

New Technological Scheme of Labor-intensive Processes in Sericulture

E.D. Shapakidze

Georgian Academy of Agricultural Sciences, I.Javaskhishvili str., #51, Tbilisi, 0102, Georgia.

E-mail: e.shapakidze@gmail.com

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Abstract

In the fight against the Corona virus pandemic, the Government of Georgia is proposing specific programs, of which agriculture programs can be distinguished; at this stage they emphasize restoration of lagging behind industries, such as sericulture. The restoration and development of sericulture in Georgia is possible with the use of innovative technologies for harvesting silkworm cocoons and increasing production of silk.

The article deals with the issues of innovative technology and technical means of mechanization of labor-intensive processes of sericulture. Without their introduction into the production of cocoons, the whole process of restoration and development of sericulture in Georgia will be slowed down. For this purpose, the Georgian scientists have developed several options of technological schemes for production of silk cocoons, including the production of silk thread from fresh cocoons.

Today, there are big problems in the industry - the remaining mulberry plantations are left unattended and are cut down, and the gross production of sericulture is insignificant. Therefore, radical measures must be taken in the country to restore the industry through the use of modern technologies for the production of sericulture products.

In a given situation, the Academy of Agricultural Sciences of Georgia objectively assessed the difficulties created in sericulture industry, and was able to develop an effective system for rehabilitation and revival of sericulture, which played an organizational role in maintaining the functioning of the industry and its further development. All this is a matter of national importance.

A new scheme of the technological process of centralized rearing of silkworm caterpillars using small-scale mechanization is proposed by the author. It includes the technological processes of harvesting and transporting feed, for which small-scale mechanization devices are used. For feeding silkworm caterpillars, both ordinary racks and mechanized feeding installations are used. This scheme also provides the removal and cleaning of cocoons from the holes on cocoon cleaning devices, weighing and transporting cocoons to its production points. Thus, the end product is silkworm cocoons, and farmers receive certain income from their sale. At this stage, the function of the silkworm farmer is completed.

Another technological scheme for manufacturing cocoons is also proposed, when the process of weaving thread from fresh cocoons on farms are carried out and the final product - silk thread is obtained. Thus, the introduction of new technologies for the production of silkworm cocoons in sericulture, as well as the production of silk thread from living cocoons, eliminates the difference

between two areas - agriculture and light industry, which gives the opportunity to a farmer or a farmer's cooperative to directly enter the market and provide finished products there - silk thread, which will be very beneficial economically.

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