GALAXY INTERNATIONAL INTERDISCIPLINARY RESEARCH JOURNAL (GIIRJ)
ISSN (E): 2347-6915
Vol. 11, Issue 09, Sep. (2023)

# THE EFFECT OF THE USE OF AGROTECHNICS OF WORM FEEDING UNDER FILM ON THE YIELD OF COCOONS IN CLUSTERS AND FARMS

CH. I. Bekkamov
Professor, Tashkent State Agrarian University, Uzbekistan

Z. P. Bozorbaeva
Student, Tashkent State Agrarian University, Uzbekistan

## ABSTRACT

Feeding caterpillars of mulberry silkworm under the film gives the opportunity even development of the silt also full digest of the leaf which in final result raises vitality for 2-3 % and yield of cocoons of one box of caterpillars for 7-9 kg.

**Keywords:** Mulberry silkworm, monovoltine, breed, hybrid, experiment, variant, comparator, larva, worm house, worm feeding methods, agrotechnics, under film, hygrothermal, temperature, relative humidity, oxygen, mulberry leaf, feed, age, moulting, biological indicators, viability, productivity, bunch, cocoon, productivity.

## INTRODUCTION

It is known that several methods and agrotechnics of feeding mulberry silkworms have been developed, of which the relative humidity in the worm house according to the rules of agrotechnics for feeding worms in a simple way is 65-75% for young larvae and 60-65% for older larvae. it is stated that it should be. According to the data of the conducted scientific research, it was noted that silkworms of the large monovoltine breed absorbed 69-70% of the given leaf when fed with the same mulberry leaves in the spring.

Accordingly, when comparing the weight of the eaten leaf and the released excrement, as well as the moisture in them, it was found that the larva digested 3/1 of the eaten leaf from the 1st to the 4th age, and half of the eaten leaf at the 5th age.

From the obtained comparative data, it can be seen that silkworms love to eat wet and nutritious leaves. However, when the temperature in the worm house is 26-270C, the drop in relative humidity (40-50%) causes rapid wilting of nutritious mulberry leaves. As a result, the dehydrated mulberry leaves are not eaten well by young larvae, and most of them go to waste. It has been observed that such processes always occur in production and lead to excessive wastage of feed.

Our next research on the above-mentioned problem was carried out on Ipakchi-1x Ipakchi-2 and foreign hybrids, and the larvae taken for the experiment were kept in the same room together with the comparator. To be more specific, the larvae in the experimental options were kept under a film, and the larvae in the control option were kept in an open-top shelf. Figure 1 describes.

**Figure 1. 1-The procedure for determining the viability and body size of larvae during their youth under experimental conditions in laboratory conditions.**

In this case, 1-2 and 3-year-old larvae are kept at a temperature of 26-270C at 65-75% humidity, depending on the level, size and number of doors or windows of the worm house during the air exchange process, ventilate them every 2.0-2.5 hours for 15-20 minutes. should be fixed. In adults, the temperature is 250C, the humidity is 60-65%, and it is important to ventilate the room 25-30 times in 2.5-3 hours.

This is when the larvae reached the age of 5 and during cocooning, the films of the experimental variants were removed, and all worms were cocooned at a temperature of 24-250C and a humidity of 60-65%. In order to cocoon mature larvae, at the age of 4, a natural bundle (one-year plants such as chitir, millet, wild broom and artificial bundles) was prepared and placed in a separate room.

In short, the larvae in all experimental options were maintained at the required level according to the procedure indicated in the experimental methodology.

Analyzing the agrotechnical processes carried out in the experimental version, it is worth noting that the main reason for the flat development of the larvae in the 2nd, 3rd and 4th variants is that the distance between the worms and the films covered with the larvae is positive in the version where the worms are wrapped at a height of 20-40 cm. it was observed that the results were obtained.

As a proof of this, the inner side of the placed film does not sweat and water vapor does not form. Also, if the open space between the film and the worms is filled with oxygen in time based on the established agrotechnics, this air is enough for the larvae until the next time they hatch. In addition, the temperature inside the film does not drop sharply during ventilation of the worm house, that is, if the temperature in the worm house decreases by 1.5-2.00C during

ventilation, the temperature under the film only decreases by 0.1-0.20C. This condition also causes the larvae to develop evenly and the amount of water in the leaf does not decrease sharply.

Therefore, the gap between the closed film and the feeding larvae in order to ensure uniform growth of the larvae, the process of molting is equal in all worms and the period of shedding the old skin is not prolonged, especially the agrotechnical conditions inside the film are moderate for the larvae. Being equal to 20-40 cm was a positive difference compared to the comparative option.

The closer the distance to the worms, the more difficult the conditions inside the film will be and it will lead to uneven development of the worms, and it is not advisable to close the film directly over the feeding larvae.

As a proof of this, the analytical data on how the method of feeding worms under the film affects the viability of worms is presented in Table 1.

