

Mycofix[®]

product line



Naturally ahead in
mycotoxin risk management

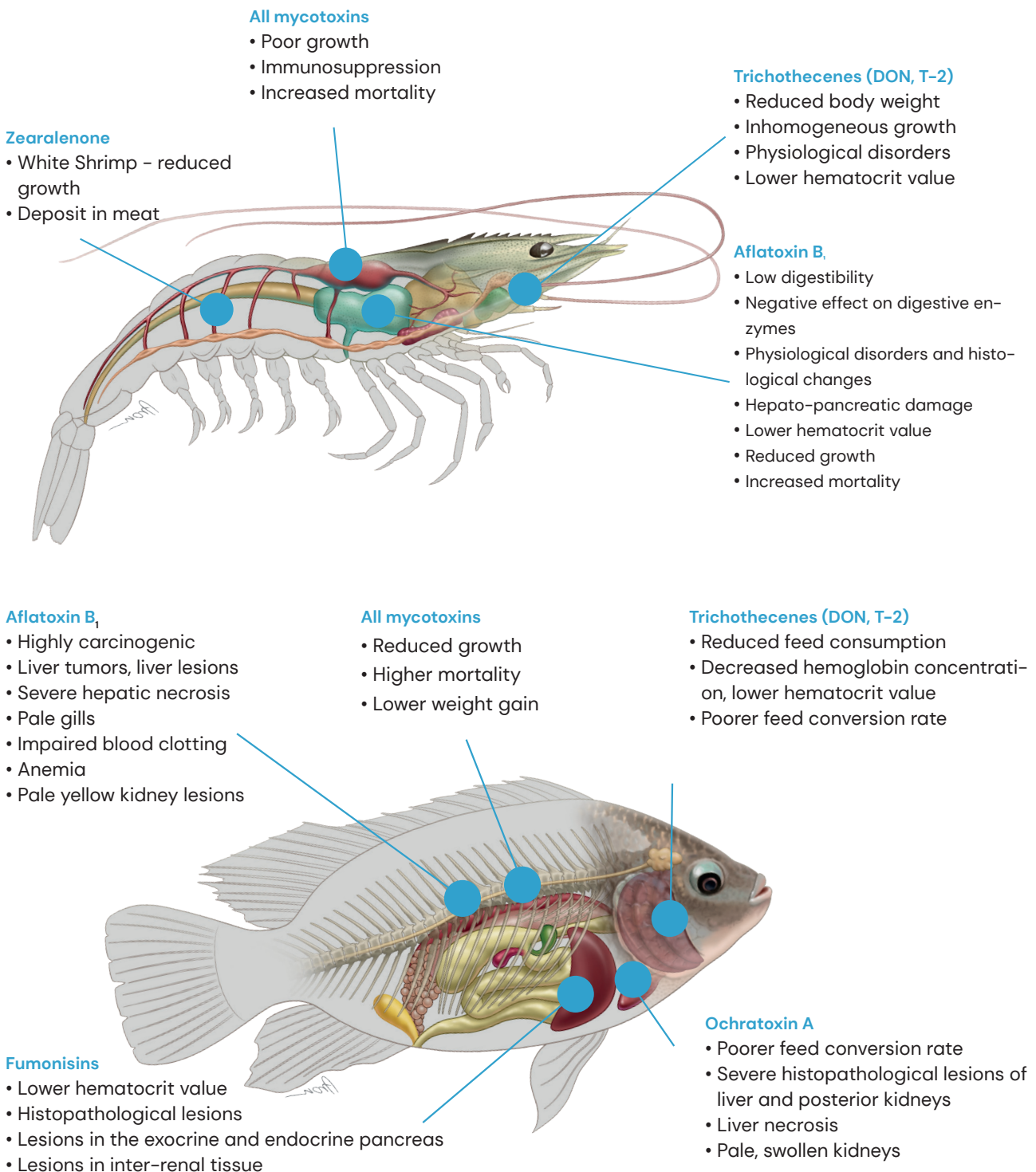


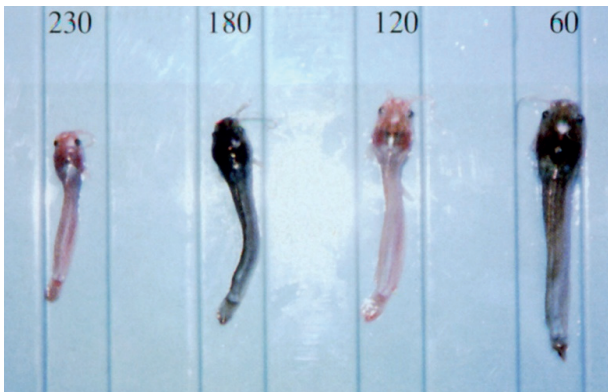
Mycotoxins ...

