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THE EFFECT OF THE AMOUNT OF FEED ON THE BIOLOGICAL INDICATORS OF THE SILKWORM AND ON THE INDICATORS OF THE SILKWORM

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Annotation. It was found that during the worm formation period, the viability of larvae when feeding silkworm larvae with mulberry varietal leaves with 1000 kg of leaves per 1 box is 94.5-95.0%, and when stealing mulberries by feeding mulberry varietal leaves to worms-1450 mg, and the volume is 1470 cm. It follows from this that during the larval life of silkworms, it is advisable to feed as many varietal mulberry leaves as possible.

Keywords: Silkworm, silkworm, mulberry leaf, nutrition, light, cocoon, raw materials, vitality, weight, volume, larva, breed, hybrid.

Introduction

Today, more than 60 countries around the world are engaged in silk production, producing 22-24 million boxes of silkworm industrial hybrid seeds per year, and 80.9% of the cocoon raw material produced in China, 16.3% in India, 1.3% in Uzbekistan. PA and 1.4 percent othercountries.The world's cocoon yield per box is 85.0 kg in China, 80.0 kg in India and 56.9 kg in Uzbekistan. .The level of uniformity in the flatness of the silk fiber and the caliber of the cocoons is 90-95% in China, India, Vietnam and Brazil, while in Uzbekistan it is on average 50%.

worldwide, the demand for silk products with a high metric number (thin) is growing every year. .The main demand of cocoon processing enterprises of leading silk-producing countries such as China, India, Italy, France, South Korea, Japan and Turkey is focused on A, 4A, 5A silk yarns. During the years of independence in our country through the creation and introduction into production of new breeds and hybrids of mulberry silkworms cocoon yield per box of worms reached 57.0 kg, by 2019, 19,000 tons in 2020, 21,400 and in 2021. In this regard, the Decree of the President of the Republic of Uzbekistan dated August 20, 2019 No PQ-3910 "On measures to more effectively use the existing opportunities in the silk industry of the Republic.development of the network, construction of intensive mulberry groves, increase of export potential of silk products through modernization of silkworm enterprises, gradual renewal of existing mulberry groves, introduction of innovative technologies in the field, gardeningPQ- "On additional measures for the development of in-depth processing of silkworms" of July 31, 2019 Resolution No. 4411 and silkworm breedingfurther deepening the reforms, creating favorable conditions for the rapid development and diversification of the industry, the widespread introduction of the cluster method of production organization, increasing the production of cocoon raw materials and the development of export-oriented silk productstasks to increase output.

The silkworm is one of the main functional organs of the larva and begins to differentiate during embryogenesis. By the time the worms hatch, the silk gland has formed. This is evidenced by the fact that newly revived worms begin to produce silk fibers. The most rapid growth and development of the silkworm occurs when the worms are five years old. It is known that worms eat 75% of the food they eat throughout their lives by the age of five. At the same time, the synthesis of silk in the silk glands is accelerated.

Before moving on to discuss the results of our experiments and observations, it would be useful to look at the research available in the literature. It is known that the mulberry silkworm is the second most studied biological object after Drosophyla melanagoster. There is a lot of research on the genetics, selection, breeding, seed production, diseases and ecology of mulberry silkworms. It is known that in the body of a silkworm, silk material is formed in the silk glands. The organ th

at synthesizes silk is a silkworm larva, which is formed from the first day of development.

Silkworms feed only on mulberry leaves. Therefore, its growth, development, biological and

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economic performance depend on the amount of feed given to the larvae, which in turn affects the activity of the silk secretory glands, which in the future form a silk liquid that turns into silk fiber. shows the effect.

H.S. Khomidi (2004) studied the nutritional properties of mulberry leaves and their maturity on the basis of a number of experiments and came to the following conclusion. When the feeding period of silkworms is adjusted to the average ripening period of mulberry leaves, the water, protein, nitrogen, protein and other necessary substances in the leaves have a high rate, and the worms fed on such leaves eat and digest the leaves. , Increased by 0-11.2%, viability increased by 3.4-4.6%, cocoon weight increased by 7.8-8.6%, and cocoon yield increased by 4.1-5.7%.

