



News

Putting Phytoremediation into Action

Despite the enactment of comprehensive regulations, soil contamination remains widespread in much of the industrialized world. Researchers have estimated there are more than 160,000 sites in Western Europe alone that contain pollutants at levels above acceptable thresholds (J Environ Public Health, 2013: 158764, 2013), and the problem is just as significant in the United States (Environ Sci Technol, 39:5567-74, 2005). Owing to the cost of ex situ remediation, many contaminated sites are left untreated, allowing toxic chemicals to leach into nearby ground or surface waters and be taken up by plants and animals. Ultimately, soil contamination poses substantial risks for human health, and much work remains to significantly remediate lands that are known to be contaminated. [Read more...](#)

Date: August 01, 2019

Source: The Scientist

Combination of Waste Materials and Biomass can Improve the Sustainability of Soils

Every year, soil degradation is presenting a major threat to global food security. In fact, soil erosion accounts for the loss of about 12 million hectares of cropland. Now, at the University of Plymouth, researchers have shown that the loss of key nutrients like carbon and nitrogen can be reduced by adding biochar to soil produced from waste materials. Biochar is a solid, carbon-rich material extracted from biomass. This, according to the researchers, can enhance the sustainability of manufactured soils by improving conditions that are conducive to maintain plant growth and by enhancing carbon storage capacity, nutrient retention, and moisture content. It will also bring down the dependence of soil on the excess use of fertilizers, thus lowering cost as well as the risk of pollution caused by [Read more...](#)

Date: August 05, 2019

Source: AZO Cleantech

Ecological land grab: food vs fuel vs forests

The overlapping crises of climate change, mass species extinction, and an unsustainable global food system are on a collision course towards what might best be called an ecological land grab. Coping with each of these problems will require a different way of using of Earth's lands, and as experts crunch the numbers it is becoming unnervingly clear that there may not be enough terra firma to go around. A world of narrowing options threatens to pit biofuels, forests and food production against each..... [Read more...](#)

Date: August 05, 2019

Source: PHYS.ORG

Mexico's cactus offers alternative to plastics

Mexico's prickly pear cactus, which is emblazoned on the country's flag, could soon play a new and innovative role in the production of biodegradable plastics. A packaging material that is made from the plant has been developed by a Mexican researcher and is offering a promising solution to one of the world's biggest pollution conundrums. "The pulp is strained to obtain a juice that I then use," said Sandra Pascoe, who developed the product and works at the Atemajac Valley University in the..... [Read more...](#)

Date: August 07, 2019

Source: The Hindu

Everything you need to know about toxic algae blooms

Green pond scum floating on a lake is not just unsightly. As animal lovers have learned the hard way, it can be deadly. In recent days, three pet dogs in North Carolina and another in Georgia died after swimming in water contaminated with toxic organisms. Warm temperatures and an influx of nutrients from agricultural runoff or other sources can prompt toxic algae and bacteria to grow out of control. The result is a phenomenon called a toxic algae bloom. As the planet warms, these blooms are becoming more frequent — leading to a greater chance for human and animal exposure. [Read more...](#)

Date: August 14, 2019

Source: Los Angeles Times

How synthetic biology can help the environment

Most environmental science is focused on how to turn back the clock, not push it forward, says Ben Bossick, a geochemist at Lamont-Doherty Earth Observatory. "We think about how we can roll back our footprint, and not so much about how can we make our footprint bigger in a positive way," he said. "But there are many examples of synthetic biology that I think actually have a lot of potential in the environment. Think of how we can help our environment just by doing things like improving..... [Read more...](#)

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Source: PHYS.ORG

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