

Pollen calendar

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In news— Recently, Chandigarh got its first Pollen calendar, arguably the first for any city in India.

What is a Pollen Calendar?

- Pollen calendars **represent the time dynamics of airborne pollen present in a particular geographical area.**
- They **yield readily accessible visual details** about various airborne pollen present throughout the year in a single picture.
- Pollen calendars are location-specific, with concentrations closely related to locally distributed flora.
- **Europe, UK and the US are using regional pollen calendars** in a big way to prevent and diagnose allergic rhinitis/hay fever and predict the timing and severity of the pollen season.

Benefits of a pollen calendar-

- A pollen calendar **provides a clear understanding for clinicians, as well as people with allergies to identify the potential allergy** triggers and help to limit their exposure during high pollen load season.
- The **early advisories can be prepared and disseminated through media channels** to the citizens so that they can use protective gear during the period when the concentration of allergic pollen will be high.

About Chandigarh's Pollen calendar-

- **The researchers from the Post Graduate Institute of Medical Education and Research (PGIMER) and Panjab University have created a pollen calendar** for Chandigarh, by studying airborne pollen and its seasonal

variations for about two years.

- **The study titled as 'Pollen calendar** to depict seasonal periodicities of airborne pollen species in a city situated in Indo-Gangetic plain, India' was recently published in the journal Atmospheric Environment.
- The study highlights the variability of crucial pollen types in different seasons. Spring and autumn are two seasons when airborne pollen dominate.
- The findings will enhance the understanding of pollen seasons, which will in turn help minimise pollen allergies.

Pollen & its impact on Human health-

- **Pollen grains are male biological structures with the primary role of fertilisation**, but when inhaled by humans, they may **strain the respiratory system and cause allergies**.
- **Pollen found suspended in air can cause widespread upper respiratory tract** and nasobronchial allergy with manifestations like asthma, seasonal rhinitis, and bronchial irritation.
- **About 20-30 per cent of the population suffers from allergic rhinitis/hay fever in India**, and approximately 15 percent develop asthma.
- **Pollen is considered a major outdoor airborne allergen responsible for allergic rhinitis**, asthma, and atopic dermatitis in humans.
- Trees such **as palms, nettle, safeda, white mulberry (shahtoot), congress grass, pine**, have a high incidence of pollen.

Non-allergic or entomophilous plants include rose, jasmine, salvia, Bougainvillea, Raat ki rani and sunflower.