



Bacillus ayatagriensis: New Soil Bacteria Species

Why in News?

Researchers at **Raiganj University in Bengal** have discovered a **new species of soil bacteria** that shows powerful antimicrobial activity and the **ability to enhance seed germination**, offering promise for sustainable and eco-friendly agriculture.

Key Points

▪ About the Bacteria:

- *Bacillus ayatagriensis* – derived from “Aayat” (from Sanskrit Ayata, meaning **extended or vast**) and “Krishi” (meaning **agriculture**), symbolizing its potential contribution to sustainable farming.
- Researchers **isolated the newly discovered bacterium from the rhizosphere of mulberry plants**, which play a vital role in the region’s [sericulture](#) and farming systems.
 - The study, focuses on applied microbiology and its impact on [sustainable agriculture](#).

▪ Sericulture:

- It is the process of **farming silkworms to make silk**. Silkworms are raised on **mulberry, oak, castor, and arjun leaves**.
- After about a month, they **spin cocoons**. These cocoons are collected and boiled to soften the silk.
- The silk threads are then pulled out, **twisted into yarn, and woven into fabric**.
- This careful process turns small silkworms into shiny silk.
- **Silk production in India:**
 - India is the **second-largest producer and consumer of silk globally**.
 - India's **raw silk production** increased from **31,906 MT in 2017-18 to 38,913 MT in 2023-24**.
 - The **area under mulberry plantations** grew from **223,926 ha in 2017-18 to 263,352 ha in 2023-24**.

Life Cycle of Moth



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