

State Microbe of Kerala

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Why in News?

The Government of Kerala has officially declared *Bacillus subtilis* as the State Microbe and dedicated the Centre of Excellence in Microbiome (CoEM) to the people.

- **Bacillus subtilis** - It is a type of probiotic or “good” bacteria found widely in the environment and naturally in the gut of humans as well as in fermented foods.
- **1st in the country** - Kerala, the first State in the country to officially declare its own State microbe.
- **Microorganisms beyond Pathogens** - The initiative springs from a simple idea - microorganisms are far more than pathogens.
- They are central to digestion, immunity, soil health, agriculture, ecological balance, and sustainable livelihoods.
- **Proposed by** - The concept of a State Microorganism was proposed by Dr Sabu Thomas, Director of the CoEM.
- **Aim** - To spark public awareness about the immense benefits of microbes and encourage their conservation.

Features

- **Scientific significance** - It is one of the most extensively studied microorganisms, serving as a model organism in microbiology and biotechnology.
- **Unique traits** - It is known for its ability to form heat-resistant spores that can survive for long periods.
- The bacterium is also genetically competent, allowing it to take up external DNA—making it a valuable tool for genetic and biomedical research.
- **Industrial & Research Importance** - Its fully sequenced genome and strong protein-secretion capacity have made it a major workhorse in industrial biotechnology.
- **Probiotic Properties** - It is valued for its probiotic properties, helps improve gut health by producing antimicrobial compounds -
- That inhibit harmful pathogens, supports digestion, and strengthens the intestinal barrier—benefits that have led to its use in human and animal probiotic supplements worldwide.

National microbe - In October 2012, India declared *Lactobacillus delbrueckii*

subsp. bulgaricus (used in curd, yoghurt, cheese) as the National Microbe.

Quick Fact

Centre of Excellence in Microbiome (CoEM)

- **CoEM** - It was established by the Kerala Govt. through Kerala State Council for Science, Technology and Environment (KSCSTE).
- **In partnership with** - Kerala Development and Innovation Strategic Council (K-DISC), and with scientific mentoring from the Rajiv Gandhi Centre for Biotechnology (RGCB).
- **Motto** - "Microbes for Life."
- **Aim** - To promote cutting-edge research, innovation, and entrepreneurship across domains such as human health, animal health, agriculture, aquaculture, and environmental sustainability.

References

1. [The Hindu | Kerala declares *Bacillus subtilis* 'State microbe'](#)
2. [South First | Kerala declares *Bacillus subtilis* 'State microbe'](#)

