The Phylo

Eureka! There are now all kinds of ecological solutions to reduce the negative effects of pollution and climate change.

Scientists call them phytotechnologies! From the Greek phyto, which basically means from plants, and technology, which means, uh... super-gizmo-go-thingamajig.

Plants have "green" powers. They make great pumps and barriers. Through their leaves, stems and roots, plants capture pollutants from the air, filter wastewater and clean the soil. They can also team up with the microorganisms that live near them to increase their effectiveness. Yup, plants do all that and much more... naturally!

The Montreal Botanical Garden invites you to discover the power of phytotechnologies.



The Montreal Botanical Garden is renowned for the quality of its phytotechnology research. espacepourlavie.ca/en/botanical-garden

PHYTOREMEDIATION

Plants have the power to clean polluted soils. In Quebec alone, there are thousands of contaminated sites. Plants absorb contaminants through their roots and can accumulate them in their stems and leaves, or break them down with the help of microorganisms in the soil. Once the work is completed, the plants are harvested and disposed of safely.



Pollutants

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Pssst! You can't grow rain... in a rain garden. On the contrary, these phytotechnologies are used to absorb and reduce excessive water accumulations during sustained showers or severe thunderstorms. You can see these gardens in parking lots and along paved roads.



pollutants

Absorption of pollutants

Microorganisms

stonecrop

Drainage

Roof

GREEN ROOF

A garden on the roof? Why not?

Plants can facilitate the drainage

of rainwater, help reduce the heat

island effect, purify the air that we

breathe, and improve the insulation

of buildings. And it's super beautiful!

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O- Soil

Insulation

NOISE BARRIER

When we talk about air pollution, we rarely think about noise. But in cities, it's often a problem. Did you know that trees can be used to build living walls along a road to mitigate the noise of cars?

OE

Montréal 🤀



Artificial marshes mimic the filtering power of natural marshes. They are used to purify the wastewater from a house, a factory or even a small community. These constructed wetlands are inexpensive and don't use any chemicals. Not to mention that they make delightful sanctuaries for insects, frogs and birds.

Wastewater Filtration

Gravel



Clean water

SIAN

MAR

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