



News

Plants can tell the time using sugars

Plants, animals, fungi and some bacteria can estimate the time of day through their circadian rhythms. These rhythms are regulated by an internal 'circadian clock', and how these clocks operate is a topic of importance for both agriculture and medicine. For example, changes in circadian rhythms have contributed to domestication of crops. In the study published today, in the journal *Current Biology*, the research team involving the Universities of Bristol, Cambridge, Campinas, Sao Paulo and Melbourne has discovered a process that adjusts the timing of the plant body clock so that it stays in tune with the environment. They found that sugars made from photosynthesis are sensed, and this leads to the plant falling into rhythm with changes in energy provision throughout the day. Dr Antony Dodd of the University of Bristol's School of Biological Sciences, said: "Our findings show the first mechanism in plants that shifts the circadian rhythm backwards or forwards to synchronise it with the environment. [Read more...](#)

Date: August 02, 2018

Source: Science Daily

Even low levels of air pollution linked with serious changes in the heart, according to new UK research

It looked at data from around 4,000 participants in the UK Biobank study, where volunteers provided a range of personal information, including their lifestyles, health record and details on where they have lived. Participants also had blood tests and health scans, and heart MRI (magnetic resonance imaging) was used to measure the size, weight and function of the participants' hearts at fixed times. The team found a clear association between those who lived near loud, busy roads, and were exposed to nitrogen dioxide (NO₂) or PM_{2.5} -- small particles of air pollution -- and the development of larger right and left ventricles in the heart. The ventricles are important pumping chambers in the heart..... [Read more...](#)

Date: August 03, 2018

Source: Science Daily

10 pollution-tolerant plants and how to care for them

Just like humans, plants that live in cities, industrial, or built-up areas are susceptible to pollution. As they rely on carbon dioxide in clean air for photosynthesis and to prevent fungal diseases, most plants struggle to thrive in polluted areas, however there are some species that will stand the smog. 'Plants do have a hard time with pollution. Since the leaves need to 'breathe', anything that limits that exchange, such as airborne gasses or if the pores are blocked by dust and grime, will limit their potential. Fruit trees in particular can struggle and yields can be as low as half of what they would be in..... [Read more...](#)

Date: August 04, 2018

Source: Ideal Home

Air Pollution To kill climate rule, EPA wants to redefine danger of soot

Whether it's in haze-shrouded cities, plumes of car exhaust or even clear skies, fine particle pollution can be found just about everywhere in the United States. These pollutants are so small they can slip inside buildings and penetrate deep into lung tissue. On hot summer days, high concentrations of the pollutant help trigger poor air quality alerts, warning the very young, elderly and sick to stay indoors. Exposure to fine particles is linked to premature death and higher risks of asthma and heart attacks. After decades of increasingly strong assertions that there is no known safe level of fine particle exposure for the American public, EPA under the Trump administration is now considering taking a new position. [Read more...](#)

Date: August 06, 2018

Source: E&E News

'Biodiversity in Valley of Flowers undergoing changes'

DEHRADUN: A reported change in the biodiversity of the Valley of Flowers has raised an alarm among the experts of the forest department in Uttarakhand, prompting them to call a meeting of national experts for assessing the situation in the valley. During a recent visit to the valley situated near Badrinath in the Garhwal Himalayas, senior officials of the forest department found that some species of plants had started flourishing at the expense of others while the presence of snow had also remarkably reduced in the area. Notably, about 70 per cent of the valley remains under a perpetual snow cover and the valley is accessible only during a few months of the year when part of the snow melts. However, the forest team found not only a change in the snow cover but also changes in the flowering plants in the valley. Providing details, Uttarakhand head of forest force Jai Raj said, "There is a clear-cut shift in the treeline in the area due to which now we have a significant number of birch as well as rhododendron trees which are found in sub-alpine areas and not alpine. It shows that the valley of flowers is undergoing some kind of change in its biodiversity and that needs to be well-managed." Elaborating further, [Read more...](#)

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Source: The Times of India

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