Impact of Mycotoxins on Broilers

Mycotoxins are produced by moulds in the field, at harvest and during storage. They affect animal performance and producer profitability in a number of ways.

How do mycotoxins affect broilers?

GROWTH / MEAT PRODUCTION
• Blood spots in meat
• Feathering abnormalities
• Decreased growth rates and altered efficiency
• Group variation in body weight of birds
• Inefficient processing at the slaughter house

GUT HEALTH
• Damage to gut integrity (decreased villi height and surface area)
• Lower feed intake
• Poor intestinal digestion and absorption of feed
• Inconsistent faeces quality
• Necrotic enteritis/cocci infection/bacterial infections

IMMUNITY
• Poor antibody production/vaccine titers
• Reduced cell-mediated immunity
• Altered cytokine profile
• Increased duration of diseases
• Increased mortality rates

ORGAN DAMAGE
• Gizzard erosions
• Oral lesions, ulcers and plaques
• Liver and kidney damage
• Liver enlargement or fatty liver
• Bile duct hyperplasia
• Uric acid crystals in kidneys and joints (gout)

How much can mycotoxins cost broiler producers?

Data based on average REQ for global finished feed for poultry for 2018 Q1/Q2/Q3. REQ average for broilers = 64

- 1.9g/day decrease in average daily gain/bird. Range - 3 to 9 g
- 3.6% increase in feed conversion ratio (FCR). Range - 4 to 8%
- $0.11 decrease in profit/bird Range - 0.24 to $0.71

What you could save with the Alltech Mycotoxin Management Program

- 1.14 g/day increase in average daily gain/bird
- $ 35 grams/bird potential carcass regained

ROI* = 3.3:1
*Inclusion rate of 0.75 kg/ton

RESEARCH
Total number of birds = 6,239 | birds fed control diet = 1,268 | birds fed mycotoxin contaminated feed = 2,343 | birds fed mycotoxin contaminated feed + MYCOSORB = 2,628

References: Deo et al., 1999; Smith, 1999; Raju and Devegowda, 2000; Pavlicic et al., 2001; Swamy et al., 2002; Aravind et al., 2003; Swamy et al., 2004; Vieira et al., 2004; Diaz et al., 2005; Girish and Devegowda, 2005; Wang et al., 2006; Kamalzadeh et al., 2009; Silva et al., 2010; Zhao et al., 2009; Che et al., 2011; Liu et al., 2011; Mogadam and Azizpour, 2011
MYCOSORB A+® reduces mycotoxin absorption, negating the damaging effects of mycotoxins on the health and performance of animals.

- A proven, broad spectrum mycotoxin binder, which tackles mycotoxin challenges as a whole rather than dealing with individual mycotoxins
- Fast acting, interacts with mycotoxins within 10 minutes
- Effective at a low inclusion level
- Proven by scientific research
  - 150 peer-reviewed published studies
  - 102 animal trials
  - 21 in-vitro mode of action

MYCOSORB A+®, from ALLTECH®, offers producers a solution that limits the effect of more mycotoxins than ever before.

The graph on the right shows the risk associated with mycotoxin contamination in a particular feed sample with and without MYCOSORB A+®.

TAKE THE MYCOSORB A+® CHALLENGE

Feeding rate: 0.5 - 2 kg/t

Feeding rate varies based on mycotoxin risk level in feed and life stage of the bird

Alltech’s Mycotoxin Management Program is designed to reduce risk while improving performance and profitability for individual animals. Actual results may vary. Program response and ROI will depend on specific farm scenarios.