

THE EFFECTS OF PROBIOTIC AND HERBAL COCCIDIOSTATIC ON FATTENING PERFORMANCE IN RABBIT BROILERS

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INTRODUCTION

The profitability of large scale rabbit broiler farms is strictly connected with high fattening performance and quality of meat. The fattening performance is often enhanced using feed additives to moderate the growth or health status of animals. For food safety is recommended to use natural products as feed additives.

OBJECTIVE

The aim of this study was to evaluate the influence of natural feed additives on fattening performance and health status in rabbit broilers.

MATERIAL AND METHODS

- ❑ Fattening trials were carried out with hybrid genotype HYPLUS (♂ PS59 x ♀ PS19) at the Experimental station of Department of Animal Science and Ethology (CULS Prague) in conditions respecting welfare of rabbit broilers.
- ❑ Four experimental groups (each 25 animals) fattened two times were fed ad libitum using standard mixture with different content of coccidiostatics and probiotic.

Additives used:

- ❖ **ROBENIDIN** – chemical coccidiostaticum
- ❖ **EMANOX** – herbal coccidiostaticum (France origin)
- ❖ **PROBIOSTAN** – probioticum (Czech origin)

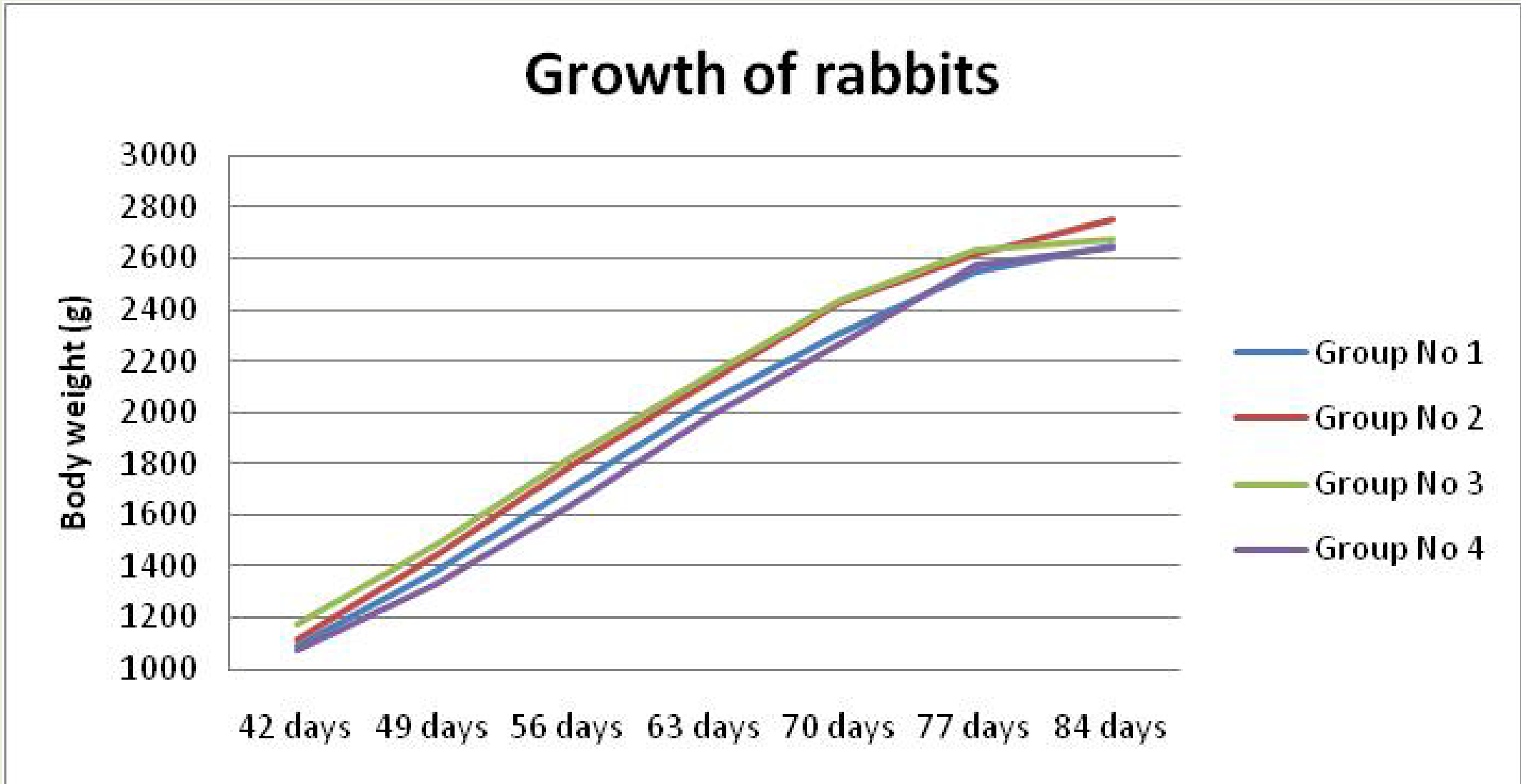
Experimental groups:

