

BIOFEED RAS, Ltd.

**DETERMINATION OF EFFECTIVENESS
OF THE PRODUCTS MINGFIX**

RESULTS OF THE TRIALS IN RUSSIA

**ORGANIZED & MANAGED BY:
Russ Stanoylovic, Ph.D.**

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Russian Academy of Agriculture Sciences
MNTC "PEDIGREE POULTRY"

**All-Russian scientific-research technological institute of
poultry-farming**

I APPROVE:

**VNITIP Institute Director General
Member of Russian Academy**

V.I.Fisynin

(signature)

Report on the subject:

**Determination of the effectiveness of the product MINGFIX | in mixed fodder
for broilers**

Head manager chief:

Doctor of biological Science, Professor T.M.Okolelova

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Introduction

Nowadays the problem of toxicosis in poultry-farming becomes more acute, primarily it is connected with feed affection by fungus, using ingredients of low quality (fish flour substitute, tankage, corn and soya bean waste products, fats of high acid number, etc.). As a result of this, the search of way how to reduce the negative impact of such feed becomes very important.

At present, organic acids (propionic, oily and others), other special preparations, as Micocarb, Micosorb, Mold-Zap and others are used for preventing of toxicosis. **MINGFIX** is among of these preparations.

The aim of our trials was to define the effects of product **MINGFIX** on performance of broiler, using it in mixed fodder containing toxic ingredients

Material and the methods of the trials

Trials of **MINGFIX** effects in mixed fodder were made at the experimental farm of VNITIP Institute on Kobb broilers from one-day-age to 6-weeks-age by plan, represented in table 1.

Table 1

Plan of trial

Groups	NUMBER OF BIRD	FEED
1 -CONTROL GROUP	35	Basal diet, with balanced nutrients, consisting untoxic ingredients
2 - TRIAL GROUP	35	Basal diet of control group, but slightly toxic with 2 and 1 kg/t of MINGFIX added to feed at first and second period of growing accordingly

At the period of the trial, following activities were considered: integrity of birds (mortality rate), weight gain, feed consumption and feed costs, feed conversion. The number of birds was 35 in every group. The second trial group included slightly toxic corn and vegetable oil of higher acid number what resulted in slightly toxic mixed fodder. They started to feed chicken with it from their fifth day.

Recipes of mixed foddors are represented in a table 2.

Table 2

Recipes of mixed foddors for broilers (1-42 days)

Ingredients	1-28 days		29-42 days	
	Basal diet (BD) without additives	BD, contenting toxic ingredients+2 kg/t of MINGFIX at 1 period and 1 kg/t of MINGFIX at 2 period	BD without additives	BD, contenting toxic ingredients+ 2 kg/t of MINGFIX at 1 period and 1 kg/t of MINGFIX at 2 period
Weat	20	20	28.31	28.31
Corn	34.59	34.59 – slightly tox.	32.43	32.43 – sl. tox.
Sunflower ? 36%	7	7	10	10
Soy-bean cake	12.32	12.32	7.95	7.95
Corn gluten	9	9	7.54	7.54
Fish flour	4.5	4.5	5	5
Barley	5	5		
Vegetable oil	3.91	3.91 – of higher acid number	5.3	5.3 of higher acid number
Metionine	0.23	0.23	0.17	0.17
Lisine	0.57	0.57	0.47	0.47
... phosphat	1.86	1.86	1.83	1.83
Limestone	0.02	0.02		
Premix	1	1	1	1
Total	316.6	316.6	323	323
100 gm of feed considers .. kkal				
Raw protein, %	22	22	21	21
Lisine	1.3	1.3	1.16	1.16
Metionine+cistine	1	1	0.92	0.92
Calcium	0.9	0.9	0.9	0.9
Phosphorus total	0.79	0.79	0.79	0.79
Alible phosphorus	0.44	0.44	0.45	0.45
Sodium	0.18	0.18	0.18	0.18
Cost of 1 t of mixed fodder	10377	10377+ cost of MINGFIX	10134	10134+ cost of MINGFIX

Table 3

Basic results of the trials

Activities index	GROUP 1 – BD without additives	GROUP 2 – BD, including toxic ingredients+ 2kg/t of MINGFIX at the 1 period and 1kg/t of MINGFIX at the second period
Live weight of 4 weeks- age, g	1348,5+20,2	1371,4+16,6
Average live weight of 42 day-age, g	2477,4	2529,2
Including:		
Cockerels weight, g	2710,9+41,85	2715,0+36,6
Female weight chicks, g	2243,8+54,24	2343,5+34,3
Integrity of birds, %	96,97	97,14
Consumption of feed per 1 bird, kg	4,51	4,39
Feed conversion ratio, kg	1,85	1,76
Average of daily weight gain, g	59,4	60,7

Addition of product **MINGFIX** into the mixed fodders containing toxic ingredients comparing with control (non-toxic feeds) ensured live weight increase of broilers at 28- and 42-days age 1,78 and 2,1% accordingly. Average daily gain at the second group with **MINGFIX** was higher 2,2% and came to 60,7 g.

Product ensured increase of feed conversion activities. Feed conversion per product unit at the second group was lower than control 4,9%.

Integrity of birds in trial group, despite presence of toxic ingredients in feed, was at the level of control group.

Conclusion

At the basis of such results of the trials we recommend to include the product **MINGFIX** into the toxic and slightly toxic feeds at the rate of 2 kg/t at first period of growing and 1 kg/t at second period.