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PREPARATION OF HYBRID SILKWORM SEEDS FOR THE REPEATED SEASON

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Abstract

The foreign silkworm hybrids Chofuun, Bayyieee and local bivoltine purebreds "Asaka", "Marhamat" and bivoltine breeds "Yulduz", "Orzu" and their hybrids are recommended for breeding silkworms. The hybrids "Orzu" x "Asaka" and "Yulduz" x "Marhamat" have better biological and economic indicators than the hybrids used in previous repeated worm feeding, and the production meets the demand.

INTRODUCTION.

In the decisions of the President of the Republic of Uzbekistan No. 3910 of 2019 and No. 4567 of 2020, on measures to organize the activities of the "Uzbekipaksanoat" association, the rapid development of the feed base of cocoon breeding in the Republic, silkworm care and cocoon cultivation processes continuous improvement, widespread introduction of effective methods of production of cocoons, raw silk, silk cocoon and their deep processing, establishment of production of ready-made silk products, increase of the export potential of the industry, and increase of the level of employment and income of the population in rural areas The task of comprehensive development of the cocoon industry is given based on the establishment of a single and integrated organizational and technological system.

As you know, it has been clearly proven that the results of repeated worm feeding depend, first of all, on the correct selection of worm breeds and hybrids. Repeat feeding of native monovoltine worms is not recommended as most of these worms die in the summer. Bivoltine breeds and their hybrids are more resistant.

Accordingly, since bivoltine worms grow in a short time, their cocoons are small and have little silk. Hybrids of bivoltine and monovoltine breeds are more fertile than their parents. They give a large and dense cocoon, the silk of the cocoon is well pulled. The following table shows that the beneficial properties of this hybrid are improved over those of its parents.

Table-1. Description of breeds and hybrids

Indicators	Monovoltine breed	Bivoltine breed	A hybrid	Hybridization result
Worm viability %	42.2	61.3	76.7	Higher than their parents
Average weight of raw cocoons, g	1.74	1.07	1.68	Average compared to their parents
The yield of cocoons obtained from one box of u mg, kg	24.7	36.0	57.2	More than their parents
Raw silk from dry cocoons (Silkness) %	25.5	28.6	30.3	Silkiness index percentage ratio

In general, the breeding period of hybrid worms is slightly shorter than that of purebred worms. Worms grow faster, are resistant to disease, molt almost at the same time and develop evenly, and produce more silk than purebreds. In this case, the shape of the cocoons is good, uniform, the percentage of useless cocoons is less, and the silk yield from dry cocoons is slightly higher.

When breeding monovoltine and bivoltine breeds, special attention should be paid to the feature of bivoltine in the mother's offspring. It should also be remembered that if the female worm belongs to a small breed, the number of seeds per gram will be more. As for the size of the cocoons, it is different in the hybrids created by crossbreeding.

At the time of selection of breeds for hybridization, it is necessary to pay attention to local conditions. According to the results of the experiment conducted in Japan, the hybrid obtained from the backcrossing of China-1 breed with the Japanese-2 breed gives a high yield of cocoons, but it is more resistant than the hybrid obtained from the backcrossing with the Japanese-1xChinese-2 breed, which gives a lower quality of cocoons.

In the hot climate of Central Asia, the hybrids obtained by crossing the well-acclimatized monovoltine breed with the bivoltine breed will give better results. Professor Sh.R. It was observed in Umarov's scientific research works.

Nowadays, foreign silkworm hybrids Chofuun, Bayyieee and local bivoltine purebreds "Asaka", "Marhamat" and bivoltine breeds "Yulduz", "Orzu" and their hybrids are recommended for repeated silkworm rearing. The hybrids "Orzu" x "Asaka" and "Yulduz" x "Mar-hamat" have better biological and economic indicators than the hybrids used in previous repeated worm feeding, and the production meets the demand (Table 2).

Table-2. Key indicators of new breeds and hybrids used in repeated worm feeding.

№	Breed and hybrids	Mulberry silkworm viability %	Average weight		The cocoon is silky league,%
			Cocoon, g	Cocoon mg	
1	Chofuun	86.7	1.81	350	21.2
2	Bayyieee	74.3	1.52	331	22.6
3	«Yulduz» x«Orzu»	79,7	1,32	293	22,3
4	«Orzu» x «Yulduz»	76,4	1,30	286	22,0
5	«Yulduz» x«Marhamat» «Marhamat»	82,4	1,58	355	22,4
6	«Orzu» breed (comparative)	74.6	1.71	272	21.7

Today, in addition to two-sided hybrids, three-sided hybrids can be used in the summer and autumn worm feeding season. The reason for using these hybrids in autumn is that summer monovoltine and bivoltine hybrids are better than two bivoltine hybrids. However, it was found that the viability of hybrids created by crossing two bivoltine breeds is higher than that of hybrids of monovoltine and bivoltine breeds.

Especially in tripartite hybrids, hybrids obtained by crossing monovoltine and bivoltine hybrids again into bivoltine have the characteristics of the bivoltine breed, so they are more resistant than two-sided hybrids. with is considered average among the hybrids of monovoltine breeds.

Another main reason for using tripartite hybrids for summer-autumn and fall worm feeding is that it is difficult to breed a pure monovoltine breed to cross a pure breed with a bivoltine breed in summer. For this purpose, it is not difficult to feed a hybrid obtained from the bivoltine breed as a starting material.

Repeated worm feeding depends on the timing of seed preparation in the early season. This is achieved by breeding hybrids that are fed very early in the shortest period of time.

Another way to provide early summer-fed repeat worm seed on time is to delay the revival of last year's seed by low temperatures.

Our scientists are constantly researching the method of preparing the necessary seeds for repeated worm feeding at the right time and in the right amount.

During the preparation of repeatedly fed worm seed, most of the seeds are lost because the butterflies do not complete oviposition until the time of microscopic examination of the seed and hydrochloric acid treatment, resulting in the quantity, duration and quality of sufficient bivoltine seed preparation. affects the indicators.

References.

1. A. Abdurakhmanov, K. M. Rajdestveniski Silkworm breeding and seed production Tashkent. "Labor" Publishing House 1991 Textbook.
2. N.Akhmedov., S.Murodov Silkworm seed breeding Tashkent. "Voris" Publishing House 2014 Textbook.
3. N. Akhmedov., N. Nodiraliyeva Silkworm breeding., Texts of lectures for undergraduate students Publisher 2000 Tashkent.