



News

Plant gene discovery could help reduce fertilizer pollution in waterways

The discovery stems from Maria Harrison's focus on plants' symbiotic relationships with arbuscular mycorrhizal (AM) fungi. Harrison is the William H. Crocker Professor at BTI and an adjunct professor in Cornell University's School of Integrative Plant Science. AM fungi colonize plant roots, creating an interface where the plant trades fatty acids for phosphate and nitrogen. The fungi also can help plants recover from stressful conditions, such as periods of drought. But feeding the AM fungi with fatty acids is costly, so plants don't let this colonization go unchecked. To discover how plants control the amount of fungal colonization, Harrison and Lena Müller, a postdoctoral scientist in her lab, looked at genes that encode short proteins called CLE peptides in the plants *Medicago truncatula* and *Brachypodium distachyon*. CLE peptides are involved in cellular development and response to stress, and they are present throughout the plant kingdom, from green algae to flowering plants. [Read more...](#)

Date: September 02, 2019

Source: Science Daily

Rain garden, bioswale to reduce pollution

The National Fish and Wildlife Foundation awarded a \$150,000 grant to the village through its Sustain Our Great Lakes program. The money will be spent to install rain gardens and a bioswale to reduce both floods in the marina parking lot and pollutants that pour into East Bay. "This funding will let us take the first important step of designing and installing the first of many planned green infrastructure projects in the village," said Sarah U'Ren, program director for the Watershed Center Grand Traverse Bay. Village officials worked with the nonprofit organization to create a stormwater action plan adopted last year. This is the first big project. "We've been discussing potential projects for a number of years and have really just been waiting for funding to come through for design and implementation," U'Ren said. A bioswale is a landscape element that removes debris and pollution from surface [Read more...](#)

Date: September 02, 2019

Source: Record Eagle

Impact of climate change on global banana yields revealed

Bananas are recognised as the most important fruit crop -- providing food, nutrition and income for millions in both rural and urban areas across the globe. While many reports have looked at the impact of climate change on agricultural production, the effect rising temperatures and changing rainfall has on crucial tropical crops such as the banana are less well understood. In a new study, led by Dr Dan Bebber from the University of Exeter, scientists have studied both the recent and future impact of climate change on the world's leading banana producers and exporters. It shows that 27 countries -- accounting for 86 per cent of the world's dessert banana production -- have on average seen increased crop yield since 1961 due to the changing climate resulting in more favourable growing conditions. [Read more...](#)

Date: September 02, 2019

Source: Science Daily

This T-Shirt Made From Algae Will Decompose In Your Garden Within 12 Weeks

The material of the Plant & Algae t-shirt is made from a combination of FSC and PEFC certified sustainable beech wood and eucalyptus pulp, and bioreactor-grown algae. Sourced from sustainable forest plantations, the wood is harvested, pulped and turned into fibre yarns to churn out raw fabric. Vollebak also uses algae for pigment because it only requires light, carbon dioxide and water to grow rapidly, and is highly adaptable for inks used on fabrics and textiles. Unlike traditional fabric dyes, the 3D-printed algae ink naturally de-colours over time due to oxidation. Once customers are done with their t-shirt, they can simply bury it in the garden or in a pot of soil, where it will naturally decompose within 8-12 weeks. The development of a fully biodegradable t-shirt, made entirely [Read more...](#)

Date: September 03, 2019

Source: Green Queen

Singapore haze reaches worst level in three years as Indonesian forest fires rage

Singapore's air quality deteriorated to "unhealthy" levels on Saturday for the first time in three years, data from the National Environment Agency (NEA) showed, threatening to deepen a regional dispute over forest fires. Every dry season, smoke from fires to clear land for palm oil and pulp and paper plantations in Indonesia clouds the skies over much of the region, raising concerns about public health and worrying tourist operators and airlines. The 24-hour Pollution Standards Index, which Singapore's NEA uses as a benchmark, was in a range of 87-106 in the afternoon. A reading above 100 is considered unhealthy. This is the first time the 24-hour benchmark has breached 100 since August 2016, data shows. "There has been a deterioration in the haze conditions in Singapore this afternoon," the NEA said in a statement. "This was due to a confluence of winds over the nearby region [Read more...](#)

Date: September 14, 2019

Source: South China Morning Post

NEWSBULLETIN COMMITTEE

Executive Editor

Dr. Vivek Srivastava

vivek@nbri.res.in

Compiled By

Mr. Sunil Tripathi, Mr. Diwakar Saini, Mrs. Amrita Awasthi, Mrs. Vineeta Yadav

NBRI ENVIS Node: <http://www.nbrienvvis.nic.in>

NBRI Website: <http://www.nbri.res.in>

ENVIS Cell: <http://envvis.nic.in>

Ministry of Environment & Forests: <http://envfor.nic.in>

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 Phytoremediation of Polluted Lands and Polluted Waters etc.