

The importance of sericulture in the development of the circular economy

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Sericin is a natural glycoprotein, produced by the silkworm (*Bombyx mori*). It “coats” silk filaments, and in industrial processes, it is obtained by degumming to facilitate processing. In the textile industry, it is considered a by-product; for other industries, it can be considered the main raw material.

Sericin represents 20-30% of the weight of the silk cocoon, implying a production of up to 30,000 tons/year. Its price depends on its physical properties and purity; the silkworm’s species influences these.

Even if, for the textile industry, it is a by-product, for other industries it can also represent an important raw material, being an integral part of the new industrial model (circular economy). Thus, sericin can be useful in medicine, the pharmaceutical, cosmetic, and food industries.

In the food industry, sericin can replace certain food additives (approval of the European Food Safety Authority and the European Commission is required).

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