NEWSBULLETIN

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NATIONAL BOTANICAL RESEARCH INSTITUTE, LUCKNOW

The Environmental Information System at Eco-Auditing Laboratory, National Botanical Research Institute is focussed on "Plants & Pollution". This is the E-mail Publication that Feature News, Information and Events Related to Plants & Pollution.

The Focus of ENVIS has been on Providing Environmental Information to Decision Makers, Policy Planners, Scientists and Engineers, Research Workers, etc. all over the World.

Eco-Auditing Group is Involved in R & D on Eco-Monitoring, Environmental Impact Assessment, Eco-Friendly Models that are Technologically and Economically Feasible for Phytoremedia--tion of Polluted Lands and Polluted Waters etc.

News

Removing CO2 from the air required to safeguard children's future

Reducing greenhouse-gas emissions is not enough to limit global warming to a level that wouldn't risk young people's future, according to a new study by scientists who say we need negative emissions. Measures such as reforestation could accomplish much of the needed CO2 removal from the atmosphere, but continued high fossil fuel emissions would demand expensive technological solutions to extract CO2 and prevent dangerous warming. The technology receiving the most attention is bioenergy with carbon capture and storage. Crops and trees extract CO2 from the air as they grow, so if they are used as fuel and the CO2 is captured and stored in geological formations under impermeable rock, negative emission occurs. The team estimates that, if we start reducing CO2 emissions in 2021 at a rate of 6% a year, we'd need to also extract about 150 gigatonnes of carbon from the atmosphere by 2100. Most of this, about 100 gigatonnes, could come from improved agricultural and forestry practices alone. These measures can be relatively inexpensive and have added benefits such as improved soil fertility and forest….**Read more**...

Date: 18 July 2017
Source: https://www.sciencedaily.com/

A super-algae to save our seas? Genetic engineering species to save corals

Solutions to climate change, and particularly its effects on the ocean, are needed now more than ever. Coral bleaching caused by climate change is a huge threat to coral reefs. Recent extreme bleaching events have already killed-corals worldwide and permanent destruction of reefs is projected within the century if immediate action is not taken. However, genetically engineering a group of microalgae found in corals may enhance their stress tolerance to ocean warming and save coral reefs. These microalgae are called Symbiodinium, a genus of primary producers found in coral that are essential for coral reef health and, thereby, critical to ocean productivity. Symbiodinium photosynthesize to produce molecules that feed the corals, which is necessary corals to grow and ..**Read more...**

Date: 20 July 2017
Source: https://www.sciencedaily.com/

Biochar could clear the air in more ways than one

Health, economic benefits of capturing agricultural nitric oxide outlined in study that Biochar could reduce local air pollution from agriculture by reducing emissions of nitric oxide from soil. Biochar is ground charcoal produced from waste wood, manure or leaves. Added to soil, the porous carbon has been shown to boost crop yields, lessen the need for fertilizer and reduce pollutants by storing nitrogen that would otherwise be released to the atmosphere. Researchers argue that a better understanding of nitric oxide response to biochar will save lives and money, especially on farms near urban areas where agricultural emissions contribute to ozone and particulate matter formation. Biochar could reduce local air pollution from agriculture by reducing emissions of nitric oxide fom soil, according to rice University researchers....**Read more..**

Date: 27 July 2017
Source: https://www.sciencedaily.com/

A green skiing revolution? US's biggest ski resorts aim to cut carbon footprint to zero by 2030

Back in June, when President Donald Trump announced that the United States would be withdrawing from the Paris Climate Change Agreement, a number of American ski resorts signed an open letter condemning the decision. With the title We Are Still In, the letter, from a broad swathe of US businesses and organisations, included a pledge to cut carbon emissions and find ways of safeguarding the natural environment. The first target is to reduce net carbon emissions to zero, by investing in new projects to cut electricity and gas consumption, including low-energy snow-making equipment and eco-friendly building design. All electricity will come from renewable energy sources, and fossil fuels (including petrol and diesel) will be matched by tree planting and other offsetting programmes so the company can be carbon neutral by 2030…. **Read more...**

Date: 28 July 2017
Source: http://www.telegraph.co.uk/

Amazon forest's importance in regulating atmospheric chemistry reinforced

The Amazon rainforest emits three times more isoprene than was previously estimated, airborne measurements show. Isoprene is one of the main precursors of ozone and indirectly influences the balance of greenhouse gases in the atmosphere. Isoprene decomposition in the atmosphere gives rise to various byproducts, such as hydroxyl radicals (OH). Under certain conditions, this molecule reacts with atmospheric oxygen (O2) to form ozone (O3), one of the gases responsible for the greenhouse effect. High concentrations of ozone can irritate plant stomata, the pores used in gas exchange and transpiration. Irritation of the stomata hinders photosynthesis and the assimilation of carbon by plants….**Read more…**

Date: 31 July 2017
Source: https://www.sciencedaily.com/