GREEN CARDAMOM TWO SPECIES: ENVIRONMENT

NEWS: Green cardamom's new relatives include two species from Kerala

WHAT'S IN THE NEWS?

1.Context of the Discovery

- Two new species of green cardamom, *Elettaria facifera* and *Elettaria tulipifera*, were discovered in Kerala's Western Ghats.
- These findings significantly expand the known diversity of the *Elettaria* genus, previously thought to contain only *Elettaria cardamomum* (commonly used green cardamom).
- This discovery highlights the rich biodiversity of the Western Ghats, a UNESCO World Heritage Site and a biodiversity hotspot.

2. Key Features of the Newly Discovered Cardamom Species

A. Elettaria facifera

- Distinguishing Characteristics:
 - Sessile leaves (attached directly without stalks).
 - Separate flowering shoots.
 - White labellum (a petal-like structure) with purple-red markings.
- Local Name: Known as "Vai noki elam" among the Mannan tribal community.
- **Habitat:** Found in moist, shaded forest areas of Kerala.

B. Elettaria tulipifera

- Distinguishing Characteristics:
 - Tulip-shaped inflorescence (flower clusters).
 - Large, bright red bracts (leaf-like structures at the base of flowers).
- **Significance:** The bright red bracts and tulip-like floral arrangement make this species visually unique among cardamoms.

3. Revised Classification of the Elettaria Genus

• Earlier, *Elettaria cardamomum* (green cardamom) was considered the only species in the *Elettaria* genus.

- However, recent research has expanded the genus to seven species, including the new discoveries.
- Four species that were earlier classified under the *Alpinia* genus were reclassified as *Elettaria*:
 - E. ensal
 - E. floribunda
 - E. involucrata
 - E. rufescens

4. Global & Indian Significance of Green Cardamom

A. Economic Importance

- Green Cardamom (*Elettaria cardamomum*) is the **third most valuable spice** in the world, after saffron and vanilla.
- It is used for culinary, medicinal, and aromatic purposes.

B. Leading Producers of Green Cardamom

Country	Production (Metric Tons)	
Guatemala	~35,000 (Largest Producer)	
India	2nd Largest Producer	
Other Major Producers	Tanzania, Sri Lanka, El Salvador, Vietnam, Laos, Cambodia, Papua New Guinea	

C. India's Cardamom Cultivation

- **Key States:** Kerala (60% of total production), Karnataka (30%), Tamil Nadu (10%).
- Main Growing District: Idukki, Kerala.
- Ideal Climate Conditions:
 - **Rainfall:** 1500-4000 mm per year.
 - Temperature: $10^{\circ}\text{C} 35^{\circ}\text{C}$.
 - **Soil Type:** Forest loamy soils, with a pH range of 4.2 to 6.8.

5. Role of the Spices Board of India

A. Formation & Purpose

• **Established:** 1987 under the Ministry of Commerce & Industry.

• **Headquarters:** Kochi, Kerala.

• Primary Functions:

- Regulating and promoting spice exports.
- Setting quality standards for exported spices.
- Supporting research and development in spice cultivation.
- Developing and marketing Indian spices globally.

B. Spices Regulated by the Board

- The Spices Board covers **52 spices** listed under the **Spices Board Act**, **1986**.
- Includes spices like cardamom, black pepper, cloves, cinnamon, nutmeg, turmeric, etc.

C. Spices Board & Its Brand

• **Brand Name:** "Flavourit" – under which Indian spices are marketed.

6. Comparison of Agricultural Commodity Boards in India

Board	Headquarters	Commodity
Spices Board	Kochi, Kerala	Spices (52 varieties)
Tea Board	Kolkata	Tea
Jute Board	Kolkata	Jute
Silk Board	Bengaluru	Silk
Coffee Board	Bengaluru	Coffee
Cotton Board	Mumbai	Cotton
Turmeric Board	Telangana	Turmeric

7. Importance of the Western Ghats in Biodiversity

- The discovery of new *Elettaria* species reaffirms the **Western Ghats** as a **global biodiversity hotspot**.
- Home to endemic species of flora and fauna.

• Conservation efforts are needed to protect newly identified plant species from deforestation and habitat loss.

Source: https://www.thehindu.com/news/national/kerala/green-cardamoms-new-relatives-include-two-species-from-kerala/article69172775.ece