Field trial of Herb-Mos™

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Abstract
A field trial was conducted to asses the impact of combined products of oils and MOS for broiler production parameters and carcass quality. Three groups were formed in the same commercial broiler farm. One group of the broilers consumed control diet. The birds in the second group were fed with diet supplemented Herb-Mos™ Oregano. The chicks in the third group ate diet added Herb-Mos™ Garlic. The production parameters of Herb-Mos™ Oregano group were the best and the control group results were better than the Herb-Mos™ Garlic fed birds. The results of the organoleptic and microbiological examination of the carcass of Herb-Mos™ Oregano and Herb-Mos™ Garlic groups were better than the control group.

Introduction
Search for alternative solution to antibiotic growth promoters (AGP) with natural products on a farm of a Hungarian broiler growing company, controlling growth and Salmonella. The recent years many published results showed the advantage of mannan oligosacharid for the economical parameters and Salmonella control of the poultry production. Essential oils might have additional advantage on the digestion process, antioxidant activity and positive effects for the gut microflora.

Material and methods
In the trial we examined the effects of Herb-Mos™ Oregano and Herb-Mos™ Garlic for the economical parameters of the farm and for the results of the organolepthic and microbiological examinations in the slaughterhouse.
The farm had 12 houses: 4 houses control (1-4-7-10); 4 houses Herb-Mos™ Garlic (2-5-8-11) and 4 houses Herb-Mos™ Oregano (3-6-9-12). The Ross 308 day old broilers were placed to the farm from two hatch days. The day old chicks originated from 6 different ages parent stocks. The results of trial and control houses of the farm were compared during the trial. Ration of Herb-Mos™ Oregano and Garlic were: 2kg/t in the starter, 1 kg/t in the grower and 0,5 kg/t in the finisher feed.

Results
The production parameters were calculated in EPEF (European Poultry Efficiency Factor). The EPEF of Herb-Mos™ Garlic was lower than the control due to the high FCR. The EPEF of Herb-Mos™ Oregano was better with 6 points than the control.
The organolepthic and microbiological examination examinations of the carcass showed better results with the Herb-Mos products than the control.

Production parameters of the trial:

Treatments	Day old number	Mortality 7 days		Mortality 42 days		Days	Weight (kg)	FCR (kg/kg)	EPEF
Control House 1, 4, 7, 10	75 040	821	1,09	2623	3,49	42,5	1,96	1,93	**230**
Herb-Mos™ Garlic House 2, 5, 8, 11	75 040	671	0,89	2604	3,47	41,5	1,90	1,98	**223**
Herb-Mos™ Oregano House 3, 6, 9, 12	75 040	1009	1,33	3008	4,00	41,5	1,98	1,94	**236**

Results of the slaughterhouse laboratory examination of the carcass:

- results of the organolephtic examination

Treatments	Taste scores	Colour scores	Smell scores	Appearance scores	Total scores
Control	3,43	3,28	3,57	3,00	13,28
Herb-Mos™ Oregano	3,83	3,83	3,50	3,50	14,66
Herb-Mos™ Garlic	4,57	4,57	4,29	4,57	18,00

* the differences are not significant

- results of the microbiological examination of the pre-chilled carcass

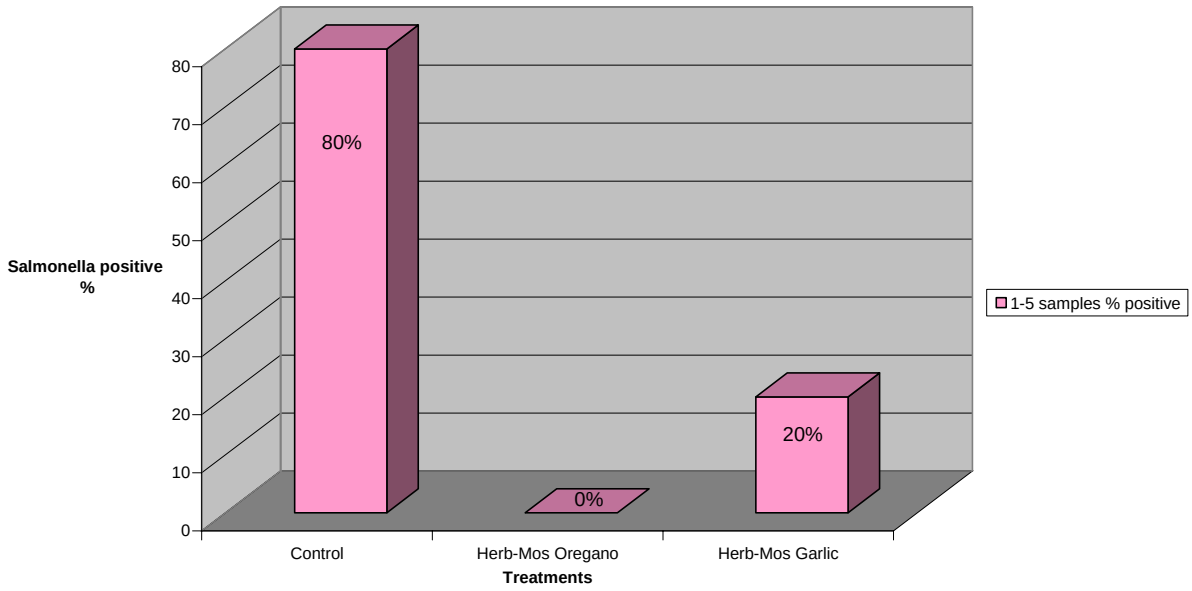
Control samples	1.sample	2. sample	3. sample	4. sample	5. sample
Total counts	$8{,}1*10^3$	$2{,}4*10^3$	$1{,}4*10^4$	$6{,}2*10^3$	$6{,}8*10^3$
Salmonella	negative	**positive**	**positive**	**positive**	**positive**

Her-Mos™ Garlic samples	1.sample	2. sample	3. sample	4. sample	5. sample
Total counts	$3{,}9*10^3$	$3{,}1*10^2$	$5{,}0*10^3$	$7{,}1*10^2$	$7{,}1*10^2$
Salmonella	positive	**negative**	**negative**	**negative**	**negative**

Her-Mos™ Oregano samples	1.sample	2. sample	3. sample	4. sample	5. sample
Total counts	$1{,}4*10^2$	$7{,}3*10^2$	$3{,}8*10^3$	$6{,}3*10^2$	$3{,}0*10^3$
Salmonella	**negative**	**negative**	**negative**	**negative**	**negative**

* the differences are not significant, due to the low sample number

Salmonella results of the pre-chilled carcass



Results of the microbiological examinatios of the pre-chilled carcass