WORK ON THE NEW METHOD STİMULATİNG THE DEVELOPMENT OF SİLKWORM İN GANJA-GAZAKH REGİON

The main objective is to research the influence of different ingredients of watery solutions to the living capability of silkworm eggs, physiological indicators of caterpillars and to the quality of cocoons, and to identify the effectiveness of new processing method on the basis of the results achieved.

- To achieve this objective the followings have been carried out:
- 1) We learned the influence of mulberry leavesto local species of caterpillars (5% H_2O; $NaHCO_3O$; mineral water containing iodine) during egg incubation and diapause in Ganja-Gazakh region.
- 2) We learned the influence of the most effective ingredient to the productivity of the mulberry silkworm, and quantity and quality indicators of the cocoons.

3) We assessed the effectiveness of new processing technology of mulberry leaves and mulberry silkworm eggs on the basis of the optimum ingredient which was found out by us. We conducted biotechnical researches in all phases of the silkworm species developing in Ganja-Gazakh region on the various local (“Sikhgoz-tut”, “Zarif-tut”) mulberry leaves in consistent with the methodology. The scientific research was conducted in two main orients.

1) We researched active and diapause variants of embryogenesis with the presence of different ingredients in tested silkworm eggs. We put 3 samples with 10 series and each series consisted of 20 eggs.

2) Before feeding the caterpillars with mulberry leaves, the prophylactic processing was conducted with generally accepted general methods. Each caterpillar was fed as follows; the processing of the leaves was carried out in three variants (that is was processed with watery solution of the ingredient);

1) processing with 5% hydro-carbonate; 2) processing with artesian mineral water containing iodine; 3) testing

The influence of ingredients to the eggs.

Was learned in the circumstances of $+25^0$Cand 65% humidity (that is relevant to the temperature of the solution) and on the paper or on the gauze knots. The processing, that is influence was carried out when the eggs were put for incubation. After the incubation, the number of awakening (surviving) eggswas noted.

After the sorcerer awakened, we counted their numbers for five days. Test feedings were also conducted to assess the effectiveness of the processing in various variants.

Effectiveness in each variant with 3 repetitive action each consisting of 100 caterpillars was confirmed (that is the development was continued till the end - the cocoon phase).

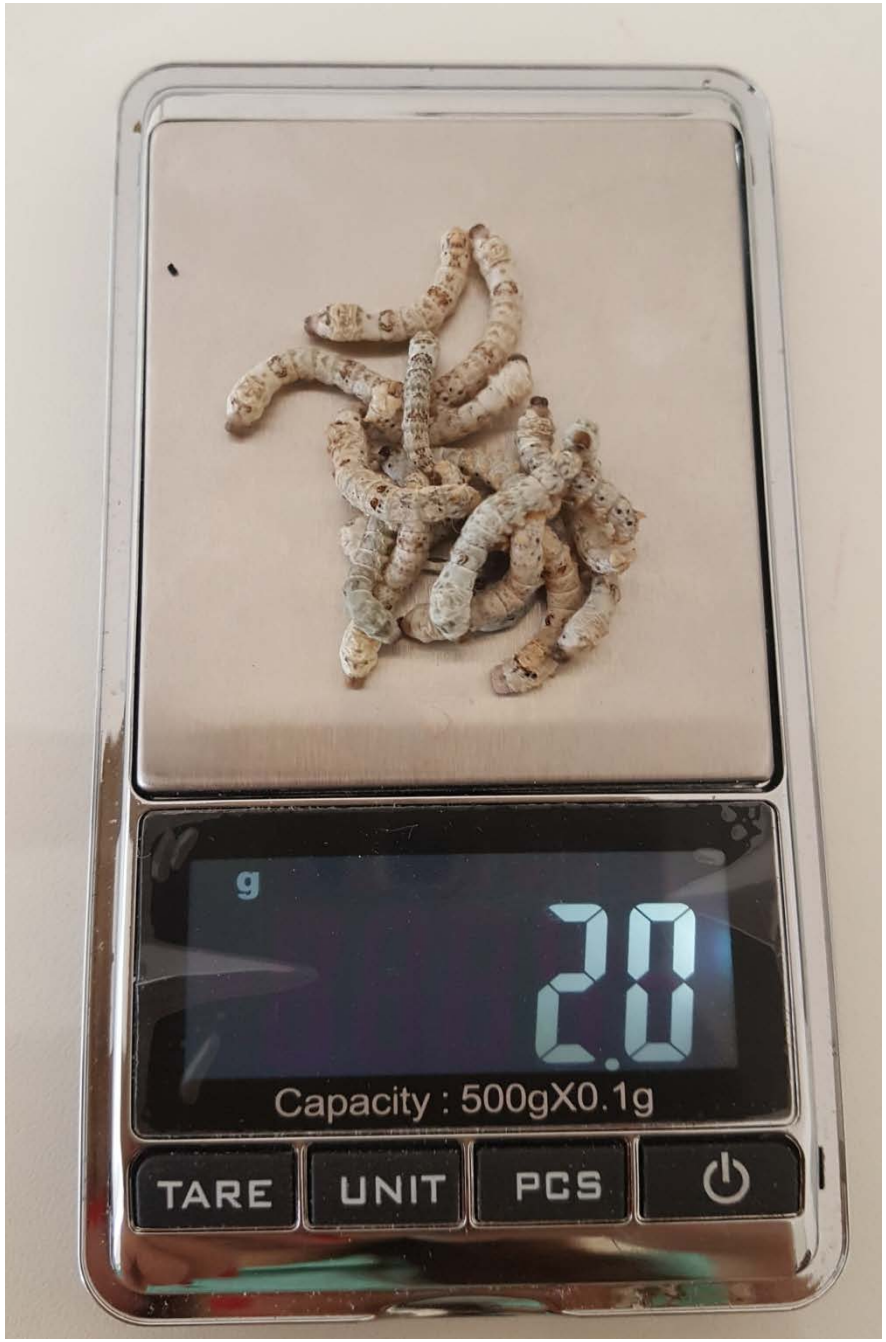
Economic effectiveness will be conducted as applied in agriculture, that is, the assessment of the efficiency of the new method: the amount paid for ingredients will be compared with the prices of harvest (caterpillars).