... are toxic products produced by fungi that colonize crops before, during and after harvest and pose a potential threat to human and animal health. Mycotoxins are chemically very stable, heat resistant and difficult to eliminate during extrusion or pelletizing.

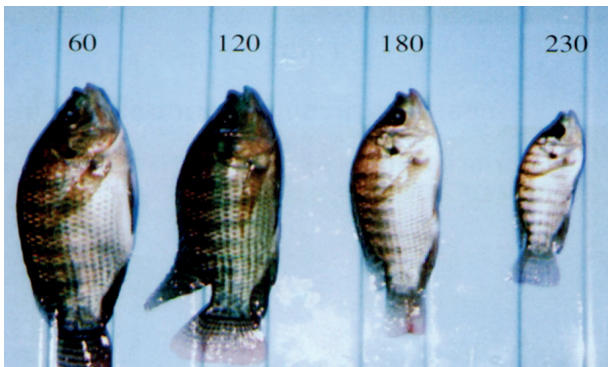
How do mycotoxins affect fish and shrimps?

Several major mycotoxins have substantial negative effects on health and productivity of aquatic species. They are known to be carcinogenic (aflatoxin B₁, ochratoxin A, fumonisin B₁), dermatotoxic (trichothecenes), nephrotoxic (ochratoxin A) and immunosuppressive (aflatoxin B₁, ochratoxin A and trichothecenes).





Effect of aflatoxins on catfish growth
Source: Dr. J. Khjarern



Effect of aflatoxins on tilapia performance
Source: Dr. J. Khjarern



Healthy liver Liver affected by AfB₁
Source: T.D. Cardona, S.G. Llangantileke & Noomhorm (2004)



Susceptibility to mycotoxins depends on:

Age

Fry and juveniles are more susceptible to mycotoxins than adults.

Fish species

Marine cold water species are very sensitive.

Mycotoxin Contamination Levels and Dose Recommendations for Mycofix® Product line

Unspecific symptoms like poor fish performance and/or disease syndromes, reported in commercial operations, may be due to additive and synergistic interactions between multiple mycotoxins, even at a very low contamination level.

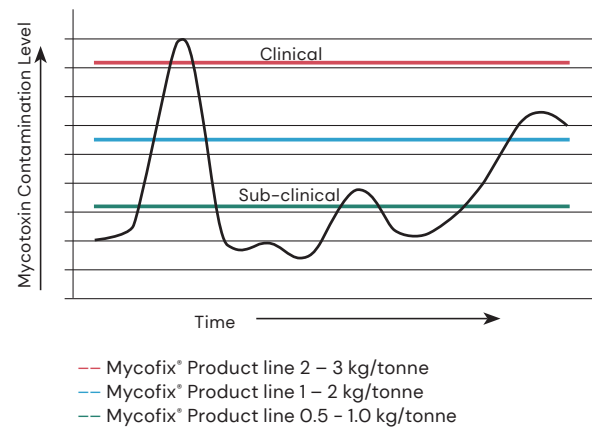


Chart 1. Mycotoxin Contamination Levels and Dose Recommendations for Mycofix® Product line

Mycofix® Product line

Dosage: 0.5 – 3.0 kg/t depending on contamination level of mycotoxins and depending on the product used in the feed

Stability: 18 months from production date

Packing: 25 kg plastic bag in corrugated cartons

Storage: Store in a dry place and avoid direct sunlight

* Approved and registered in the EU according to the regulation No 1060/2013.

Trial-proven benefits of Mycofix® Product line*

Application of Mycofix® in AFB1 (100 ppb) contaminated diets has revealed economical benefits. Mycofix® at 1.5 kg/ton improved weight gain and feed conversion rate of Pangasius catfish fed a diet contaminated with 100 ppb AFB1.

Encarnação et al, 2009., Aquaculture Center of Applied Nutrition (ACAN), Bangkok, Thailand

Results of a trial carried out in Tilapia showed that inclusion of 94 ppb aflatoxin reduced Tilapia growth performance. The application of Mycofix® to aflatoxin contaminated diets reduced these negative effects of aflatoxins. Mycofix® also improved the feed conversion rate of Tilapia.

Encarnação et al, 2009, Aquaculture Center of Applied Nutrition (ACAN), Bangkok, Thailand

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