The above data clearly show that there are significant changes in the biological parameters of worms depending on their level of nutrition. In particular, the larval feeding period lasted 23 days when the larvae were fed with a constant (100%) feed, 27.5 days with a 75% feed and 31 days with a 50% feed.

These figures show that malnutrition worms prolong the larval period from 4.5 to 8 days.

It has been found that mulberry does not provide enough nutrients to feed silkworms, which not only prolongs the larval stage, but also adversely affects the viability of the worms.

Influence of nutrient content on worm biological parameters and silk activity

Options	Worm feeding rate,%	Prolongation of the feeding period, days	Worm viability,% X±SX	Silk cloth indicators before cocoon wrapping		Pd
				Weight,mg	Size, sm^3	
Silkworm-1 and silkworm-2 hybrid						
V 1	100%	23	94,5±0,93	1450	1,470	-
V 2	75%	27,5	80,0±0,64	1250	1,200	0,986
V 3	50%	31	66,5±0,51	1035	1,100	0,990
Navrouz-3 va Navruz-4 hybrid						
V 4	100%	23	95,0±0,94	1500	1,520	-
V 5	75%	27,5	81,±0,65	1300	1,250	0,982
V 6	50%	31	67,0±0,52	1070	1,130	0,980

When analyzing the figures in the table, it was found that when the silkworms were fed with a normal feed (1000 kg per box worm), the larval viability was 94.5-95.0%, compared to 75% when the worms were fed. (80.0–81.5%) was 13.5–14.5% higher than that of malnutrition, and 50% of malnutrition was 28% higher

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than that of forage (66.5–67.0%).

Based on the above information, the amount of food given to the worms is also important for the full development and functioning of the silk gland. In the case of malnutrition, no animal species is able to reach its full potential. When silkworms are not provided with normal mulberry leaves, small, thin-skinned, low-silk cocoons are formed. This biological property is only of theoretical importance. With this in mind, the extent to which the weight and size of the silk-separating gland varied in the normal and less-leaf-fed variants of the worms was also studied. The experiments were performed on fifth-year-old worms of Ipakchi-1 and Ipakchi-2 hybrids. The worms of the first and fourth variants are complete, ie at the rate of 1000 kg of leaves per box, the worms of the second and fifth variants are 75% of the norm, the worms of the third and sixth variants are in the absence of leaves, i.e. fed at 50% of the yard. The data in the table clearly show that there are significant changes in the activity of the silk glands in the body of the worm, depending on the amount of food fed to the worms. These figures confirm that nutrition has a direct effect on the weight and size of the silk gland.

CONCLUSION

During the postembryonic development of mulberry silkworms, changes in nutrient content and air temperature from important environmental factors adversely affect the body performance of larvae and the activity of the silk gland, ie the development of gland weight and volume and the synthesis of silk. It was clear.

When the silkworm was fed a moderate diet and fed under moderate hygrothermal conditions, the larvae were found to have gained 10,964 times their size and 5,760 times their size by the end of the fifth year. When the amount of feed is reduced by 50% and the temperature changes, the body weight is 5321 times, the volume is 5315 times or 48.3% less than the normal amount of feed, the volume is 16.2% less. sgan.

References

1. Abdurasulov Sh., Jumanova U., Bekkamov Ch. Age-related leaves of silkworms and their consumption. // Zooveterinariya-Toshkent, 2010.№9. B.42-44.

2. Alimova H. Let's raise the quality of cocoons and silk to world standards. //Ipak.-Toshkent, 1996. №1.B. 3-4.

3. Axmedov N.A. Revitalization of silkworm seeds. Tashkent, 1992.B.6-7. Axmedov N.A., Bekkamov Ch. Digestion and assimilation of nutrients in the body of silkworms. Materials of the Republican scientific-practical conference. Tashkent. 2008. S.94-100.

4. Akhmedov U., Jumagulov Q., N.Akhmedov. The impact of cocoon wrapping techniques on cocoon quality. //Zooveterinariya.-Tashkent, 2010. №10. B.38-39.

5 Bekkamov Ch.I., H.E. Rakhmonova, M.O. Zikirova, N.O. Sohibova "Effect of feeding silkworms with mulberry leaves on the activity of the silk gland." Proceedings of the Republican scientific-practical conference October 24, 2017 pages 144-147.