

Impact Of Effective Microbial Solutions In Austria - A Case Study

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***Abstract :** A study was conducted from March to April 2001 on three series of EM Extended groups and two control groups to determine the influence of EM solutions on the productivity of broilers (COBB race). The EM group did not need vaccinations or stalling prophylactics while the control group required Gumbora-vaccination, chemical disinfection and stalling prophylactics with Baytril. Cost of production for 1000 units of the experimental group was € 12.31 compared to € 20.33 for the control animals. An itemized detailed cost structure also confirmed that the treated group was more economical.*

Introduction

In Austria organic broiler management in large quantities is quite difficult and not popular. Hygienic and health problems force farmers to use disinfectants, vaccinations and antibiotic additives. A Styrian broiler farmer, producing about 200.000 broilers a year, decided to leave conventional pathways. Accepting that production with EM technology prevents the use of any chemical additives he started an experiment in spring 2001.

Thus attempts were executed under EM technology and Kyusei Nature Farming conditions. Main intention was an improvement of productivity in organic broiler production.

Materials and Methods

All test-animals were of COBB race; test-period was from March to August 2001. Three test-series with experiment-groups and two with control groups were conducted. In the experiment-group-attempts EM extended was used for disinfection and in the drinking water. Furthermore EM-feed-Bokashi was put to feed pellets. As EM-feed-Bokashi does not stand temperatures of pelleting processes it was put to feed pellets. Just before feed pellets were stored in the food silo, EM-feed-Bokashi was regularly introduced to it. Fermentation, stabilisation and safety of total feed was achieved by this process. No vaccinations or stalling prophylactics were needed in EM groups.

In contrast to the control-groups Gumbora-vaccination, chemical disinfection and stalling prophylactic with Baytril were necessary.

Results and Discussion

The cost of production of the experimental and control groups are presented In Table 1. It confirms that the experimental group had a cost advantage over the control. A detailed cost structure given in Table 2 also indicates that the EM treated group was more economical than the control.

Table 1. Cost Advantage of Three series of EM Treated Experimental Group

Treatments	Experimental Group		Control Group
Desinfection:			
50 l EMext. for 2.700m ² space	1.12 l		
Emext. for dinking water	2.40 l		
	3.52 l	x € 0.654	2.30
0,3 % EM-feed-Bokashi to feed pellets	9.50 kg	x € 1.054	10.01
Gumbora vaccination			12.71
Chemical desinfection			3.99
Stalling prophylactic			3.63
Cost / 1.000 pieces		€ 12.31	20.33

Equal feed pellets expenses for both groups, not mentioned

Table 2. Comparative Cost Structure of Experimental (EM) and Control Groups

	EM Group 3 Series	Control Group 2 series
Broiler stalled pieces	133.000	92.000
Broiler sold pieces	129.657	89.876
Loss %	2.50	2.30
Average weight in kg	1.84	1.78
Feed consumption kg/kg weight gain	1.72	1.80
Feed costs €/kg weight gain	0.453	0.477
Additional costs €/1.000 broiler	12.31	20.48
Total costs €/1.000 broiler	459.00	488.00

Conclusions

Organic broiler production in larger quantities will bring better economical results by using EM technology and Kyusei Nature Farming.

References

Higa, T. 2000. Company/personal research: Tschiggerl family, farmer in Southern Styria (Austria); An Earth Saving Revolution, German Ed.