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PREMIX IMPACT ON PRODUCTIVE QUALITIES OF GEESE

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In this article the results of investigation of mineral-vitamin premix impact on productive of Toulouse geese breed in farming, are shown the and economic efficiency of its use is given

The mineral-vitamin premix, diet, geese, egg production, egg fertilization, survival

Introduction. In different regions of Ukraine bred more than a dozen species, rock groups and populations of geese are bred. They are conventionally divided into three groups. The first geese group (Gorky, Kuban, Chinese) is characterized by high egg and low body weight. The second geese group (Romenskaya, Adler) is characterized by high viability, but has low egg production and low growth rate. Toulouse geese and Holmogorski (the third group) have a good live weight, shape meat but low ability fertilization [1,4].

Currently, farms of Dnepropetrovsk region have 3,2 thousand. of Ch. geese. Their performance is small, live weight gander at 5 months of age is 5.0 kg and the goose - 4.5 kg, yield 40% of young birds (under standard 48-55) and fertilization of eggs 60% (the standard 73%). One of the main reasons for the low productivity of birds - inadequate feeding, technological breakdowns and low percentage of renewing the parent flock of young, which is 15% instead of 30% required.

With this in mind, we set a **goal**: to study the effect of mineral-vitamin premix in figures of Toulouse geese breed.

To accomplish this goal, we have all given as **follows**:

To analyze ration feeding geese.

To study the effect of premix for egg production, egg fertilization, the output of young, its survival and growth.

To keep the control at the usefulness of experimental feeding of poultry according to the biochemical parameters of eggs (carotenoids and vitamin A).

Material and methods of research. To solve the tasks experiment was conducted under conditions of farming of Toulouse geese breed. For this purpose breeding nests were staffed by 34 in each group: control and experimental. Each slot had 3 geese and 1 goose, bird age was 22 months. Each selection family used the building where birds had was 2m² floor area per head. Eggs were collected three times a day. In the productive period geese were fed 3 times, 330 g of feed per head for 1 day. In the non-productive period 40% of feed were substitute a by silage and green roughage.

The preparatory period was 41 days. During this time 68 breeding nests; were made chemical analysis of 20 samples of serum viral enteritis of geese and avian flu were conducted; in the incubation goose egg was studied on the content of toxic elements (lead, cadmium, mercury, copper, zinc), pesticides (bazudyn, karbofos, trichlorfon, DDT), radionuclides, microbiological parameters for salmonella; hatching eggs were studied for the content of carotenoids and vitamin A. All research were conducted in Dnepropetrovsk Veterinary Laboratory.

Results. Feed for geese of experimental and control groups had the following composition,%: sunflower waste - 12.2; Sunflower cake - 9.7; millet - 24.4; rye - 24.4; barley - 24.4; peas - 4.9.

Nutritional intake meets the requirements for essential nutrients (feed units, metabolizable energy, crude protein, fat, Lizine, methionine + cystine). Minerals and vitamins, lacking in the diet, were compensated by premix of the following composition: zinc sulfate - 83.28 mg; manganese sulfate - 116.62 mg; cobalt sulfate - 4.16 mg; potassium iodide - 1.36 mg; vitamin complex, composed of: Vitamin A - 40.0 IU; Vitamin D - 7.49 IU; Riboflavin (B2) - 1.36 mg; tsyankobalamin (B12) - 250.0 micrograms.

The research results of serum samples showed that the group immunity of geese virus enteritis was 82% (the norm of 80%), bird flu antibodies were not found. Secondary samples of goose hatching eggs had the carotenoid content of 20.6 mg / g at a rate of at least 20, and vitamin A - 10.2 mg / g at a rate of at least 10.0. Number of toxic elements and pesticides radionuclides in incubation egg is normal. Microbiological analysis showed absence of salmonella in eggs.

Accounting eggs was conducted in during 3 months (March, April, May). Productive figures of poultry are presented in Table 1.

Table 1. **The results of the scientific and economic experiment**

Performance	Standard for Toulouse species	Groups	
		control	research
Egg, number	31	28	33
Fertilization of eggs, %	73	70	75
Exit of young, %	48-55	45	57
Survival, %	93	88	92
Number of young per 1 goose, ch	14	11	13

Analysis of table 1 shows that the experimental group had goose egg on above 17.8%; fertilization of eggs by 7.4%; output calves by 26.7%; survival of calves by 4.5%; the number of calves per goose by 18.2% compared to the control.

Goslings received starter feed 4 times a day at the age of 1 week - 35 g, 2 weeks - 90 g, 3 weeks - 110 g, 4 weeks - 220 g, 5 weeks - 270 g 6 weeks - 280 g, 7 to 9 weeks - 338 g. Feed Grain was extruded, for increasing its absorption and reducing the fiber.

Table 2. **The live weight of geese in different age periods, kg**

Age Groups geese	Groups			
	control		control	
	a female	a male	a female	a male
1 day	0,105	0,117	0,110	0,119
4 weeks	1,78	1,84	1,81	1,96
8 weeks	3,76	3,90	3,85	4,05

Table 3. **Calculation of economic efficiency premix usage of feeding geese (1 head Research for 90 days)**

Performance	Groups	
	control	control
Egg, number	28	33
Cost of 1 egg, UAH	15	15
Income, UAH	(33-28) x 15=75	
Number of young per 1 goose	11	13
Cost 1 head goosing, UAH	20	20
Income, UAH	(13-11) x 20=40	
The average live weight of young goose at 8 weeks kg		
female goose	3,75	3,85
goose	3,90	4,05
The cost of 1 kg of meat	40	40
Income, UAH	(7,90-7,65) x 40=10	
Total income, UAH	75+40+10=125	
The cost of 1 kg of premix, UAH	-	15
Spent premix for 1 head by experiment	3,3 x 90=297	
Cost of premix spent on research, UAH	0,297 x 20=5,94	
Income 1 head by experiment, UAH	125-5,94=119,06	
Income per 1 head per day, UAH	1,32	

During the first week geese life is in the poultry house with temperature is 26°C and under brooder at - 30°C, relative humidity 65-75%, light all day long. From the second week room temperature begin reducing gradually and to the end of 3 week it will be 22°C. From 8th to 20th day of cultivation lighting is reduced to 40 minutes a day and to 16 hours. The lighting in the room during the day is 30 lux, the next - 3 lux.

The average live weight of geese at different ages are presented in Table 2.

The live weight of females of the research group in the first days of their life was higher by 4,8 % compared to control, males respectively by 1,7 %. At the age of four weeks goslings of experimental group also had the advantage of this indicator: a female at 1,07 %, males – 1,0 %. At 8 weeks of age in females advantage of experimental group was 2,4 %, males - 3.8%. Thus we can conclude

that full parental feeding geese during intensive period leads to the growth and development of young animals.

In calculating the cost-effectiveness it is established that the use of mineral-vitamin premix is an effective, profitable and brings farming profit by 1 head 119, 06 UAH.

Conclusions. The use of feeding geese breed Toulouse mineral-vitamin premix results in improving geese egg, fertilization of eggs out and preserving of young birds, increasing intensity of growth and increasing profitability management.

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