

Oleander Flower Banned

Why In News

- **Two Kerala government-controlled** temple boards, which together manage 2,500-odd temples in the state, have banned use of oleander flowers (locally known as arali) in temple offerings after a **24-year old woman** died after accidentally chewing some oleander leaves.



What Exactly Happened

- **Surya Surendran, a 24-year old nurse**, died on April 30, prima facie due to accidental oleander poisoning.
- Surendran had gotten a new job in the UK, and was set to depart on April 28. That morning, however, **she chewed some leaves** of the oleander plant which grew outside her house in Pallipad, Alappuzha.
- She was on her phone, and probably did not understand how dangerous this was. She soon developed uneasiness, and vomited a few times. Later that day, **she collapsed at the Kochi airport**, and died a couple of days later at a hospital.
- When asked about what she had eaten, she had told doctors about chewing oleander leaves and flowers. The forensic surgeon, who conducted her autopsy, informed the police about poisoning from oleander.



What Is Oleander

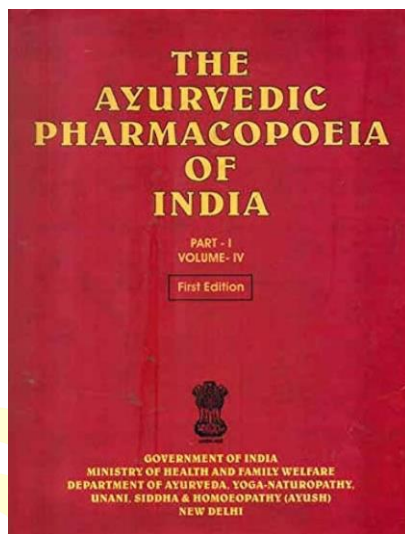
- **Nerium oleander**, commonly known as **oleander** or **rosebay**, is a plant cultivated worldwide in tropical, subtropical, and temperate regions. Known for its drought tolerance, the shrub is often used for ornamental and landscaping purposes.



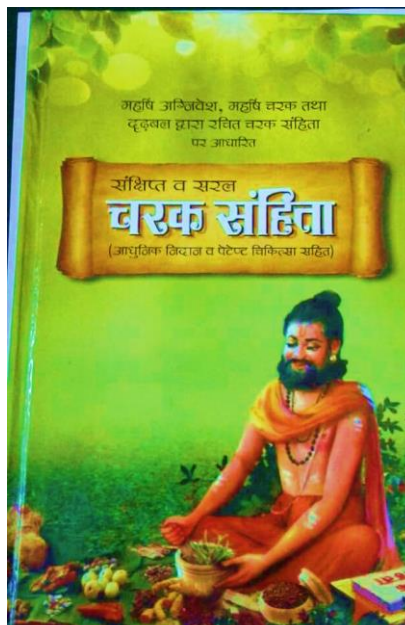
- In Kerala, the plant is known by the **names of arali and kanaveeram**, and is grown along highways and beaches as a natural, green fencing. There are different varieties of oleander, each with a flower of a different colour.

How Is Oleander Used In Traditional Medicine

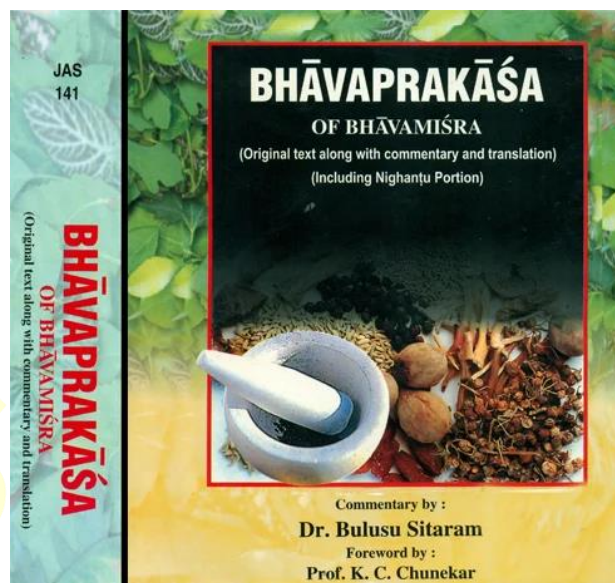
- **Ayurvedic Pharmacopoeia of India (API)**, a government document that describes the quality, purity, and strength of drugs used in Ayurveda, mentions oleander. According to API, an oil prepared from the root bark can be used to treat skin diseases.
- The plant has been “frequently described in Brihatrayi, Nighantus and other classical Ayurvedic texts.



- **Charka [Charak Samhita]** has prescribed the leaves of white flowered variety externally in chronic and obstinate skin diseases of serious nature including leprosy,” .



- Anamika Chaudhari and Bhawna Singh, from the Himalayee Ayurvedic Medical College and Hospital, Dehradun, wrote in their research paper ‘A Critical Review of Karvira’, published in 2016 in the International Journal of Ayurveda & Medical Sciences.
- “**Bhavaprakasha has described Karvira** [another name of the plant] as a visha (poison) and indicated it in treatment of vrana (infected wounds), kustha (skin diseases including leprosy), krimi (microbes and parasites), kandu (itching), etc,” they wrote.

