

# MYCOAD

Efficacy claims based on scientific *in vivo* trials with statistical significance on

Target  Organ Protection

Anti-Mycotoxin Additive



## INTRODUCTION

Fungal contamination of agricultural products is often unavoidable and of growing concern because frequently these products have toxic metabolites known as mycotoxins. Mycotoxins contamination can occur in the crops, during harvest and storage, or even after the feed is manufactured. Mycotoxins are fairly stable compounds that cause a wide variety of deleterious effects in poultry and other animals, depending on age, and nutritional and health status at the time of exposure to contaminated feed.

Mycotoxins cause toxic, teratogenic, mutagenic, carcinogenic effects, and / or depression of the immune system. The fact that a great variety of mycotoxins affect different organs in the urinary, digestive, nervous, reproductive and immune systems, makes difficult to establish a precise differential diagnosis. The most dangerous mycotoxins in poultry are aflatoxin, ochratoxin, T-2 toxin, fumonisin and deoxynivalenol (DON).

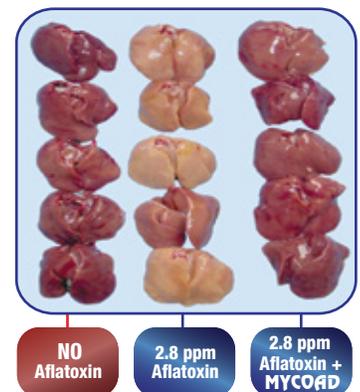
Approved by:  QUALIFIED CERTIFICATE LAMIC

Tested by: 

## AFLATOXIN

Effect of Aflatoxin and MYCOAD on broiler chicks after 21 days of consuming the experimental diets

Treatment	Body weight g	Feed intake g	Feed conversion	Liver weight %
Control	754 a	1074 a	1.45 a	2.96 a
5.0 kg MYCOAD	755 a	1085 a	1.46 a	3.00 a
2.8 ppm Aflatoxin	539 c	737 c	1.46 a	4.61 b
2.8 ppm Aflatoxin + 2.5 kg MYCOAD	668 b	970 b	1.47 a	3.83 a



a, b, c Values within each column with different letters are significantly different (P < 0.05)

Poultry Science Vol. 89, Suppl. 1 p. 817 2010.

## OCHRATOXIN

Effect of Ochratoxin and MYCOAD on 28 day old broilers

Treatment	Average daily gain g	Liver weight %	Liver gross lesions	Kidney weight %	Kidney gross lesions
Control	31.05 a	4.90	Negative	1.09 a	Negative
2.5 kg MYCOAD	31.12 a	4.96	Negative	1.19 a	Negative
2.0 ppm Ochratoxin	29.67 b	4.89	19 + 63 ++ 18 ++++	1.37 b	6 + 6 ++ 88 ++++
2.0 ppm Ochratoxin + 2.5 kg MYCOAD	32.63 a	4.81	44 - 19 + 31 ++ 6 ++++	1.33 b	62 - 19 + 6 ++ 13 ++++



Score in % : Negative (-) Low (+), Moderate (++) , accentuated (+++), Severe (++++).

a, b Values within each column with different letters are significantly different (P < 0.05)

