



# Ganoderma Lucidum: Magical Mushroom

## Why in News?

Recently, worldwide attempts are being made to popularise ***Ganoderma lucidum*** (Magical Mushroom) for business and livelihood, by cultivating it on wood logs and sawdust.



## What are Magical Mushrooms?

- It is a **medicinal mushroom** in use for centuries to heal diseases like [diabetes](#), [cancer](#), **inflammation, ulcer as well as bacterial and skin infections.**
  - In India, however, the **potential of the fungus is still being explored.**
- It is considered **one of the most important medicinal mushrooms in the world** since its chemical constituents exhibit numerous medicinal properties.
  - They have earned it monikers such as **“mushroom of immortality”, “celestial herb” and “auspicious herb”**. It is globally also known as **“red reishi mushroom”**.
- The history of consumption of this mushroom can be **traced back to 5,000 years ago in China**. It also **finds mention in the historical and medical records** of countries like **Japan, Korea, Malaysia and India**.
- Unlike normal mushrooms, the peculiar character of this one is that it **grows on wood or wood-based substrate only.**
  - It thrives well in warm and **humid climates**, and grows preferably in mixed forests of **subtropical to temperate regions**.
- It **contains more than 400 chemical constituents**, including triterpenes, polysaccharides, nucleotides, alkaloids, steroids, amino acids, fatty acids and phenols.
  - These show medicinal properties such as **immunomodulatory, anti-hepatitis, anti-tumour, antioxidant, antimicrobial, anti- [Human Immunodeficiency Virus \(HIV\)](#), anti-[malarial](#), hypoglycaemic and anti-inflammatory properties.**

- Apart from medicines, *Ganoderma lucidum* is also used as a base material for manufacturing products such as **tea, coffee, energy supplements, health boosters, beverages, baked goods and anti-ageing cosmetics.**

## What is the Scope of Cultivating it in India?

- Its **mass production is restricted to countries like China, Japan, Korea, Malaysia, Thailand and the United States of America.**
- Awareness regarding Ganoderma is spreading and the **demand of this mushroom has pushed many countries, including India, to produce it on a large scale and manufacture its products.**
- **India**, a country where a majority of population primarily relies on agriculture, **has great potential to cultivate this mushroom.**
  - It can be grown indoors and is thus safe from the impacts of extreme weather conditions, man-wildlife conflicts, harsh topography and poor soil conditions.
- In India, the mushroom is mostly restricted to laboratory research at present. **Some successful attempts for its cultivation, however, have been made by various Indian organisations.**
  - It is **cultivated on wood logs** (locally called billets) in the country.
- It can have **immense potential for livelihood generation**, but there are some challenges as well.
  - The dried fruiting bodies or raw powder of *Ganoderma lucidum* can be sold at **Rs 4,000-5000 per kilogram.**

**Source: DTE**

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