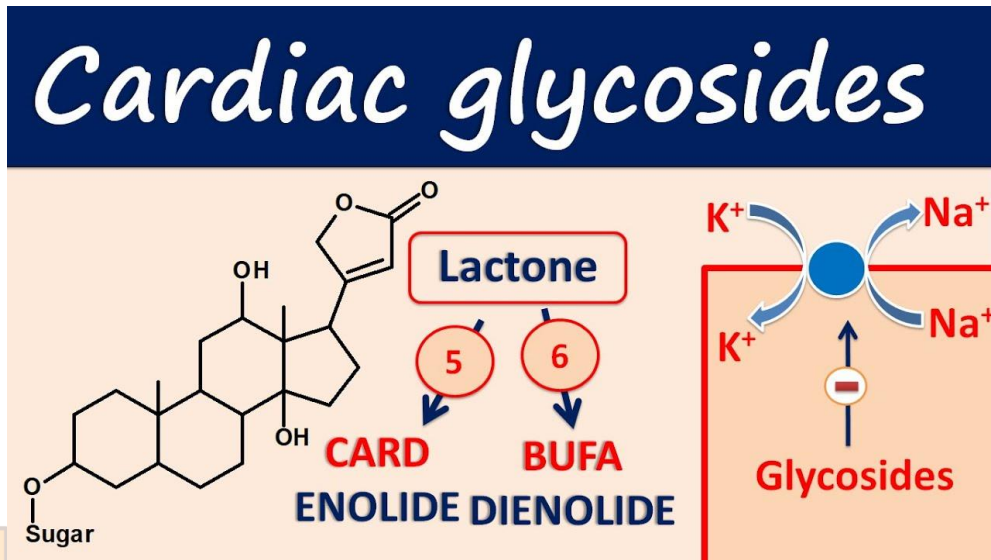


How Toxic Is Oleander

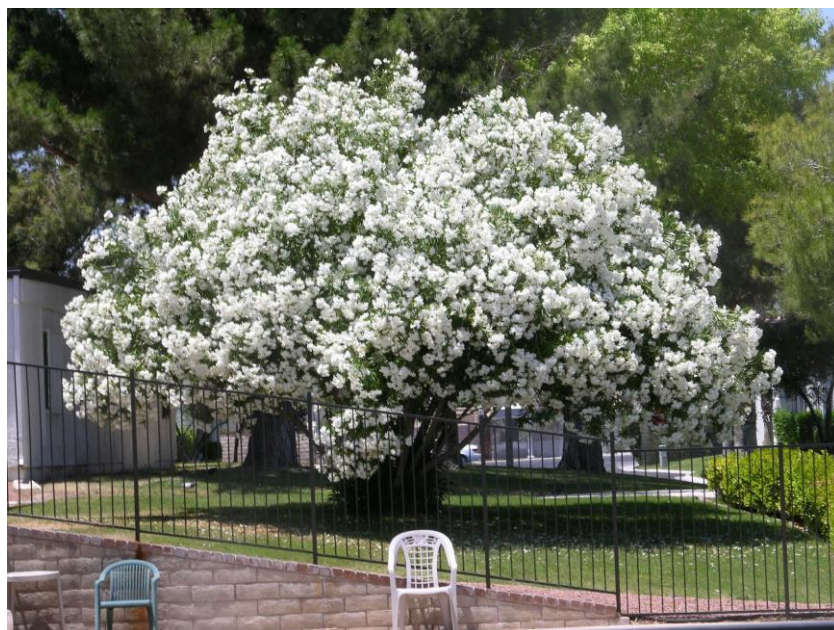
- Even though it is prescribed in some **ayurvedic formulations**, oleander’s toxicity has also long been recognised across the world, and as researchers Shannon D Langford and Paul J Boor wrote, the plant has been “exploited therapeutically and as an instrument of suicide since antiquity.”



- ('Oleander toxicity: an examination of human and animal exposures' published in the journal Toxicology in 1995). Moreover, ingestion or inhalation of smoke from burning oleander can also be intoxicating.
- This is due to the **properties of cardiac glycosides** (a type of chemical) including oleandrin, folinerin, and digitoxigenin, which are present in all parts of the plant.



- “**Cardiac glycosides** are steroidal compounds capable of exerting pharmacological effects on cardiac muscle. The primary therapeutic value of these glycosides lies in their ability to exert profound tonic effects on the heart [stronger and faster heart contractions],” **Langford and Boor wrote.**



- “However, the therapeutic window is small and overdose/toxicity is frequently encountered when using these drugs,” they added.



- **Effects of oleander toxicity include nausea, diarrhea, vomiting, rashes, confusion, dizziness, irregular heartbeat, slow heartbeat, and, in extreme cases, death.** According to the website of New York’s Mount Sinai hospital, “Symptoms last for 1 to 3 days and may require a hospital stay. Death is unlikely.”