Poultry Science Vol. 84, Suppl. 1 p. 131. 2005

## T-2 TOXIN

Effect of T-2 toxin and MYCOAD on broilers at different ages

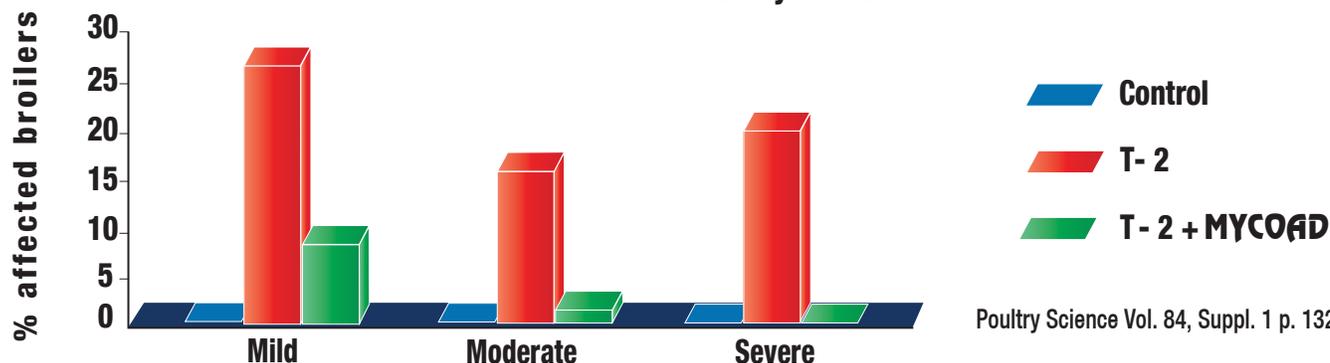
Treatment	21 Days			28 Days			35 Days	
	Body weight g	Oral lesions score	Bursa weight %	Body weight g	Oral lesions score	Bursa weight %	Body weight g	Oral lesions score
Control	538 a	0 a	0.30 a	932 a	0 a	0.45 a	1446 a	0 a
1 ppm T-2 Toxin	463 b	1.84 b	0.20 b	788 b	1.63 b	0.20 b	1148 b	0.96 b
1 ppm T-2 Toxin + 2.5 kg MYCOAD	543 a	0.36 a	0.28 a	938 a	0.21 a	0.40 a	1451 a	0.04 a



1.0 ppm T-2 Toxin

a, b Values within each column with different letters are significantly different (P < 0.05)

### Total incidence and severity of oral lesions



Poultry Science Vol. 84, Suppl. 1 p. 132. 2005

## FUMONISIN

Effect of Fumonisin and MYCOAD on broiler chicks after 21 days of consuming the experimental diets



100 ppm Fumonisin + MYCOAD

100 ppm Fumonisin

Treatment	Body weight g	Feed intake g	Feed conversion	Liver weight %	Sphinganine: sphingosine blood ratio
Control	717 a	1145 a	1.60 a	3.15 a	0.51 a
100 ppm Fumonisin	651 c	1093 c	1.69 b	3.30 a	0.35 b
100 ppm Fumonisin + 2.5 kg MYCOAD	679 b	1115 b	1.64 a	3.21 a	0.54 a

a, b, c Values within each column with different letters are significantly different (P < 0.05)

Poultry Science Vol. 91, Suppl. 1 p. 129. 2012

## CONCLUSIONS

MYCOAD controlled in a statistically significant manner the toxic effects caused by aflatoxin, ochratoxin, T-2 toxin, and fumonisin on broiler performance, with a significant protection of target organs. No negative effects were reported seen on productive parameters of birds treated only with MYCOAD, showing results statistically similar to those of the controls.

Does your Anti-Mycotoxin Additive meet the basic TOP and FACTS?

Target  Organ Protection			
Mycotoxin	Organ	MYCOAD	MYCOAD AZ
Aflatoxin	Liver	YES	NO
Ochratoxin	Kidney	YES	NO
T-2 Toxin	Oral lesion	YES	YES
Fumonisin	Heart / Lung / Liver	YES	YES*
Zearalenone	Reproductive	N/A	YES
DON	Liver	N/A	YES
Facts		MYCOAD	MYCOAD AZ
<i>In vivo</i> dosage with TOP results		2.5 kg / MT	1 kg / MT
Recommended commercial dosage		2.5 kg / MT	1 kg / MT
The clay is always obtained from the same mine		YES	YES
Approved in Texas, USA, against Aflatoxin		YES	N/A
Approved in the European Union against Aflatoxin. Regulation #1831 / 2003 (1m 588)		YES	N/A
ENDOTOXIN adsorption		N/A	YES
Efficacy approved by LAMIC and other institutions against the following number of mycotoxins		4	4
Efficacy approved by LAMIC and other institutions in different types of animals		6	5
Nutrient absorption		NO	NO
<i>In vitro</i> efficacy test every:		100 MT	18 MT

\* Test performed with 4 Kg / MT with 30,000 ppb of fumonisin  
N/A= not applicable

MYCOAD = Cobind, Toxfree Standard  
MYCOAD AZ = Cobind AZ, Toxfree



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