The grains of “Azerbaijan”, “AzNIISH-1”, “Agbaramali-1”, “Ukraine-1” species were used in this research.

Species name	Mulberry sorts	Variants	Living ability of caterpillars	Wet cocoon weight	The average weight of silk layer of cocoon	Weight of pupae
Azerbaijan	Sikhgoz-tut	With sodium	97,5 %	1,83gr	0,83 mg	1,0 gr
		With Minerals	94,3 %	1,80 gr	0,80 mg	1,0 gr
		Test	90,7 %	1,60 gr	0,60 mg	1,0 gr
	Zarif-tut	With sodium	96,1 %	1,82 gr	0,82 mg	1,0 gr
		With Minerals	93.8 %	1.78 gr	0.78 mg	1.0 gr
		Test	90,3 %	1,59 gr	0,59 mg	1,0 gr
Ağbaramalı-1	Sikhgoz-tut	With sodium	94,6 %	1,77 gr	0,77 mg	1,0 gr
		With Minerals	93,0 %	1,75 gr	0,75 mg	1,0 gr
		Test	90,0 %	1,52 gr	0,52 mg	1,0 gr
	Zarif-tut	With sodium	93,5 %	1,73 gr	0,73 mg	1,0 gr
		With Minerals	92,7 %	1,60 gr	1,60 mg	1,0 gr
		Test	89,6 %	1,49 gr	0,48 mg	1,1 gr
AzNİİŞ- 1	Sikhgoz-tut	With sodium	91,4 %	1,70 gr	0,70 mg	1,0 gr
		With Minerals	89,8 %	1,56 gr	0,56 mg	1,0 gr
		Test	88,8 %	1,43 gr	0,43 mg	1,0 hr
	Zarif-tut	With sodium	90,2 %	1,66 gr	0,66mg	1,0 gr
		With Minerals	89,8 %	1,52 gr	0,52 mg	1,0 gr
		Test	88,0 %	1,40 gr	0,40 mg	1,0 gr
Ukrayna-1	Sikhgoz-tut	With sodium	88,5 %	1,60 gr	0,60 mg	1,0 gr
		With Minerals	87.6 %	1.47 gr	0.47 mg	1.0 gr
		Test	83,9 %	1,34 gr	0,33mg	1,1 gr
	Zarif-tut	With sodium	86,7%	1,57 gr	0,57 mq	1,0 gr
		With Minerals	85.4 %	1.43 gr	0.43 mq	1.0 gr
		Test	81,1 %	1.30 gr	0,29mq	1,1 gr

RESULTS AND RECOMMENDATIONS

1. On the basis of the results achieved it can be brought forward that when the caterpillars were fed with mulberry leaves processed with sodium solution, their living capability was comparatively higher than other variants. The variants, where the caterpillars were fed with mulberry leaves processed with mineral water containing iodine were lower than variants processed with sodium solutions and higher than test variants.



Capacity : 500gX0.1g
TARE
UNIT
PCS

Capacity : 500gX0.1g
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2. The results of the test experiments show that it is possible to feed silkworms with mulberry leaves with mentioned ingredients, and obtained silkworm grain is useful for industrial production.

3. The condAucted experiment can be applied to get comprehensive development of sericulture relevant to modern needs, to get quality product and to satisfy the industrial needs. 4. The selection of initial material, defining the technological characteristics in preparation of grain is considered one of the important issues. The indicators which vitally influence to grain selection and reproduction should be included as well.

One of the important problems before the sericulture science is increasing the resistance of mulberry silkworm species and the improvement of the quality of cocoon. That is why, besides keeping biological indicators and quality of cocoon in the intended level in our Republic, work on new relevant technologies should be considered one of very crucial issues.

It is crucial to take relevant measures on the establishment of factories, and stations. To regulate cocoon seeds, to get rid of the import problems of grains, and to meet the demand of the silkworm breeders with the local grains cocoon seeds.

The end