

## PROBIOTICS "MONOSPORIN PK" AND "BACELL" IN BROILER GROWING

The studies were conducted with broiler chickens of "Hybro PG" cross. There were two groups (experimental and control) 20 birds each. Chickens were grown from the 1<sup>st</sup> day to 42 days of age.

### The experimental design:

Group 1 - control (no probiotics)

Group 2 - Experimental (from day 1 to day 8 and then from day 30 to day 35 probiotic 1% "Monosporin PC" was added to the feed, 0.2% "Bacell" was administered from day 1 to day 42.

### Recorded performance:

- Biochemical (AST, alkaline phosphatase, total protein, seromuroids)
- Hematology (hemoglobin, ESR, erythrocyte count)
- The immunity to Newcastle disease (ND), infectious bursal disease (IBD), infectious bronchitis (IBV)
- Live weight.

### Results

With probiotics "Monosporin PC" and "Bacell" added to feed no quantitative changes were noted in alkaline phosphatase and seromuroids in the experimental group, compared with control.

The AST indicators were lower in the experimental group than in the control, it indicates the lipid metabolism stabilization.

The amount of protein was higher in the experimental group showing improved protein metabolism (Table 1).

The level of hemoglobin and red blood cell count, erythrocyte sedimentation rate were not significantly changed in the experimental group compared to controls. (Table 1)

Table 1

### Biochemical and hematological parameters

Parameter, Unit of measurement	Group 1		Group 2	
	30 days	40 days	30 days	40 days
Total protein, g / l	28,88±1,01	34,80±0,35	34,49±0,82	37,80±0,35
AcAT, micromole /h*ml	1,71±0,04	1,71±0,09	1,55±0,09	1,63±0,03
Alkaline phosphatase, n mol / s *l	10050±435	4167±475	11290±575	4378±755
Seromuroids, units of haziness	2,75±0,04	2,84±0,11	2,80±0,14	2,68±0,15
Hemoglobin, g / l	134,8±4,4	126,2±6,5	131,4±4,9	130,9±5,3
Erythrocytes, million	2,85±0,41	3,36±0,19	3,61±0,41	3,41±0,25
ESR mm / hour	4,3±0,45	3,75±0,77	3,80±0,74	3,60±0,45

The intensity of immunity to ND, the IBD, IBV in the experimental group was higher compared to control (Table 2).

Table 2

### Serology indicators

	ND	IBD	IBV
Group 1	90,9%	45,4%	45,4%
Group 2	100%	95%	50%

Live weight in the experimental group was significantly higher than in the control throughout the growing period. (Table 3).

Table 3

### Dynamics of broiler chickens live weight

Week	Live weight (norm)	Group 1	Group 2
1	165	143,55±2,15	158,28±2,66
2	426	343,18±12,81	421,22±9,06
3	835	763,28±21,83	836,93±14,03
4	1319	1170,91±43,39	1405,34±23,92
5	1846	1706±52,16	1984,32±33,35
6	2363	2365±65,56	2506,36±51,48

Broiler chickens survival rate was 98% in the experimental group and 94% in control.

### CONCLUSIONS:

1. Probiotics "Monosporin PK" and "Bacell" administered to broiler chickens according to the methods developed by Farm "Niva" had a positive effect on the lipid and protein metabolism, intensity of immunity to ND, the IBD, IBV
2. The broiler chicken live weight in the experimental group was 141 grams (5.7%) higher compared to control.