**Table 1. The effect of feeding worms under the film on the productivity of cocoons**

| Options | Worm viability, % | Cocoon yield from one box of worms, kg | Compared to the comparative option, % |
|---|---|---|---|
| Option-1 | 97 | 70 | 100,7 |
| Option-2 | 97,5 | 75 | 105,5 |
| Option-3 | 98 | 80 | 109,6 |
| Option-4 | 98 | 77 | 106,8 |
| Option-5 (comparative) | 96 | 71 | - |

According to the analysis of the data presented in this table, the survival of larvae has a clear result before cocooning. It turned out that this indicator differs from each other by 3% in the experimental options. For example; In experimental variants 2 and 3, it was observed that the viability of larvae was 3% higher than the control, and in variant 4 it was 2% higher.

Therefore, feeding the larvae of the experimental version under the film does not affect their viability negatively, but has a better performance than the worms fed in open trays. However, it should be noted that if the silkworms are covered with a film directly, due to the increase of moisture inside the film (sweating occurs), the larvae will be killed by some biological agents. compared to the larvae covered with film at a height of 20-40 cm, having a slightly negative effect on the parameters (flat growth of worms, body weight, size, molting, viability and productivity) 3% were found to have low viability.

Therefore, when the technology of feeding worms under the film is used in production conditions, it is necessary not to cover the worms directly with a film.

However, the wages of worm feeders and cocoons are determined based on the productivity of cocoons. Therefore, the yield index of the cocoons obtained from the worms fed in the experiment is also important. The confirmation of the data in the first table shows that when mulberry silkworms are fed under a film in seasonal periods, they develop evenly, do not become large or small, pass from year to year in their own time, the duration of the worm period, the whole bunch The effect on penetration and cocoon productivity was comparatively studied, and it was 5.5-9.6% higher than the comparative option, as shown in Fig. 2.

**Figure 2: Analysis process for biological and productivity parameters of harvested cocoons in the variant section.**

The most important thing is that when the larvae are kept closed under a film at a height of 20-40 cm, the yield of cocoons obtained from one box of worms is 70-80 kilograms, and it is found that it increases by 7-9 kilograms compared to the comparative version.

In short, when feeding silkworms under film at the age of 1-4, the amount of feed given to larvae was 3 times less, the survival of larvae was 2.0-3.0%, and the yield of cocoons obtained from one box of worms was 7-9 kg higher.

## REFERENCES

1. Bekkamov Ch.I., Raxmonova X.E., Qorabayev J.G', Sa'dullayeva G.S- "Tut ipak qurtlarini yoshlari bo'yicha oziqlantirishda tut bergidan foydalanish miqdori va koeffitsienti". O'zbekiston Agrar fani xabarnomasi ("Вестник аграрной науки Узбекистана") ("Bulletin of the agrarian science of Uzbekistan") ilmiy-ommabop jurnal.2022 yil 6-maxsus son.
2. Bekkamov Ch.I., Ismatullaev H.T. "Tut ipak qurti zotlarini xorij texnologiyasi asosida parvarishlashni qurtlik davrining davomiyligi va lichinkalarning biologik ko'rsatkichlariga ta'siri" O'zbekistonda pillachilikni rivojlantirish istiqbollari va innovatsion texnologiyalarni joriy etish» mavzusida respublika ilmiy-amaliy anjumani. 10-may 2021-yil. 165-168 betlar.
3. Bekkamov Ch.I., N. Abduqayumova, H.E. Rahmonova, A.D.Suvonova, F.Suvonqulova. "Qurtxonadagi harorat va namlikning pillani biologik ko'rsatkichlariga ta'siri" Agro-Ilm ilmiy-ommabop jurnal. 2016-yil №1(39) son.27-28 betlar.

4. Bekkamov Ch.I., Q.A. Jumag‘ulov, K.N. Ahmedov, F.B. Suvonqulova, A. Qodirova, U.O‘. Xudaynazarova. “Beriladigan oziqaning tarkibiy miqdori va to‘yimlilik darajasini ipak qurtining mahsuldorlik ko‘rsatkichlariga ta’siri”. Zooveterinariya ilmiy-ommabop jurnal. 2016-yil №4(101)-son. 41-43 betlar.
5. Bekkamov CH.I. “Mutaxassislikka kirish”. Toshkent. “Xalq nashriyoti”. 2023-y. Darslik. 224 b.
6. Axmedov N.A, Bekkamov Ch. Tut ipak qurti mahsuldorlik belgilarini namoyon bo‘lishida ozuqa miqdorini ahamiyati. // O‘zbekiston agrar fani xabarnomasi –Toshkent. 2002. №3-son. 116-117 betlar.
7. Nasirillaev U.N. “Mo‘l pilla yetishtirish omillari”. // Ipak jurnali –Toshkent. 1993. №1-2. 31-37 betlar
8. Axmedov N. – «Ipak qurti ekologiyasi va boqish agrotexnikasi» Toshkent, 2014 yil. Darslik. 180 bet
9. Jumanova U, Axmedov N. “Plyonka ostida qurt boqish”. “Agro-ilm” jurnali. Zooveterinariya. Toshkent.-2008 B. 35 bet
10. Axmedov N.A. “Fermer xo‘jaliklarida ipak qurtini boqish”. Toshkent. ToshDAU-2006. 45-47 betlar.