

## Test of EM Toxicity to Chicken

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### Introduction

For the year 1994, an experiment was conducted. To determine the influence of EM-2, EM-3 and EM-4 on the growth of chicken. This study was conducted to ensure that EM-2, EM-3 and EM-4 do not produce untoward effects in chicken.

### Materials and Methods

Two hundred days-old chicks were used in this study. These were divided into two groups, one group to receive EM with their feeds and the second group to receive EM in their drinking water. EM was added to the feeds at a proportion of 1mL per 100 grams of feeds. For the chicks which will receive EM in drinking water, EM was added at a proportion of 10mL per 1liter of water. In the control treatments, EM was not added to the feed and the drinking water.

The quantity of feeds and amount of water given daily were recorded. Treatments employed were:

1. EM in feeds:

T1 - control

T2 - EM-2 added to feeds

T3 - EM-3 added to feeds

T4 - EM-4 added to feeds

2. EM in drinking water:

T1 - Control

T2 - EM-2 added to drinking water

T3 - EM-3 added to drinking water

T4 - EM-4 added to drinking water

### Results

The results are shown in Table 1 and Table 2. These results show that EM-2, EM-3 and EM-4 added either in feeds or water did not cause any toxic effects on the chicken. The chicken did not develop any abnormalities or diseases in their skin and internal organs. Their respiration, feed, water uptake and growth rate were normal.

**Table 1. Feed conversion efficiency as effected by EM in feeds (per one bird basis).**

Treatment	Ave. weight gained (g)	Weight of feeds consumed (g)	Feed conversion efficiency (%)
T1	1141.36	31592/11=2872.00	1141.36/2872=39.74
T2	1192.00	32295/10=3229.50	1192/3229.5=36.91
T3	1094.83	35360/12=2946.67	1094.83/2946.67=37.15
T4	1232.78	29312/9=3256.88	1232.78/3256.88=37.85

**Table 2. Feed conversion efficiency as effected by EM in feeds (per one bird basis).**

Treatment	Ave. weight gained (g)	Weight of feeds consumed (g)	Feed conversion efficiency (%)
T1-Control	1167.08	2912.91	1167.08/2912.91=40.13
T2-EM2	1259.33	2937.75	1259.33/2937.75=42.87
T3-EM3	1027.33	2784.90	1027.33/2784.90=36.89
T4-EM4	1280.18	2670.77	1280.18/2670.77=47.93

EM

