

EFFECT OF CELLULOSE SOLUTION ENRICHMENT IN SILKWORM FEEDING ON BIOLOGICAL AND PRODUCTIVITY INDICATORS OF SILKWORMS

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ВЛИЯНИЕ ОБОГАЩЕНИЯ РАСТВОРА ЦЕЛЛЮЛОЗЫ ПРИ КОРМЛЕНИИ ТУТОВОГО ШЕЛКОПРЯДА НА БИОЛОГИЧЕСКИЕ И ПРОДУКТИВНЫЕ ПОКАЗАТЕЛИ ТУТОВОГО ШЕЛКОПРЯДА

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Абстрактный. Статья направлена на повышение биологических и продуктивных показателей сортов, элитных гибридов, которые выводятся на семеноводческих предприятиях. При скармливании элитным гибридам через листья, обогащенные раствором целлюлозы, по сравнению с контролем продолжительность личиночного периода сокращалась в среднем на 1 день, жизнеспособность червей составляла 3-6%, средняя масса одного кокона - 13,7%. шелковистость составила 12,1%, а количество коконов, полученных от гибридов, увеличилось до 26,9%.

Abstract. The article is aimed at raising the biological and productivity indicators of breeds, elite hybrids, which are being prepared at seed enterprises. When feeding elite hybrids through leaves enriched with cellulose solution, compared to the control ones, the length of the larval period was reduced by 1 day on average, the vitality of worms was 3-6%, the average weight of one cocoon was 13.7%, the silkiness was 12.1%, and the amount of cocoons obtained from hybrids increased up to 26.9%. .

Ключевые слова: Порода, гибрид, элита, яйцо, жизнеспособность, кокон, шелковистость, биологическая, продуктивность, клетчатка.

Key words: Breed, hybrid, elite, egg, viability, cocoon, silkiness, biological, productivity, cellulose.

Introduction. Our republic is setting an important task for the cocoon industry, that is, the task of growing industrial cocoons that can meet the requirements of world standards in terms of quality. It will be difficult to achieve this task without improving the reproductive characteristics of industrial silkworm eggs.

The main task facing the industry is to maintain high-quality feed for father and mother worms in the breeding farms of silkworm breeding enterprises, to select the best quality breeding cocoon batches, and to preserve the vitality and productivity of silkworm breeds and hybrids at the high level achieved by the breeders.

The main purpose of the experiments in this direction is to create the necessary zootechnical environments for the full manifestation of the productivity characteristics of silkworms achieved by breeders.

For each variant, 800 worms were taken from elite hybrids, and 200 4 returns were made. 800 silkworms were raised in one variant, 4000 silkworms in 5 variants. This experiment was conducted on Chinese and Japanese elite hybrid eggs.

The effect of cellulose-enriched feed on biological parameters of silkworms in the experiment is presented in Table 1.

We observed that the duration of the larval period of silkworms was on average 25 days in the experimental variants fed with cellulose solution-enriched leaves, and 26 days in the control variant fed with ordinary leaves.

The survival rate of silkworms was found to increase from 3.7 percent to 10 percent in the experimental variants compared to the control variant.

Table-1

Effect of enrichment with cellulose solution on silkworm biological parameters in breeding silkworm feeding

Options	Worm period attendance, days.	Life expectancy of worms, %.	Productivity from one box, kg.
1- option (control)	26	80	58,0
2- option 0,025%	25	83	62,25
3- option 0,05%	25	85	68,0
4- option 0,075%	24,5	88	72,6
5- option 0,1%	25	86	69,66

As can be seen from the figures in Table 1, the average cocoon yield from one box of elite silkworms in the control variant raised according to the rules of the conventional method was equal to 58.0 kg. However, the average yield of cocoons from one box of the elite hybrids in the 2nd experimental option treated with leaves enriched with a 0.025% solution of cellulose was 62.25 kg, which increased by 7.3% compared to the control option. We witnessed an increase of 17.2% in the 3rd experiment, 25.1% in the 4th experiment, and 20.1% in the 5th experiment. Based on the data obtained from the experimental variants, the cellulose solution has a positive effect on increasing the strength of the cell shell and disease resistance, along with being an additional source of energy for silkworms. Enriching mulberry leaves with cellulose accelerates the growth and development

of silkworms and positively affects the synthesis of silk fluid in the silk gland, while significantly increasing the weight of the silk shell.

Productivity indicators of silkworms in the experiment are presented in Table 2.

When feeding breeding silkworms, by enriching the leaves with cellulose solution, productivity indicators, by enriching with one piece, the average weight of one piece of cocoon with productivity indicators, compared to the control option, increased up to 13.17% in the experimental option. compared, it was found to be up to 27.1 percent higher in experimental variants.

Silkiness of live cocoons was found to increase by 12.1 percent in the experimental variants compared to the control variant.

Table-2

Productivity indicators of silkworms in experimental and control variants

Options	Average weight of 1 cocoon, gr.	The average weight of the silk shell, gr.	Silkiness, %.
1- option (control)	1,45	0,332	22,8
2- option 0,025%	1,5	0,368	24,53
3- option 0,05%	1,6	0,398	24,87
4- option 0,075%	1,65	0,422	25,57
5- option 0,1%	1,62	0,408	25,18

Of course, in breeding work, special attention is paid to the breeding characteristics of cocoons obtained from elite hybrids of silkworms. Therefore, the proportion of breeding cocoons in the experimental cocoons was determined.

For this purpose, the number of cocoons suitable for breeding from the cocoons in the kaitariks of each variant was determined by sorting and the average of the variant was calculated.

As can be seen from the figures in Table 3, the proportion of fertile cocoons in batches of cocoons cared for in the experimental options was on

average 58-66.0%, while in the comparative option this indicator was equal to 52.0%.

Therefore, it is possible to increase the percentage of breeding cocoons from 11.5% to 26.9% by timely carrying out agrotechnical measures in the care of breeding silkworms and feeding with leaves enriched with cellulose solution.

The purpose of this research is to achieve the full realization of the biological and productive potential of hybrids with cellulose-enriched foliar feeding in the care of elite silkworms.

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