



Managing Stress



A BALANCED IMMUNE SYSTEM: IT'S WHAT ALL SWINE NEED

Intestinal function determines pig health and performance. Our unique nutritional metabolites support robust digestive health. How? By balancing gut microbiota, gut morphology, and the immune response. You can measure the value of Original XPC™ in three ways:

- Production performance
- Feed efficiency
- Overall health

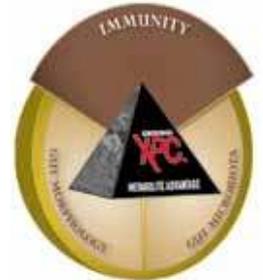
In research trials*, feeding all-natural, science-based Original XPC consistently proved to be the healthy decision.

* Data available upon request

KEEPING THE IMMUNE SYSTEM READY TO BETTER HANDLE STRESS

Immune response

Scientists often refer to the immune system as having two parts: the innate system, which is the animal's first line of defense, and the adaptive system, which provides a delayed but more specific defense response. It has been shown that Original XPC can influence the innate immune system and provide the necessary support in the acquired immune system to maintain normal levels of production during stress.



Gut morphology

The intestine contains some of the most rapidly dividing tissues in the body. Because of this, the tissue is more susceptible to oxidative stress and breakdown. Original XPC has been shown to maintain gut morphology by helping the animal's immune system stay in balance, promoting natural levels of intestinal microbiota, and maintaining normal health during stress.



Gut microbiota

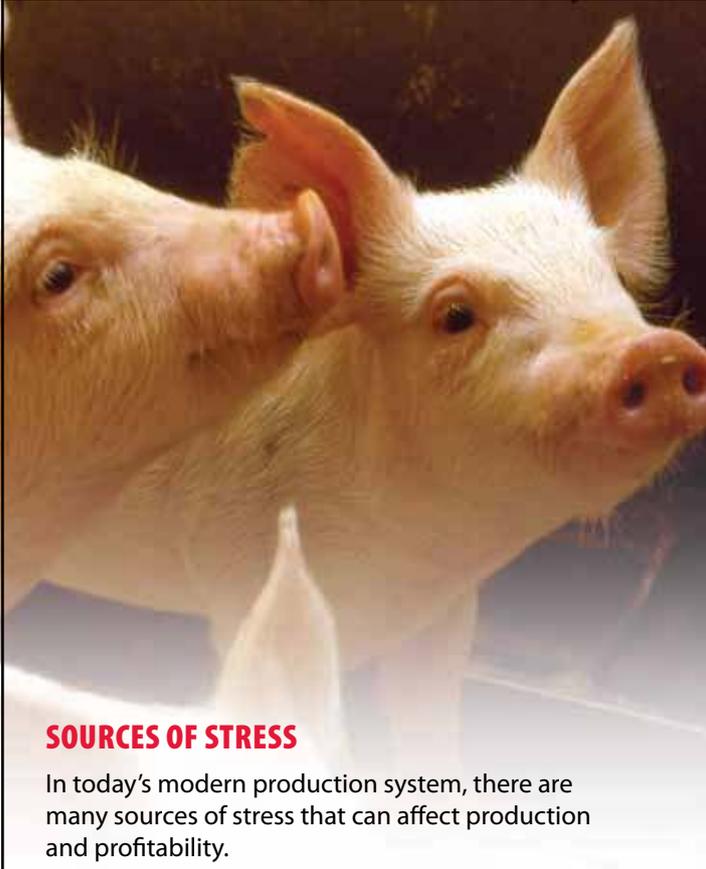
Balancing gut microbiota can be accomplished by directly influencing population dynamics or by modulating the immune system that constantly regulates bacterial populations in the intestine. Original XPC has been shown to impact both the intestinal immune balance and influence the bacterial population, allowing for a multifaceted approach to microbiota balance.



PRODUCT BENEFITS:

All-natural and science-based, Original XPC provides critical nutritional support to improve gut integrity and efficiency. Research has shown Original XPC supports:

- Pig weaning weight
- Pigs weaned per litter
- Conception rate



SOURCES OF STRESS

In today's modern production system, there are many sources of stress that can affect production and profitability.

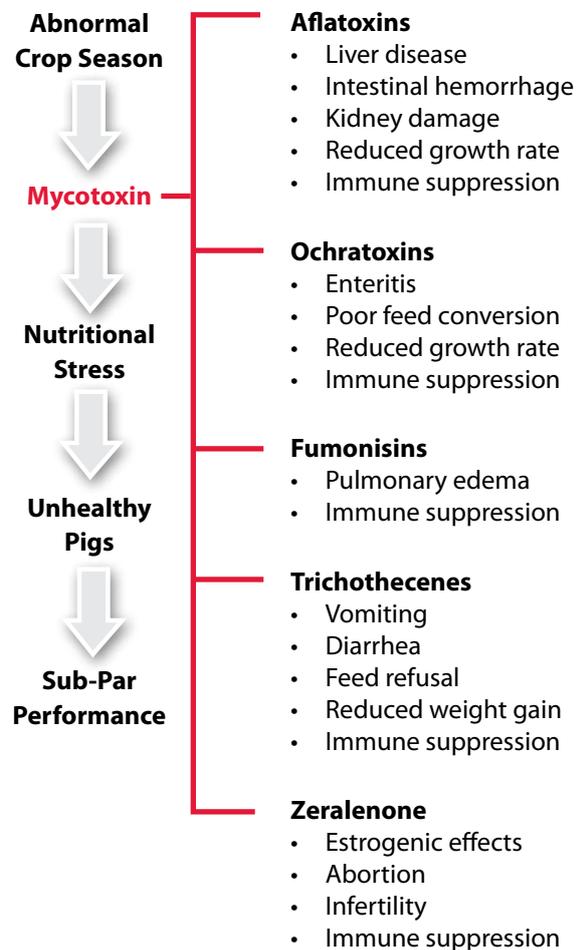
- Everyday production stress
- Environmental (air quality, litter bacteria load)
- Facility system (stocking density)
- Weather (temperature fluctuations)
- Disease
- Labor
- Vaccinations
- Diet changes
- Mycotoxins

MANAGING STRESS

A balanced immune system takes stress in stride, including stress from mycotoxins in the ration. The problem becomes how to achieve and maintain such a balanced immune system when nutrition is compromised by mycotoxin exposure. Studies suggest proper nutrition is possible even during periods of mycotoxin exposure.

Mycotoxin Classes and Basic Symptoms

Mycotoxins are highly toxic secondary metabolic end products of molds. They are tasteless, odorless, invisible, chemically stable, and occur under natural conditions in feed. Today, more than 400 mycotoxins have been characterized. Five major classes of mycotoxins that frequently occur are: aflatoxins, ochratoxins, fumonisins, trichothecenes, and zearalenone. Observing basic symptoms and being cognizant of the main toxic effects is the best method producers have to help control the potential economic losses due to mycotoxins. Additionally, using a proactive approach toward proper nutrition will have a major impact on the profitability of your operation.



If you would like more information, please contact your local Diamond V representative.

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