



BIOECO-UP

## THE MANY USES OF

# HEMP

Hemp is a versatile plant that has been used for thousands of years for various purposes, including textiles, paper, and food. In recent years, there has been a growing interest in using hemp as a source of bio-based materials. Bio-based materials from hemp offer a sustainable, environmentally-friendly, and versatile alternative to fossil-based materials, with benefits ranging from carbon sequestration to economic opportunities.



**SUSTAINABILITY:** Hemp is a renewable resource, it can be replanted and harvested multiple times. In contrast, fossil-based materials are non-renewable and deplete natural resources.



**CARBON SEQUESTRATION:** Hemp plants absorb carbon dioxide (CO<sub>2</sub>) from the atmosphere during their growth, helping to reduce greenhouse gas emissions. This makes hemp-based materials carbon-neutral or even carbon-negative, whereas fossil-based materials release stored carbon into the atmosphere when used or burned.



**BIODEGRADABILITY:** Bio-based materials from hemp are often biodegradable, meaning they can decompose naturally without leaving harmful residues. Fossil-based materials, especially plastics, can persist in the environment for hundreds of years, leading to pollution.



**REDUCED ENERGY CONSUMPTION:** The cultivation and processing of hemp typically require less energy compared to the extraction and refining of fossil-based materials. This can lead to a reduction in energy consumption and associated emissions.





**SOIL HEALTH:** Hemp cultivation can improve soil health by preventing soil erosion, replenishing vital nutrients, and breaking disease cycles. This contrasts with some of the negative environmental impacts of extracting fossil fuels, such as oil spills and habitat destruction.



**REDUCED TOXICITY:** Hemp-based materials often have fewer toxins and harmful chemicals compared to some fossil-based materials, leading to safer products and reduced environmental contamination.



**DIVERSE APPLICATIONS:** Hemp fibers can be used to produce a wide range of products, including textiles, bioplastics, building materials, and more. This versatility offers a broader range of substitution possibilities for fossil-based materials.



**ECONOMIC BENEFITS:** The cultivation and processing of hemp can provide economic opportunities for farmers and industries, especially in regions looking to diversify their agricultural or manufacturing sectors.

**DID YOU KNOW HEMP IS A NATURAL FIBER?**



## GOOD PRACTICE from the BIOEAST HUB CZ



**Agritech Plant Research, Ltd.** private research institutions with a long tradition of hemp breeding and cultivation (the institute was established during the 2nd World War when hemp was envisaged as a key military material)

[www.agritec.cz](http://www.agritec.cz)

▶ VIDEO ABOUT HEMP



**Bohemia Plant** is a czech company engaged in both B2B and B2C activities, the hemp shoes stand for a great innovation! And their hems socks actually eliminate nuisance odours.

[www.bohempia.com](http://www.bohempia.com)

Did you know that the **first jeans** were actually made from **hemp**? Well the hemp harvest is depicted on the **dollar note**...



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**MAKE THE MOST OF THE INDIAN HEMP SEED, AND SOW IT EVERYWHERE.**  
**GEORGE WASHINGTON**