

# ICAR WEBSITE - 29-08-2024

## **ICAR-CIFT Partners with Ecogenie Biotech to Pioneer Sustainable Production of Chitin and Chitosan from Silkworm Pupae**

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ICAR-Central Institute of Fisheries Technology, partnered with Ecogenie Biotech, a Bengaluru-based biotechnology startup to Pioneer Sustainable Production of Chitin and Chitosan from Silkworm Pupae. The collaboration aims to develop innovative, sustainable solutions for the production of chitin and chitosan from silkworm pupae, leveraging ICAR-CIFT's cutting-edge technology and expertise in the field.

The partnership marks a significant milestone in the pursuit of eco-friendly and sustainable biotechnological processes. Chitin and chitosan, naturally occurring biopolymers, are derived from crustacean waste and widely used in various industries, including agriculture, healthcare, and food processing. The innovative approach of utilizing silkworm pupae as a raw material presents a new frontier in sustainable production. India is one of the major producers of Silk. In the process, it also generates a huge quantity of spent silkworm pupae as waste which is not properly and effectively utilized currently. The present collaboration aims to explore novel possibilities which can contribute to the circular economy in the country.



As per the Memorandum of Agreement (MoA), ICAR-CIFT will provide technical know-how for the conventional chemical process of extracting chitin and chitosan. This process, traditionally used for crustacean waste, will be modified to suit silkworm pupae, ensuring that the end product meets the highest quality standards.

Dr. George Ninan, Director, ICAR-CIFT, stated that this partnership is a testament to our commitment to advancing sustainable agriculture practices. By adapting our existing technology for silkworm pupae, we are opening new avenues for eco-friendly production that aligns with global environmental goals, he added.

The scientific team from ICAR-CIFT, will lead the technical consultancy for this project. This collaboration underscores the importance of partnerships between research institutions and industry leaders in driving technological advancements and sustainable development.