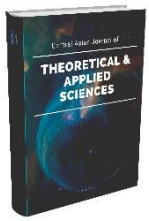

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The Influence of Environmental Factors on the Emergence of Butterflies from Cocoons

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Abstract: *By nature, every living mother develops an individual and a plant, leaving a legacy for the next season. These hereditary trait traits are passed from generation to generation through chromosomes, which are the cell component within their cells. In animals and plants, somatic chromosomes are passed on to their offspring. That is why from man to man, from sheep to lambs, from cattle to calves. Wheat grows from wheat, barley from barley, and life goes on. But when this balance is disturbed, a new individual is born as a result of artificial influences caused by nature, when there is a change in the chromosomes in their genotypes.*

Keywords: *cocoon, mulberry, mushroom, kapalak, environment, confusion, party, god, gender.*

One of the main branches of agriculture is silkworm breeding, which is engaged in the cultivation of silk cocoons.

Silkworm feeding ensures the production of cocoons, which are the main raw material for the production of natural silk. Improving the quality of cocoons, increasing the cocoon yield from each box of worms as much as possible, requires a number of agronomic and organizational measures. Currently, a lot of attention is paid to silkworm breeding, and a number of decrees and resolutions are being signed in the country.

PD-2856 of the President of the Republic of Uzbekistan dated March 29, 2017 "On the organization of the activities of the Uzbekpaksanoat Association" and January 17, 2020 "On additional measures to develop the silkworm feed base in the silk industry PD-4567 "On measures" and Resolution of the Cabinet of Ministers of the Republic of Uzbekistan dated August 11, 2017 No 616 "On the program of measures for the integrated development of the silk industry in 2017-2021" and in the implementation of the tasks set out in other normative legal acts related to silkworm breeding, the research of this dissertation will serve to a certain extent.

The growing demand for silk products in the world silk market, in turn, requires a gradual increase in cocoon production in our country.

On the development of the Republic of Uzbekistan in 2017-2021. The action strategy focuses on the development of agriculture, especially the silk industry, and increasing its export potential. In this regard, the basis of silkworm breeding is to strengthen the fodder base of mulberry silkworms, to increase the number of new varieties of mulberries suitable for the cultivation of silkworms with high economic characteristics, nutritious and nutritious, taking into account the natural climatic conditions of the regions. the introduction of agro-technologies into production is of great importance.

The experiments were carried out in 2021-2022 at the Termez Institute of Agrotechnology and Innovative Development, Department of Zooengineering, Veterinary and Silk and the Uzbek-Chinese silkworm seed joint venture HUASHEN SILK WORM PRO in Angor district.

The climate in the area where the plant is located is rapidly changing, with cold winters and hot summers. According to the Surkhandarya weather station, the temperature rises to 42 C on hot summer days and drops to 26 C in winter. The average annual temperature is +14 -15.5 C. Relative humidity decreases by 60-67%, depending on the air temperature in summer (by 40-45%). The average humidity is 300-320 mm. Humidity is highest in late spring (March-April-May). From June to October, the soil dries out and there is a lack of moisture, as evaporation is 2-3 times higher than humidity. That is why mulberry leaves in mulberry plantations begin to wither. This requires frequent watering. The cold days of the year begin in October and end in late March. The average number of cold days a year is 200-210. But in the last 4-5 years, the number of cold days has increased. Humidity increases in spring as a result of continuous rainy days. The average temperature is 8-9 C in March, 15-17 C in April and 25-27 C in May.

In general, HUASHEN SILK WORM PRO Uzbekistan-China Silkworm Seed Joint Venture is suitable for the cultivation of mulberry silkworms in natural climatic conditions and ecologically. In terms of its prospects, the company is one of the leading joint ventures specializing in the cultivation of mulberry silkworm seeds not only in the region but also in the country.

According to the form and method of experimental work in the technological conditions of the enterprise, the resuscitation of seeds of different breeds during the larval stage of growth and development, the accumulation of nutrients for feeding, mulberry leaf feeding, cocoon wrapping processes, the emergence of butterflies from cocoons and, most importantly, indicators of economic efficiency of seeds obtained from them when mixed were studied.

After the butterflies emerge from the cocoons, the opposite sex butterflies are collected, which the ADK machine cannot distinguish, in order to reduce their interbreeding. From the group of male butterflies, female butterflies that have not yet matured and joined a pair of butterflies are collected. Collection should be completed within 30 minutes.

Butterflies should be placed on a frame or other device so that each pair of butterflies is slightly apart. In the context of seed production, the natural course of biological processes in silkworms determines the continuation of production activities in the form of chains.

That is why the duty is organized from early morning. The queues first collect male butterflies and mating butterflies from the female cocoon group and the unspecified cocoon group.

The total hatching period of butterflies varies from scale to scale and lasts 6-10 days depending on the breed. However, the duration of their emergence period, as mentioned above, depends on the breed of cocoon, the intensity of the cocoon wrapping process, the timing of cocoon picking, the correct formation of cocoon batches, cocoon storage conditions and weather conditions in the cocoon warehouse.

Form of observation (scheme)

Table-1

Groups	Butterflies		N	Indicators and period to be studied			
	Breed	Gender		The emergence of butterflies during the mushroom period	The vitality of butterflies	Disease resistance	The mating phase of butterflies
I	China Mingyu	Male	100	99%	21 day	99 %	96 %
II	Japanese Baiyu	Female	100	100%	20 day	99 %	95%

The developmental stages of butterflies last from their ovulation to the butterfly period. An adult butterfly can live only 12 days, during which time it does not eat because it does not have a mouth. The silkworm butterfly can't even fly.

The life cycle of a silkworm butterfly involves 4 stages and takes about two months.

It is dormant and lives only to lay eggs. The female butterfly lays up to 700 eggs, which are oval in shape.

The emergence of butterflies. The most moderate temperature is 23-24 C and the relative humidity is 60-70%, because the temperature depends on the number and quality of seeds, which affect the life activity of butterflies, ie their protection from hatching and separation, and how many days they live. factor is important.

Pairing of butterflies. This is a very responsible job and you should pay attention to it and keep the rooms in a moderate condition. Under such conditions, mother butterflies live up to 12-15 days. Butterflies need to rest for 2-3 hours after mixing, and it is better to keep them at a lower temperature of 18-20 C. During this time, the mother butterfly can be used 3-4 times. When left unmanaged, they can be left astray and lose the right path.

Naturally, the cocoon's mother butterflies mature early and emerge 0.30 hours earlier than the female butterflies. From inside the cocoon, if during this period they are quickly collected and placed in bags made of special parchment paper, the mother butterfly can be mixed with the mother butterfly for 1-1.5 hours. examined. In this work, it is based on the phenomenon of selective insemination that exists in living nature.

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