International Journal of
Biological Engineering and Agriculture

ISSN: 2833-5376
Volume 2 | No 6 | jun -2023

Effect of Innoprovet Probiotic on Live Weight Indications of Rabbits

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Annotation: In this article research the effective effect of Innoprovet probiotic on growth and development performance of young Californian rabbits. The obtained results were processed in Microsoft Office Excel 2007 computer program by mathematical statistical methods and biometrically processed.

Keywords: Rabbit breeding, probiotic, innoprovet, growth, development, rabbit, Californian breed, measurement, scales.

Actuality. Mamlakatimizda chorvachilik qishloq xo‘jaligining yetakchi tarmoqlaridan biri hisoblanib, aholini oziq-ovqat mahsulotlari bilan ta’minlashda alohida o‘rin kasb etadi. Animal husbandry is considered one of the leading branches of agriculture in our country and occupies a special place in providing the population with food products.

Quyonchilik chorvachilikning tez yetiluvchan va sermahsul tarmoqlaridan biri hisoblanadi. Rabbit breeding is one of the fastest growing and productive branches of animal husbandry. The quality and quantity of the product grown in rabbit farming depends primarily on the conditions of keeping rabbits based on proper rational feeding and zoohygienic standard requirements, breeding work, and endogenous and exogenous factors of the external environment. In addition, increasing the number of rabbits in our country, in the process of breeding them from the time of birth to the period when they are able to eat independently, proper care, systematic rational feeding and effective use of man-made factors. is of great practical importance. Because newborn rabbits are born in a wet state with closed eyes, without wool and very thin. Newborn rabbits grow and develop very intensively in the first days of their life. The main reason for this is that the milk of mother rabbits is rich in valuable nutrients. Mother rabbit milk contains 26,5 % dry matter, 11,5 % protein, 11,9 % fat and 1,5 % ash.

Probiotics are live microorganisms that provide significant positive benefits when administered in sufficient amounts. The use of useful probiotics in the process of feeding rabbits stimulates their digestion, creates unfavorable conditions for pathogenic microorganisms in the digestive organs, and changes the pH environment. Strengthens the intestinal barrier functions and changes the toxins produced by pathogens. Probiotics are also called biologically active supplements containing microorganisms. Russian scientist Ilya Mechnikov was one of the first to learn about the benefits of probiotics. I. Mechnikov found that bacteria that produce lactic acid inhibit the activity of putrefactive bacteria. Based on this, I. Mechnikov recommended that lactic acid bacteria can be used for health purposes. The term probiotic appeared later in the 1980s. In Russia, probiotics are controlled under GOST 52349-2005 and are included among functional food ingredients whose

benefits have been scientifically proven. Probiotics live in symbiosis with gastrointestinal microorganisms, produce enzymes that digest food and enhance their absorption, increase animal productivity, and increase their immune status to infectious diseases. Probiotics not only normalize the qualitative and quantitative composition of intestinal microflora after the use of antibacterial agents, in most cases they are an effective method of treatment, prevention and increase of productivity of farm animals.

The purpose of the study. Determining the effect of Innoprovet probiotic on the growth and development indicators of young California rabbits of the experimental breed, which are kept at the farm of O. Qurbanova, located in the Pastdargom district of the Samarkand region.

Material and methodology. Experiments were carried out on rabbits belonging to the California breed, which are kept in the house of O. Qurbanova, located in the Pastdargom district of the Samarkand region. In the experiment, the body mass of the offspring taken from the mother rabbits that gave birth was measured from the time of birth until they began to feed independently (21 days) on a special SF-400 (10±1g) brand electronic scale, from 30 days to 120 days of age. Live weight indicators during the period were measured by weighing on Aote scale (10±5g). As a result of the measurements, indicators such as the average live weight of rabbits in the experiment Ẋ), the coefficient of variation Cv%, and the error of the average arithmetic value (SẊ) were determined. During the experiment, the amount of food and water (probiotic) used for each rabbit was accurately calculated. Innoprovet probiotic was used as follows: 1 g of powdered probiotic was dissolved in 100 ml of boiled water. After that, we prepared a 1:1000 ratio solution by putting the prepared primary probiotic solution on 900 ml of boiled and warmed water, and put the finished solution in 100 ml bottles designed for drinking water specially prepared for rabbit children. The obtained digital data were biometrically processed using the Microsoft Office Excel 2007 computer program.

