuh. Ms Rodrigues explains how this new publication aims to help those in the pig and feed industries to minimise the mycotoxin risks and keep pigs healthy and performing well.**

In an interview for *ThePigSite*, Inês Rodrigues explained that the publication of this book is the culmination of a project which started a couple of years ago.

She said: "I realised, based on my numerous customer visits worldwide, that very little was known about mycotoxins. Worse still, there was not much reliable information. Whatever information there was available was also very scattered and not comprehensive enough."

So she sought the opinions of colleagues, veterinarians and professors with solid expertise on both mycotoxins and swine production, without whose help this book could not have been successfully completed.

"I thank them all for sharing their years of experience with me and with the readers," she added.

In terms of updated scientific knowhow, this book is still very relevant for today, according to Ms Rodrigues.

She explained: "There is a lot of misinformation out there on mycotoxins. Although mycotoxins are considered a minor topic in animal nutrition, they have major impacts on the everyday lives of vets and nutritionists working in the animal industry."

Ms Rodrigues graduated from Évora University in Portugal in 2005 with a Masters in Animal Science in Zootechnical Engineering. Since 2007, she has worked with Biomin, starting as a Product Manager for Mycotoxin Risk Management Strategies at the company's headquarters in Austria. She is currently based in Singapore, where she assumed the role of Technical Manager for both Mycotoxin Risk Management and Natural Growth Promoters in May 2012.

The target readership for the book is broad and ranges from vets, nutritionists and managers or decision-makers of farms, feed mills and integrators, to consultants and even students of nutrition and veterinary medicine, she explained.

The chapter which explores more in detail the complicated topic of mycotoxin analyses (Chapter 4) will be useful for those working in Quality Control and R&D as it gives tips on proper sampling procedures and the methods to be used in mycotoxin analysis.

### *Why should pig farmers and vets worry about mycotoxins in the feed?*

"Above all, farmers and vets should worry about mycotoxins in the feed because they are there!" Ms Rodrigues said.

She went on to explain that mycotoxins cause underperformance in animals and make them more prone to diseases. This means that mycotoxins affect farm profits. This is not a new topic - mycotoxins have been around forever, not only in animal feed but also in human food. The difference is that we can now identify them, quantify them and minimise their effects.

### *One whole chapter of the book is devoted to the pig's immune system. Why is the immune system important in relation to mycotoxins?*

Ms Rodrigues replied: "The immune system is very important to humans and animals. A poorly functioning immune system cannot protect the body from viruses, bacteria, parasites and several other foreign microorganisms and substances. Mycotoxins are known to suppress and weaken the immune system."

She continued that that particular chapter (Chapter 3) about the immune system of pigs and about how mycotoxins interact with it is a very special one not only because it covers such an important topic but because it was written by experts in this specific field. The writers are Dr Roger Berríos, a veterinarian with specific training on clinical biopathology, infectious diseases and epidemiology, and Professor Isabelle Oswald, who is a worldwide recognised expert and researcher on the effects of mycotoxins in immunity, holds a PhD in immunology and leads the Research Centre in Food Toxicology at the French National Institute for Agricultural Research (INRA).

***What are the most important measures a pig farmer (or feed producer) can take to minimise the risk of mycotoxins affecting the health and performance of the pigs?***

"Even if we cannot fully control the occurrence of mycotoxins - because they are closely linked to weather conditions which we cannot fully control - there are many strategies which can minimise their impacts. The problem so far is that there has not been an integrated or holistic approach to dealing with the topic of mycotoxins in feed," Ms Rodrigues explained.

She went on to explain two important strategies. These are:

1. Good agronomic practices such as crop rotation, timely harvest, insect control, amongst others, may help reduce the contamination of cereals in the field and
2. Analysis of commodities must be included in the quality control procedures of farms. This analysis should help answer two basic questions when a truckload of feed arrives at the farm, namely, ”What is the contamination load of that particular batch?”’ and ”How am I protecting my animals from possible contamination?”

Ms Rodrigues told *ThePigSite*: "It is tricky to allocate responsibility for feed contamination when the end-user is the animal.
"This book provides sound advice on minimising mycotoxins in different production stages from grain sowing to animal production. Mycotoxin risk management is the responsibility of grain producers, commodity traders, feed mills and farmers - everyone in the feed-to-food chain," she added.



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