- ❖ **Group No 1.** – feed mixture supplied by PROBIOSTAN (0.2%) + ROBENIDIN (control group)
- ❖ **Group No 2.** – feed mixture supplied by PROBIOSTAN (0.2%) + EMANOX (500g in 1000 kg)
- ❖ **Group No 3.** – feed mixture supplied by EMANOX (500g in 1000 kg)
- ❖ **Group No 4.** – feed mixture supplied by PROBIOSTAN (0.2%) + EMANOX (800g in 1000 kg)

- ❑ The fattening period started at 42 days of age, rabbits were slaughtered at the live weight 2 600 g, the utmost age was 84 days, the average age at slaughter (AAS) was calculated.
- ❑ The live body weight (BW) and individual feed consumption was measured weekly .
- ❑ The average daily gain (ADG), average daily feed consumption (ADF) and feed conversion (FC) was calculated for every experimental week and the whole fattening period (WFP).
- ❑ The fattening performance is measured by live body weight before slaughter (BW_s), dressing percentage (DP) and weight of carcass (CW).



RESULTS



	TG (g)	TCF (g)	ADG (g)	ADF (g)	FC (g/g)	BWs (g)	AAS (d)	DP (%)	CW (g)	WFP (d)
Group No 1.	1570.71	5528.57	43.91	152.72	3.52	2657.14	78.21	57.23	1521.00	36.21
	121.49	794.62	5.43	8.95	0.46	49.21	4.84	2.11	66.27	4.83
	<i>7.73</i>	<i>14.37</i>	<i>12.37</i>	<i>5.86</i>	<i>13.07</i>	<i>1.85</i>	<i>6.19</i>	<i>3.68</i>	<i>4.35</i>	<i>13.33</i>
Group No 2.	1602.67	5492.00	46.38	158.50	3.42	2718.67	76.80	58.62	1593.00	34.80
	129.70	569.97	4.16	13.16	0.19	93.87	4.02	3.52	92.39	4.02
	<i>8.09</i>	<i>10.38</i>	<i>8.97</i>	<i>8.30</i>	<i>5.56</i>	<i>3.45</i>	<i>5.23</i>	<i>6.00</i>	<i>5.79</i>	<i>11.55</i>
Group No 3.	1534.55	5338.18	47.70	163.92	3.48	2707.27	75.00	56.54	1531.00	32.72
	133.74	802.28	6.05	12.65	0.43	59.51	2.93	1.44	60.24	5.40
	<i>8.72</i>	<i>15.03</i>	<i>12.68</i>	<i>7.72</i>	<i>12.36</i>	<i>2.20</i>	<i>3.91</i>	<i>2.54</i>	<i>3.93</i>	<i>16.50</i>
Group No 4.	1580.63	5654.38	45.46	160.70	3.57	2653.75	77.25	56.95	1511.00	35.25
	142.10	820.02	5.22	7.73	0.33	58.07	5.20	2.49	72.84	5.19
	<i>8.99</i>	<i>14.50</i>	<i>11.48</i>	<i>4.81</i>	<i>9.24</i>	<i>2.19</i>	<i>6.73</i>	<i>4.37</i>	<i>4.82</i>	<i>14.72</i>

Mean values – 1st row of each group (bold)
Standard deviations – 2nd row of each group
Coefficients of variation (%)– 3rd row of each group (italics)

CONCLUSION

- The first trial on influence of probioticum PROBIOSTAN and herbal coccidiostaticum EMANOX showed positive effect (see Group No 2. – reached no statistical significance) on results of fattening of rabbit broilers in comparison with chemical ROBENIDIN.
- Further experiments with rabbit broilers are carried out to investigate the optimum conditions for practical exploitation of both natural additives.