Innoprovet probiotic administration and measurements to experimental rabbits.

The baby rabbits were separated at one month of age. In order to study the effect of young rabbits separated from their mothers on the growth and development indicators, 2 groups were formed to test the effectiveness of Innoprovet probiotics obtained as part of the innovative project number PZ-2020123121 implemented at SSUV. Group 1 was the experimental group (n=10) and group 2 was the control group (n=10). Both groups were fed with 1 different type of pelleted feeding method. Innoprovet probiotic was added to the water of rabbits in the experimental group at a ratio of 1:1000. The control group was not given probiotics.

Research results. Growth rates of young California rabbits in the experiment are presented in Table 1 below. The results of the conducted scientific studies showed that young rabbits show the highest growth and development indicators from the age of 30 days to the age of 90 days. That is, the live weight of rabbits in the experimental group significantly differed from the live weight of rabbits in

the control group that did not receive the innoprovet probiotic. These differences can be seen from the table below.

Table 1. Effect of probiotic on growth performance of rabbits. (n=10)

Age, day	Control group			Experimental group		
	$\dot{X}\pm S_{\dot{X}}$	C_v %	lim	$\dot{X}\pm S_{\dot{X}}$	C_v %	lim
Newborn	50,5±1,89	11,8	40-60	49,5±2,29	14,63	35-60
7	104±3,05	9,29	90-120	108±3,67	10,73	95-130
10	134±6,99	16,5	105-165	163,5±7,4	14,3	135-210
15	167±6,11	11,55	140-195	192,5±6,51	10,7	170-230
21	260±11,65	14,16	210-320	301,5±6,33	6,64	270-330
	Probiotic Innoprovet **(–)**			Probiotic Innoprovet **(+)**		
30	391,8±14,07	11,92	315-470	471,7±	14,3	325-540
45	927,0±21,8	7,44	860-1005	1016±1,57	4,97	960-1200
60	1460,0±29,7	6,43	1300-1580	1676±44,9	8,47	1880-1400
90	2485,5±44,83	4,98	2300-2780	2940±53,67	5,77	2650-3200
120	2977±39,27	4,17	2820-3200	3265±80,7	7,81	2900-3650

For example, the live birth weight of rabbits in the experimental group was 49,5 g, while this indicator was 50,5 g in the control group. Almost no significant differences were observed between the two groups. By the age of 7-10-15-21 days, rabbit children in the control group gained 104, 134, 167, 260 g and in the experimental group 108, 163,5; 192,5; 301,5 g, the difference between the groups is 3.8 in favor of the experimental group; 22,0; 15,27 and 15,96 % or 4 respectively; 29,5; 25,5 and 41,5 g more.

At the age of 30 days, the average live weight of rabbits in the experimental group was 471.7 g, and according to this indicator, it was 79.9 g or 20.4% more than the live weight of rabbits in the control group. At the age of 45 days, the average live weight of rabbits in the experimental group was 1016.0 g, and according to this indicator, it was 89 g or 9.6% more than the live weight of rabbits in the control group. The average live weight of rabbits in the experimental group at the age of 60, 90 and 120 days is 1676; 2940; It was observed that the live weight of rabbits in the control group was 3265 g.

As can be seen from the data in the table above, the live weight indicators of rabbits in the experimental group using Innoprovit probiotic in terms of growth and development indicators in the 45-60-90-120-day period are respectively 89; 216; 454.5 and 288 g or 9.6; 14.8; 18.3 and 9.67 percent prevailed. This means that the growth and development in the experimental group of rabbits was relatively good as a result of the effective effect of the Innoprovet probiotic.

Conclusions. Newborn rabbits are very fragile in the early stages of their lives, and until the young rabbits are three weeks old, a number of biological and physiological changes take place in their bodies, that is, when the young rabbits reach the age of one week, their bodies are covered with fluffy wool. it is covered, its eyes open at the age of ten or twelve days, when it reaches the age of fifteen days, 16 milk teeth are replaced by permanent teeth, by the age of three weeks it leaves the nest and begins to feed itself. The use of innoprovet probiotic, which we used in the growth and development of California rabbits, will be more effective in other rabbit breeds. By using this probiotic, it is possible to increase the number of useful microorganisms living in a symbiotic state in the digestive organs of rabbits and accelerate their activity.

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