



# Jagadish Chandra Bose

## Why in News?

Researchers from **Tel Aviv University** have discovered that plants make distinct, high-pitched sounds in the ultrasonic range when faced with stress, such as needing water.

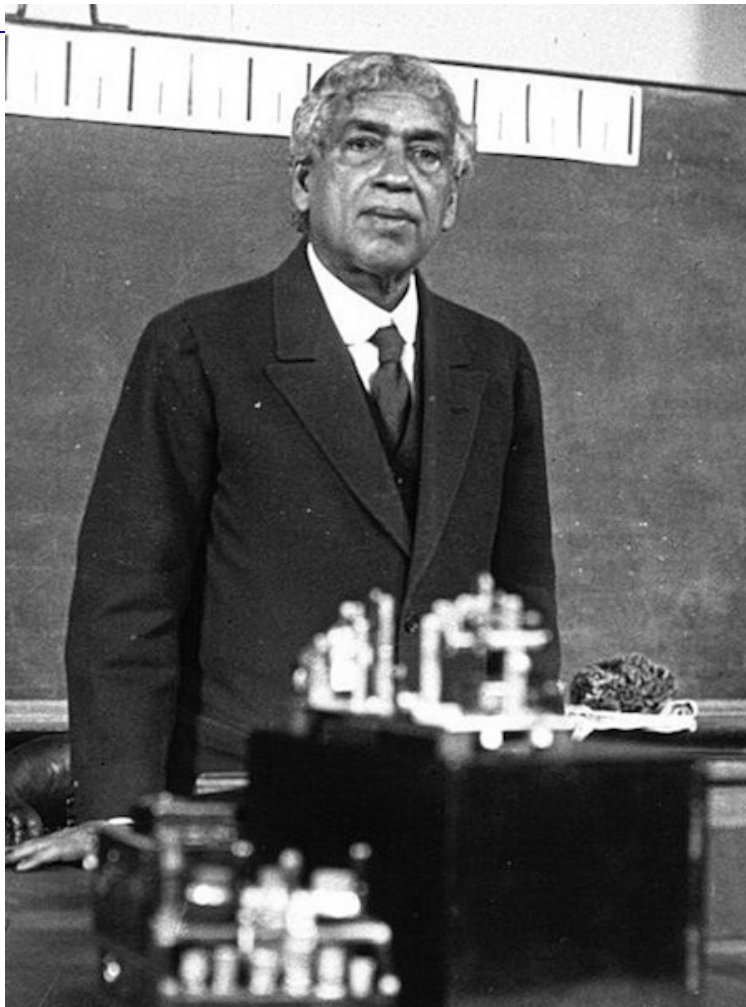
- This discovery is seen as a **logical extension of the work of Indian scientist [Jagadish Chandra Bose](#)**, who demonstrated that plants could experience sensations and feel pleasure and pain, highlighting the continued relevance of his work in modern science.

## What is Bose's most Significant Contribution to the Study of Plants?

- Bose demonstrated that plants could feel pleasure and pain, just like animals.
- He used his skills as a physicist **to build sensitive instruments that could detect even the weakest signals from plants.**
- He studied the biology of plant movements, feelings, and the nervous system. He is credited with using the **word "feelings" to describe the way that plants react to touch, although some scientists argue that this is a matter of semantics.**

## Who was Jagdish Chandra Bose?

- **About:**
  - Born on 30<sup>th</sup> November 1858 to Bama Sundari Bose and Bhagawan Chandra, Bengal.
  - He was a **Plant Physiologist and physicist** who invented the **crescograph**, a device for measuring the growth of plants. He for the first time demonstrated that plants have feelings.
- **Education:**
  - He earned a **BSc from University College London**, which was connected with the University of London in 1883, and a BA (Natural Sciences Tripos) from the University of Cambridge in 1884.
- **Scientific Contribution:**
  - He was a biologist, physicist, botanist and an early writer of science fiction.
  - Bose discovered **wireless communication and was named the Father of Radio Science** by the **Institute of Electrical and Electronics Engineering.**
  - Bose is widely believed to be the **first one to generate electromagnetic signals in the microwave range.**
  - He was responsible for the **expansion of experimental science in India.**
  - Bose is **considered the father of Bengali science fiction.** A crater on the moon has been named in his honour.
  - He founded **Bose Institute**, a premier research institute of India and also one of its oldest. Established in 1917, the Institute was the **first interdisciplinary research centre in Asia.**
- **Books:**
  - His books include **Response in the Living and Non-Living (1902)** and **The Nervous Mechanism of Plants (1926).**
- **Death:**
  - He died on 23<sup>rd</sup> November 1937 in Giridih, Bihar.



**Source: IE**

PDF Reference URL: <https://www.drishtias.com/printpdf/jagadish-chandra-bose>

