Impact of Mycotoxins on Dairy Cows

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 dairy cows?

**MILK / MEAT PRODUCTION**
- Reduced milk production
- Milk contamination by Aflatoxin M1
- Decreased meat production

**REPRODUCTION**
- Vulva swelling
- Altered heat cycles
- Poor conception rates
- Embryonic mortality
- Cystic ovaries

**GUT HEALTH**
- Gastroenteritis
- Intestinal haemorrhage/bloody faeces
- Inconsistent manure quality
- Reduced feed intake/variable dry matter intake
- Compromised rumen function
  - Reduced fibre digestion
  - Altered production of volatile fatty acids
  - Acidosis type symptoms

**IMMUNITY**
- Increased susceptibility to diseases
- Decreased response to vaccinations
- Increased somatic cell counts

**ORGAN DAMAGE**
- Liver and/or kidney damage
- Skin lesions
- Necrosis of the tail, ears, hooves
- Leg and udder swelling

How much can mycotoxins cost dairy producers?

Data based on average REQ for global TMR for dairy cows for Q1/Q2. REQ average for dairy cows = 264

- ▼ 46.6% increase in somatic cell count (+244x1000/mL)
- ▼ 0.62kg decrease in milk production per cow/day
- ▼ $0.24 decrease in milk profit per cow/day (from milk production change alone.)

What you could save with the Alltech Mycotoxin Management Program

- ▼ 38.4% decrease in somatic cell count (-175x1000/mL)
- ▼ 0.71kg increase in milk production per cow/day
- ▲ $0.28 increase in profit per cow/day compared to the mycotoxin challenge

**ROI** = 2.1:1

*Includes average product cost of $0.28/cow/day
The ROI represents the return of increased milk profits over the product cost. This ROI figure does not take into account feed costs or change in feed intake that may occur due to mycotoxins or MYCOSORB.

RESEARCH

Total number of cows = 1,121 | cows fed control diet = 20 | cows fed mycotoxin contaminated feed = 565 | cows fed mycotoxin contaminated feed + MYCOSORB = 536

References: Acosta et al., 2005; Avaind et al., 2005; Korosteleva et al., 2007; Agovino and Andrieu, 2008; Korosteleva et al., 2009; Musa et al., 2014; Santos and Fink-Gremmels, 2014; Hulik and Zeman, 2014
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: 10 - 30g/head/day

Maintenance: 10 - 15g/head/day

Step down: 30g/head/day for two weeks followed by reduced dosage based on mycotoxin risk and cow response.

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.